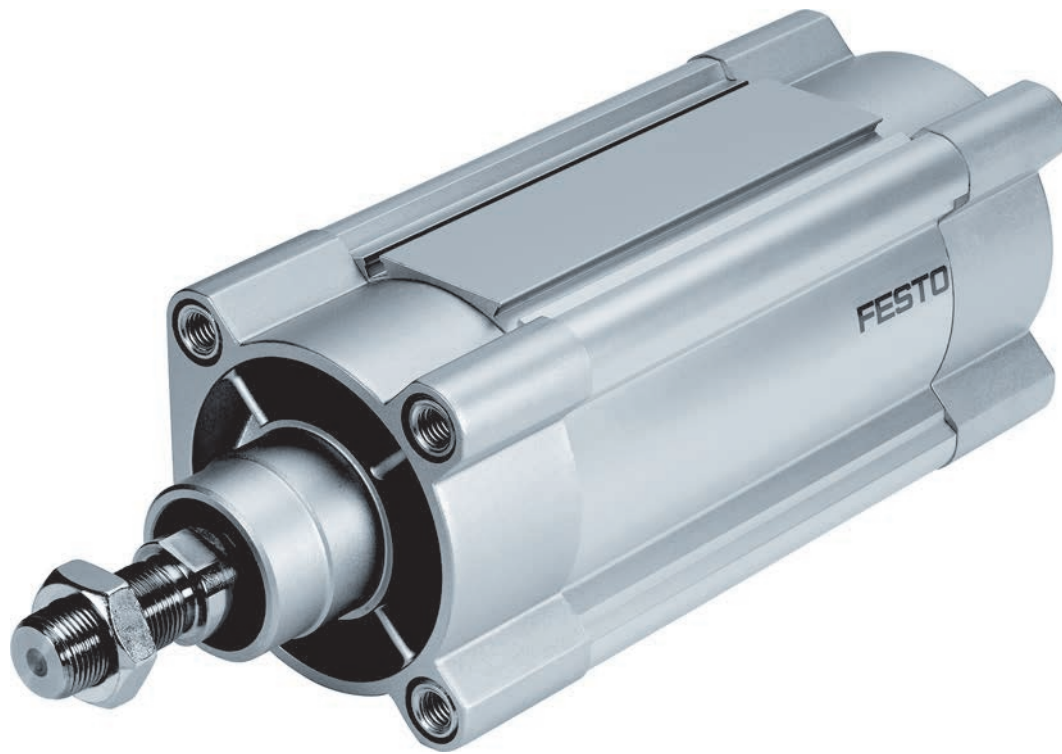
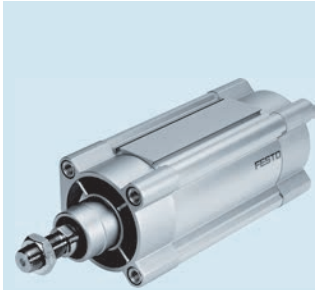


1 Pneumatic drives



- + Cylinders with piston rod
- + Compact linear drives without piston rod, with or without guide
- + Compact semi-rotary drives
- + Drives with slides and guides
- + Diaphragm drives
- + Valve actuator for process automation
- + Shock absorber
- + Mounting components, attachments, piston rod attachments and guides for drives

Highlights

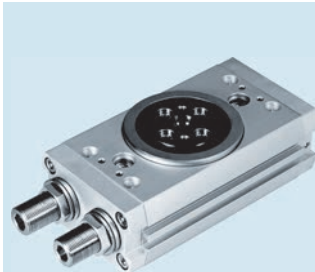


DSBC

Standard cylinder to ISO 15552

- + Self-adjusting pneumatic end-position cushioning PPS
- + Comprehensive range of mounting accessories for just about every type of installation

Page 62



DRRD

Piston rotary drive

- + Twin-piston rotary drive, power transmission via rack and pinion principle
- + Very high bearing load capacity

Page 267





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Software tool

| | | | |
|-------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Pneumatic dimensioning</p> | | <p>Perfect simulations replace expensive actual tests. The tool is an expert system that supports you in the selection and configuration of the entire pneumatic control chain. If one parameter is changed, the program automatically adapts all the others.</p> | <p>This tool can be found</p> <ul style="list-style-type: none"> • either in the electronic catalogue by clicking on the blue button "Engineering" • or on the DVD under Engineering Tools. |
| <p>Festo Design Tool 3D FDT 3D</p> | | <p>This Festo Design Tool 3D is a 3D product configurator for generating specific CAD product combinations from Festo. The configurator makes your search for the right accessory easier, more reliable and faster. You can then order the module that has been created with a single order item – either completely pre-assembled or as individual parts in a single box. As a result, your bill of materials is considerably shortened and downstream processes such as product ordering, order picking and assembly are significantly simplified.</p> | <p>All ordering options are available in the following countries: AT, BE, CH, CZ, DE, DK, ES, FI, FR, GB, HU, IE, IT, NL, NO, PL, RU, SE, SI, SK.</p> <p>This tool can be found</p> <ul style="list-style-type: none"> • either in the electronic catalogue by clicking on the blue button "Engineering" • or on the DVD under Engineering Tools. |




Standard cylinders

| Type |  Compact cylinder ADN |  Compact cylinder AEN |  Compact cylinder ADNP |  Compact cylinder ADN-EL |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mode of operation | Double-acting | Pushing, single-acting, pulling | Double-acting | Double-acting |
| Piston diameter | 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm, 125 mm | 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm | 20 mm, 25 mm, 32 mm, 40 mm, 50 mm | 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm |
| Theoretical force at 6 bar, advancing | 51 ... 7363 N | 54 ... 4416 N | 188 ... 1178 N | 188 ... 4712 N |
| Stroke | 1 ... 500 mm | 1 ... 25 mm | 5 ... 80 mm | 10 ... 500 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends, PPS: self-adjusting pneumatic end-position cushioning | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends |
| Description | <ul style="list-style-type: none"> • ISO 21287 • Up to 50% less installation space than comparable standard cylinders to ISO 15552 • For position sensing • Piston rod with female or male thread • Wide range of variants for customised applications | <ul style="list-style-type: none"> • ISO 21287 • Up to 50% less installation space than comparable standard cylinders to ISO 15552 • For position sensing • Piston rod with female or male thread • Wide range of variants for customised applications | <ul style="list-style-type: none"> • ISO 21287 • Up to 50% less installation space than comparable standard cylinders to ISO 15552 • With polymer end cap and piston rod made from aluminium • Low-cost cylinder for standard applications • Piston rod with female or male thread • For position sensing | <ul style="list-style-type: none"> • Mounting hole pattern to ISO 21287 • With end-position locking at both ends, front or rear • For position sensing • Piston rod with female or male thread |
| → Page/online | 42 | 42 | adnp | adn-el |




Standard cylinders

| Type |  Compact cylinder, Clean Design CDC |  Standard cylinder DSBC |  Standard cylinder DSBG |  Standard cylinder DSBG |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mode of operation | Double-acting | Double-acting | Double-acting | Double-acting |
| Piston diameter | 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm | 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm, 125 mm | 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm, 125 mm | 160 mm, 200 mm, 250 mm, 320 mm |
| Theoretical force at 6 bar, advancing | 141 ... 3016 N | 415 ... 7363 N | 415 ... 7363 N | 11310 ... 48255 N |
| Stroke | 1 ... 500 mm | 1 ... 2800 mm | 1 ... 2800 mm | 1 ... 2700 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends, PPS: self-adjusting pneumatic end-position cushioning, PPV: pneumatic cushioning adjustable at both ends | P: elastic cushioning rings/pads at both ends, PPS: self-adjusting pneumatic end-position cushioning, PPV: pneumatic cushioning adjustable at both ends | P: elastic cushioning rings/pads at both ends, PPV pneumatic cushioning adjustable at both ends |
| Description | <ul style="list-style-type: none"> • ISO 21287 • Up to 50% less installation space than comparable standard cylinders to ISO 15552 • Easy-to-clean design • Increased corrosion protection • Piston rod with female or male thread • For position sensing | <ul style="list-style-type: none"> • ISO 15552 (ISO 6431, VDMA 24562) • Self-adjusting pneumatic end-position cushioning PPS which adapts optimally to changes in load and speed • For position sensing • Wide range of variants for customised applications • Comprehensive range of mounting accessories for just about every type of installation | <ul style="list-style-type: none"> • ISO 15552 (ISO 6431, VDMA 24562) • Sturdy tie rod design • Self-adjusting pneumatic end-position cushioning PPS which adapts optimally to changes in load and speed • Comprehensive range of mounting accessories for just about every type of installation • For position sensing | <ul style="list-style-type: none"> • ISO 15552 (ISO 6431, VDMA 24562) • Sturdy tie rod design • Pneumatic end-position cushioning adjustable at both ends • Optionally without end-position cushioning and position sensing, resulting in a price advantage • New: Optionally with spacer bolt attachment • For position sensing |
| → Page/online | cdc | 62 | 74 | 74 |





Standard cylinders

| Type |  Standard cylinder, Clean Design DSBF |  Standard cylinder DNC |  Round cylinder DSNU |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mode of operation | Double-acting | Double-acting | Double-acting |
| Piston diameter | 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm, 125 mm | 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm, 125 mm | 8 mm, 10 mm, 12 mm, 16 mm, 20 mm, 25 mm |
| Theoretical force at 6 bar, advancing | 415 ... 7363 N | 415 ... 7363 N | 23 ... 295 N |
| Stroke | 1 ... 2800 mm | 2 ... 2000 mm | 1 ... 500 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends, PPS: self-adjusting pneumatic end-position cushioning, PPV: pneumatic cushioning adjustable at both ends | P: elastic cushioning rings/pads at both ends, PPV: pneumatic cushioning adjustable at both ends | P: elastic cushioning rings/pads at both ends, PPS: self-adjusting pneumatic end-position cushioning, PPV: pneumatic cushioning adjustable at both ends |
| Description | <ul style="list-style-type: none"> • ISO 15552 • Increased corrosion protection • Easy-to-clean design • FDA-approved lubrication and sealing on the basic design • Long service life thanks to optional seal for unlubricated operation • Self-adjusting pneumatic end-position cushioning PPS which adapts optimally to changes in load and speed • For position sensing | <ul style="list-style-type: none"> • ISO 15552 (ISO 6431, VDMA 24562) • Wide range of variants for customised applications • Comprehensive range of mounting accessories for just about every type of installation • For position sensing | <ul style="list-style-type: none"> • ISO 6432 • Wide range of variants for customised applications • Good running performance and long service life • Piston rod with female or male thread • Self-adjusting pneumatic end-position cushioning PPS which adapts optimally to changes in load and speed • For position sensing |
| → Page/online | 93 | 101 | 110 |



Standard cylinders

| Type |  Standard cylinder ESNU |  Round cylinder DSNUP |  Standard cylinder DSN, ESN |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mode of operation | Pushing, single-acting | Double-acting | Double-acting, pushing, single-acting |
| Piston diameter | 8 mm, 10 mm, 12 mm, 16 mm, 20 mm, 25 mm | 16 mm, 20 mm, 25 mm | 8 mm, 10 mm, 12 mm, 16 mm, 20 mm, 25 mm |
| Theoretical force at 6 bar, advancing | 19 ... 271 N | 121 ... 295 N | 24 ... 294.5 N |
| Stroke | 1 ... 50 mm | 25 ... 100 mm | 1 ... 500 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends, PPV: pneumatic cushioning adjustable at both ends |
| Description | <ul style="list-style-type: none"> • ISO 6432 • Wide range of variants for customised applications • Good running performance and long service life • Piston rod with female or male thread • For position sensing | <ul style="list-style-type: none"> • ISO 6432 • Cost-optimised round cylinder • Wrought aluminium alloy cylinder barrel • Polyamide bearing caps and end caps • For position sensing | <ul style="list-style-type: none"> • ISO 6432 • Good running performance and long service life • Piston rod with female or male thread • Without position sensing |
| → Page/online | 110 | 119 | 122 |





Round cylinder

| Type |  Round cylinder DSNU |  Round cylinder ESNU |  Round cylinder DSNUP |  Round cylinder DSN, ESN |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mode of operation | Double-acting | Pushing, single-acting | Double-acting | Double-acting, pushing, single-acting |
| Piston diameter | 32 mm, 40 mm, 50 mm, 63 mm | 32 mm, 40 mm, 50 mm, 63 mm | 16 mm, 20 mm, 25 mm | 8 mm, 10 mm, 12 mm, 16 mm, 20 mm, 25 mm |
| Theoretical force at 6 bar, advancing | 482.5 ... 1870.3 N | 406 ... 1765 N | 121 ... 295 N | 24 ... 294.5 N |
| Stroke | 1 ... 500 mm | 1 ... 50 mm | 25 ... 100 mm | 1 ... 500 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends, PPS: self-adjusting pneumatic end-position cushioning, PPV: pneumatic cushioning adjustable at both ends | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends, PPV: pneumatic cushioning adjustable at both ends |
| Description | <ul style="list-style-type: none"> • Wide range of variants for customised applications • Good running performance and long service life • Piston rod with female or male thread • Self-adjusting pneumatic end-position cushioning PPS which adapts optimally to changes in load and speed • For position sensing | <ul style="list-style-type: none"> • Wide range of variants for customised applications • Good running performance and long service life • Piston rod with female or male thread • For position sensing | <ul style="list-style-type: none"> • ISO 6432 • Cost-optimised round cylinder • Wrought aluminium alloy cylinder barrel • Polyamide bearing caps and end caps • For position sensing | <ul style="list-style-type: none"> • ISO 6432 • Good running performance and long service life • Piston rod with female or male thread |
| → Page/online | 111 | 111 | 119 | 122 |





Round cylinder

| | | |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Type |  Round cylinder DG, EG |  Round cylinder EG-PK |
| Mode of operation | Pushing, single-acting | Pushing, single-acting |
| Piston diameter | 2.5 mm, 4 mm, 6 mm, 12 mm, 16 mm, 25 mm | 2.5 mm, 4 mm, 6 mm |
| Theoretical force at 6 bar, advancing | 1.9 ... 215 N | 1.9 ... 11.8 N |
| Stroke | 1 ... 80 mm | 5... 25 mm |
| Cushioning | At one end, no cushioning, non-adjustable | No cushioning |
| Description | <ul style="list-style-type: none"> • Miniature cylinder • Good running performance and long service life • Piston rod with or without male thread | <ul style="list-style-type: none"> • Micro cylinder • Barbed fitting for plastic tubing with standard I.D. |
| → Page/online | dg | eg-pk |




Stainless steel cylinders

| | | | | |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type |  Round cylinder CRDSNU, CRDSNU-B |  Round cylinder CRDSNU, CRDSNU-B |  Standard cylinder CRDNG, CRDNGS |  Round cylinder CRHD |
| Mode of operation | Double-acting | Double-acting | Double-acting | Double-acting |
| Piston diameter | 12 mm, 16 mm, 20 mm, 25 mm | 32 mm, 40 mm, 50 mm, 63 mm | 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm, 125 mm | 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm |
| Theoretical force at 6 bar, advancing | 68 ... 295 N | 483 ... 1870 N | 483 ... 7363 N | 483 ... 4712 N |
| Stroke | 1 ... 500 mm | 1 ... 500 mm | 10 ... 2000 mm | 10 ... 500 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends, PPS: self-adjusting pneumatic end-position cushioning, PPV: pneumatic cushioning adjustable at both ends | P: elastic cushioning rings/pads at both ends, PPS: self-adjusting pneumatic end-position cushioning, PPV: pneumatic cushioning adjustable at both ends | PPV: pneumatic cushioning adjustable at both ends | PPV: pneumatic cushioning adjustable at both ends |
| Description | <ul style="list-style-type: none"> • ISO 6432 • Corrosion resistant against aggressive ambient conditions • Easy-to-clean design • Long service life thanks to optional unlubricated seal • Wide range of variants for customised applications • Self-adjusting pneumatic end-position cushioning PPS which adapts optimally to changes in load and speed • For position sensing | <ul style="list-style-type: none"> • Corrosion resistant against aggressive ambient conditions • Easy-to-clean design • Long service life thanks to optional unlubricated seal • Wide range of variants for customised applications • Self-adjusting pneumatic end-position cushioning PPS which adapts optimally to changes in load and speed • For position sensing | <ul style="list-style-type: none"> • ISO 15552 (ISO 6431, VDMA 24562) • Corrosion resistant against aggressive ambient conditions • Easy-to-clean design • Threaded mounting, mounting via accessories • Variants: through piston rod, heat-resistant design • For position sensing | <ul style="list-style-type: none"> • Corrosion resistant against aggressive ambient conditions • Easy-to-clean design, optimised for most exacting demands • Great flexibility thanks to different end caps • Piston rod with male thread • For position sensing |
| → Page/online | crdsnu-12 | crdsnu-32 | crdng | crhd |




Compact, short-stroke and flat cylinders

| Type |  Compact cylinder ADN |  Compact cylinder AEN |  Compact cylinder ADNGF |  Compact cylinder ADNP |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mode of operation | Double-acting | Pushing, single-acting, pulling | Double-acting | Double-acting |
| Piston diameter | 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm, 125 mm | 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm | 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm | 20 mm, 25 mm, 32 mm, 40 mm, 50 mm |
| Theoretical force at 6 bar, advancing | 51 ... 7363 N | 56 ... 4416 N | 68 ... 4712 N | 188 ... 1178 N |
| Stroke | 1 ... 500mm | 1 ... 25 mm | 1 ... 400 mm | 5 ... 80 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends, PPS: self-adjusting pneumatic end-position cushioning | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends, PPS: self-adjusting pneumatic end-position cushioning | P: elastic cushioning rings/pads at both ends |
| Description | <ul style="list-style-type: none"> • ISO 21287 • Up to 50% less installation space than comparable standard cylinders to ISO 15552 • Piston rod with female or male thread • Wide range of variants for customised applications • For position sensing | <ul style="list-style-type: none"> • ISO 21287 • Up to 50% less installation space than comparable standard cylinders to ISO 15552 • Piston rod with female or male thread • Wide range of variants for customised applications • For position sensing | <ul style="list-style-type: none"> • Mounting hole pattern to ISO 21287 • Piston rod secured against rotation by means of guide rod and yoke plate • Plain-bearing guide • Available with through piston rod • For position sensing | <ul style="list-style-type: none"> • ISO 21287 • Up to 50% less installation space than comparable standard cylinders to ISO 15552 • With polymer end cap and piston rod made from aluminium • Low-cost cylinder for standard applications • Piston rod with female or male thread • For position sensing |
| → Page/online | 42 | 42 | 137 | adnp |



Compact, short-stroke and flat cylinders

| Type |  Compact cylinder ADN-EL |  Compact cylinder CDC |  Short-stroke cylinder ADVC, AEVC |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mode of operation | Double-acting | Double-acting | Double-acting, pushing, single-acting |
| Piston diameter | 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm | 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm | 4 mm, 6 mm, 10 mm, 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm |
| Theoretical force at 6 bar, advancing | 188 ... 4712 N | 141 ... 3016 N | 4.9 ... 4712 N |
| Stroke | 10 ... 500mm | 1 ... 500mm | 2.5 ... 25 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends |
| Description | <ul style="list-style-type: none"> • Mounting hole pattern to ISO 21287 • For position sensing • With end-position locking at both ends, front or rear • Piston rod with female or male thread | <ul style="list-style-type: none"> • ISO 21287 • Up to 50% less installation space than comparable standard cylinders to ISO 15552 • Easy-to-clean design • Increased corrosion protection • Wide range of variants for customised applications • Piston rod with female or male thread • For position sensing | <ul style="list-style-type: none"> • Mounting hole pattern according to VDMA24562 as of Ø 32 mm • Very short overall length • High forces in a compact size • Piston rod with female or male thread • For position sensing with proximity sensor for T-slot and for C-slot |
| → Page/online | adn-el | cdc | 147 |



Compact, short-stroke and flat cylinders

| Type |  Compact cylinder ADVU, AEVU, AEVUZ |  Compact cylinder ADVUL |  Flat cylinder DZF |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mode of operation | Double-acting, pushing, single-acting, pulling | Double-acting | Double-acting |
| Piston diameter | 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm, 125 mm | 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm | Equivalent diameter, 12 mm, 18 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm |
| Theoretical force at 6 bar, advancing | 42 ... 7363 N | 51 ... 4712 N | 51 ... 1870 N |
| Stroke | 1 ... 2000 mm | 1 ... 400 mm | 1 ... 320 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends |
| Description | <ul style="list-style-type: none"> • 50% less installation space than comparable standard cylinders to ISO 15552 • Wide range of variants for customised applications • Piston rod with female or male thread • For position sensing | <ul style="list-style-type: none"> • Piston rod secured against rotation by means of guide rod and yoke plate • Plain-bearing guide • Available with through piston rod • For position sensing | <ul style="list-style-type: none"> • Extremely flat design • Protected against rotation thanks to special piston shape • Ideal for manifold assembly • Wide range of mounting options • Piston rod with female or male thread • For position sensing |
| → Page/online | advu | advul | dzf |




Compact, short-stroke and flat cylinders

| Type |  Flat cylinder DZH |  Flat cylinder EZH |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mode of operation | Double-acting | Pushing, single-acting |
| Piston diameter | Equivalent diameter, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm | Equivalent diameter, 3 mm, 6 mm, 12 mm, 22 mm |
| Theoretical force at 6 bar, advancing | 104 ... 1870 N | 3.8 ... 205 N |
| Stroke | 1 ... 1000 mm | 10 ... 50 mm |
| Cushioning | PPV: pneumatic cushioning adjustable at both ends | No cushioning |
| Description | <ul style="list-style-type: none"> • Flat design • Protected against rotation thanks to special piston shape • Ideal for manifold assembly • Wide range of mounting options • Piston rod with male thread • For position sensing | <ul style="list-style-type: none"> • Extremely flat design • Protected against rotation thanks to special piston shape • Wide range of mounting options • For position sensing |
| → Page/online | dzh | ezh |



Cartridge cylinders and multimount cylinders

| Type |  Multimount cylinder DMM, EMM, DMML, EMML |  Cartridge cylinder EGZ |  Flanged cylinder DFK, EFK |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mode of operation | Double-acting, pushing, single-acting | Pushing, single-acting | Double-acting, single-acting, pushing |
| Piston diameter | 10 mm, 16 mm, 20 mm, 25 mm, 32 mm | 6 mm, 10 mm, 16 mm | 8 mm, 10 mm, 12 mm, 16 mm, 20 mm, 25 mm |
| Theoretical force at 6 bar, advancing | 37 ... 483 N | 13.9 ... 109 N | 30 ... 295 N |
| Stroke | 1 ... 50 mm | 5 ... 15 mm | 10 ... 80 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends | No cushioning | P: elastic cushioning rings/pads at both ends |
| Description | <ul style="list-style-type: none"> • Wide range of mounting options • Wide selection of piston rod variants • Piston rod with male thread • For position sensing | <ul style="list-style-type: none"> • Minimal fitting space • Installation with or without mounting components • Piston rod with male thread | <ul style="list-style-type: none"> • Polymer design • Integrated mounting flange and air connection • Piston rod with male thread |
| → Page/online | dmm | egz | dfk |





Cylinders with clamping unit

| Type |  Compact cylinder with clamping cartridge ADN-KP |  Round cylinder with clamping cartridge DSNU-KP |  Round cylinder with clamping cartridge DSNU-KP |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mode of operation | Double-acting | Double-acting | Double-acting |
| Piston diameter | 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm | 8 mm, 10 mm, 12 mm, 16 mm, 20 mm, 25 mm | 32 mm, 40 mm, 50 mm, 63 mm |
| Theoretical force at 6 bar, advancing | 188... 4712 N | 30 ... 295 N | 482.5 ... 1870.3 N |
| Stroke | 10 ... 500mm | 1 ... 500mm | 1 ... 500 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends, PPS: self-adjusting pneumatic end-position cushioning, PPV: pneumatic cushioning adjustable at both ends | P: elastic cushioning rings/pads at both ends, PPS: self-adjusting pneumatic end-position cushioning, PPV: pneumatic cushioning adjustable at both ends |
| Description | <ul style="list-style-type: none"> • The piston rod can be held in any position • The piston rod can be held in position for long periods even with alternating loads, fluctuating operating pressure in the system or loss of pressure • Mounting hole pattern to ISO 21287 • Piston rod with female or male thread • For position sensing | <ul style="list-style-type: none"> • The piston rod can be held in any position • The piston rod can be held in position for long periods even with alternating loads, fluctuating operating pressure in the system or loss of pressure • Mounting hole pattern to ISO 6432 • For position sensing | <ul style="list-style-type: none"> • The piston rod can be clamped in any position • The piston rod can be held in position for long periods even with alternating loads, fluctuating operating pressure in the system or loss of pressure • For position sensing |
| → Page/online | 48 | dsnu-kp | dsnu-kp |

Cylinders with clamping unit

| | | |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |  |  |
| Type | Standard cylinder with clamping cartridge DNC-KP | Cylinder with clamping unit DNCKE, DNCKE-S |
| Mode of operation | Double-acting | Double-acting |
| Piston diameter | 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm, 125 mm | 40 mm, 63 mm, 100 mm |
| Theoretical force at 6 bar, advancing | 415 ... 7363 N | 754 ... 4712 N |
| Stroke | 10 ... 2000 mm | 10 ... 2000 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends, PPV: pneumatic cushioning adjustable at both ends | PPV: pneumatic cushioning adjustable at both ends |
| Description | <ul style="list-style-type: none"> The piston rod can be clamped in any position The piston rod can be held in position for long periods even with alternating loads, fluctuating operating pressure in the system or loss of pressure Mounting hole pattern to ISO 15552 Piston rod with female or male thread For position sensing | <ul style="list-style-type: none"> The piston rod can be held and braked in any position Variant DNCKE-...S approved for use in safety-oriented parts of control systems Mounting hole pattern to ISO 15552 Piston rod with male thread For position sensing |
| → Page/online | dnc-kp | dncke |

Rodless cylinders

| | | | | |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |  |  |  |  |
| Type | Linear drive DGC-K | Linear drive DGC-G, DGC-GF, DGC-KF | Linear drive with heavy-duty guide DGC-HD | Linear drive SLG |
| Piston diameter | 18 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm | 8 mm, 12 mm, 18 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm | 18 mm, 25 mm, 40 mm | 8 mm, 12 mm, 18 mm |
| Theoretical force at 6 bar, advancing | 153 ... 3016 N | 30 ... 1870 N | 153 ... 754 N | 30 ... 153 N |
| Stroke | 1 ... 8500 mm | 1 ... 8500 mm | 1 ... 5000 mm | 100 ... 900 mm |
| Cushioning | PPV: pneumatic cushioning adjustable at both ends | P: elastic cushioning rings/pads at both ends, PPV: pneumatic Cushioning adjustable at both ends, YSR: shock absorber, hard characteristic curve, YSRW: shock absorber, soft characteristic curve | YSR: shock absorber, hard characteristic curve, YSRW: shock absorber, soft characteristic curve | P: elastic cushioning rings/pads at both ends, YSR: shock absorber, hard characteristic curve |
| Position sensing | Via proximity sensor | Via proximity sensor | Via proximity sensor | Via proximity sensor |
| Description | <ul style="list-style-type: none"> Compact design: 30% smaller than basic design DGC-G Basic drive without external guide, for simple drive functions Low moving dead weight Symmetrical design Fully interchangeable with the linear drive DGP | <ul style="list-style-type: none"> Basic design, plain or recirculating ball bearing guides All settings accessible from one side Available with variable end stops and intermediate position module Exchangeable with DGPL thanks to foot mountings Software tool available for bearing calculation Optional: NSF-H1 lubricant for the food industry Optional: clamping unit for holding loads | <ul style="list-style-type: none"> For maximum loads and torques thanks to duo rail guide Very good operating performance under torque load Long service life Ideal as a basic axis for linear gantries and cantilever axes Wide range of options for mounting on drives | <ul style="list-style-type: none"> Extremely flat design Highest precision thanks to integrated recirculating ball bearing guide Adjustable end stops Choice of supply ports Available with intermediate position module |
| → Page/online | 169 | 181 | 211 | slg |

Rodless cylinders

| | | | |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | |
| Type | Linear drive DGPL | Linear drive DGO | Linear drive SLM |
| Piston diameter | 18 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm | 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm | 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm |
| Theoretical force at 6 bar, advancing | 153 ... 3016 N | 68 ... 754 N | 68 ... 754 N |
| Stroke | 10 ... 3000 mm | 10 ... 4000 mm | 10 ... 1500 mm |
| Cushioning | PPV: pneumatic cushioning, adjustable at both ends, YSR: shock absorber, hard characteristic curve | P: elastic cushioning rings/pads at both ends, PPV: pneumatic cushioning, adjustable at both ends | P: elastic cushioning rings/pads at both ends, YSR: shock absorber, hard characteristic curve |
| Position sensing | Via proximity sensor, with attached displacement encoder, with integrated displacement encoder | Via proximity sensor | Via proximity sensor, via inductive sensor |
| Description | <ul style="list-style-type: none"> Recirculating ball bearing guide or heavy-duty guide High precision and load capacity Wide range of variants for customised applications | <ul style="list-style-type: none"> Magnetic force transmission Pressure-tight and zero leakage Dirt-proof and dust-proof | <ul style="list-style-type: none"> Magnetic force transmission Recirculating ball bearing guide: combination of slide unit and rodless linear drive Individual choice of end-position cushioning and sensing |
| → Page/online | dgp | dgo | slm |


Software tool

| | | |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Mass moment of inertia</p> | <p>Juggling pencils and pocket calculators is now a thing of the past. No matter whether you have discs, blocks, push-on flanges, grippers, etc., this tool does the job of calculating all the mass moments of inertia. Just save, send or print and you're finished.</p> | <p>This tool can be found</p> <ul style="list-style-type: none"> either in the electronic catalogue by clicking on the blue button "Engineering" or on the DVD under Engineering Tools. |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



Semi-rotary drives

| | | | | |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | |
| Type | Semi-rotary drive DRVS | Swivel module DSM, DSM-B, DSM-HD-B | Semi-rotary drive DSR, DSRL | Semi-rotary drive DRRD |
| Size | 6, 8, 12, 16, 25, 32, 40 | 6, 8, 10, 12, 16, 25, 32, 40, 63 | 10, 12, 16, 25, 32, 40 | 8, 10, 12, 16, 20, 25, 32, 35, 40, 50, 63 |
| Torque at 6 bar | 0.15 ... 20 Nm | 0.15 ... 80 Nm | 0.5 ... 20 Nm | 0.2 ... 112 Nm |
| Swivel angle | 0 ... 270° | 0 ... 270° | 0 ... 180° | 180° |
| Permissible mass moment of inertia | 6.5 ... 350 kgcm ² | 6.5 ... 5000 kgcm ² | 0 .. 150 kgcm ² | 0.0015 ... 42 kgm ² |
| Position sensing | Without | Via proximity sensor, none | Without | Via proximity sensor |
| Description | <ul style="list-style-type: none"> Double-acting semi-rotary drive with rotary vanes Lighter than other semi-rotary drives Fixed swivel angle, adjustable swivel angle possible with the help of accessories Housing protected against splash water and dust | <ul style="list-style-type: none"> Semi-rotary vane drive With spigot shaft, hollow flanged shaft, tandem rotary vane and spigot shaft, tandem rotary vane and flanged shaft or heavy-duty bearing (HD) | <ul style="list-style-type: none"> Semi-rotary vane drive With spigot or hollow flanged shaft | <ul style="list-style-type: none"> Twin-piston rotary drive, power transmission via rack and pinion principle Very high accuracy in the end positions Very high bearing load capacity Very good axial run-out at the flanged shaft |
| → Page/online | 222 | 234 | dsr | 267 |


Semi-rotary drives

| | |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |  |
| Type | Swivel/linear drive unit DSL-B |
| Size | 16, 20, 25, 32, 40 |
| Torque at 6 bar | 1.25 ... 20 Nm |
| Swivel angle | 0 ... 272° |
| Permissible mass moment of inertia | 0.35... 40 kgcm ² |
| Position sensing | Via proximity sensor |
| Description | <ul style="list-style-type: none"> • Rotation and linear motion can be controlled individually or simultaneously • High repetition accuracy • With plain or recirculating ball bearing guide • Through piston rod |
| → Page/online | dsl |





Tandem and high-force cylinders

| | | |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |  |  |
| Type | High-force cylinder ADNH | Tandem cylinder DNCT |
| Piston diameter | 25 mm, 40 mm, 63 mm, 100 mm | 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm, 125 mm |
| Theoretical force at 6 bar, advancing | 1036 ... 18281 N | 898 ... 14244 N |
| Stroke | 1 ... 150 mm | 2 ... 500 mm |
| Description | <ul style="list-style-type: none"> • Mounting hole pattern to ISO 21287 • Max. 4 cylinders can be combined • Thrust increase • Only 2 connections are required to pressurise all cylinders • For position sensing • Piston rod with female or male thread | <ul style="list-style-type: none"> • Mounting hole pattern to ISO 15552 • Max. 2 cylinders can be combined • Thrust and return force increase • For position sensing • Piston rod with male thread |
| → Page/online | adnh | dnct |



Multi-position cylinders

| | |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |  |
| Type | Multi-position cylinder ADNM |
| Piston diameter | 25 mm, 40 mm, 63 mm, 100 mm |
| Theoretical force at 6 bar, advancing | 295 ... 4712 N |
| Max. total of all individual strokes | 1000 ... 2000 mm |
| Description | <ul style="list-style-type: none"> • Mounting hole pattern to ISO 21287 • Piston rod with female or male thread • 2 ... 5 cylinders can be combined • Max. 5 positions can be approached • Piston rod with female or male thread • For position sensing |
| → Page/online | adnm |





Drives with slides

| Type |  Mini slide DGSC |  Mini slide DGSL |  Mini slide SLF |  Mini slide SLS |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Piston diameter | 6 mm | 6 mm, 8 mm, 10 mm, 12 mm, 16 mm, 20 mm, 25 mm, 32 mm | 6 mm, 10 mm, 16 mm | 6 mm, 10 mm, 16 mm |
| Theoretical force at 6 bar, advancing | 17 N | 17 ... 483 N | 17 ... 121 N | 17 ... 121 N |
| Stroke | 10 mm | 10 ... 200 mm | 10 ... 80 mm | 5 ... 30 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends | E: short elastic cushioning rings/pads at both ends, N: no cushioning, P1: elastic cushioning rings/pads at both ends with fixed stop, P: elastic cushioning rings/pads at both ends, Y11: shock absorber, self-adjusting, progressive, at both ends, with reducing sleeve, Y3: shock absorber, progressive, at both ends | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends |
| Position sensing | Without | Via proximity sensor | Via proximity sensor | Via proximity sensor |
| Description | <ul style="list-style-type: none"> • Smallest guided slide unit on the market • Precision ball bearing cage guide: reliable and high-quality process • Long service life thanks to housing made from high-alloy steel • Low break-away pressure and uniform movement thanks to minimal friction from guide and seal | <ul style="list-style-type: none"> • High load capacity and positioning accuracy • Maximum movement precision thanks to ground-in ball bearing cage guide • Maximum flexibility thanks to 8 sizes • Reliable in the event of pressure drop thanks to clamping cartridge or end-position locking • Wide variety of mounting and attachment options • Compact design | <ul style="list-style-type: none"> • Flat design • Ball bearing cage guide • Versatile mounting options • Easy adjustment of end positions | <ul style="list-style-type: none"> • Flat design • Ball bearing cage guide • Versatile mounting options |
| → Page/online | dgsc | 290 | slf | sls |





Drives with slides

| Type |  Mini slide SLT |  Slide unit SPZ |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Piston diameter | 6 mm, 10 mm, 16 mm, 20 mm, 25 mm | 10 mm, 16 mm, 20 mm, 25 mm, 32 mm |
| Theoretical force at 6 bar, advancing | 34 ... 590 N | 60 ... 724 N |
| Stroke | 10 ... 200 mm | 10 ... 100 mm |
| Cushioning | CC: shock absorber at both ends, P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends |
| Position sensing | Via proximity sensor | Via proximity sensor |
| Description | <ul style="list-style-type: none"> • Powerful twin piston drive • Ball bearing cage guide • Versatile mounting options • Easy adjustment of end positions | <ul style="list-style-type: none"> • Twin-piston drive • High force with excellent protection against rotation • Plain or recirculating ball bearing guides • Widely spaced piston rods for high load capacity |
| → Page/online | 314 | spz |


Drives with guide rods

| Type |  Guided drive DGRF |  Guided drive DFP |  Compact cylinder ADNGF |  Compact cylinder ADVUL |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Piston diameter | 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm | 10 mm, 16 mm, 25 mm, 32 mm, 50 mm, 80 mm | 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm | 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm |
| Theoretical force at 6 bar, advancing | 189 ... 1870 N | 31 ... 3016 N | 68 ... 4712 N | 51 ... 4712 N |
| Stroke | 10 ... 400 mm | 25 ... 500mm | 1 ... 400 mm | 1 ... 400 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends, PPS: self-adjusting pneumatic end-position cushioning, PPV: pneumatic cushioning, adjustable at both ends | P: elastic cushioning rings/pads at both ends, PPV: pneumatic cushioning, adjustable at both ends | P: elastic cushioning rings/pads at both ends, PPS: self-adjusting pneumatic end-position cushioning | P: elastic cushioning rings/pads at both ends |
| Position sensing | Via proximity sensor | Via proximity sensor | Via proximity sensor | Via proximity sensor |
| Description | <ul style="list-style-type: none"> • Easy-to-clean design • Increased corrosion protection • FDA-approved lubrication and sealing on the basic version • Hygienic mounting of the sensors possible • Compact design with high guidance accuracy and load capacity • Long service life thanks to optional seal for unlubricated operation • Self-adjusting pneumatic end-position cushioning PPS which adapts optimally to changes in load and speed | <ul style="list-style-type: none"> • High-precision guidance thanks to recirculating ball bearing guide on piston rod • Able to absorb high torques • Saves space in comparison with standard cylinders | <ul style="list-style-type: none"> • Mounting hole pattern to ISO 21287 • Piston rod secured against rotation by means of guide rod and yoke plate • Plain-bearing guide • Available with through piston rod | <ul style="list-style-type: none"> • Piston rod secured against rotation by means of guide rod and yoke plate • Plain-bearing guide • Available with through piston rod • For position sensing |
| → Page/online | dgrf | dfp | 137 | advul |


Drives with guide rods

| Type |  Mini guided drive DFC |  Guided drive DFM, DFM-B |  Twin-piston cylinder DPZ |  Twin-piston cylinder DPZJ |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Piston diameter | 4 mm, 6 mm, 10 mm | 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm | 10 mm, 16 mm, 20 mm, 25 mm, 32 mm | 10 mm, 16 mm, 20 mm, 25 mm, 32 mm |
| Theoretical force at 6 bar, advancing | 7.5 ... 47 N | 68 ... 4712 N | 60 ... 966 N | 60 ... 724 N |
| Stroke | 5 ... 30 mm | 10 ... 400 mm | 10 ... 100 mm | 10 ... 100 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends, PPV: pneumatic cushioning, adjustable at both ends, YSRW: shock absorber, soft characteristic curve | P: elastic cushioning rings/pads at both ends | P: elastic cushioning rings/pads at both ends |
| Position sensing | Via proximity sensor, none | Via proximity sensor | Via proximity sensor | Via proximity sensor |
| Description | <ul style="list-style-type: none"> • Smallest guided drive • High precision and load capacity • Minimal space requirement • Drive and guide unit in a single housing • Plain or recirculating ball bearing guides | <ul style="list-style-type: none"> • Drive and guide unit in a single housing • Plain or recirculating ball bearing guides • High resistance to torques and lateral forces • Wide range of mounting options • Wide range of variants for customised applications | <ul style="list-style-type: none"> • Twin pistons provide twice the force in half the space • Plain or recirculating ball bearing guides • Precision stroke adjustment in the end position | <ul style="list-style-type: none"> • With yoke plate on rear of cylinder for higher lateral forces and precision • Twin pistons provide twice the force in half the space • Plain or recirculating ball bearing guides • Precision stroke adjustment in the end position |
| → Page/online | dfc | 327 | dpz | dpzj |




Drives with guide rods

| | |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |  |
| Type | Linear unit SLE |
| Piston diameter | 10 mm, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm, 50 mm |
| Theoretical force at 6 bar, advancing | 47 ... 1178 N |
| Stroke | 10 ... 500 mm |
| Cushioning | YSR: shock absorber, hard characteristic curve |
| Position sensing | Via proximity sensor, via inductive sensor |
| Description | <ul style="list-style-type: none"> • Combination of guide unit and standard cylinder • Multi-axis and drive combinations • Recirculating ball bearing guide |
| → Page/online | sle |


Linear modules

| | |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |  |
| Type | Linear module HMP |
| Mode of operation | Double-acting |
| Piston diameter | 16 mm, 20 mm, 25 mm, 32 mm |
| Stroke | 50 ... 400 mm |
| Theoretical force at 6 bar, advancing | 121 ... 483 N |
| Position sensing | Via proximity sensor |
| Description | <ul style="list-style-type: none"> • Precision, backlash-free guidance • High rigidity with a long stroke • Infinitely adjustable end stops • Flexible thanks to intermediate position • Adjustable end-position cushioning |
| → Page/online | hmp |


Stopper cylinders

| | | | |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |  |  |  |
| Type | Stopper cylinder DFSP | Stopper cylinder DFST | Stopper cylinder STAF |
| Piston diameter | 16 mm, 20 mm, 32 mm, 50 mm | 50 mm, 63 mm, 80 mm | 32 mm, 80 mm |
| Permissible impact force on the advanced piston rod | 710 ... 6280 N | 3000 ... 6000 N | 480 ... 14600 N |
| Stroke | 5 ... 30 mm | 30 ... 40 mm | 20 ... 40 mm |
| Position sensing | Via proximity sensor | Via proximity sensor | Via proximity sensor |
| Toggle lever position sensing | | Via inductive sensor | |
| Description | <ul style="list-style-type: none"> • Trunnion version with/without female thread, with/without protection against rotation • Roller version with protection against rotation • Compact design • Sensor slots on 3 sides • Long service life thanks to very good cushioning characteristics and sturdy piston rod guide • Workpiece carriers, pallets and packages weighing up to 90 kg can be safely stopped | <ul style="list-style-type: none"> • Toggle lever design • Integrated, adjustable shock absorber for smooth and adapted stopping • Up to 800 kg impact load • For position sensing on the piston • For position sensing on the toggle lever by inductive sensor • Lever locking mechanism • Toggle lever deactivator | <ul style="list-style-type: none"> • Roller version, toggle lever design • Absorption of high lateral forces • Direct mounting of solenoid valves on flange plate |
| → Page/online | dfst | dfst | sta |



Clamping cylinder

| | |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |  |
| Type | Clamping module EV |
| Clamping area | 10x30, 15x40, 15x63, 20x120, 20x180, 20x75, Ø 12, Ø 16, Ø 20, Ø 25, Ø 32, Ø 40, Ø 50, Ø 63 |
| Stroke | 3 ... 5 mm |
| Description | <ul style="list-style-type: none"> • Compact cylinders without piston rod, with diaphragm • Single-acting, with reset function • Flat design • Hermetically sealed • Pressure plates and foot mounting as accessories |
| → Page/online | ev |


Linear/swivel clamps

| | |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |  |
| Type | Linear/swivel clamp CLR |
| Piston diameter | 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 40 mm, 50 mm, 63 mm |
| Theoretical clamping force at 6 bar | 51 ... 1682 N |
| Clamping stroke | 10 ... 50 mm |
| Swivel angle | 90°± 2°, 90°± 3°, 90°± 4° |
| Description | <ul style="list-style-type: none"> • Swivelling and clamping in one step • Double-acting • Swivel direction adjustable • Clamping fingers as accessories • Optionally with dust and welding spatter protection • For position sensing |
| → Page/online | clr |


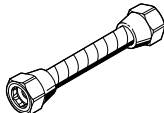
Hinge cylinders

| | | |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |  |  |
| Type | Hinge cylinder DFAW | Hinge cylinder DW, DWA, DWB, DWC |
| Piston diameter | 50 mm, 63 mm, 80 mm | 50 mm, 63 mm, 80 mm |
| Stroke | 10 ... 200 mm | 10 ... 200 mm |
| Theoretical force at 6 bar, advancing | 1178 ... 3016 N | 1178 ... 3016 N |
| Position sensing | Via proximity sensor, none | Via proximity sensor, none |
| Cushioning | PPS: self-adjusting pneumatic end-position cushioning | PPV: pneumatic cushioning, adjustable at both ends |
| Description | <ul style="list-style-type: none"> • Clamping of components during the welding process • Double-acting • Easy to mount thanks to swivel bearing on the bearing cap • Integrated flow control • Integrated, self-adjusting end-position cushioning | <ul style="list-style-type: none"> • Clamping of components during the welding process • Double-acting • Easy to mount thanks to swivel bearing on the bearing cap • Integrated flow control • Integrated end-position cushioning |
| → Page/online | dfaw | dw |

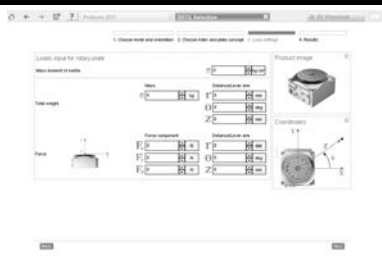
Bellows actuators

| | |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |  |
| Type | Bellows actuator EB |
| Size | 80, 145, 165, 215, 250, 325, 385 |
| Stroke | 20 ... 230 mm |
| Description | <ul style="list-style-type: none"> • Use as a spring element or for reducing oscillations • Single-bellows or double-bellows cylinder • High forces with a short stroke • Uniform movement: no stick-slip effect • Use in dusty environments or in water • Maintenance-free |
| → Page/online | eb |

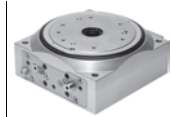
Fluidic muscles

| | | |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |  |  |
| Type | Fluidic muscle DMSP | Fluidic muscle MAS |
| Size | 5, 10, 20, 40 | 10, 20, 40 |
| Theoretical force at 6 bar | 140 ... 6000 N | 480 ... 6000 N |
| Nominal length | 30 ... 9000 mm | 40 ... 9000 mm |
| Max. contraction | 20% of the nominal length, 25% of the nominal length | 25% of nominal length |
| Description | <ul style="list-style-type: none"> • With press-fitted connection • Up to 30% less weight: a superb force/weight ratio • Single-acting, pulling • Three integrated adapter variants • 10 times the initial force of a comparable pneumatic cylinder • Uniform movement: no stick-slip effect • Hermetically sealed design offers protection against dust, dirt and moisture | <ul style="list-style-type: none"> • With screwed connection • Optionally with force retention • Single-acting, pulling • Use of customised mounting options • 10 times the initial force of a comparable pneumatic cylinder • Uniform movement: no stick-slip effect • Hermetically sealed design offers protection against dust, dirt and moisture |
| → Page/online | dmsp | mas |

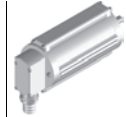

Software tool

| | | | |
|------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rotary indexing table |  | <p>This tool helps you to select the right rotary indexing table of the type DHTG from Festo for your application. Let yourself be guided by the program – enter the general parameters and you will receive at least one suggestion for the product best suited to your application.</p> | <p>This tool can be found</p> <ul style="list-style-type: none"> • either in the electronic catalogue by clicking on the blue button "Engineering" • or on the DVD under Engineering Tools. |
|------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



Rotary indexing tables

| | |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type |  Rotary indexing table DHTG |
| Size | 65, 90, 140, 220 |
| Torque at 6 bar | 2.1 ... 58.9 Nm |
| Indexing stations | 2 ... 24 |
| Description | <ul style="list-style-type: none"> • For swivelling or separating tasks • Sturdy mechanical system • Easy planning and commissioning • Rotary table diameters: 65, 90, 140, 220 mm • Free control of rotational direction |
| → Page/online | dhtg |


Linear actuators for process automation

| | | |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type |  Linear actuator with displacement encoder DFPI |  Linear actuator Copac DLP |
| Design | Piston rod, cylinder barrel | Piston rod |
| Mode of operation | Double-acting | Double-acting |
| Size of valve actuator | 100, 125, 160, 200, 250, 320 | 80, 100, 125, 160, 200, 250, 320 |
| Flange hole pattern | F07, F10, F14 | |
| Operating pressure | 3 ... 8 bar | 2 ... 8 bar |
| Ambient temperature | -20 ... 80 °C | -20 ... 80 °C |
| Description | <ul style="list-style-type: none"> • Closed-loop controlled actuator for all linear process valves • Optionally with integrated positioning controller and valve block • Position feedback via analogue 4...20 mA signal for simple diagnostics • Easy to integrate into existing control architecture • Sturdy and compact housing for use outdoors • Connection for process valves to DIN 3358 | <ul style="list-style-type: none"> • Integrated air supply • NAMUR port pattern for solenoid valves to VDI/VDE 3845 • Connection for process valves to DIN 3358 |
| → Page/online | dfpi | dlp |

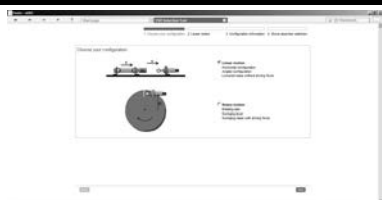
Quarter turn actuators for process automation

| | | |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |  |  |
| Type | Quarter turn actuator DAPS | Quarter turn actuator DFPB |
| Design | Scotch yoke system | Rack and pinion |
| Mode of operation | Double-acting, single-acting | Double-acting, single-acting |
| Size of valve actuator | 0008, 0015, 0030, 0053, 0060, 0090, 0106, 0120, 0180, 0240, 0360, 0480, 0720, 0960, 1440, 1920, 2880, 3840, 4000, 5760, 8000 | 10, 15, 20, 30, 40, 45, 60, 65, 80, 110, 120, 150, 170, 180, 230, 270, 300, 330, 370, 420, 470, 520, 550, 670, 840, 1050 |
| Flange hole pattern | F03, F04, F05, F07, F10, F12, F14, F16, F25 | F03, F04, F05, F14, F0507, F0710, F1012 |
| Operating pressure | 1 ... 8.4 bar | 1 ... 8 bar |
| Ambient temperature | -50 ... 150 °C | -20 ... 80 °C |
| Description | <ul style="list-style-type: none"> • High breakaway torques • Approved in accordance with Directive 94/9/EC valid until 19.04.2016, then 2014/34/EU (ATEX) • Flange hole pattern to ISO 5211 • Mounting hole pattern to VDI/VDE 3845 • Available with handwheel as a manual emergency override • Corrosion-resistant stainless steel variant | <ul style="list-style-type: none"> • Identical torque characteristic across the entire rotation angle range of 90° • Process valve connection to ISO 5211 on both sides • Can be mounted on all process valves using pressure relief slot • Mounting hole pattern to VDI/VDE 3845 • Sturdy, non-slip and easy-to-clean aluminium housing • Long service life, low wear • Increased corrosion protection |
| → Page/online | daps | dfpb |





Cylinder/valve combinations

| | |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| |  |
| Type | Standard cylinder DNC-V |
| Mode of operation | Double-acting |
| Piston diameter | 32 mm, 40 mm, 50 mm, 63 mm, 80 mm, 100 mm |
| Theoretical force at 6 bar, advancing | 415 ... 4712 N |
| Stroke | 100... 2000 mm |
| Cushioning | P: elastic cushioning rings/pads at both ends, PPV: pneumatic cushioning, adjustable at both ends |
| Description | <ul style="list-style-type: none"> • Mounting hole pattern to ISO 15552 • Assembled and fitted with tubing ready for connection • Particularly suitable for decentralised use in larger systems • Valve versions: single or double solenoid valves, mounted on the right or left • For position sensing • Wide range of variants for customised applications |
| → Page/online | dnc-v |





Software tool

| | | | |
|------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Shock absorbers |  | Whether diagonal or vertical, curved or straight, lever or disc, all types of cushioned movements are taken into account. The software tool always recommends the best shock absorber. | This tool can be found <ul style="list-style-type: none"> • either in the electronic catalogue by clicking on the blue button "Engineering" • or on the DVD under Engineering Tools. |
|------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



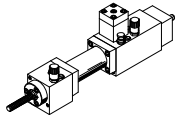
Shock absorbers

| Type |  |  |  |  |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stroke | 8 ... 60 mm | 4 ... 60 mm | 8 ... 34 mm | for Ø 8 ... 63 |
| Max. energy absorption per stroke | 4 ... 384 J | 0.6 ... 380 J | 1.3 ... 70 J | |
| Cushioning | Adjustable | Self-adjusting | Self-adjusting, soft characteristic curve | Self-adjusting, soft characteristic curve |
| Description | <ul style="list-style-type: none"> • Hydraulic shock absorber with spring return • Adjustable cushioning hardness | <ul style="list-style-type: none"> • Hydraulic shock absorber with path-controlled flow control function • Rapidly increasing cushioning force curve • Short cushioning stroke • Suitable for rotary drives | <ul style="list-style-type: none"> • Hydraulic shock absorber with path-controlled flow control function • Gently increasing cushioning force curve • Long cushioning stroke • Suitable for low-vibration operation • Short cycle times possible | <ul style="list-style-type: none"> • For linear drives DGC • Gently increasing cushioning force curve • Sizes 12, 18, 25, 32, 40, 50, 63 |
| → Page/online | dysr | ysr-c | ysrw | ysrw-dgc |


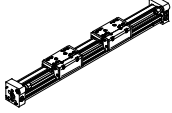


Shock absorbers

| Type |  |  |  |  |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stroke | 8 ... 14 mm | 0.9 ... 7 mm | 4 ... 25 mm | 6 ... 20 mm |
| Max. energy absorption per stroke | 1 ... 3 J | 0.005 ... 1.2 J | 0.6 ... 100 J | 0.8 ... 12 J |
| Cushioning | Self-adjusting, soft characteristic curve | P cushioning with metal fixed stop, P cushioning without metal fixed stop | Self-adjusting | Self-adjusting, soft characteristic curve |
| Description | <ul style="list-style-type: none"> • Cushioning with self-adjusting, progressive hydraulic shock absorber • Gently increasing cushioning force curve • Adjustable cushioning stroke • End-position sensing with proximity sensor SME/SMT-8 • Precision end-position adjustment | <ul style="list-style-type: none"> • Mechanical shock absorber with flexible rubber buffer • Flexible rubber buffer allows a defined metal end position • Adjustable cushioning hardness • Ideal for cushioning low energy • With precise metal end position | <ul style="list-style-type: none"> • Hydraulic shock absorber with path-controlled flow control function • Rapidly increasing cushioning force curve • Short cushioning stroke • Suitable for rotary drives • With metal fixed stop | <ul style="list-style-type: none"> • Hydraulic shock absorber with path-controlled flow control function • Gently increasing cushioning force curve • Long cushioning stroke • Suitable for low-vibration operation • Short cycle times possible • With metal fixed stop |
| → Page/online | ysrwj | dyef | dysc | dysw |





Shock absorbers

| |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type | Hydraulic cushioning cylinder DYHR | Hydraulic cushioning cylinder YD | Hydraulic cushioning cylinder YZL |
| Stroke | 20 ... 60 mm | 70 ... 250 mm | 80 ... 250 mm |
| Max. energy absorption per stroke | 32 ... 384 J | 80 N when flow control valve is open ... 4000 N | 220 N retracting, 150 N advancing ... 4000 N |
| Cushioning | Adjustable | Adjustable | Adjustable |
| Description | <ul style="list-style-type: none"> Hydraulic cushioning cylinder for constant, slow braking speeds across the entire stroke Braking speed can be precisely adjusted A built-in compression spring returns the piston rod to the initial position Suitable for slow feed speeds in the range up to 0.1 m/s | <ul style="list-style-type: none"> With speed control in one direction (retracting piston rod) and rapid traverse (advancing piston rod) For infinitely adjustable, slow constant speed | <ul style="list-style-type: none"> With speed regulation in both directions and pneumatic actuator for intermediate rapid traverse during advancing and retracting For infinitely adjustable, slow constant speed |
| → Page/online | dyhr | yd | yzl |

Accessories for pneumatic drives

| |  |  |  |  |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type | Guide unit FEN, FENG | Passive guide axis DGC-FA | Passive guide axis FDG | Clamping cartridge KP |
| Size | 8, 12, 20, 25, 32, 40, 50, 63, 80, 100 | 8, 12, 18, 25, 32, 40, 50, 63 | 18, 25, 32, 40, 50, 63 | |
| Stroke | 1 ... 500mm | 1 ... 8500 mm | 1 ... 4500 mm | |
| Round material to be clamped | | | | 4 ... 32 mm |
| Static holding force | | | | 80 ... 7500 N |
| Description | <ul style="list-style-type: none"> For protecting standard cylinders against rotation at high torque loads Plain or recirculating ball bearing guides High guide precision for workpiece handling | <ul style="list-style-type: none"> Without drive With protected recirculating ball bearing guide With guide and freely movable slide Various cushioning options For supporting force and torque capacity in multi-axis applications Increased torsional resistance Reduced vibrations with dynamic loads Available with additional slide | <ul style="list-style-type: none"> Without drive With recirculating ball bearing guide With guide and freely movable slide unit For supporting force and torque capacity in multi-axis applications Increased torsional resistance Reduced vibrations with dynamic loads | <ul style="list-style-type: none"> For in-house assembly of clamping units Not certified for use in safety-relevant control systems |
| → Page/online | fen | dgc-fa | fdg | kp |

Accessories for pneumatic drives

| Type |  Clamping unit KPE, KEC, KEC-S |  Clamping unit, clamping component DADL |  Mounting components |  Piston rod attachments |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size | | 16, 20, 25, 32, 35, 40, 50, 63, 100 | | |
| Stroke | | | | |
| Round material to be clamped | 4 ... 32 mm | | | |
| Static holding force | 80 ... 8000 N | | | |
| Description | <ul style="list-style-type: none"> • KPE: ready-to-install combination of clamping cartridge KP and housing • KEC: for use as a holding device (static application) • KEC-S: for safety-related applications | <ul style="list-style-type: none"> • Clamping unit DADL-EL: for semi-rotary drive DRRD, for mechanical lock in the end positions to prevent unwanted movement in unpressurised condition • Clamping component DADL-EC: for semi-rotary drive DRRD, for securing an intermediate position in combination with the clamping unit DADL-EL | <ul style="list-style-type: none"> • Clevis feet LNG • Trunnion supports LNZ • Slot nuts NST/NSTL • Centring pins/sleeves NSTH | <ul style="list-style-type: none"> • Rod eyes SGS • Rod clevises SG, CRSG • Self-aligning rod couplers FK • Adapters AD • Coupling pieces KSG |
| → Page/online | kpe | dadl | n_015001 | n_03150 |

Customised components – for your specific requirements



Drives with customised designs

Can't find the pneumatic drive you need in our catalogue? We can offer you customised components that are tailored to your specific requirements – from minor product modifications to complete new product developments.

Common product modifications:

- Materials for special ambient conditions
- Customised dimensions
- Special strokes
- Customised mounting options
- Implementation of special cylinder functions (cylinder/valve combinations, single-acting principle, etc.)

Many additional variants are possible. Ask your Festo sales engineer, who will be happy to help. Further information on customised components can be found on your local website at www.festo.com



Overview/Configuration/Order
→ www.festo.com/catalogue/adn



Additional information/Support/User documentation
→ www.festo.com/sp/adn

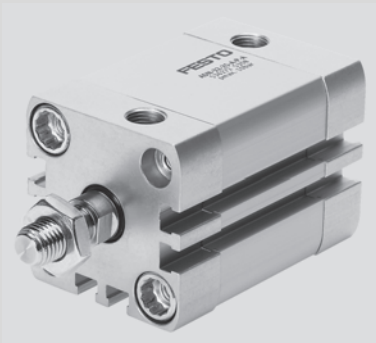
Cylinders with piston rod
Standard cylinders

Compact cylinder to ISO 21287

ADN/AEN



- + Piston diameter 12 ... 100 mm in accordance with ISO 21287
- + Up to 50% less installation space than comparable standard cylinders to ISO 15552
- + For position sensing
- + Piston rod with female or male thread
- + Wide range of variants



- Compact cylinders with standard dimensions
- More than the standard: Ø 12 to 125 mm
- Innovative technology for maximum speeds
- Flexible in use thanks to customisable variants
- Spare parts service
- Selected types in accordance with the ATEX Directive for explosive atmospheres → www.festo.com/catalogue/ex
- ★ Quick ordering of basic designs → 46

→ www.festo.com/catalogue/adn

Product range overview

| Type/function | Piston Ø [mm] | Stroke [mm] | Force [N] | Product options | | | | | | | | | | → Page/online |
|-----------------|----------------------------------------------------------------------|--------------|----------------|-----------------|---|---|-----|---|---|----|----|----------------------|----------------------|---------------------|
| | | | | A | I | P | PPS | A | Q | S2 | S6 | TT | | |
| Double-acting | ADN – Basic design | | | | | | | | | | | | | |
| | 12, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125 | 1 ... 500 | 68 ... 7363 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 44 |
| | ADN- ... -KP – With clamping unit | | | | | | | | | | | | | |
| Double-acting | 20, 25, 32, 40, 50, 63, 80, 100 | 10 ... 500 | 20 ... 100 | ■ | ■ | ■ | - | ■ | - | - | - | - | 48 | |
| | ADN- ... -EL – With end-position locking | | | | | | | | | | | | | |
| | 20, 25, 32, 40, 50, 63, 80, 100 | 10 ... 500 | 20 ... 100 | ■ | ■ | ■ | - | ■ | - | - | - | - | - | adn |
| Single-acting | AEN – Pushing | | | | | | | | | | | | | |
| | 12, 16, 20, 25, 32, 40, 50, 63, 80, 100 | 1 ... 25 | 59 ... 4510 | ■ | ■ | ■ | - | ■ | - | - | ■ | - | 50 | |
| | AEN-...-Z – Pulling | | | | | | | | | | | | | |
| Single-acting | 12, 16, 20, 25, 32, 40, 50, 63, 80, 100 | 1 ... 25 | 59 ... 4510 | ■ | ■ | ■ | - | ■ | - | - | ■ | - | aen | |
| | AEN-...-Q – Protected against rotation with square piston rod | | | | | | | | | | | | | |
| | 16, 20, 25, 32, 40, 50, 63, 80, 100 | 1 ... 25 | 59 ... 4510 | ■ | ■ | ■ | - | ■ | - | - | ■ | - | 50 | |
| Double-acting | ADNP – With polymer end cap | | | | | | | | | | | | | |
| | 20, 25, 32, 40, 50 | 5 ... 80 | 141 ... 1178 | ■ | ■ | ■ | - | ■ | - | - | - | - | adnp | |
| | ADNH – High-force cylinder | | | | | | | | | | | | | |
| | 25, 40, 63, 100 | 1 ... 150 | 542 ... 18,281 | ■ | ■ | ■ | - | ■ | - | - | ■ | - | adnh | |
| | ADNM – Multi-position cylinder | | | | | | | | | | | | | |
| 25, 40, 63, 100 | 1 ... 150 | 295 ... 4712 | ■ | ■ | ■ | - | ■ | - | - | ■ | - | adnm | | |
| Double-acting | ADNGF – Non-rotating with yoke | | | | | | | | | | | | | |
| | 12, 16, 20, 25, 32, 40, 50, 63, 80, 100 | 1 ... 400 | 68 ... 4712 | - | - | ■ | ■ | ■ | - | ■ | ■ | - | 138 | |

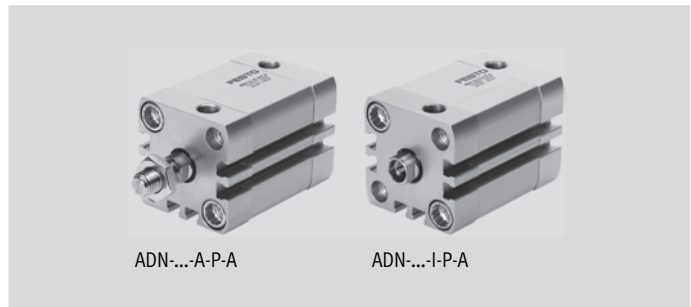
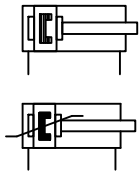
Product options

| | | | | | | | |
|-----|---------------------------------------------------|-----|---------------------------------|-----|----------------------------------------|-----|---------------------------|
| A | Male thread | Q | Square piston rod | K5 | Special piston rod thread | S10 | Slow speed |
| I | Female thread | S1 | Reinforced piston rod | K8 | Extended piston rod | S11 | Low friction |
| P | Elastic cushioning rings/plates at both ends | S2 | Through piston rod | K10 | Smooth anodised aluminium piston rod | R3 | High corrosion protection |
| PPS | Pneumatic cushioning, self-adjusting at both ends | S20 | Through, hollow piston rod | S6 | Heat-resistant seals up to max. 120 °C | R8 | Dust protection |
| A | Position sensing | K2 | Extended male piston rod thread | | | TL | Laser etched rating plate |
| | | | | | | TT | Low temperature |

Compact cylinders ADN, to ISO 21287

1

Technical data – Double-acting



| Technical data | | Dimensions → 56 | | | | | |
|----------------------------------------|------------------|----------------------------------------------|-----|-----|---------------------------------------------------|-----------------|-----------------|
| Piston Ø | | 12 | 16 | 20 | 25 | 32 | 40 |
| Pneumatic connection | | M5 | M5 | M5 | M5 | G $\frac{1}{8}$ | G $\frac{1}{8}$ |
| Piston rod thread | Female | M3 | M4 | M6 | M6 | M8 | M8 |
| | Male | M5 | M6 | M8 | M8 | M10x1.25 | M10x1.25 |
| Stroke | [mm] | 1 ... 300 | | | | 1 ... 400 | |
| Cushioning | ADN-...-P | Elastic cushioning rings/plates at both ends | | | | | |
| | ADN-...-PPS | – | | | Pneumatic cushioning, self-adjusting at both ends | | |
| Cushioning length | ADN-...-PPS [mm] | – | | 3 | 3.5 | 4 | 5 |
| Theoretical force at 6 bar, advancing | ADN-... [N] | 68 | 121 | 188 | 295 | 483 | 754 |
| | ADN-...-S2 [N] | 51 | 90 | 141 | 247 | 415 | 686 |
| Theoretical force at 6 bar, retracting | ADN-... [N] | 51 | 90 | 141 | 247 | 415 | 686 |
| | ADN-...-S2 [N] | 51 | 90 | 141 | 247 | 415 | 686 |

| | | | | | | | |
|----------------------------------------|------------------|---------------------------------------------------|-----------------|-----------------|-----------------|-----------------|---|
| Piston Ø | | 50 | 63 | 80 | 100 | 125 | |
| Pneumatic connection | | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{4}$ | |
| Piston rod thread | Female | M10 | M10 | M12 | M12 | M16 | |
| | Male | M12x1.25 | M12x1.25 | M16x1.5 | M16x1.5 | M20x1.5 | |
| Stroke | [mm] | 1 ... 400 | | 1 ... 500 | | | |
| Cushioning | ADN-...-P | Elastic cushioning rings/plates at both ends | | | | | |
| | ADN-...-PPS | Pneumatic cushioning, self-adjusting at both ends | | | | | – |
| Cushioning length | ADN-...-PPS [mm] | 6 | 7 | 7.5 | 10 | – | |
| Theoretical force at 6 bar, advancing | ADN-... [N] | 1178 | 1870 | 3016 | 4712 | 7363 | |
| | ADN-...-S2 [N] | 1057 | 1750 | 2827 | 4524 | 7069 | |
| Theoretical force at 6 bar, retracting | ADN-... [N] | 1057 | 1750 | 2827 | 4524 | 7069 | |
| | ADN-...-S2 [N] | 1057 | 1750 | 2827 | 4524 | 7069 | |

| Operating conditions | | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
|-----------------------------------|-------------------|-------------|------------|-------------|----|----|------------|----|----|------------|-----|-----|
| Operating pressure | ADN-... [bar] | 1 ... 10 | | 0.6 ... 10 | | | | | | | | |
| | ADN-...-PPS [bar] | – | | 1.5 ... 10 | | | 1 ... 10 | | | – | | |
| | ADN-...-Q [bar] | 1.3 ... 10 | | 1 ... 10 | | | 0.8 ... 10 | | | 0.6 ... 10 | | |
| | ADN-...-S2 [bar] | 1.5 ... 10 | 1.3 ... 10 | 1.2 ... 10 | | | 1 ... 10 | | | 0.8 ... 10 | | |
| | ADN-...-TT [bar] | – | | 1.5 ... 10 | | | 1 ... 10 | | | – | | |
| Ambient temperature ¹⁾ | ADN-... [°C] | –20 ... +80 | | | | | | | | | | |
| | ADN-...-S6 [°C] | 0 ... +120 | | | | | | | | | | |
| | ADN-...-TT [°C] | – | | –40 ... +80 | | | | | | | – | |

1) Note operating range of proximity sensors.

| Materials | | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
|-------------|------------|-----------------------------------------|----|----|----|----|----|----|----|----|---------------------------|--------------------|
| Piston rod | | High-alloy steel | | | | | | | | | | |
| Bearing cap | | Anodised aluminium | | | | | | | | | Coated die-cast aluminium | Anodised aluminium |
| | | Smooth anodised wrought aluminium alloy | | | | | | | | | | |
| End cap | | Anodised aluminium | | | | | | | | | Coated die-cast aluminium | Anodised aluminium |
| Seals | ADN-... | TPE-U (PUR) | | | | | | | | | | |
| | ADN-...-S6 | FPM | | | | | | | | | | |

Order code – Double-acting

| | | | | | | | | | | | | | | | | |
|-----------------------------|---------------------------------------------------|-----------|---|--|---|--|---|--|---|---|---|--|---|--|---|--|
| Type | | ADN | – | | – | | – | | – | A | – | | – | | – | |
| Piston Ø [mm] | | | | | | | | | | | | | | | | |
| | Stroke [mm] | | | | | | | | | | | | | | | |
| 12 | 5, 10, 15, 20, 25, 30, 40 | 1 ... 300 | | | | | | | | | | | | | | |
| 16 | 5, 10, 15, 20, 25, 30, 40, 50 | 1 ... 300 | | | | | | | | | | | | | | |
| 20, 25 | 5, 10, 15, 20, 25, 30, 40, 50, 60 | 1 ... 300 | | | | | | | | | | | | | | |
| 32, 40, 50 | 5, 10, 15, 20, 25, 30, 40, 50, 60, 80 | 1 ... 400 | | | | | | | | | | | | | | |
| 63 | 10, 15, 20, 25, 30, 40, 50, 60, 80 | 1 ... 400 | | | | | | | | | | | | | | |
| 80, 100 | 10, 15, 20, 25, 30, 40, 50, 60, 80 | 1 ... 500 | | | | | | | | | | | | | | |
| 125 | – | 1 ... 500 | | | | | | | | | | | | | | |
| Piston rod thread | | | | | | | | | | | | | | | | |
| I | Female thread | | | | | | | | | | | | | | | |
| A | Male thread | | | | | | | | | | | | | | | |
| Cushioning | | | | | | | | | | | | | | | | |
| P | Elastic cushioning rings/plates at both ends | | | | | | | | | | | | | | | |
| PPS | Pneumatic cushioning, self-adjusting at both ends | 1 | | | | | | | | | | | | | | |
| Position sensing | | | | | | | | | | | | | | | | |
| A | Via proximity sensor | | | | | | | | | | | | | | | |
| Protection against rotation | | | | | | | | | | | | | | | | |
| Q | Square piston rod | | | | | | | | | | | | | | | |
| Piston rod type | | | | | | | | | | | | | | | | |
| – | Piston rod at one end | | | | | | | | | | | | | | | |
| S2 | Through piston rod | | | | | | | | | | | | | | | |
| Temperature resistance | | | | | | | | | | | | | | | | |
| S6 | Heat-resistant seals up to max. 120 °C | | | | | | | | | | | | | | | |
| Low temperature | | | | | | | | | | | | | | | | |
| TT | Temperature resistance down to max. –40 °C | 2 | | | | | | | | | | | | | | |

1 Only with piston Ø 20 ... 100
Not with temperature resistance S6 and low temperature TT
Minimum stroke 5 mm

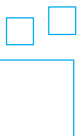
2 Only with piston Ø 20 ... 100
Not with temperature resistance S6

Order example:

ADN-50-50-A-P-A

Double-acting compact cylinder ADN - piston diameter 50 mm - stroke 50 mm - male thread - elastic cushioning rings/plates at both ends - position sensing via proximity sensor - piston rod at one end

Ordering – Product options



Configurable product

This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
→ www.festo.com/catalogue/...

Enter the type code in the search field.

Compact cylinders ADN, to ISO 21287

1

★ Quick ordering¹⁾

P – Elastic cushioning rings/plates at both ends

| Part No. | Type |
|-----------------------|-----------------|
| Piston Ø 12 mm | |
| 536204 | ADN-12-5-A-P-A |
| 536205 | ADN-12-10-A-P-A |
| 536206 | ADN-12-15-A-P-A |
| 536207 | ADN-12-20-A-P-A |
| 536208 | ADN-12-25-A-P-A |
| 536209 | ADN-12-30-A-P-A |
| 536210 | ADN-12-40-A-P-A |
| | |
| 536211 | ADN-12-5-I-P-A |
| 536212 | ADN-12-10-I-P-A |
| 536213 | ADN-12-15-I-P-A |
| 536214 | ADN-12-20-I-P-A |
| 536215 | ADN-12-25-I-P-A |
| 536216 | ADN-12-30-I-P-A |
| 536217 | ADN-12-40-I-P-A |
| | |
| Piston Ø 16 mm | |
| 536219 | ADN-16-5-A-P-A |
| 536220 | ADN-16-10-A-P-A |
| 536221 | ADN-16-15-A-P-A |
| 536222 | ADN-16-20-A-P-A |
| 536223 | ADN-16-25-A-P-A |
| 536224 | ADN-16-30-A-P-A |
| 536225 | ADN-16-40-A-P-A |
| 536331 | ADN-16-50-A-P-A |
| | |
| 536226 | ADN-16-5-I-P-A |
| 536227 | ADN-16-10-I-P-A |
| 536228 | ADN-16-15-I-P-A |
| 536229 | ADN-16-20-I-P-A |
| 536230 | ADN-16-25-I-P-A |
| 536231 | ADN-16-30-I-P-A |
| 536232 | ADN-16-40-I-P-A |
| 536341 | ADN-16-50-I-P-A |
| | |
| Piston Ø 20 mm | |
| 536234 | ADN-20-5-A-P-A |
| 536235 | ADN-20-10-A-P-A |
| 536236 | ADN-20-15-A-P-A |
| 536237 | ADN-20-20-A-P-A |
| 536238 | ADN-20-25-A-P-A |
| 536239 | ADN-20-30-A-P-A |
| 536240 | ADN-20-40-A-P-A |
| 536241 | ADN-20-50-A-P-A |
| 536352 | ADN-20-60-A-P-A |
| | |
| 536242 | ADN-20-5-I-P-A |
| 536243 | ADN-20-10-I-P-A |
| 536244 | ADN-20-15-I-P-A |
| 536245 | ADN-20-20-I-P-A |
| 536246 | ADN-20-25-I-P-A |
| 536247 | ADN-20-30-I-P-A |
| 536248 | ADN-20-40-I-P-A |
| 536249 | ADN-20-50-I-P-A |
| 536362 | ADN-20-60-I-P-A |

| Part No. | Type |
|-----------------------|-----------------|
| Piston Ø 25 mm | |
| 536251 | ADN-25-5-A-P-A |
| 536252 | ADN-25-10-A-P-A |
| 536253 | ADN-25-15-A-P-A |
| 536254 | ADN-25-20-A-P-A |
| 536255 | ADN-25-25-A-P-A |
| 536256 | ADN-25-30-A-P-A |
| 536257 | ADN-25-40-A-P-A |
| 536258 | ADN-25-50-A-P-A |
| 536373 | ADN-25-60-A-P-A |
| | |
| 536259 | ADN-25-5-I-P-A |
| 536260 | ADN-25-10-I-P-A |
| 536261 | ADN-25-15-I-P-A |
| 536262 | ADN-25-20-I-P-A |
| 536263 | ADN-25-25-I-P-A |
| 536264 | ADN-25-30-I-P-A |
| 536265 | ADN-25-40-I-P-A |
| 536366 | ADN-25-50-I-P-A |
| 536383 | ADN-25-60-I-P-A |
| | |
| Piston Ø 32 mm | |
| 536268 | ADN-32-5-A-P-A |
| 536269 | ADN-32-10-A-P-A |
| 536270 | ADN-32-15-A-P-A |
| 536271 | ADN-32-20-A-P-A |
| 536272 | ADN-32-25-A-P-A |
| 536273 | ADN-32-30-A-P-A |
| 536274 | ADN-32-40-A-P-A |
| 536275 | ADN-32-50-A-P-A |
| 536276 | ADN-32-60-A-P-A |
| 536277 | ADN-32-80-A-P-A |
| | |
| 536278 | ADN-32-5-I-P-A |
| 536279 | ADN-32-10-I-P-A |
| 536280 | ADN-32-15-I-P-A |
| 536281 | ADN-32-20-I-P-A |
| 536282 | ADN-32-25-I-P-A |
| 536283 | ADN-32-30-I-P-A |
| 536284 | ADN-32-40-I-P-A |
| 536285 | ADN-32-50-I-P-A |
| 536286 | ADN-32-60-I-P-A |
| 536287 | ADN-32-80-I-P-A |
| | |
| Piston Ø 40 mm | |
| 536289 | ADN-40-5-A-P-A |
| 536290 | ADN-40-10-A-P-A |
| 536291 | ADN-40-15-A-P-A |
| 536292 | ADN-40-20-A-P-A |
| 536293 | ADN-40-25-A-P-A |
| 536294 | ADN-40-30-A-P-A |
| 536295 | ADN-40-40-A-P-A |
| 536296 | ADN-40-50-A-P-A |
| 536297 | ADN-40-60-A-P-A |
| 536298 | ADN-40-80-A-P-A |

| Part No. | Type |
|-----------------------|-----------------|
| Piston Ø 40 mm | |
| 536299 | ADN-40-5-I-P-A |
| 536300 | ADN-40-10-I-P-A |
| 536301 | ADN-40-15-I-P-A |
| 536302 | ADN-40-20-I-P-A |
| 536303 | ADN-40-25-I-P-A |
| 536304 | ADN-40-30-I-P-A |
| 536305 | ADN-40-40-I-P-A |
| 536306 | ADN-40-50-I-P-A |
| 536307 | ADN-40-60-I-P-A |
| 536308 | ADN-40-80-I-P-A |
| | |
| Piston Ø 50 mm | |
| 536310 | ADN-50-5-A-P-A |
| 536311 | ADN-50-10-A-P-A |
| 536312 | ADN-50-15-A-P-A |
| 536313 | ADN-50-20-A-P-A |
| 536314 | ADN-50-25-A-P-A |
| 536315 | ADN-50-30-A-P-A |
| 536316 | ADN-50-40-A-P-A |
| 536317 | ADN-50-50-A-P-A |
| 536318 | ADN-50-60-A-P-A |
| 536319 | ADN-50-80-A-P-A |
| | |
| 536320 | ADN-50-5-I-P-A |
| 536321 | ADN-50-10-I-P-A |
| 536322 | ADN-50-15-I-P-A |
| 536323 | ADN-50-20-I-P-A |
| 536324 | ADN-50-25-I-P-A |
| 536325 | ADN-50-30-I-P-A |
| 536326 | ADN-50-40-I-P-A |
| 536327 | ADN-50-50-I-P-A |
| 536328 | ADN-50-60-I-P-A |
| 536329 | ADN-50-80-I-P-A |
| | |
| Piston Ø 63 mm | |
| 536332 | ADN-63-10-A-P-A |
| 536333 | ADN-63-15-A-P-A |
| 536334 | ADN-63-20-A-P-A |
| 536335 | ADN-63-25-A-P-A |
| 536336 | ADN-63-30-A-P-A |
| 536337 | ADN-63-40-A-P-A |
| 536338 | ADN-63-50-A-P-A |
| 536339 | ADN-63-60-A-P-A |
| 536340 | ADN-63-80-A-P-A |
| | |
| 536342 | ADN-63-10-I-P-A |
| 536343 | ADN-63-15-I-P-A |
| 536344 | ADN-63-20-I-P-A |
| 536345 | ADN-63-25-I-P-A |
| 536346 | ADN-63-30-I-P-A |
| 536347 | ADN-63-40-I-P-A |
| 536348 | ADN-63-50-I-P-A |
| 536349 | ADN-63-60-I-P-A |
| 536350 | ADN-63-80-I-P-A |

1) All products in this table are easy to select and quick to order.

★ Quick ordering¹⁾

P – Elastic cushioning rings/plates at both ends

| Part No. | Type |
|-----------------------|-----------------|
| Piston Ø 80 mm | |
| 536353 | ADN-80-10-A-P-A |
| 536354 | ADN-80-15-A-P-A |
| 536355 | ADN-80-20-A-P-A |
| 536356 | ADN-80-25-A-P-A |
| 536357 | ADN-80-30-A-P-A |
| 536358 | ADN-80-40-A-P-A |
| 536359 | ADN-80-50-A-P-A |
| 536360 | ADN-80-60-A-P-A |
| 536361 | ADN-80-80-A-P-A |

| Part No. | Type |
|-----------------------|-----------------|
| Piston Ø 80 mm | |
| 536363 | ADN-80-10-I-P-A |
| 536364 | ADN-80-15-I-P-A |
| 536365 | ADN-80-20-I-P-A |
| 536366 | ADN-80-25-I-P-A |
| 536367 | ADN-80-30-I-P-A |
| 536368 | ADN-80-40-I-P-A |
| 536369 | ADN-80-50-I-P-A |
| 536370 | ADN-80-60-I-P-A |
| 536371 | ADN-80-80-I-P-A |

PPS – Pneumatic cushioning, self-adjusting at both ends

| Part No. | Type |
|-----------------------|-------------------|
| Piston Ø 32 mm | |
| 572655 | ADN-32-10-A-PPS-A |
| 572656 | ADN-32-15-A-PPS-A |
| 572657 | ADN-32-20-A-PPS-A |
| 572658 | ADN-32-25-A-PPS-A |
| 572659 | ADN-32-30-A-PPS-A |
| 572660 | ADN-32-40-A-PPS-A |
| 572661 | ADN-32-50-A-PPS-A |
| 572662 | ADN-32-60-A-PPS-A |
| 572663 | ADN-32-80-A-PPS-A |
| Piston Ø 40 mm | |
| 572673 | ADN-40-10-A-PPS-A |
| 572674 | ADN-40-15-A-PPS-A |
| 572675 | ADN-40-20-A-PPS-A |
| 572676 | ADN-40-25-A-PPS-A |
| 572677 | ADN-40-30-A-PPS-A |
| 572678 | ADN-40-40-A-PPS-A |
| 572679 | ADN-40-50-A-PPS-A |
| 572680 | ADN-40-60-A-PPS-A |
| 572681 | ADN-40-80-A-PPS-A |
| Piston Ø 50 mm | |
| 572682 | ADN-50-10-I-PPS-A |
| 572683 | ADN-50-15-I-PPS-A |
| 572684 | ADN-50-20-I-PPS-A |
| 572685 | ADN-50-25-I-PPS-A |
| 572686 | ADN-50-30-I-PPS-A |
| 572687 | ADN-50-40-I-PPS-A |
| 572688 | ADN-50-50-I-PPS-A |
| 572689 | ADN-50-60-I-PPS-A |
| 572690 | ADN-50-80-I-PPS-A |
| Piston Ø 63 mm | |
| 572709 | ADN-63-10-A-PPS-A |
| 572710 | ADN-63-15-A-PPS-A |
| 572711 | ADN-63-20-A-PPS-A |
| 572712 | ADN-63-25-A-PPS-A |
| 572713 | ADN-63-30-A-PPS-A |
| 572714 | ADN-63-40-A-PPS-A |
| 572715 | ADN-63-50-A-PPS-A |
| 572716 | ADN-63-60-A-PPS-A |
| 572717 | ADN-63-80-A-PPS-A |
| Piston Ø 80 mm | |
| 572718 | ADN-80-10-I-PPS-A |
| 572719 | ADN-80-15-I-PPS-A |
| 572720 | ADN-80-20-I-PPS-A |
| 572721 | ADN-80-25-I-PPS-A |
| 572722 | ADN-80-30-I-PPS-A |
| 572723 | ADN-80-40-I-PPS-A |
| 572724 | ADN-80-50-I-PPS-A |
| 572725 | ADN-80-60-I-PPS-A |
| 572726 | ADN-80-80-I-PPS-A |

| Part No. | Type |
|-----------------------|-------------------|
| Piston Ø 50 mm | |
| 572691 | ADN-50-10-A-PPS-A |
| 572692 | ADN-50-15-A-PPS-A |
| 572693 | ADN-50-20-A-PPS-A |
| 572694 | ADN-50-25-A-PPS-A |
| 572695 | ADN-50-30-A-PPS-A |
| 572696 | ADN-50-40-A-PPS-A |
| 572697 | ADN-50-50-A-PPS-A |
| 572698 | ADN-50-60-A-PPS-A |
| 572699 | ADN-50-80-A-PPS-A |
| Piston Ø 63 mm | |
| 572709 | ADN-63-10-A-PPS-A |
| 572710 | ADN-63-15-A-PPS-A |
| 572711 | ADN-63-20-A-PPS-A |
| 572712 | ADN-63-25-A-PPS-A |
| 572713 | ADN-63-30-A-PPS-A |
| 572714 | ADN-63-40-A-PPS-A |
| 572715 | ADN-63-50-A-PPS-A |
| 572716 | ADN-63-60-A-PPS-A |
| 572717 | ADN-63-80-A-PPS-A |
| Piston Ø 80 mm | |
| 572727 | ADN-80-10-A-PPS-A |
| 572728 | ADN-80-15-A-PPS-A |
| 572729 | ADN-80-20-A-PPS-A |
| 572730 | ADN-80-25-A-PPS-A |
| 572731 | ADN-80-30-A-PPS-A |
| 572732 | ADN-80-40-A-PPS-A |
| 572733 | ADN-80-50-A-PPS-A |
| 572734 | ADN-80-60-A-PPS-A |
| 572735 | ADN-80-80-A-PPS-A |
| Piston Ø 80 mm | |
| 572718 | ADN-80-10-I-PPS-A |
| 572719 | ADN-80-15-I-PPS-A |
| 572720 | ADN-80-20-I-PPS-A |
| 572721 | ADN-80-25-I-PPS-A |
| 572722 | ADN-80-30-I-PPS-A |
| 572723 | ADN-80-40-I-PPS-A |
| 572724 | ADN-80-50-I-PPS-A |
| 572725 | ADN-80-60-I-PPS-A |
| 572726 | ADN-80-80-I-PPS-A |

| Part No. | Type |
|-----------------------|-------------------|
| Piston Ø 80 mm | |
| 572727 | ADN-80-10-A-PPS-A |
| 572728 | ADN-80-15-A-PPS-A |
| 572729 | ADN-80-20-A-PPS-A |
| 572730 | ADN-80-25-A-PPS-A |
| 572731 | ADN-80-30-A-PPS-A |
| 572732 | ADN-80-40-A-PPS-A |
| 572733 | ADN-80-50-A-PPS-A |
| 572734 | ADN-80-60-A-PPS-A |
| 572735 | ADN-80-80-A-PPS-A |
| Piston Ø 80 mm | |
| 572718 | ADN-80-10-I-PPS-A |
| 572719 | ADN-80-15-I-PPS-A |
| 572720 | ADN-80-20-I-PPS-A |
| 572721 | ADN-80-25-I-PPS-A |
| 572722 | ADN-80-30-I-PPS-A |
| 572723 | ADN-80-40-I-PPS-A |
| 572724 | ADN-80-50-I-PPS-A |
| 572725 | ADN-80-60-I-PPS-A |
| 572726 | ADN-80-80-I-PPS-A |

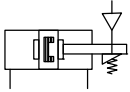
1) All products in this table are easy to select and quick to order.

Compact cylinders ADN-...-KP, standard hole pattern, with clamping unit

FESTO

1

Technical data – Double-acting with clamping unit



| Technical data | | Dimensions → 60 | | | | | | | | |
|----------------------------------------------------------|------|----------------------------------------------|-----|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| Piston Ø | | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | |
| Pneumatic connection | | M5 | M5 | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | |
| Release connection | | M5 | M5 | M5 | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | |
| Female piston rod thread | | M6 | | M8 | M10 | | M12 | | | |
| Male piston rod thread | | M8 | | M10x1.25 | M12x1.25 | | M16x1.5 | | | |
| Stroke | [mm] | 10 ... 300 | | 10 ... 400 | | | 10 ... 500 | | | |
| Cushioning | | Elastic cushioning rings/plates at both ends | | | | | | | | |
| Theoretical force at 6 bar, advancing | [N] | 188 | 295 | 483 | 754 | 1178 | 1870 | 3016 | 4712 | |
| Theoretical force at 6 bar, retracting | [N] | 141 | 247 | 415 | 633 | 990 | 1682 | 2721 | 4418 | |
| Holding force of the clamping unit | [N] | 350 | 350 | 600 | 1000 | 1400 | 2000 | 5000 | 5000 | |
| Max. axial backlash with clamped piston rod without load | [mm] | 0.5 | | | | 0.8 | | | | |

| Operating conditions | |
|-----------------------------------|------------------|
| Operating pressure | [bar] 1.5 ... 10 |
| Min. release pressure | [bar] 3 |
| Ambient temperature ¹⁾ | [°C] -10 ... +80 |

1) Note operating range of proximity sensors.

| Materials | |
|-----------------|-----------------------------------------|
| Piston rod | High-alloy steel |
| Bearing cap | Anodised wrought aluminium alloy |
| Cylinder barrel | Smooth anodised wrought aluminium alloy |
| End cap | Anodised wrought aluminium alloy |
| Seals | NBR, TPE-U (PUR) |

Compact cylinders ADN-...-KP, standard hole pattern, with clamping unit

Order code – Double-acting with clamping unit

| | | | | | | | | | | | | | | | |
|--------------------------|----------------------------------------------|---|--|---|--|---|----|---|--|---|---|---|--|---|---|
| ADN | | - | | - | | - | KP | - | | - | P | - | | - | A |
| Type | | | | | | | | | | | | | | | |
| ADN | Double-acting compact cylinder | | | | | | | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | | | | | | | |
| | Stroke [mm] | | | | | | | | | | | | | | |
| 20, 25 | 10 ... 300 | | | | | | | | | | | | | | |
| 32, 40, 50, 63 | 10 ... 400 | | | | | | | | | | | | | | |
| 80, 100 | 10 ... 500 | | | | | | | | | | | | | | |
| Clamping unit | | | | | | | | | | | | | | | |
| KP | Attached | | | | | | | | | | | | | | |
| Piston rod thread | | | | | | | | | | | | | | | |
| A | Male thread | | | | | | | | | | | | | | |
| I | Female thread | | | | | | | | | | | | | | |
| Cushioning | | | | | | | | | | | | | | | |
| P | Elastic cushioning rings/plates at both ends | | | | | | | | | | | | | | |
| Position sensing | | | | | | | | | | | | | | | |
| A | Via proximity sensor | | | | | | | | | | | | | | |

Order example:

ADN-20-50-KP-A-P-A

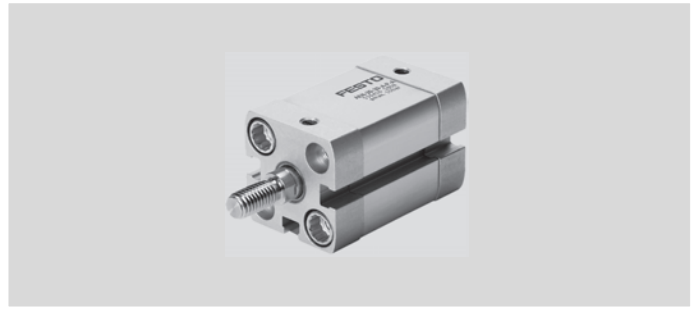
Double-acting compact cylinder AND - piston diameter 20 mm - stroke 50 mm - clamping unit attached - male thread - elastic cushioning rings/plates at both ends - position sensing via proximity sensor

Ordering – Product options

| | | | | |
|--|------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| | <p>Configurable product</p> | <p>This product and all its options can be ordered using the configurator.</p> | <p>The configurator can be found under Products on the DVD or → www.festo.com/catalogue/...</p> | <p>Enter the type code in the search field.</p> |
|--|------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|

Compact cylinders AEN, to ISO 21287

Technical data – Single-acting, pushing



| Technical data | | Dimensions → 56 | | | | |
|---------------------------------------|--------|----------------------------------------------|----|----------|-----|-----------------|
| Piston Ø | | 12 | 16 | 20 | 25 | 32 |
| Pneumatic connection | | M5 | M5 | M5 | M5 | G $\frac{1}{8}$ |
| Piston rod thread | Female | M3 | M4 | M6 | M6 | M8 |
| | Male | M5 | M6 | M8 | M8 | M10x1.25 |
| Stroke | [mm] | 1 ... 10 | | 1 ... 25 | | |
| Cushioning | | Elastic cushioning rings/plates at both ends | | | | |
| Theoretical force at 6 bar, advancing | [N] | 56 | 95 | 162 | 259 | 441 |

| | | | | | | |
|---------------------------------------|--------|----------------------------------------------|-----------------|-----------------|-----------------|-----------------|
| Piston Ø | | 40 | 50 | 63 | 80 | 100 |
| Pneumatic connection | | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ |
| Piston rod thread | Female | M8 | M10 | M10 | M12 | M12 |
| | Male | M10x1.25 | M12x1.25 | M12x1.25 | M16x1.5 | M16x1.5 |
| Stroke | [mm] | 1 ... 25 | | | | |
| Cushioning | | Elastic cushioning rings/plates at both ends | | | | |
| Theoretical force at 6 bar, advancing | [N] | 702 | 1098 | 1783 | 2899 | 4511 |

| Operating conditions | | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
|-----------------------------------|------------|------------------|----|----------|----|----|----|----|----|----|-----|
| Piston Ø | | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
| Operating pressure | [bar] | 1.5 ... 10 | | 1 ... 10 | | | | | | | |
| Ambient temperature ¹⁾ | AEN-... | [°C] -20 ... +80 | | | | | | | | | |
| | AEN-...-S6 | [°C] 0 ... +120 | | | | | | | | | |

1) Note operating range of proximity sensors.

| Materials | | 12 ... 80 | 100 |
|-----------------|--|-----------------------------------------|---------------------------|
| Piston rod | | High-alloy steel | |
| Bearing cap | | Anodised aluminium | Coated die-cast aluminium |
| Cylinder barrel | | Smooth anodised wrought aluminium alloy | |
| End cap | | Anodised aluminium | Coated die-cast aluminium |
| Seals | | TPE-U (PUR) | |

Order code – Single acting, pushing

| | | | | | | | | | | | | | | | |
|-------------------------------------------|----------------------------------------------|---|--|---|--|---|--|---|---|---|---|---|--|---|--|
| AEN | | – | | – | | – | | – | P | – | A | – | | – | |
| Type | | | | | | | | | | | | | | | |
| AEN | Single-acting compact cylinder, pushing | | | | | | | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | | | | | | | |
| | Stroke [mm] | | | | | | | | | | | | | | |
| 12 | 1 ... 10 | | | | | | | | | | | | | | |
| 16, 20, 25, 32, 40, 50, 63, 80, 100 | 1 ... 25 | | | | | | | | | | | | | | |
| Piston rod thread | | | | | | | | | | | | | | | |
| A | Male thread | | | | | | | | | | | | | | |
| I | Female thread | | | | | | | | | | | | | | |
| Cushioning | | | | | | | | | | | | | | | |
| P | Elastic cushioning rings/plates at both ends | | | | | | | | | | | | | | |
| Position sensing | | | | | | | | | | | | | | | |
| A | Via proximity sensor | | | | | | | | | | | | | | |
| Protection against rotation | | | | | | | | | | | | | | | |
| Q | Square piston rod ¹ | | | | | | | | | | | | | | |
| Temperature resistance | | | | | | | | | | | | | | | |
| S6 | Heat-resistant seals up to max. 120 °C | | | | | | | | | | | | | | |

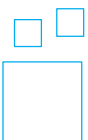
¹ Not with piston Ø 12

Order example:

AEN-50-25-I-P-A-Q-S6

Single-acting compact cylinder AEN - piston diameter 50 mm - stroke 25 mm - female thread - elastic cushioning rings/plates at both ends - position sensing via proximity sensor - square piston rod - heat-resistant seals up to max. 120 °C

Ordering – Product options



Configurable product

This product and all its options can be ordered using the configurator.

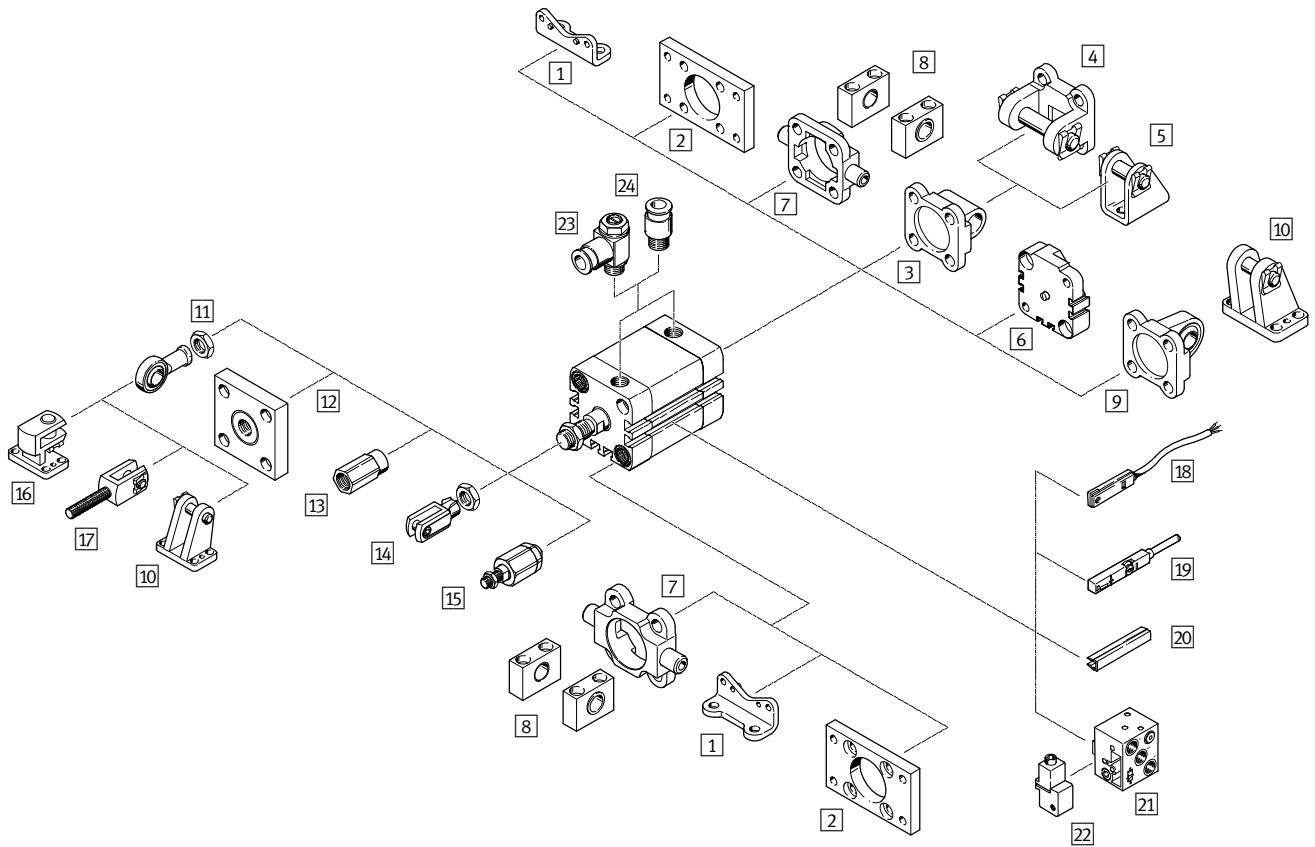
The configurator can be found under Products on the DVD or

→ www.festo.com/catalogue/...

Enter the type code in the search field.

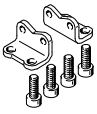

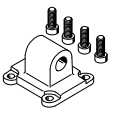
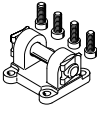

Compact cylinders ADN/AEN, to ISO 21287

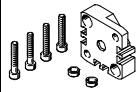
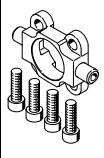
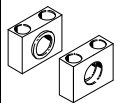
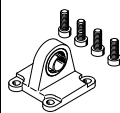
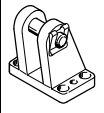
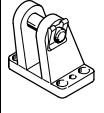
Accessories



| | Basic design | Q | S2 | → Page/online |
|----|--------------------------------------------------------|---|----|---------------|
| 1 | Foot mounting HNA | ■ | ■ | 53 |
| 2 | Flange mounting FNC | ■ | ■ | 53 |
| 3 | Swivel flange SNCL | ■ | ■ | 53 |
| 4 | Swivel flange SNCB | ■ | ■ | 53 |
| 5 | Clevis foot LBN | ■ | ■ | 53 |
| | Clevis foot CRLBN | ■ | ■ | adn |
| 6 | Multi-position kit DPNA | ■ | ■ | 53 |
| 7 | Trunnion flange ZNCF | ■ | ■ | 53 |
| | Trunnion flange CRZNG | ■ | ■ | adn |
| 8 | Trunnion support LNZG | ■ | ■ | 53 |
| 9 | Swivel flange SNCS | ■ | ■ | 53 |
| 10 | Clevis foot LBG | ■ | ■ | 53 |
| 11 | Rod eye SGS | ■ | ■ | 54 |
| | Rod eye CRSGS | ■ | ■ | adn |
| 12 | Coupling piece KSG/KSZ | ■ | ■ | 54 |
| 13 | Adapter AD | ■ | ■ | 54 |
| 14 | Rod clevis SG | ■ | ■ | 54 |
| | Rod clevis CRSG | ■ | ■ | adn |
| 15 | Self-aligning rod coupler FK | ■ | ■ | 54 |
| | Self-aligning rod coupler CRFK | ■ | ■ | adn |
| 16 | Right-angle clevis foot LQG | ■ | ■ | 54 |
| 17 | Rod clevis SGA | ■ | ■ | 54 |
| 18 | Proximity sensor SME-/SMT-8 and connecting cable NEBU | ■ | ■ | 55 |
| 19 | Proximity sensor SME-/SMT-8M and connecting cable NEBU | ■ | ■ | 55 |
| 20 | Slot cover ABP-5-S | ■ | ■ | 55 |
| 21 | Proximity sensor SMPO-8E | ■ | ■ | adn |
| 22 | Mounting kit SMB-8E | ■ | ■ | adn |
| 23 | One-way flow control valve GRLA/GRLZ | ■ | ■ | 55 |
| 24 | Push-in fitting QS | ■ | ■ | 1098 |

Accessories – Ordering data


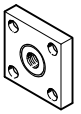
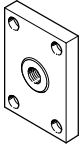

| | For Ø | Part No. | Type |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------|-----------|
| 1 Foot mounting Dimensions online: → adn | | | |
|  | 12 | 537237 | HNA-12 |
| | 16 | 537238 | HNA-16 |
| | 20 | 537239 | HNA-20 |
| | 25 | 537240 | HNA-25 |
| | 32 | 537241 | HNA-32 |
| | 40 | 537242 | HNA-40 |
| | 50 | 537243 | HNA-50 |
| | 63 | 537244 | HNA-63 |
| | 80 | 537249 | HNA-80 |
| | 100 | 537250 | HNA-100 |
| 2 Flange mounting Dimensions online: → adn | | | |
|  | 12 | 537245 | FNC-12 |
| | 16 | 537246 | FNC-16 |
| | 20 | 537247 | FNC-20 |
| | 25 | 537248 | FNC-25 |
| | 32 | ★ 174376 | FNC-32 |
| | 40 | ★ 174377 | FNC-40 |
| | 50 | ★ 174378 | FNC-50 |
| | 63 | ★ 174379 | FNC-63 |
| | 80 | ★ 174380 | FNC-80 |
| | 100 | 174381 | FNC-100 |
| 125 | 174382 | FNC-125 | |
| 3 Swivel flange Dimensions online: → adn | | | |
|  | 12 | 537790 | SNCL-12 |
| | 16 | 537791 | SNCL-16 |
| | 20 | 537792 | SNCL-20 |
| | 25 | 537793 | SNCL-25 |
| | 32 | ★ 174404 | SNCL-32 |
| | 40 | ★ 174405 | SNCL-40 |
| | 50 | ★ 174406 | SNCL-50 |
| | 63 | ★ 174407 | SNCL-63 |
| | 80 | ★ 174408 | SNCL-80 |
| | 100 | 174409 | SNCL-100 |
| 125 | 174410 | SNCL-125 | |
| 4 Swivel flange Dimensions online: → adn | | | |
|  | 32 | ★ 174390 | SNCB-32 |
| | 40 | ★ 174391 | SNCB-40 |
| | 50 | ★ 174392 | SNCB-50 |
| | 63 | ★ 174393 | SNCB-63 |
| | 80 | ★ 174394 | SNCB-80 |
| | 100 | 174395 | SNCB-100 |
| | 125 | 174396 | SNCB-125 |
| | 5 Clevis foot Technical data online: → lbn | | |
|  | 12, 16 | ★ 6058 | LBN-12/16 |
| | 20, 25 | ★ 6059 | LBN-20/25 |




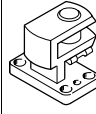

| | For Ø | Part No. | Type |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------|--------------|
| 6 Multi-position kit Dimensions online: → adn | | | |
|  | 12 | 537263 | DPNA-12 |
| | 16 | 537264 | DPNA-16 |
| | 20 | 537265 | DPNA-20 |
| | 25 | 537266 | DPNA-25 |
| | 32 | 537267 | DPNA-32 |
| | 40 | 537268 | DPNA-40 |
| | 50 | 537269 | DPNA-50 |
| | 63 | 532270 | DPNA-63 |
| | 80 | 537271 | DPNA-80 |
| | 100 | 537272 | DPNA-100 |
| 7 Trunnion flange Dimensions online: → adn | | | |
|  | 32 | 174411 | ZNCF-32 |
| | 40 | 174412 | ZNCF-40 |
| | 50 | 174413 | ZNCF-50 |
| | 63 | 174414 | ZNCF-63 |
| | 80 | 174415 | ZNCF-80 |
| | 100 | 174416 | ZNCF-100 |
| | 125 | 174417 | ZNCF-125 |
| 8 Trunnion support Dimensions online: → adn | | | |
|  | 32 | 32959 | LNZG-32 |
| | 40, 50 | 32960 | LNZG-40/50 |
| | 63, 80 | 32961 | LNZG-63/80 |
| | 100, 125 | 32962 | LNZG-100/125 |
| 9 Swivel flange Dimensions online: → adn | | | |
|  | 32 | ★ 174397 | SNCS-32 |
| | 40 | ★ 174398 | SNCS-40 |
| | 50 | ★ 174399 | SNCS-50 |
| | 63 | ★ 174400 | SNCS-63 |
| | 80 | ★ 174401 | SNCS-80 |
| | 100 | 174402 | SNCS-100 |
| | 125 | 174403 | SNCS-125 |
| | 10 Clevis foot Technical data online: → lbg | | |
|  | 32 | 31761 | LBG-32 |
| | 40 | 31762 | LBG-40 |
| | 50 | 31763 | LBG-50 |
| | 63 | 31764 | LBG-63 |
| | 80 | 31765 | LBG-80 |
| | 100 | 31766 | LBG-100 |
| Clevis foot used with rod eye SGS Technical data online: → lbg | | | |
|  | 32, 40 | 31761 | LBG-32 |
| | 50, 63 | 31762 | LBG-40 |
| | 80, 100 | 31763 | LBG-50 |
| | | 31764 | LBG-63 |
| | 125 | 31765 | LBG-80 |
| | 31766 | LBG-100 | |

Compact cylinders ADN/AEN, to ISO 21287

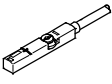
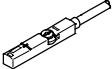
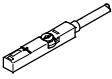







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Accessories – Ordering data



| | For Ø | Part No. | Type |
|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------|-----------------|
| 11 Rod eye Technical data online: → sgs | | | |
|  | 16 | ★ 9254 | SGS-M6 |
| | 20, 25 | ★ 9255 | SGS-M8 |
| | 32, 40 | ★ 9261 | SGS-M10x1,25 |
| | 50, 63 | ★ 9262 | SGS-M12x1,25 |
| | 80, 100 | ★ 9263 | SGS-M16x1,5 |
| | 125 | ★ 9264 | SGS-M20x1,5 |
| 12 Coupling piece Technical data online: → ksg | | | |
|  | 32, 40 | 32963 | KSG-M10x1,25 |
| | 50, 63 | 32964 | KSG-M12x1,25 |
| | 80, 100 | 32965 | KSG-M16x1,5 |
| | 125 | 32966 | KSG-M20x1,5 |
| 12 Coupling piece Technical data online: → ksz | | | |
|  | 16 | 36123 | KSZ-M6 |
| | 20, 25 | 36124 | KSZ-M8 |
| | 32, 40 | 36125 | KSZ-M10x1,25 |
| | 50, 63 | 36126 | KSZ-M12x1,25 |
| | 80, 100 | 36127 | KSZ-M16x1,5 |
| | 125 | 36128 | KSZ-M20x1,5 |
| | 13 Adapter Technical data online: → ad | | |
|  | 16 | 157328 | AD-M6-M5 |
| | | 157329 | AD-M6-1/8 |
| | | 157330 | AD-M6-1/4 |
| | 20, 25 | 157331 | AD-M8-1/8 |
| | | 157332 | AD-M8-1/4 |
| | 32, 40 | 157333 | AD-M10x1,25-1/8 |
| | | 157334 | AD-M10x1,25-1/4 |
| | 50, 63 | 160256 | AD-M12x1,25-1/4 |
| 160257 | | AD-M12x1,25-3/8 | |

| | For Ø | Part No. | Type |
|---------------------------------------------------------------------------------------------------------------------------------|---------|----------|--------------|
| 14 Rod clevis Technical data online: → sg | | | |
|  | 16 | ★ 3110 | SG-M6 |
| | 20, 25 | ★ 3111 | SG-M8 |
| | 32, 40 | ★ 6144 | SG-M10x1,25 |
| | 50, 63 | ★ 6145 | SG-M12x1,25 |
| | 80, 100 | ★ 6146 | SG-M16x1,5 |
|  | 125 | ★ 6147 | SG-M20x1,5 |
| 15 Self-aligning rod coupler Technical data online: → fk | | | |
|  | 12 | 30184 | FK-M5 |
| | 16 | ★ 2061 | FK-M6 |
| | 20, 25 | ★ 2062 | FK-M8 |
| | 32, 40 | ★ 6140 | FK-M10x1,25 |
| | 50, 63 | ★ 6141 | FK-M12x1,25 |
| | 80, 100 | ★ 6142 | FK-M16x1,5 |
| | 125 | ★ 6143 | FK-M20x1,5 |
| 16 Right-angle clevis foot for rod eye SGS Technical data online: → lqg | | | |
|  | 32, 40 | 31768 | LQG-32 |
| | 50, 63 | 31769 | LQG-40 |
| | 80, 100 | 31770 | LQG-50 |
| | | 31771 | LQG-63 |
| | 125 | 31772 | LQG-80 |
| | | 31773 | LQG-100 |
| 17 Rod clevis Technical data online: → sga | | | |
|  | 32, 40 | 32954 | SGA-M10x1,25 |
| | 50, 63 | 10767 | SGA-M12x1,25 |
| | 80, 100 | 10768 | SGA-M16x1,25 |
| | 125 | 10769 | SGA-M20x1,5 |

Accessories – Ordering data

| | For Ø | Cable length [m] | | Part No. | Type |
|---------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|---|----------|---------------------------|
| 18/19 Proximity sensor for T-slot, magneto-resistive – N/O contact Technical data → 878 | | | | | |
|  | PNP, cable | 2.5 | ★ | 574335 | SMT-8M-A-PS-24V-E-2,5-OE |
| | PNP, plug connector | 0.3 | ★ | 574334 | SMT-8M-A-PS-24V-E-0,3-M8D |
| | PNP, plug connector | 0.3 | ★ | 574337 | SMT-8M-A-PS-24V-E-0,3-M12 |
| | NPN, cable | 2.5 | ★ | 574338 | SMT-8M-A-NS-24V-E-2,5-OE |
| | NPN, plug connector | 0.3 | ★ | 574339 | SMT-8M-A-NS-24V-E-0,3-M8D |
| Magneto-resistive – N/C contact Technical data → 878 | | | | | |
|  | PNP, cable | 7.5 | ★ | 574340 | SMT-8M-A-PO-24V-E-7,5-OE |
| Magnetic reed – N/O contact Technical data → 873 | | | | | |
|  | Cable | 2.5 | ★ | 543862 | SME-8M-DS-24V-K-2,5-OE |
| | Cable | 5.0 | ★ | 543863 | SME-8M-DS-24V-K-5,0-OE |
| | Cable | 2.5 | ★ | 543872 | SME-8M-ZS-24V-K-2,5-OE |
| | Plug connector | 0.3 | ★ | 543861 | SME-8M-DS-24V-K-0,3-M8D |
| Magnetic reed – N/C contact Technical data → 875 | | | | | |
|  | Cable | 2.5 | | 150855 | SME-8-K-LED-24 |
| | Plug connector | 0.3 | | 150857 | SME-8-S-LED-24 |
| Magnetic reed – N/C contact Technical data → 875 | | | | | |
|  | Cable | 7.5 | | 160251 | SME-8-O-K-LED-24 |
| 18/19 Connecting cable, straight socket Technical data → 1161 | | | | | |
|  | – | 2.5 | ★ | 541333 | NEBU-M8G3-K-2.5-LE3 |
| | – | 5.0 | ★ | 541334 | NEBU-M8G3-K-5-LE3 |
|  | – | 2.5 | ★ | 541363 | NEBU-M12G5-K-2.5-LE3 |
| | – | 5.0 | ★ | 541364 | NEBU-M12G5-K-5-LE3 |
| Angled socket Technical data → 1161 | | | | | |
|  | – | 2.5 | ★ | 541338 | NEBU-M8W3-K-2.5-LE3 |
| | – | 5.0 | ★ | 541341 | NEBU-M8W3-K-5-LE3 |
|  | – | 2.5 | | 541367 | NEBU-M12W5-K-2.5-LE3 |
| | – | 5.0 | | 541370 | NEBU-M12W5-K-5-LE3 |
| 20 Slot cover¹⁾ | | | | | |
|  | 12 ... 125 | – | | 151680 | ABP-5-S |

1) Packaging unit 2x 0.5 m.

| | For Ø | Connection | | Part No. | Type | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------|------|----------|--------|-----------------|
| | | Thread | O.D. | | | |
| 23 One-way flow control valve with slotted head screw, metal²⁾ for exhaust air flow control Technical data → 760 | | | | | | |
|  | 12, 16, 20, 25 | M5 | 3 | ★ | 193137 | GRLA-M5-QS-3-D |
| | 32 | G1/8 | 4 | ★ | 193143 | GRLA-1/8-QS-4-D |
| | 40, 50, 63, 80, 100 | | 6 | ★ | 193144 | GRLA-1/8-QS-6-D |
| | 125 | G1/4 | 8 | ★ | 193147 | GRLA-1/4-QS-8-D |
| | For supply air flow control Technical data → 760 | | | | | |
|  | 12, 16, 20, 25 | M5 | 3 | ★ | 193153 | GRLZ-M5-QS-3-D |
| | 32 | G1/8 | 4 | ★ | 193157 | GRLZ-1/8-QS-4-D |
| | 40, 50, 63, 80, 100 | | 6 | ★ | 193158 | GRLZ-1/8-QS-6-D |
| | | | | | | |

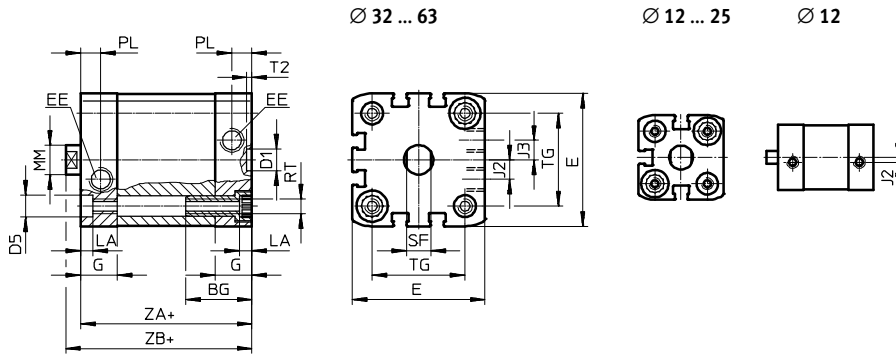
2) The recommended flow control valves are based on a tubing length to the valve of 1 m. For deviations of ±50%, flow control valves with a bigger or smaller flow rate must be selected to guarantee the optimum flow control function and cylinder speed.

Compact cylinders ADN/AEN, to ISO 21287

1

Dimensions

Basic design – Ø 12 ... 63



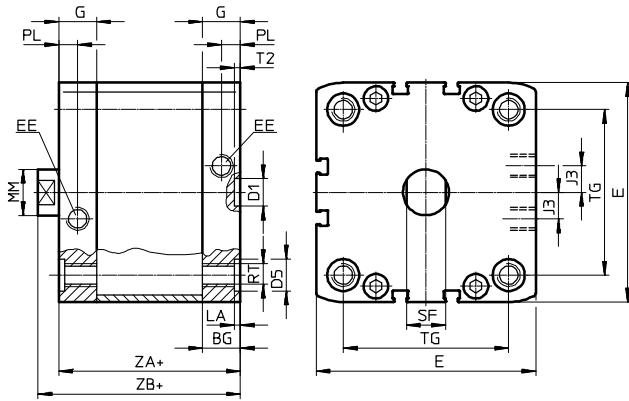
+ = plus stroke length

| Ø [mm] | BG min. | D1 Ø H9 | D5 Ø F9 | E | EE | G | J2 | J3 | LA +0.2 |
|-----------|----------------------|----------------------|----------------------|----------------------|-------------------------------|-------------------------------|-----|----|------------|
| 12 | 17 | 9 | 6 | 27.5 ^{+0.3} | M5 | 10.5 | 2 | – | 3.5 |
| 16 | | | | 29 ^{+0.3} | | 11 | 2.6 | | |
| 20 | 35.5 ^{+0.3} | | 12 | 5 | | | | | |
| 25 | 19.5 | | 39.5 ^{+0.3} | | G ¹ / ₈ | 6 | | | |
| 32 | 26 | 47 ^{+0.3} | 8 | | | | | | |
| 40 | | 54.5 ^{+0.3} | 11.5 | | | | | | |
| 50 | 27 | 12 | | 12 | 65.5 ^{+0.3} | G ¹ / ₈ | 15 | 8 | |
| 63 | | 75.5 ^{+0.3} | 12 | 12 | 11.5 | | | | |

| Ø [mm] | MM Ø | PL +0.2 | RT | SF h13 | T2 +0.1 | TG ±0.2 | ZA ±0.3 | ZB +1.2 | PPS +1.3 |
|-----------|---------|------------|----|-----------|------------|------------|------------|------------|-------------|
| 12 | 6 | 6 | M4 | 5 | 2.1 | 16 | 35 | 39.2 | – |
| 16 | 8 | | | 7 | | 18 | 39.7 | | |
| 20 | 10 | | | M5 | | 9 | 22 | 37 | 42.5 |
| 25 | | | 26 | 39 | | 44.5 | 45.3 | | |
| 32 | 12 | 8.2 | M6 | 10 | 32.5 | 44 | 50 | 50.6 | |
| 40 | | | | 38 | 45 | 51.1 | 51.7 | | |
| 50 | 16 | | M8 | 13 | 2.6 | 46.5 | 49 | 53.2 | 53.2 |
| 63 | | | | | 56.5 | 57.1 | 57 | | |

Dimensions

Basic design – Ø 80 ... 125



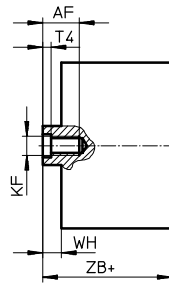
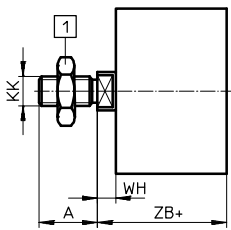
+ = plus stroke length

| Ø | BG | D1 | D5 | E | EE | G | J2 | J3 | LA |
|------|------|---------|---------|-----------------------|-------------------------------|------|-------|----|------|
| [mm] | min. | Ø H9 | Ø F9 | | | | | | +0.2 |
| 80 | 17 | 12 | 15 | 95.5 ^{+0.6} | G ¹ / ₈ | 16.5 | 11.5 | 20 | 2.6 |
| 100 | 21.5 | | | 113.5 ^{+0.6} | | 21.5 | | | |
| 125 | 20 | | – | 134.6 ^{+0.3} | G ¹ / ₄ | 20 | 21.15 | – | |

| Ø | MM Ø | PL | RT | SF | T2 | TG | ZA | ZB | PPS |
|------|---------|------|-----|-----|------|------|------|------|------|
| [mm] | | +0.2 | | h13 | +0.1 | ±0.2 | ±0.3 | +1.2 | +1.3 |
| 80 | 20 | 8.2 | M10 | 17 | 2.6 | 72 | 54 | 62.9 | 63.4 |
| 100 | | 10.5 | | | | M12 | 21 | 89 | 67 |
| 125 | | | 110 | 81 | | | | 92 | – |

Dimensions

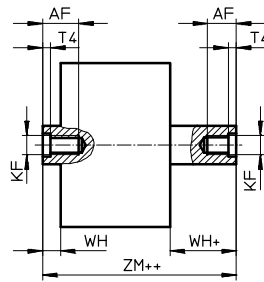
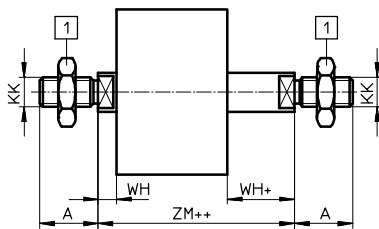
Basic design



1 Hex nut DIN 439-B
only with $\varnothing 32 \dots 125$

+ = plus stroke length

S2 – Through piston rod

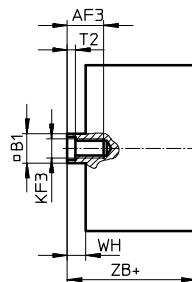
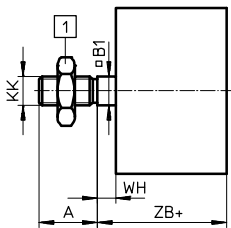


1 Hex nut DIN 439-B
only with $\varnothing 32 \dots 125$

+ = plus stroke length

++ = plus 2x stroke length

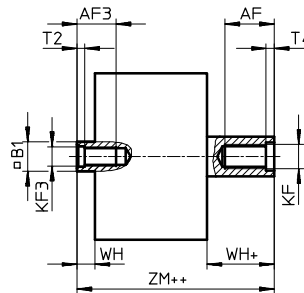
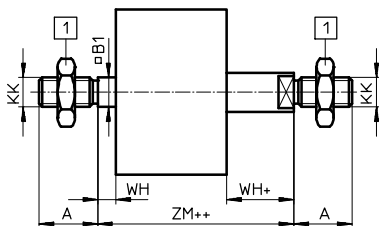
Q – Square piston rod



1 Hex nut DIN 439-B
only with $\varnothing 32 \dots 125$

+ = plus stroke length

Q-S2 – Square, through piston rod



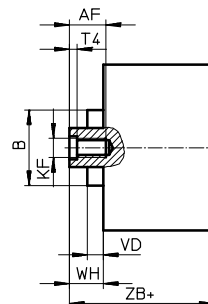
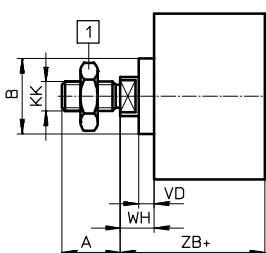
Note

The left-hand piston rod is square, the right-hand piston rod round.

+ = plus stroke length

++ = plus 2x stroke length

TT – Low temperature



1 Hex nut DIN 439-B
only with $\varnothing 32 \dots 125$

+ = plus stroke length

Dimensions

Download CAD data → www.festo.com

| ∅ [mm] | A -05 | A1 | A2 | AF min. | AF3 min. | B ∅ | B1 □ | D7 ∅ | D8 | D9 ∅ | L5 | KF | KF3 | KK |
|-----------|----------|----------|-----------|------------|-------------|----------|-----------|---------|------|---------|-----|------|----------|----------|
| 12 | 10 | 1 ... 10 | 1 ... 300 | 8 | 8 | - | 5.5 | - | - | - | - | M3 | M3 | M5 |
| 16 | 12 | | | 10 | 10 | | 7 | 4.5 | | 3.2 | 3 | M4 | M4 | M6 |
| 20 | 16 | 1 ... 20 | | 14 | 12 | 18 | 9 | 6 | | 3.8 | 2 | M6 | M5 | M8 |
| 25 | | | 19 | 16 | 14 | 27 | 10 | 8 | 4.5 | 3 | M8 | M6 | M10x1.25 | |
| 32 | 22 | 1 ... 40 | 1 ... 500 | 20 | 16 | 31 | 12 | 10 | - | 6 | 3.5 | M10 | M8 | M12x1.25 |
| 40 | | | | | 19 | 16 | 14 | 27 | | 10 | 8 | 4.5 | 3 | M8 |
| 50 | | | | 22 | 16 | 14 | 27 | 10 | 8 | 4.5 | 3 | M8 | M6 | M10x1.25 |
| 63 | 28 | 1 ... 30 | | 1 ... 500 | 20 | 20 | 35 | 16 | - | G1/8 | 8 | - | M12 | M10 |
| 80 | | | 28 | | | 1 ... 30 | 1 ... 500 | 20 | 35 | 16 | - | G1/8 | 8 | - |
| 100 | 40 | 1 ... 40 | 1 ... 500 | 25 | 24 | - | 20 | - | G1/4 | 11.7 | - | M16 | M12 | M20x1.5 |
| 125 | | | | | 40 | 1 ... 40 | 1 ... 500 | 25 | 24 | - | 20 | - | G1/4 | 11.7 |

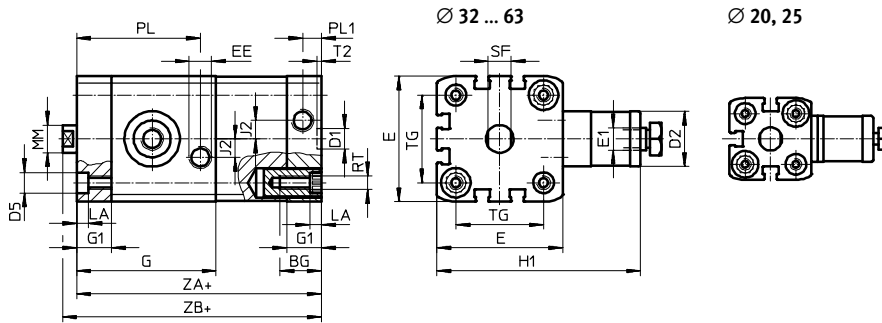
| ∅ [mm] | T2 | T3 | T4 | VD | WH | | | ZB | | | ZM | |
|-----------|-----|-----|-----|-----|------|-------------|------------|------|-------------|----------------------|-----------------------|----------------------|
| | | | | | +1.3 | PPS +1.4 | TT +1.3 | +1.2 | PPS +1.3 | TT +1.2 | | PPS |
| 12 | 1.5 | - | 1.5 | - | 4.2 | - | - | 39.2 | - | - | 44.5 ^{+0.5} | - |
| 16 | | | | | 4.7 | | | 39.7 | | | 45.7 ^{+0.5} | |
| 20 | 2 | 2 | 2.6 | 5.2 | 5.5 | 5.5 | 10.5 | 42.5 | 42.5 | 47.5 | 49.5 ^{+0.5} | 49.5 ^{+0.5} |
| 25 | | | | | | | | 44.5 | 45.3 | 49.5 | 51.5 ^{+0.5} | 51.5 ^{+0.5} |
| 32 | 2.6 | 2.6 | 3.3 | 6.4 | 6 | 6.5 | 12.5 | 50 | 50.6 | 56.5 | 57.5 ^{+0.5} | 58.6 ^{+0.6} |
| 40 | | | | | | 6.1 | | 6.6 | 51.1 | 51.7 | 57.5 | 58.6 ^{+0.6} |
| 50 | 3.3 | 3.3 | 4.7 | | 8.2 | 8.2 | 14.7 | 53.2 | 53.2 | 59.7 | 62.8 ^{+0.6} | 63.1 ^{+0.7} |
| 63 | | | | | 8.1 | 8 | 14.6 | 57.1 | 57 | 63.6 | 66.6 ^{+0.6} | 66.5 ^{+0.7} |
| 80 | 4.7 | 4.7 | 6.1 | 8.9 | 9.4 | 15.4 | 62.9 | 63.4 | 69.4 | 73.2 ^{+0.6} | 74.3 ^{+0.7} | |
| 100 | | | | 9 | 9.8 | 15.5 | 76 | 76.8 | 82.5 | 86.4 ^{+0.6} | 88 ^{+0.7} | |
| 125 | 6.1 | - | 7 | - | 11 | - | - | 92 | - | - | 104.4 ^{+0.6} | - |

Compact cylinders ADN-...-KP, standard hole pattern, with clamping unit

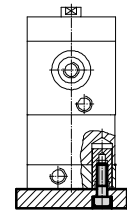
Dimensions

Download CAD data → www.festo.com

Basic design – Ø 20 ... 63

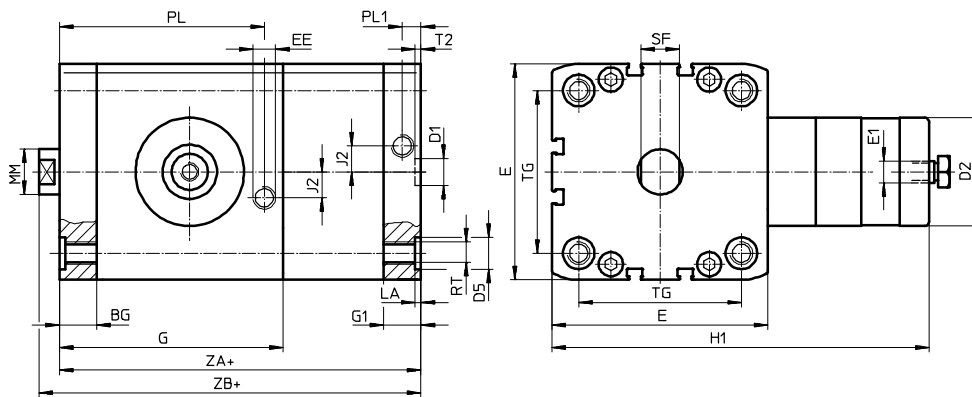


Only direct mounting is permitted with this variant.



+ = plus stroke length

Basic design – Ø 80, 100



+ = plus stroke length

| Ø | BG | D1 | D2 | D5 | E | E1 | EE | G | G1 | H1 | J2 |
|------|------|---------|----------------------|---------|-----------------------|-------------------------------|-------------------------------|------|------|-----|-----|
| [mm] | min. | Ø H9 | Ø | Ø F9 | | | | | | | |
| 20 | 19.5 | 9 | 20 | 9 | 35.5 ^{+0.3} | M5 | M5 | 49.8 | 12 | 63 | 2.6 |
| 25 | | | | | 39.5 ^{+0.3} | | | 50.6 | | 65 | |
| 32 | | | | | 47 ^{+0.3} | | | 56.4 | | 68 | |
| 40 | 26 | 12 | 24 | 12 | 54.5 ^{+0.3} | G ¹ / ₈ | G ¹ / ₈ | 60.4 | 15 | 89 | 8 |
| 50 | | | | | 65.5 ^{+0.3} | | | 67.4 | | 108 | |
| 63 | 27 | 38 | 75.5 ^{+0.3} | 76.8 | 120 | | | | | | |
| 80 | 17 | 12 | 48 | 15 | 95.5 ^{+0.6} | | | 99 | 16.5 | 167 | |
| 100 | | | | | 113.5 ^{+0.6} | | | 99.6 | 21.5 | 176 | 20 |

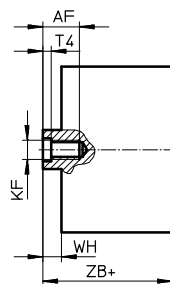
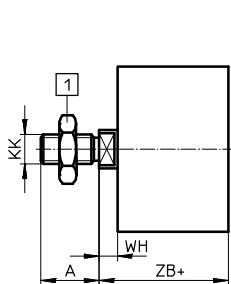
| Ø | LA | MM | PM | PL1 | RT | SF | T2 | TG | ZA | ZB |
|------|------|------|-------|-------|----|------|------|-------|-------|-------|
| [mm] | +0.2 | Ø | +0.2 | +0.2 | | h13 | +0.2 | ±0.2 | ±0.3 | +1.2 |
| 20 | 5 | 10 | 42.8 | 6 | M5 | 9 | 2.1 | 22 | 74.8 | 80.8 |
| 25 | | | 44.6 | | | | | 26 | 77.6 | 83.1 |
| 32 | | 49.6 | 8.2 | M6 | 10 | 32.5 | | 85.4 | 91.4 | |
| 40 | | 53.6 | | | | 13 | | 38 | 90.4 | 96.5 |
| 50 | | 60.6 | | | | M8 | | 17 | 46.5 | 97.4 |
| 63 | 70 | 56.5 | 110.8 | 118.9 | | | | | | |
| 80 | 2.6 | 25 | 90.7 | M10 | 21 | 2.6 | 72 | 136.5 | 145.4 | |
| 100 | | | 88.6 | | | | 10.5 | 89 | 145.1 | 154.1 |

Compact cylinders ADN-...-KP, standard hole pattern, with clamping unit

Download CAD data → www.festo.com

Dimensions

Basic design



1 Hex nut DIN 439-B
only with Ø 32 ... 100

+ = plus stroke length

| Ø | A | AF | KF | KK | T4 | WH | ZB |
|------|------|------|-----|----------|-----|------|-------|
| [mm] | -0.5 | min. | | | | +1.3 | +1.2 |
| 20 | 16 | 14 | M6 | M8 | 2.6 | 5.5 | 80.8 |
| 25 | | | | | | 6.1 | 83.1 |
| 32 | 19 | 16 | M8 | M10x1.25 | 3.3 | 6 | 91.4 |
| 40 | | | | | | 8.2 | 96.5 |
| 50 | 22 | 20 | M10 | M12x1.25 | 4.7 | 8.1 | 105.6 |
| 63 | | | | | | 8.9 | 118.9 |
| 80 | | | | | | 9 | 145.4 |
| 100 | 28 | | M12 | M16x1.5 | | | 154.1 |



Overview/Configuration/Order

→ www.festo.com/catalogue/dsbc



Additional information/Support/User documentation

→ www.festo.com/sp/dsbc

Cylinders with piston rod

Standard cylinders

Cylinders to ISO 15552

DSBC



- + ISO 15552 (ISO 6431, VDMA 24562)
- + With self-adjusting pneumatic end-position cushioning PPS – adapts perfectly to changes in load and speed
- + With position sensing
- + High flexibility thanks to the wide range of variants
- + Extensive range of accessories makes it possible to install the cylinder virtually anywhere



- Strokes of up to 2800 mm
- PPS cushioning with ample cushioning capacity
- Wide range of variants for customised applications
- Comprehensive range of mounting accessories for just about every type of installation
- Spare parts service
- ★ Quick ordering of basic designs → 66

→ www.festo.com/catalogue/dsbc

Product range overview

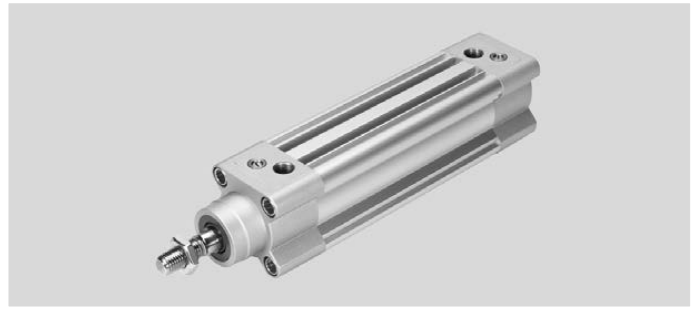
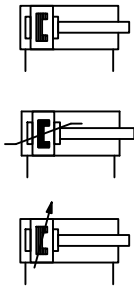
| Type/function | Piston Ø [mm] | Stroke [mm] | Force [N] | Product options | | | | | | | | | | | | |
|---------------|------------------------------------|----------------|--------------|-----------------|---|---|---|-----|-----|---|----|----|----|----|----|------|
| | | | | Q | T | F | P | PPS | PPV | A | N3 | T1 | T3 | T4 | A3 | ...E |
| DSBC | | | | | | | | | | | | | | | | |
| Double-acting | 32, 40, 50, 63, 80, 100, 125 | 1 ... 2800 | 483 ... 7363 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |

Product options

| | | | | | | | |
|----|------------------------------------------------|-----|---------------------------------------------------|----|----------------------------------------|------|-------------------------------------|
| Q | With protection against rotation | T | Through piston rod | A | Position sensing | A1 | Increased chemical resistance |
| L | Low friction | F | Female piston rod thread | N3 | Standard conforms to ISO 15552 | A2 | Hard scraper |
| U | Uniformly slow movement | D3 | Sensor slot on 3 sides | R3 | High corrosion protection | A3 | Suitable for unlubricated operation |
| C | Clamping unit attached | P | Elastic cushioning rings/plates at both ends | T1 | Heat-resistant seals up to max. 120 °C | EX4 | EU certification (II 2GD) |
| E1 | End-position locking at both ends | PPS | Pneumatic cushioning, self-adjusting at both ends | T3 | Low temperature | ...E | Piston rod extension |
| E2 | End-position locking with advanced piston rod | PPV | Pneumatic cushioning, adjustable at both ends | T4 | Heat-resistant seals up to max. 150 °C | ...L | Piston rod thread extension |
| E3 | End-position locking with retracted piston rod | | | P2 | Bellows on bearing cap | | |

Standard cylinders DSBC, to ISO 15552

Technical data



| Technical data | | Dimensions → 72 | | | | | | |
|-----------------------------------------|------|---------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Piston Ø | | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| Pneumatic connection | | G $\frac{1}{8}$ | G $\frac{1}{4}$ | G $\frac{1}{4}$ | G $\frac{3}{8}$ | G $\frac{3}{8}$ | G $\frac{1}{2}$ | G $\frac{1}{2}$ |
| Piston rod thread | | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 | M20x1.5 | M20x1.5 | M27x2 |
| Stroke | | | | | | | | |
| DSBC-... | [mm] | 1 ... 2800 | | | | | | |
| DSBC-...-Q | [mm] | 1 ... 1500 | | | | | | |
| DSBC-...-E | [mm] | 1 ... 2000 | | | | | | |
| Cushioning | | | | | | | | |
| DSBC-...-P | | Elastic cushioning rings/plates at both ends | | | | | | |
| DSBC-...-PPS | | Pneumatic cushioning, self-adjusting at both ends | | | | | | |
| DSBC-...-PPV | | Pneumatic cushioning, adjustable at both ends | | | | | | |
| Cushioning length | [mm] | 17 | 19 | 22 | 22 | 31 | 31 | 45 |
| Theoretical force at 6 bar, advancing | [N] | 483 | 754 | 1178 | 1870 | 3016 | 4712 | 7363 |
| Theoretical force at 6 bar, retracting | [N] | 415 | 633 | 990 | 1682 | 2721 | 4418 | 6881 |
| Max. impact energy in the end positions | | | | | | | | |
| DSBC-... | [J] | 0.4 ¹⁾ | 0.7 | 1.0 | 1.3 | 1.8 | 2.5 | 3.3 |
| DSBC-...-T1/T3/T4 | [J] | 0.2 ¹⁾ | 0.35 | 0.5 | 0.65 | 0.9 | 1.25 | 1.65 |

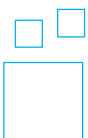
1) The max. impact energy in combination with the trunnion mounting kit DAMT is 0.1 J.

| Operating conditions | | | | | | | | |
|-----------------------------------|-------|-------------|----|------------|------------|----|------------|-----|
| Piston Ø | | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| Operating pressure | | | | | | | | |
| DSBC-... | [bar] | 0.6 ... 12 | | 0.4 ... 12 | | | 0.2 ... 10 | |
| DSBC-...-T3 | [bar] | 1 ... 12 | | | | | 1 ... 10 | |
| DSBC-...-A3 | [bar] | 1.5 ... 12 | | 1 ... 12 | 0.6 ... 12 | | 0.6 ... 10 | |
| Ambient temperature ²⁾ | | | | | | | | |
| DSBC-... | [°C] | -20 ... +80 | | | | | | |
| DSBC-...-T1 | [°C] | 0 ... +120 | | | | | | |
| DSBC-...-T3 | [°C] | -40 ... +80 | | | | | | |
| DSBC-...-T4 | [°C] | 0 ... +150 | | | | | | |

2) Note operating range of proximity sensors.

| Materials | |
|-----------------|-----------------------------------------|
| Piston rod | High-alloy steel |
| Bearing cap | Coated die-cast aluminium |
| Cylinder barrel | Smooth anodised wrought aluminium alloy |
| End cap | Coated die-cast aluminium |
| Seals | TPE-U (PU) |

Ordering – Product options



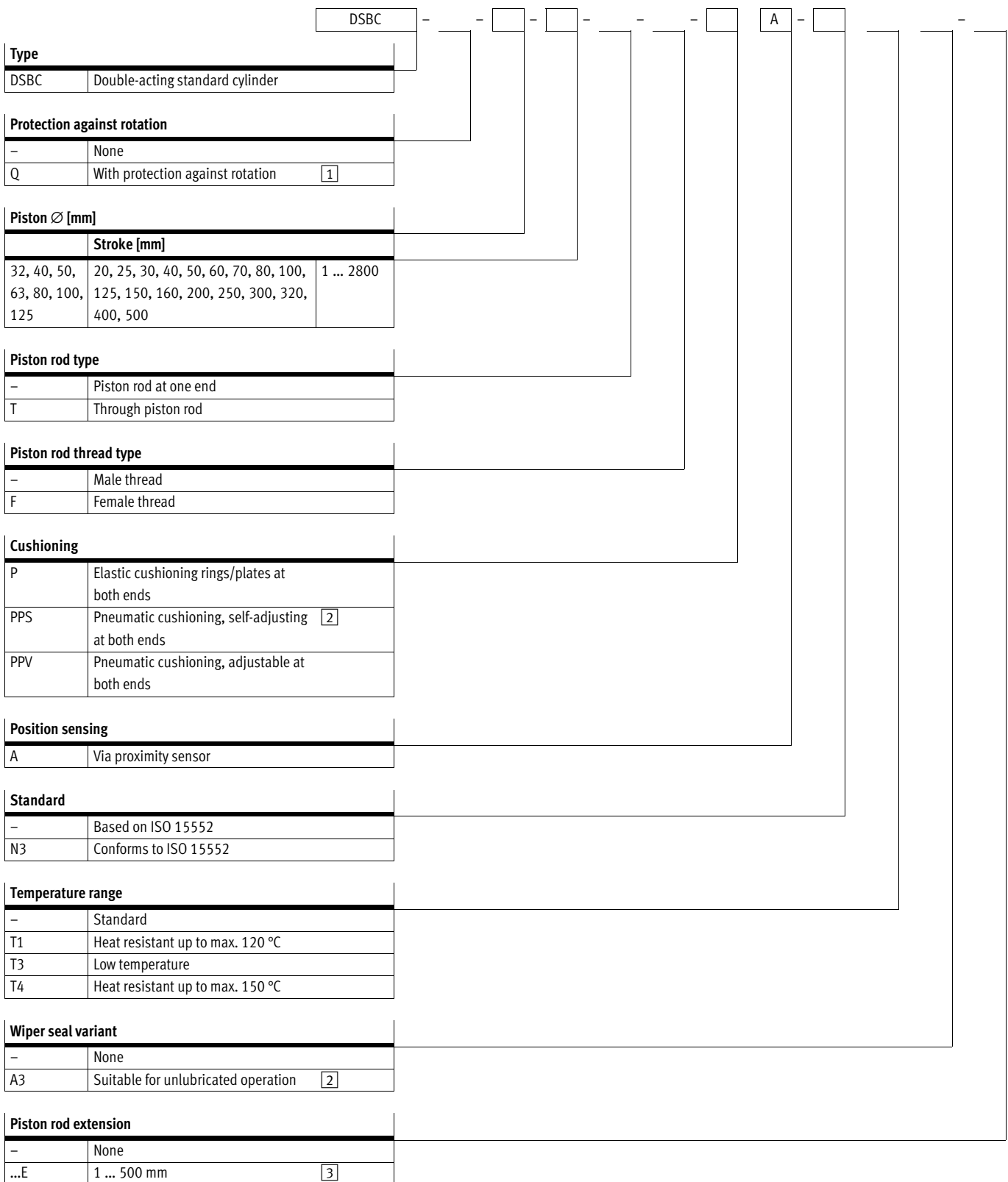
Configurable product

This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
 → www.festo.com/catalogue/...

Enter the type code in the search field.

Order code



[1] Not with standard N3 or temperature range T3, T4 or wiper seal variant A3, only up to strokes of 1500 mm
 [2] Not with temperature range T1, T3, T4
 [3] Only up to strokes of 2000 mm

Order example:

DSBC-32-500-PPVA-N3T1

Double-acting standard cylinder - without protection against rotation - piston diameter 32 mm - stroke 500 mm - piston rod at one end - male thread - pneumatic cushioning, adjustable at both ends - position sensing via proximity sensor - standard conforms to ISO 15552 - heat resistant up to max. 120 °C - no wiper seal - without piston rod extension

Standard cylinders DSBC, to ISO 15552

★ Quick ordering¹⁾

PPS – Pneumatic cushioning, self-adjusting at both ends

| Part No. | Type |
|-----------------------|---------------------|
| Piston Ø 32 mm | |
| 2123085 | DSBC-32-20-PPSA-N3 |
| 1376467 | DSBC-32-25-PPSA-N3 |
| 2123086 | DSBC-32-30-PPSA-N3 |
| 1376468 | DSBC-32-40-PPSA-N3 |
| 1376469 | DSBC-32-50-PPSA-N3 |
| 2123087 | DSBC-32-60-PPSA-N3 |
| 2123088 | DSBC-32-70-PPSA-N3 |
| 1376470 | DSBC-32-80-PPSA-N3 |
| 1376471 | DSBC-32-100-PPSA-N3 |
| 1376472 | DSBC-32-125-PPSA-N3 |
| 2123089 | DSBC-32-150-PPSA-N3 |
| 1376473 | DSBC-32-160-PPSA-N3 |
| 1376474 | DSBC-32-200-PPSA-N3 |
| 1376475 | DSBC-32-250-PPSA-N3 |
| 2123090 | DSBC-32-300-PPSA-N3 |
| 1376476 | DSBC-32-320-PPSA-N3 |
| 1376477 | DSBC-32-400-PPSA-N3 |
| 1376478 | DSBC-32-500-PPSA-N3 |
| Piston Ø 40 mm | |
| 2123780 | DSBC-40-20-PPSA-N3 |
| 1376903 | DSBC-40-25-PPSA-N3 |
| 2123781 | DSBC-40-30-PPSA-N3 |
| 1376904 | DSBC-40-40-PPSA-N3 |
| 1376905 | DSBC-40-50-PPSA-N3 |
| 2123782 | DSBC-40-60-PPSA-N3 |
| 2123783 | DSBC-40-70-PPSA-N3 |
| 1376906 | DSBC-40-80-PPSA-N3 |
| 1376907 | DSBC-40-100-PPSA-N3 |
| 1376908 | DSBC-40-125-PPSA-N3 |
| 2123784 | DSBC-40-150-PPSA-N3 |
| 1376909 | DSBC-40-160-PPSA-N3 |
| 1376910 | DSBC-40-200-PPSA-N3 |
| 1376911 | DSBC-40-250-PPSA-N3 |
| 2123785 | DSBC-40-300-PPSA-N3 |
| 1376912 | DSBC-40-320-PPSA-N3 |
| 1376913 | DSBC-40-400-PPSA-N3 |
| 1376914 | DSBC-40-500-PPSA-N3 |

| Part No. | Type |
|-----------------------|---------------------|
| Piston Ø 50 mm | |
| 2102628 | DSBC-50-20-PPSA-N3 |
| 1376301 | DSBC-50-25-PPSA-N3 |
| 2102629 | DSBC-50-30-PPSA-N3 |
| 1376304 | DSBC-50-40-PPSA-N3 |
| 1376305 | DSBC-50-50-PPSA-N3 |
| 2102630 | DSBC-50-60-PPSA-N3 |
| 2102631 | DSBC-50-70-PPSA-N3 |
| 1376306 | DSBC-50-80-PPSA-N3 |
| 1376307 | DSBC-50-100-PPSA-N3 |
| 1376308 | DSBC-50-125-PPSA-N3 |
| 2102632 | DSBC-50-150-PPSA-N3 |
| 1376309 | DSBC-50-160-PPSA-N3 |
| 1376310 | DSBC-50-200-PPSA-N3 |
| 1376311 | DSBC-50-250-PPSA-N3 |
| 2102633 | DSBC-50-300-PPSA-N3 |
| 1376312 | DSBC-50-320-PPSA-N3 |
| 1376313 | DSBC-50-400-PPSA-N3 |
| 1376314 | DSBC-50-500-PPSA-N3 |
| Piston Ø 63 mm | |
| 2126684 | DSBC-63-20-PPSA-N3 |
| 1383632 | DSBC-63-25-PPSA-N3 |
| 2126685 | DSBC-63-30-PPSA-N3 |
| 1383633 | DSBC-63-40-PPSA-N3 |
| 1383634 | DSBC-63-50-PPSA-N3 |
| 2126686 | DSBC-63-60-PPSA-N3 |
| 2126687 | DSBC-63-70-PPSA-N3 |
| 1383635 | DSBC-63-80-PPSA-N3 |
| 1383636 | DSBC-63-100-PPSA-N3 |
| 1383637 | DSBC-63-125-PPSA-N3 |
| 2126688 | DSBC-63-150-PPSA-N3 |
| 1383638 | DSBC-63-160-PPSA-N3 |
| 1383639 | DSBC-63-200-PPSA-N3 |
| 1383640 | DSBC-63-250-PPSA-N3 |
| 2126689 | DSBC-63-300-PPSA-N3 |
| 1383641 | DSBC-63-320-PPSA-N3 |
| 1383642 | DSBC-63-400-PPSA-N3 |
| 1383643 | DSBC-63-500-PPSA-N3 |

| Part No. | Type |
|-----------------------|---------------------|
| Piston Ø 80 mm | |
| 2126636 | DSBC-80-20-PPSA-N3 |
| 1383366 | DSBC-80-25-PPSA-N3 |
| 2126637 | DSBC-80-30-PPSA-N3 |
| 1383367 | DSBC-80-40-PPSA-N3 |
| 1383368 | DSBC-80-50-PPSA-N3 |
| 2126638 | DSBC-80-60-PPSA-N3 |
| 2126639 | DSBC-80-70-PPSA-N3 |
| 1383369 | DSBC-80-80-PPSA-N3 |
| 1383370 | DSBC-80-100-PPSA-N3 |
| 1383371 | DSBC-80-125-PPSA-N3 |
| 2126640 | DSBC-80-150-PPSA-N3 |
| 1383372 | DSBC-80-160-PPSA-N3 |
| 1383373 | DSBC-80-200-PPSA-N3 |
| 1383374 | DSBC-80-250-PPSA-N3 |
| 2126641 | DSBC-80-300-PPSA-N3 |
| 1383375 | DSBC-80-320-PPSA-N3 |
| 1383376 | DSBC-80-400-PPSA-N3 |
| 1383377 | DSBC-80-500-PPSA-N3 |

1) All products in this table are easy to select and quick to order.

★ Quick ordering¹⁾

PPV – Pneumatic cushioning, adjustable at both ends

| Part No. | Type |
|-----------------------|---------------------|
| Piston Ø 32 mm | |
| 2123069 | DSBC-32-20-PPVA-N3 |
| 1376422 | DSBC-32-25-PPVA-N3 |
| 2123070 | DSBC-32-30-PPVA-N3 |
| 1376423 | DSBC-32-40-PPVA-N3 |
| 1376424 | DSBC-32-50-PPVA-N3 |
| 2123071 | DSBC-32-60-PPVA-N3 |
| 2123072 | DSBC-32-70-PPVA-N3 |
| 1376425 | DSBC-32-80-PPVA-N3 |
| 1376426 | DSBC-32-100-PPVA-N3 |
| 1376427 | DSBC-32-125-PPVA-N3 |
| 2123073 | DSBC-32-150-PPVA-N3 |
| 1376428 | DSBC-32-160-PPVA-N3 |
| 1376429 | DSBC-32-200-PPVA-N3 |
| 1376430 | DSBC-32-250-PPVA-N3 |
| 2123074 | DSBC-32-300-PPVA-N3 |
| 1376431 | DSBC-32-320-PPVA-N3 |
| 1376432 | DSBC-32-400-PPVA-N3 |
| 1376433 | DSBC-32-500-PPVA-N3 |
| Piston Ø 40 mm | |
| 2123166 | DSBC-40-20-PPVA-N3 |
| 1376656 | DSBC-40-25-PPVA-N3 |
| 2123167 | DSBC-40-30-PPVA-N3 |
| 1376657 | DSBC-40-40-PPVA-N3 |
| 1376658 | DSBC-40-50-PPVA-N3 |
| 2123224 | DSBC-40-60-PPVA-N3 |
| 2123225 | DSBC-40-70-PPVA-N3 |
| 1376659 | DSBC-40-80-PPVA-N3 |
| 1376660 | DSBC-40-100-PPVA-N3 |
| 1376661 | DSBC-40-125-PPVA-N3 |
| 2123226 | DSBC-40-150-PPVA-N3 |
| 1376662 | DSBC-40-160-PPVA-N3 |
| 1376663 | DSBC-40-200-PPVA-N3 |
| 1376664 | DSBC-40-250-PPVA-N3 |
| 2123227 | DSBC-40-300-PPVA-N3 |
| 1376665 | DSBC-40-320-PPVA-N3 |
| 1376666 | DSBC-40-400-PPVA-N3 |
| 1376667 | DSBC-40-500-PPVA-N3 |

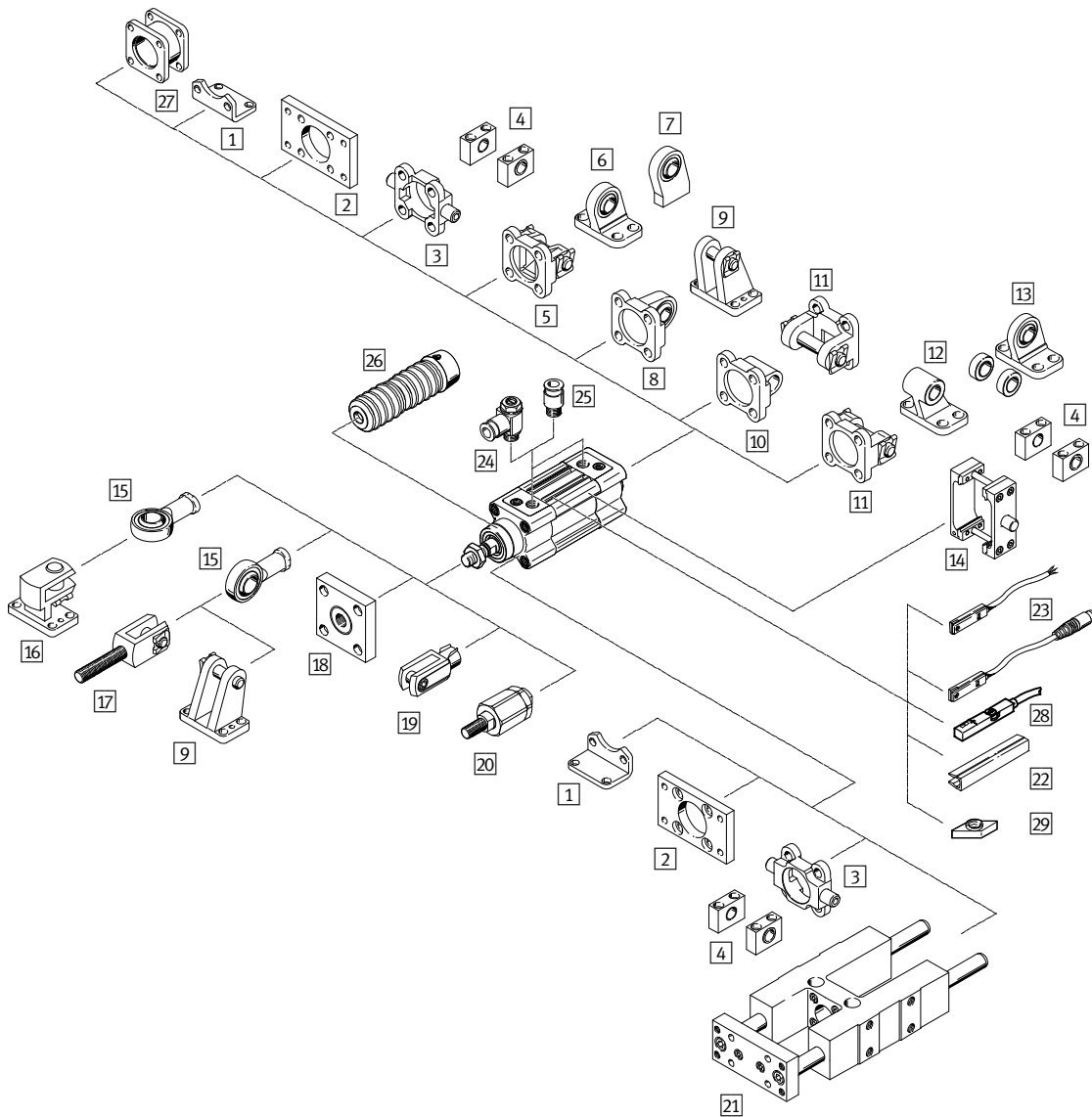
| Part No. | Type |
|-----------------------|---------------------|
| Piston Ø 50 mm | |
| 2098969 | DSBC-50-20-PPVA-N3 |
| 1366948 | DSBC-50-25-PPVA-N3 |
| 2098970 | DSBC-50-30-PPVA-N3 |
| 1366949 | DSBC-50-40-PPVA-N3 |
| 1366950 | DSBC-50-50-PPVA-N3 |
| 2098972 | DSBC-50-60-PPVA-N3 |
| 2098973 | DSBC-50-70-PPVA-N3 |
| 1366951 | DSBC-50-80-PPVA-N3 |
| 1366952 | DSBC-50-100-PPVA-N3 |
| 1366953 | DSBC-50-125-PPVA-N3 |
| 2098974 | DSBC-50-150-PPVA-N3 |
| 1366954 | DSBC-50-160-PPVA-N3 |
| 1366955 | DSBC-50-200-PPVA-N3 |
| 1366956 | DSBC-50-250-PPVA-N3 |
| 2098975 | DSBC-50-300-PPVA-N3 |
| 1366957 | DSBC-50-320-PPVA-N3 |
| 1366958 | DSBC-50-400-PPVA-N3 |
| 1366959 | DSBC-50-500-PPVA-N3 |
| Piston Ø 63 mm | |
| 2125490 | DSBC-63-20-PPVA-N3 |
| 1383578 | DSBC-63-25-PPVA-N3 |
| 2125491 | DSBC-63-30-PPVA-N3 |
| 1383579 | DSBC-63-40-PPVA-N3 |
| 1383580 | DSBC-63-50-PPVA-N3 |
| 2125492 | DSBC-63-60-PPVA-N3 |
| 2125493 | DSBC-63-70-PPVA-N3 |
| 1383581 | DSBC-63-80-PPVA-N3 |
| 1383582 | DSBC-63-100-PPVA-N3 |
| 1383583 | DSBC-63-125-PPVA-N3 |
| 2125494 | DSBC-63-150-PPVA-N3 |
| 1383584 | DSBC-63-160-PPVA-N3 |
| 1383585 | DSBC-63-200-PPVA-N3 |
| 1383586 | DSBC-63-250-PPVA-N3 |
| 2125495 | DSBC-63-300-PPVA-N3 |
| 1383587 | DSBC-63-320-PPVA-N3 |
| 1383588 | DSBC-63-400-PPVA-N3 |
| 1383589 | DSBC-63-500-PPVA-N3 |

| Part No. | Type |
|-----------------------|---------------------|
| Piston Ø 80 mm | |
| 2126594 | DSBC-80-20-PPVA-N3 |
| 1383333 | DSBC-80-25-PPVA-N3 |
| 2126595 | DSBC-80-30-PPVA-N3 |
| 1383334 | DSBC-80-40-PPVA-N3 |
| 1383335 | DSBC-80-50-PPVA-N3 |
| 2126597 | DSBC-80-60-PPVA-N3 |
| 2126598 | DSBC-80-70-PPVA-N3 |
| 1383336 | DSBC-80-80-PPVA-N3 |
| 1383337 | DSBC-80-100-PPVA-N3 |
| 1383338 | DSBC-80-125-PPVA-N3 |
| 2126599 | DSBC-80-150-PPVA-N3 |
| 1383339 | DSBC-80-160-PPVA-N3 |
| 1383340 | DSBC-80-200-PPVA-N3 |
| 1383341 | DSBC-80-250-PPVA-N3 |
| 2126600 | DSBC-80-300-PPVA-N3 |
| 1383342 | DSBC-80-320-PPVA-N3 |
| 1383343 | DSBC-80-400-PPVA-N3 |
| 1383344 | DSBC-80-500-PPVA-N3 |

1) All products in this table are easy to select and quick to order.

Standard cylinders DSBC, to ISO 15552

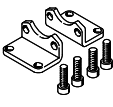
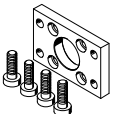
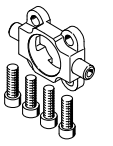
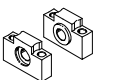
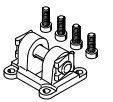
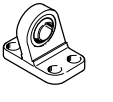

Accessories

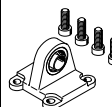
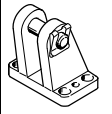
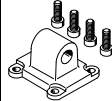
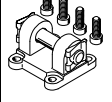

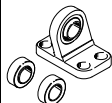


| | | → Page/online |
|----|--------------------------------------------------|----------------------------|
| 1 | Foot mounting HNC Foot mounting CRHNC | 69 dsbc |
| 2 | Flange mounting FNC Flange mounting CRFNG | 69 dsbc |
| 3 | Trunnion flange ZNCF Trunnion flange CRZNG | 69 dsbc |
| 4 | Trunnion support LNZG Trunnion support CRLNZG | 69 dsbc |
| 5 | Swivel flange SNC | 69 |
| 6 | Clevis foot LSNG | 69 |
| 7 | Clevis foot LSNSG | 69 |
| 8 | Swivel flange SNCS | 69 |
| 9 | Clevis foot LBG | 69 |
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| 13 | Clevis foot LSN | 69 |
| 14 | Trunnion mounting kit DAMT | 70 |
| 15 | Rod eye SGS Rod eye CRSGS | 70 dsbc |

| | | → Page/online |
|----|----------------------------------------------------------------|----------------------------|
| 16 | Right-angle clevis foot LQG | 70 |
| 17 | Rod clevis SGA | 70 |
| 18 | Coupling piece KSG Coupling piece KSZ | 70 70 |
| 19 | Rod clevis SG Rod clevis CRSG | 70 dsbc |
| 20 | Self-aligning rod coupler FK Self-aligning rod coupler CRFK | 70 dsbc |
| 21 | Guide unit FENG | 70 |
| 22 | Slot cover ABP-5-S | 70 |
| 23 | Proximity sensor SME/SMT-8M and connecting cable NEBU | 70 |
| 24 | One-way flow control valve GRLA | 71 |
| 25 | Push-in fitting QS | 1098 |
| 26 | Protective bellows kit DADB | dsbc |
| 27 | Multi-position kit DPNC | 71 |
| 28 | Position transmitter SMAT-8M/SDAT | dsbc |
| 29 | Slot nut ABAN | 71 |

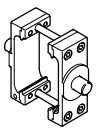



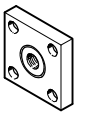
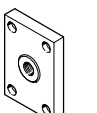
Accessories – Ordering data



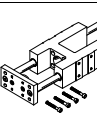
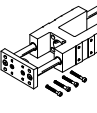

| | For Ø | | Part No. | Type |
|-------------------------------------------------------------------------------------|----------|--------|-----------|--------------|
| 1 Foot mounting Dimensions online: → dsbc | | | | |
|  | 32 | ★ | 174369 | HNC-32 |
| | 40 | ★ | 174370 | HNC-40 |
| | 50 | ★ | 174371 | HNC-50 |
| | 63 | ★ | 174372 | HNC-63 |
| | 80 | ★ | 174373 | HNC-80 |
| | 100 | | 174374 | HNC-100 |
| | 125 | | 174375 | HNC-125 |
| 2 Flange mounting Dimensions online: → dsbc | | | | |
|  | 32 | ★ | 174376 | FNC-32 |
| | 40 | ★ | 174377 | FNC-40 |
| | 50 | ★ | 174378 | FNC-50 |
| | 63 | ★ | 174379 | FNC-63 |
| | 80 | ★ | 174380 | FNC-80 |
| | 100 | | 174381 | FNC-100 |
| | 125 | | 174382 | FNC-125 |
| 3 Trunnion flange Dimensions online: → dsbc | | | | |
|  | 32 | | 174411 | ZNCF-32 |
| | 40 | | 174412 | ZNCF-40 |
| | 50 | | 174413 | ZNCF-50 |
| | 63 | | 174414 | ZNCF-63 |
| | 80 | | 174415 | ZNCF-80 |
| | 100 | | 174416 | ZNCF-100 |
| | 125 | | 174417 | ZNCF-125 |
| 4 Trunnion support Dimensions online: → lnzg | | | | |
|  | 32 | | 32959 | LNZG-32 |
| | 40, 50 | | 32960 | LNZG-40/50 |
| | 63, 80 | | 32961 | LNZG-63/80 |
| | 100, 125 | | 32962 | LNZG-100/125 |
| 5 Swivel flange Dimensions online: → dsbc | | | | |
|  | 32 | ★ | 174383 | SNC-32 |
| | 40 | ★ | 174384 | SNC-40 |
| | 50 | ★ | 174385 | SNC-50 |
| | 63 | ★ | 174386 | SNC-63 |
| | 80 | ★ | 174387 | SNC-80 |
| | 100 | | 174388 | SNC-100 |
| 125 | | 174389 | SNC-125 | |
| 6 Clevis foot Technical data online: → lsng | | | | |
|  | 32 | | 31740 | LSNG-32 |
| | 40 | | 31741 | LSNG-40 |
| | 50 | | 31742 | LSNG-50 |
| | 63 | | 31743 | LSNG-63 |
| | 80 | | 31744 | LSNG-80 |
| | 100 | | 31745 | LSNG-100 |
| 125 | | 31746 | LSNG-125 | |
| 7 Clevis foot Technical data online: → lsnsg | | | | |
|  | 32 | | 31747 | LSNSG-32 |
| | 40 | | 31748 | LSNSG-40 |
| | 50 | | 31749 | LSNSG-50 |
| | 63 | | 31750 | LSNSG-63 |
| | 80 | | 31751 | LSNSG-80 |
| | 100 | | 31752 | LSNSG-100 |
| 125 | | 31753 | LSNSG-125 | |

| | For Ø | | Part No. | Type |
|-------------------------------------------------------------------------------------|-------|-------|----------|----------|
| 8 Swivel flange Dimensions online: → dsbc | | | | |
|  | 32 | ★ | 174397 | SNCS-32 |
| | 40 | ★ | 174398 | SNCS-40 |
| | 50 | ★ | 174399 | SNCS-50 |
| | 63 | ★ | 174400 | SNCS-63 |
| | 80 | ★ | 174401 | SNCS-80 |
| | 100 | | 174402 | SNCS-100 |
| | 125 | | 174403 | SNCS-125 |
| 9 Clevis foot Technical data online: → lbg | | | | |
|  | 32 | | 31761 | LBG-32 |
| | 40 | | 31762 | LBG-40 |
| | 50 | | 31763 | LBG-50 |
| | 63 | | 31764 | LBG-63 |
| | 80 | | 31765 | LBG-80 |
| | 100 | | 31766 | LBG-100 |
| 125 | | 31767 | LBG-125 | |
| 10 Swivel flange Dimensions online: → dsbc | | | | |
|  | 32 | ★ | 174404 | SNCL-32 |
| | 40 | ★ | 174405 | SNCL-40 |
| | 50 | ★ | 174406 | SNCL-50 |
| | 63 | ★ | 174407 | SNCL-63 |
| | 80 | ★ | 174408 | SNCL-80 |
| | 100 | | 174409 | SNCL-100 |
| | 125 | | 174410 | SNCL-125 |
| 11 Swivel flange Dimensions online: → dsbc | | | | |
|  | 32 | ★ | 174390 | SNCB-32 |
| | 40 | ★ | 174391 | SNCB-40 |
| | 50 | ★ | 174392 | SNCB-50 |
| | 63 | ★ | 174393 | SNCB-63 |
| | 80 | ★ | 174394 | SNCB-80 |
| | 100 | | 174395 | SNCB-100 |
| | 125 | | 174396 | SNCB-125 |
| 12 Clevis foot Technical data online: → lng | | | | |
|  | 32 | ★ | 33890 | LNG-32 |
| | 40 | ★ | 33891 | LNG-40 |
| | 50 | ★ | 33892 | LNG-50 |
| | 63 | ★ | 33893 | LNG-63 |
| | 80 | ★ | 33894 | LNG-80 |
| | 100 | | 33895 | LNG-100 |
| 125 | | 33896 | LNG-125 | |
| 13 Clevis foot Technical data online: → lsn | | | | |
|  | 32 | | 5561 | LSN-32 |
| | 40 | | 5562 | LSN-40 |
| | 50 | | 5563 | LSN-50 |
| | 63 | | 5564 | LSN-63 |
| | 80 | | 5565 | LSN-80 |
| | 100 | | 5566 | LSN-100 |
| 125 | | 6987 | LSN-125 | |



Standard cylinders DSBC, to ISO 15552

Accessories – Ordering data

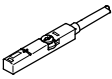






| | For Ø | Part No. | Type |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------|---------------|
| 14 Trunnion mounting kit Dimensions online: → dsbc | | | |
|  | 32 | ★ 2213233 | DAMT-V1-32-A |
| | 40 | ★ 2214899 | DAMT-V1-40-A |
| | 50 | ★ 2214909 | DAMT-V1-50-A |
| | 63 | ★ 2214971 | DAMT-V1-63-A |
| | 80 | ★ 163529 | DAMT-V1-80-A |
| | 100 | 163530 | DAMT-V1-100-A |
| | 125 | 1812524 | DAMT-V8-125-A |
| 15 Rod eye Technical data online: → sgs | | | |
|  | 32 | ★ 9261 | SGS-M10x1,25 |
| | 40 | ★ 9262 | SGS-M12x1,25 |
| | 50, 63 | ★ 9263 | SGS-M16x1,5 |
| | 80, 100 | ★ 9264 | SGS-M20x1,5 |
| | 125 | 10774 | SGS-M27x2 |
| | 16 Right-angle clevis foot Technical data online: → lqg | | |
|  | 32 | 31768 | LQG-32 |
| | 40 | 31769 | LQG-40 |
| | 50 | 31770 | LQG-50 |
| | 63 | 31771 | LQG-63 |
| | 80 | 31772 | LQG-80 |
| | 100 | 31773 | LQG-100 |
| | 125 | 31774 | LQG-125 |
| 17 Rod clevis Technical data online: → sga | | | |
|  | 32 | 32954 | SGA-M10x1,25 |
| | 40 | 10767 | SGA-M12x1,25 |
| | 50, 63 | 10768 | SGA-M16x1,5 |
| | 80, 100 | 10769 | SGA-M20x1,5 |
| | 125 | 10770 | SGA-M27x2 |
| | 18 Coupling piece Technical data online: → ksg | | |
|  | 32 | 32963 | KSG-M10x1,25 |
| | 40 | 32964 | KSG-M12x1,25 |
| | 50, 63 | 32965 | KSG-M16x1,5 |
| | 80, 100 | 32966 | KSG-M20x1,5 |
| | 125 | 32967 | KSG-M20x1,5 |
| 18 Coupling piece Technical data online: → ksz | | | |
|  | 32 | 36125 | KSZ-M10x1,25 |
| | 40 | 36126 | KSZ-M12x1,25 |
| | 50, 63 | 36127 | KSZ-M16x1,5 |
| | 80, 100 | 36128 | KSZ-M20x1,5 |


| | For Ø | Part No. | Type |
|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------|
| 19 Rod clevis Technical data online: → sg | | | |
|  | 32 | ★ 6144 | SG-M10x1,25 |
| | 40 | ★ 6145 | SG-M12x1,25 |
| | 50, 63 | ★ 6146 | SG-M16x1,5 |
| | 80, 100 | ★ 6147 | SG-M20x1,5 |
| | 125 | 14987 | SG-M27x2-B |
| 20 Self-aligning rod coupler Technical data online: → fk | | | |
|  | 32 | ★ 6140 | FK-M10x1,25 |
| | 40 | ★ 6141 | FK-M12x1,25 |
| | 50, 63 | ★ 6142 | FK-M16x1,5 |
| | 80, 100 | ★ 6143 | FK-M20x1,5 |
| | 125 | 10485 | FK-M27x2 |
| | 21 Guide unit for variable strokes from 10 ... 500 mm, with recirculating ball bearing guide Technical data online: → feng | | |
|  | 32 | 34487 | FENG-32-...-KF ¹ |
| | 40 | 34488 | FENG-40-...-KF ¹ |
| | 50 | 34489 | FENG-50-...-KF ¹ |
| | 63 | 34490 | FENG-63-...-KF ¹ |
| | 80 | 34491 | FENG-80-...-KF ¹ |
| | 100 | 34492 | FENG-100-...-KF ¹ |
| | 21 Guide unit for variable strokes from 10 ... 500 mm, with plain-bearing guide Technical data online: → feng | | |
|  | 32 | 34481 | FENG-32-...-GF ¹ |
| | 40 | 34482 | FENG-40-...-GF ¹ |
| | 50 | 34483 | FENG-50-...-GF ¹ |
| | 63 | 34484 | FENG-63-...-GF ¹ |
| | 80 | 34485 | FENG-80-...-GF ¹ |
| | 100 | 34486 | FENG-100-...-GF ¹ |
| | 22 Slot cover²⁾ | | |
|  | 32 ... 125 | 151680 | ABP-5-S |

- 1) Enter required stroke. Order example: the order code for an appropriate guide unit for the standard cylinder DSBC-40-250 is FENG-40-250-KF (guide unit FENG - piston diameter 40 mm - stroke: 250 mm - with recirculating ball bearing guide).
- 2) Packaging unit 2x 0.5 m.


| | For Ø | Cable length [m] | Part No. | Type |
|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|------------------|----------|---------------------------|
| 23 Proximity sensor for T-slot, magneto-resistive – N/O contact Technical data → 878 | | | | |
|  | PNP, cable | 2.5 | ★ 574335 | SMT-8M-A-PS-24V-E-2,5-OE |
| | PNP, plug connector | 0.3 | ★ 574334 | SMT-8M-A-PS-24V-E-0,3-M8D |
| | PNP, plug connector | 0.3 | ★ 574337 | SMT-8M-A-PS-24V-E-0,3-M12 |
| | NPN, cable | 2.5 | ★ 574338 | SMT-8M-A-NS-24V-E-2,5-OE |
| | NPN, plug connector | 0.3 | ★ 574339 | SMT-8M-A-NS-24V-E-0,3-M8D |
| | Magneto-resistive – N/C contact Technical data → 878 | | | |
|  | PNP, cable | 7.5 | ★ 574340 | SMT-8M-A-PO-24V-E-7,5-OE |

Accessories – Ordering data

| | For Ø | Cable length [m] | | Part No. | Type |
|------------------------------------------------------------------------------------------------------|----------------|------------------|---|----------|-------------------------|
| Magnetic reed – N/O contact Technical data → 873 | | | | | |
|  | Cable | 2.5 | ★ | 543862 | SME-8M-DS-24V-K-2,5-OE |
| | Cable | 5.0 | ★ | 543863 | SME-8M-DS-24V-K-5,0-OE |
| | Cable | 2.5 | ★ | 543872 | SME-8M-ZS-24V-K-2,5-OE |
| | Plug connector | 0.3 | ★ | 543861 | SME-8M-DS-24V-K-0,3-M8D |
| Magnetic reed – N/C contact Technical data → 875 | | | | | |
|  | Cable | 7.5 | ★ | 546799 | SME-8M-DO-24V-K-7,5-OE |
| 23 Connecting cable, straight socket Technical data → 1161 | | | | | |
|  | – | 2.5 | ★ | 541333 | NEBU-M8G3-K-2.5-LE3 |
| | – | 5.0 | ★ | 541334 | NEBU-M8G3-K-5-LE3 |
|  | – | 2.5 | ★ | 541363 | NEBU-M12G5-K-2.5-LE3 |
| | – | 5.0 | ★ | 541364 | NEBU-M12G5-K-5-LE3 |
| Angled socket Technical data → 1161 | | | | | |
|  | – | 2.5 | ★ | 541338 | NEBU-M8W3-K-2.5-LE3 |
| | – | 5.0 | ★ | 541341 | NEBU-M8W3-K-5-LE3 |
|  | – | 2.5 | | 541367 | NEBU-M12W5-K-2.5-LE3 |
| | – | 5.0 | | 541370 | NEBU-M12W5-K-5-LE3 |
| 27 Multi-position kit Technical data online: → dsbc | | | | | |
|  | 32 | – | | 174418 | DPNC-32 |
| | 40 | – | | 174419 | DPNC-40 |
| | 50 | – | | 174420 | DPNC-50 |
| | 63 | – | | 174421 | DPNC-63 |
| | 80 | – | | 174422 | DPNC-80 |
| | 100 | – | | 174423 | DPNC-100 |
| | 125 | – | | 174424 | DPNC-125 |

| Function | For Ø | Connection | | Part No. | Type |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|------|----------|------------------------------|
| | | Thread | O.D. | | |
| 24 One-way flow control valve for exhaust air flow control¹⁾ with slotted head screw, metal Technical data → 758 | | | | | |
|  | 32 | G $\frac{1}{8}$ | 4 | ★ 193143 | GRLA- $\frac{1}{8}$ -QS-4-D |
| | 40, 50 | G $\frac{1}{4}$ | 6 | ★ 193146 | GRLA- $\frac{1}{4}$ -QS-6-D |
| | 63, 80 | G $\frac{3}{8}$ | 8 | ★ 193150 | GRLA- $\frac{3}{8}$ -QS-8-D |
| | 100, 125 | G $\frac{1}{2}$ | 12 | ★ 193152 | GRLA- $\frac{1}{2}$ -QS-12-D |

1) The recommended flow control valves are based on a tubing length to the valve of 1 m. For deviations of $\pm 50\%$, flow control valves with a bigger or smaller flow rate must be selected to guarantee the optimum flow control function and cylinder speed.

| | For Ø | Cable length [m] | | Part No. | Type |
|-------------------------------------------------------------------------------------|------------|------------------|--|----------|---------------------------------|
| 29 Slot nut | | | | | |
|  | 32 ... 125 | – | | 8028500 | ABAN-8-1M4-5-P2 ²⁾ |
| | | | | 8028501 | ABAN-8-1M4-5-P100 ³⁾ |

2) Packaging unit 2 pieces.

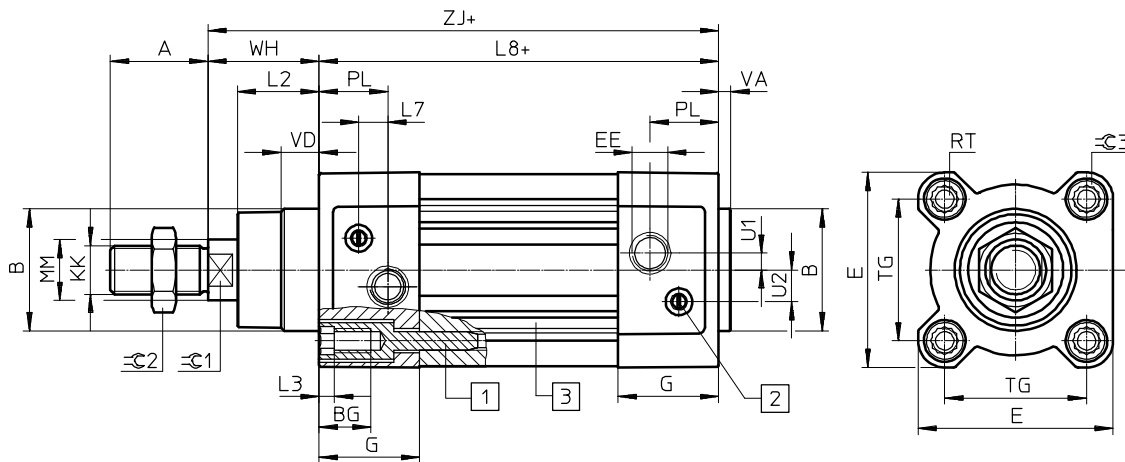
3) Packaging unit 100 pieces.

Standard cylinders DSBC, to ISO 15552

1

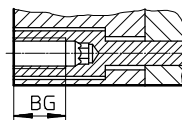
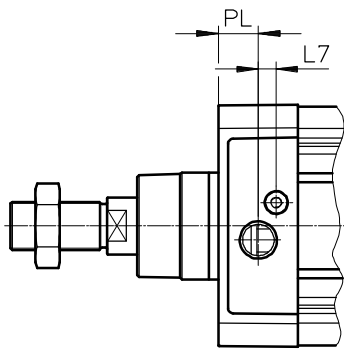
Dimensions

Basic design and A3 – Unlubricated operation



Ø 125

Ø 80/125



+ = plus stroke length

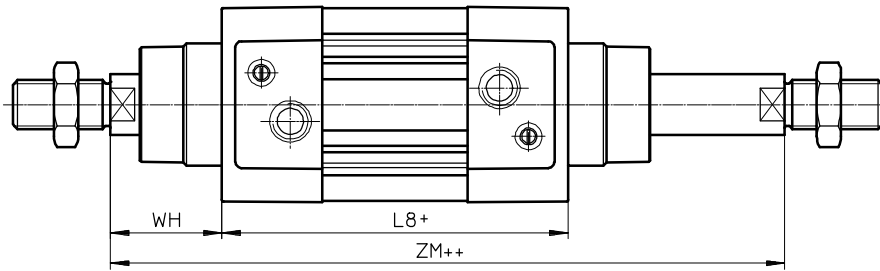
- 1 Socket head screw with female thread for mounting components
- 2 Regulating screw for adjustable end-position cushioning
- 3 Slot for proximity sensor

| Ø | A | B | BG | E | EE | G | U2 | U1 | KK | L2 | L3 | L7 | L8 |
|------|------|-------|------|------|------|------|-------|------|----------|----------------------|------|-----|------|
| [mm] | -0.5 | Ø d11 | min. | +0.5 | | -0.2 | ±0.1 | ±0.1 | | | max. | | ±0.4 |
| 32 | 22 | 30 | 16 | 45 | G1/8 | 28 | 5.7 | 5.25 | M10x1.25 | 18 _{-0.2} | 5 | 6.5 | 94 |
| 40 | 24 | 35 | 16 | 54 | G1/4 | 33 | 8 | 4 | M12x1.25 | 21.3 _{-0.2} | 5 | 7.5 | 105 |
| 50 | 32 | 40 | 16 | 64 | G1/4 | 33 | 10.4 | 5.5 | M16x1.5 | 26.8 _{-0.2} | 5 | 9.5 | 106 |
| 63 | 32 | 45 | 16 | 75 | G3/8 | 40.5 | 12.75 | 6.25 | M16x1.5 | 27 _{-0.2} | 5 | 9 | 121 |
| 80 | 40 | 45 | 17 | 93 | G3/8 | 43 | 12.5 | 8 | M20x1.5 | 34.2 _{-0.2} | - | 11 | 128 |
| 100 | 40 | 55 | 17 | 110 | G1/2 | 48 | 13.5 | 10 | M20x1.5 | 38 _{-0.2} | - | 7.5 | 138 |
| 125 | 54 | 60 | 20 | 136 | G1/2 | 44.7 | 13 | 8 | M27x2 | 45.5 _{-0.3} | - | 10 | 160 |

| Ø | MM | PL | RT | TG | VA | VD | WH | ZJ | ⊖C1 | ⊖C2 | ⊖C3 |
|------|----|------|-----|------|-------------------|------|------|-------|-----|-----|-----|
| [mm] | Ø | ±0.1 | | ±0.3 | | +0.5 | +2.2 | +1.8 | | | |
| 32 | 12 | 19.5 | M6 | 32.5 | 4 _{-0.2} | 10 | 25 | 119.1 | 10 | 16 | 6 |
| 40 | 16 | 22.5 | M6 | 38 | 4 _{-0.2} | 10.5 | 28.7 | 133.9 | 13 | 18 | 6 |
| 50 | 20 | 22.5 | M8 | 46.5 | 4 _{-0.2} | 11.5 | 35.6 | 141.8 | 17 | 24 | 8 |
| 63 | 20 | 27.5 | M8 | 56.5 | 4 _{-0.2} | 15 | 35.9 | 157.1 | 17 | 24 | 8 |
| 80 | 25 | 30 | M10 | 72 | 4 _{-0.2} | 15.7 | 45.4 | 173.6 | 22 | 30 | 6 |
| 100 | 25 | 31.5 | M10 | 89 | 4 _{-0.2} | 19.2 | 49.3 | 187.5 | 22 | 30 | 6 |
| 125 | 32 | 22.5 | M12 | 110 | 6 _{-0.3} | 20.5 | 64.1 | 225 | 27 | 41 | 8 |

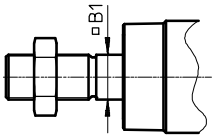
Dimensions

T – Through piston rod



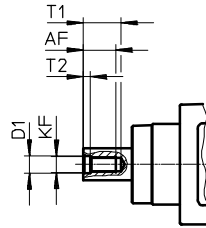
+ = plus stroke length
++ = plus 2x stroke length

Q – With protection against rotation



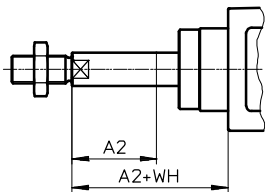
Note
Protection against rotation at one end in combination with the variant T.

F – Female thread



Note
Female thread at both ends in combination with the variant T.

...E – Piston rod extension



Note
Piston rod extension only at the square piston rod in combination with the variant T and Q.

+ = plus stroke length

| Ø [mm] | A2 | | AF | B1 | D1 | KF |
|-----------|------|------|------|----|------|-----|
| | min. | max. | min. | | | |
| 32 | 1 | 500 | 12 | 10 | 6.4 | M6 |
| 40 | 1 | 500 | 12 | 12 | 8.4 | M8 |
| 50 | 1 | 500 | 16 | 16 | 10.5 | M10 |
| 63 | 1 | 500 | 16 | 16 | 10.5 | M10 |
| 80 | 1 | 500 | 20 | 20 | 13 | M12 |
| 100 | 1 | 500 | 20 | 20 | 13 | M12 |
| 125 | 1 | 500 | 32 | – | 17 | M16 |

| Ø [mm] | L8 | T1 | T2 | WH | ZM |
|-----------|------|------|-----|------|-------|
| | ±0.4 | max. | | +2.2 | +1 |
| 32 | 94 | 16 | 2.6 | 25 | 146.1 |
| 40 | 105 | 16 | 3.3 | 28.7 | 164.8 |
| 50 | 106 | 21 | 4.7 | 35.6 | 179.8 |
| 63 | 121 | 21 | 4.7 | 35.9 | 195.4 |
| 80 | 128 | 26.5 | 6.1 | 45.4 | 221 |
| 100 | 138 | 26.5 | 6.1 | 49.3 | 238.8 |
| 125 | 160 | 40 | 8 | 64.1 | 290 |



Overview/Configuration/Ordering
→ www.festo.com/catalogue/dsbg



Additional information/Support/User documentation
→ www.festo.com/sp/dsbg

Cylinders with piston rod
Standard cylinders
Cylinders to ISO 15552

DSBG



- + ISO 15552 (ISO 6431, VDMA 24562)
- + Sturdy tie rod design
- + For contactless position sensing
- + Optionally with protection against rotation
- + Extensive range of accessories makes it possible to install the cylinder virtually anywhere



- Sturdy tie rod design
- Strokes of up to 2800 mm
- PPS cushioning with ample cushioning capacity
- Wide range of variants for customised applications
- Comprehensive range of mounting accessories for just about every type of installation
- Spare parts service
- Piston Ø 160 ... 320 → 85

→ www.festo.com/catalogue/dsbg

Product range overview – Piston Ø 32 ... 125

| Type/function | Piston Ø [mm] | Stroke [mm] | Force [N] | Product options | | | | | | | | | | | | | | | |
|---------------|------------------------------------|----------------|--------------|-----------------|---|---|---|-----|-----|---|----|----|----|----|----|------|------|---|---|
| | | | | Q | T | F | P | PPS | PPV | A | N3 | T1 | T3 | T4 | A3 | ...V | ...E | | |
| DSBG | | | | | | | | | | | | | | | | | | | |
| Double-acting | 32, 40, 50, 63, 80, 100, 125 | 1 ... 2800 | 483 ... 7363 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |

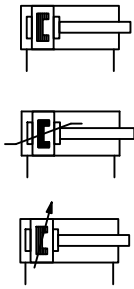
Product options

| | | | | | | | |
|---|----------------------------------|-----|---------------------------------------------------|----|----------------------------------------|------|-------------------------------------|
| Q | With protection against rotation | P | Elastic cushioning rings/plates at both ends | R3 | High corrosion protection | A3 | Suitable for unlubricated operation |
| L | Low friction | PPS | Pneumatic cushioning, self-adjusting at both ends | T1 | Heat-resistant seals up to max. 120 °C | EX4 | EU certification (II 2GD) |
| U | Uniformly slow movement | PPV | Pneumatic cushioning, adjustable at both ends | T3 | Low temperature | ...V | Swivel mounting position |
| T | Through piston rod | A | Position sensing | T4 | Heat-resistant seals up to max. 150 °C | ...E | Piston rod extension |
| F | Female piston rod thread | N3 | Standard conforms to ISO 15552 | P2 | Bellows on bearing cap | ...L | Piston rod thread extension |
| | | | | A2 | Hard scraper | | |

Standard cylinders DSBG, to ISO 15552

1

Technical data – Piston Ø 32 ... 125



| Technical data | | Dimensions → 82 | | | | | | |
|-----------------------------------------|------|---------------------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Piston Ø | | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| Pneumatic connection | | G ¹ / ₈ | G ¹ / ₄ | G ¹ / ₄ | G ³ / ₈ | G ³ / ₈ | G ¹ / ₂ | G ¹ / ₂ |
| Piston rod thread | | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 | M20x1.5 | M20x1.5 | M27x2 |
| Stroke | | | | | | | | |
| DSBG-... | [mm] | 1 ... 2800 | | | | | | |
| DSBG-...-Q | [mm] | 1 ... 1500 | | | | | | |
| DSBG-...-E | [mm] | 1 ... 2000 | | | | | | |
| Cushioning | | | | | | | | |
| DSBG-...-P | | Elastic cushioning rings/plates at both ends | | | | | | |
| DSBG-...-PPS | | Pneumatic cushioning, self-adjusting at both ends | | | | | | |
| DSBG-...-PPV | | Pneumatic cushioning, adjustable at both ends | | | | | | |
| Cushioning length | [mm] | 17 | 19 | 22 | 22 | 31 | 31 | 45 |
| Theoretical force at 6 bar, advancing | [N] | 483 | 754 | 1178 | 1870 | 3016 | 4712 | 7363 |
| Theoretical force at 6 bar, retracting | [N] | 415 | 633 | 990 | 1682 | 2721 | 4418 | 6881 |
| Max. impact energy in the end positions | | | | | | | | |
| DSBG-... | [J] | 0.4 | 0.7 | 1.0 | 1.3 | 1.8 | 2.5 | 3.3 |
| DSBG-...-T1, T3, T4 | [J] | 0.2 | 0.35 | 0.5 | 0.65 | 0.9 | 1.25 | 1.65 |

| Operating conditions | | | | | | | | |
|-----------------------------------|-------|-------------|----|------------|------------|----|------------|-----|
| Piston Ø | | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| Operating pressure | | | | | | | | |
| DSBG-... | [bar] | 0.6 ... 12 | | 0.4 ... 12 | | | 0.2 ... 10 | |
| DSBG-...-T3 | [bar] | 1 ... 12 | | | | | 1 ... 10 | |
| DSBG-...-A3 | [bar] | 1.5 ... 12 | | 1 ... 12 | 0.6 ... 12 | | 0.6 ... 10 | |
| Ambient temperature ¹⁾ | | | | | | | | |
| DSBG-... | [°C] | -20 ... +80 | | | | | | |
| DSBG-...-T1 | [°C] | 0 ... +120 | | | | | | |
| DSBG-...-T3 | [°C] | -40 ... +80 | | | | | | |
| DSBG-...-T4 | [°C] | 0 ... +150 | | | | | | |

1) Note operating range of proximity sensors.

| Materials | |
|-----------------|----------------------------------|
| Piston rod | High-alloy steel |
| Bearing cap | Coated die-cast aluminium |
| Cylinder barrel | Anodised wrought aluminium alloy |
| End cap | Coated die-cast aluminium |
| Seals | TPE-U (PU), NBR |

Ordering – Product options



Configurable product

This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
[→ www.festo.com/catalogue/...](http://www.festo.com/catalogue/...)

Enter the type code in the search field.

Order code – Piston \varnothing 32 ... 125

| | | | | | | | | | | | | | | | |
|------------------------------|--------------------------------------------------------|------|---|---|---|---|---|---|---|---|---|------------|---|---|--|
| Type | | DSBG | - | - | - | - | - | - | - | A | - | - | - | - | |
| DSBG | Standard cylinder, double-acting | | | | | | | | | | | | | | |
| Protection against rotation | | | | | | | | | | | | | | | |
| - | None | | | | | | | | | | | | | | |
| Q | With protection against rotation | | | | | | | | | | | | | 1 | |
| Piston \varnothing [mm] | | | | | | | | | | | | | | | |
| Stroke [mm] | | | | | | | | | | | | | | | |
| 32, 40, 50, 63, 80, 100, 125 | 25, 40, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500 | | | | | | | | | | | 1 ... 2800 | | | |
| Piston rod type | | | | | | | | | | | | | | | |
| - | Piston rod at one end | | | | | | | | | | | | | | |
| T | Through piston rod | | | | | | | | | | | | | | |
| Piston rod thread type | | | | | | | | | | | | | | | |
| - | Male thread | | | | | | | | | | | | | | |
| F | Female thread | | | | | | | | | | | | | | |
| Cushioning | | | | | | | | | | | | | | | |
| P | Elastic cushioning rings/plates at both ends | | | | | | | | | | | | | | |
| PPS | Pneumatic cushioning, self-adjusting at both ends | | | | | | | | | | | | | 2 | |
| PPV | Pneumatic cushioning, adjustable at both ends | | | | | | | | | | | | | | |
| Position sensing | | | | | | | | | | | | | | | |
| A | Via proximity sensor | | | | | | | | | | | | | | |
| Standard | | | | | | | | | | | | | | | |
| - | Based on ISO 15552 | | | | | | | | | | | | | | |
| N3 | Conforms to ISO 15552 | | | | | | | | | | | | | | |
| Temperature range | | | | | | | | | | | | | | | |
| - | Standard | | | | | | | | | | | | | | |
| T1 | Heat resistant up to max. 120 °C | | | | | | | | | | | | | | |
| T3 | Low temperature | | | | | | | | | | | | | | |
| T4 | Heat resistant up to max. 150 °C | | | | | | | | | | | | | | |
| Wiper seal variant | | | | | | | | | | | | | | | |
| - | None | | | | | | | | | | | | | | |
| A3 | Suitable for unlubricated operation | | | | | | | | | | | | | 2 | |
| Swivel mounting position | | | | | | | | | | | | | | | |
| - | None | | | | | | | | | | | | | | |
| ...V | 0 ... 2800 mm | | | | | | | | | | | | | | |
| Piston rod extension | | | | | | | | | | | | | | | |
| - | None | | | | | | | | | | | | | | |
| ...E | 1 ... 500 mm | | | | | | | | | | | | | 3 | |

1 Not with piston \varnothing 125, or wiper seal variant A3 only up to strokes of 1500 mm
not with standard N3 or temperature range T3, T4

2 Not with temperature range T1, T3, T4

3 Only up to strokes of 2000 mm

Order example:

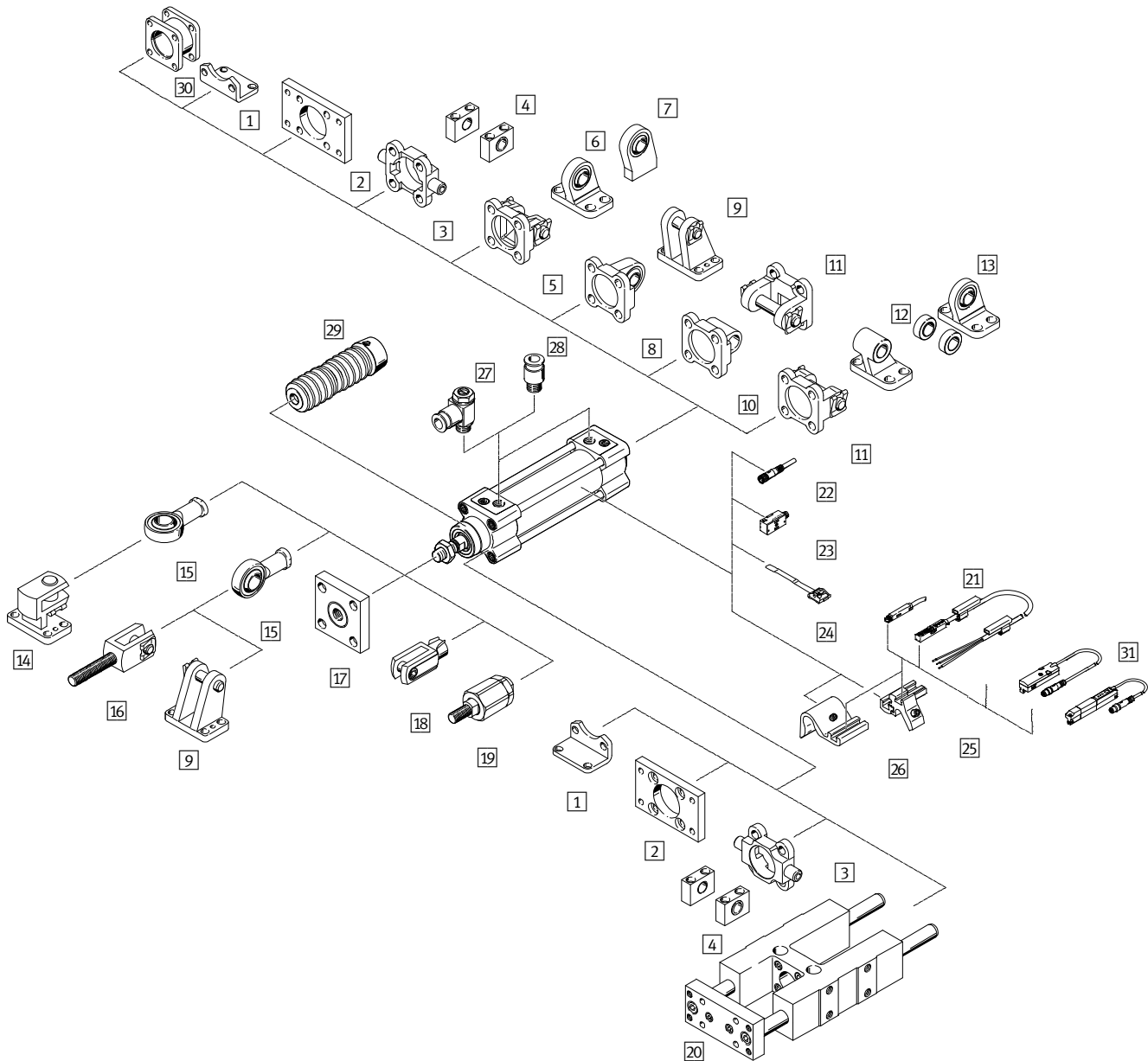
DSBG-32-500-PPVA-N3T1

Double-acting standard cylinder - without protection against rotation - piston diameter 32 mm - stroke 500 mm - piston rod at one end - male thread - pneumatic cushioning, adjustable at both ends - position sensing via proximity sensor - standard conforms to ISO 15552 - heat resistant up to max. 120 °C - no wiper seal variant - without swivel mounting position - without piston rod extension

Standard cylinders DSBG, to ISO 15552

1

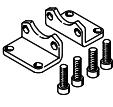
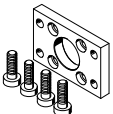
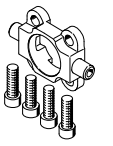
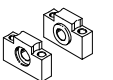
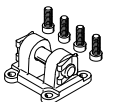
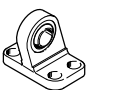
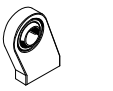
Accessories – Piston \varnothing 32 ... 125

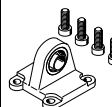
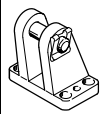
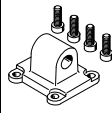
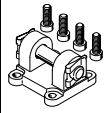
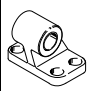
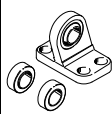


| | | → Page/online |
|----|--------------------------------------------------|----------------------------|
| 1 | Foot mounting HNC Foot mounting CRHNC | 79 dsbg |
| 2 | Flange mounting FNC Flange mounting CRFNG | 79 dsbg |
| 3 | Trunnion flange ZNCF Trunnion flange CRZNG | 79 dsbg |
| 4 | Trunnion support LNZG Trunnion support CRLNZG | 79 dsbg |
| 5 | Swivel flange SNC | 79 |
| 6 | Clevis foot LSNG | 79 |
| 7 | Clevis foot LSNSG | 79 |
| 8 | Swivel flange SNCS | 79 |
| 9 | Clevis foot LBG | 79 |
| 10 | Swivel flange SNCL | 79 |
| 11 | Swivel flange SNCB | 79 |
| 12 | Clevis foot LNG | 79 |
| 13 | Clevis foot LSN | 79 |
| 14 | Right-angle clevis foot LQG | 80 |
| 15 | Rod eye SGS Rod eye CRSGS | 80 dsbg |

| | | → Page/online |
|----|----------------------------------------------------------------|----------------------------|
| 16 | Rod clevis SGA | 80 |
| 17 | Coupling piece KSG Coupling piece KSZ | 80 |
| 18 | Rod clevis SG Rod clevis CRSG | 80 dsbg |
| 19 | Self-aligning rod coupler FK Self-aligning rod coupler CRFK | 80 dsbg |
| 20 | Guide unit FENG | 80 |
| 21 | Proximity sensor SME/SMT-8M | 80 |
| 22 | Connecting cable NEBU | 81 |
| 23 | Proximity sensor SMPO-1 | 81 |
| 24 | Mounting kit SMBS | 81 |
| 25 | Mounting kit SMBZ | 81 |
| 26 | Mounting kit DASP | 81 |
| 27 | One-way flow control valve GRLA | 81 |
| 28 | Push-in fitting QS | 1098 |
| 29 | Protective bellows kit DADB | dsbg |
| 30 | Multi-position kit DPNC | 81 |
| 31 | Position transmitter SMAT-8M/SDAT | dsbg |




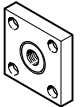
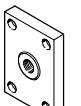
Accessories – Ordering data – Piston \varnothing 32 ... 125



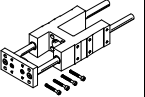
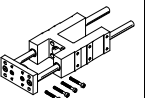
| | For \varnothing | | Part No. | Type |
|-------------------------------------------------------------------------------------|-------------------|--------|----------|--------------|
| 1 Foot mounting Dimensions online: → dsbg | | | | |
|  | 32 | ★ | 174369 | HNC-32 |
| | 40 | ★ | 174370 | HNC-40 |
| | 50 | ★ | 174371 | HNC-50 |
| | 63 | ★ | 174372 | HNC-63 |
| | 80 | ★ | 174373 | HNC-80 |
| | 100 | | 174374 | HNC-100 |
| | 125 | | 174375 | HNC-125 |
| 2 Flange mounting Dimensions online: → dsbg | | | | |
|  | 32 | ★ | 174376 | FNC-32 |
| | 40 | ★ | 174377 | FNC-40 |
| | 50 | ★ | 174378 | FNC-50 |
| | 63 | ★ | 174379 | FNC-63 |
| | 80 | ★ | 174380 | FNC-80 |
| | 100 | | 174381 | FNC-100 |
| | 125 | | 174382 | FNC-125 |
| 3 Trunnion flange Dimensions online: → dsbg | | | | |
|  | 32 | | 174411 | ZNCF-32 |
| | 40 | | 174412 | ZNCF-40 |
| | 50 | | 174413 | ZNCF-50 |
| | 63 | | 174414 | ZNCF-63 |
| | 80 | | 174415 | ZNCF-80 |
| | 100 | | 174416 | ZNCF-100 |
| | 125 | | 174417 | ZNCF-125 |
| 4 Trunnion support Dimensions online: → lnzg | | | | |
|  | 32 | | 32959 | LNZG-32 |
| | 40, 50 | | 32960 | LNZG-40/50 |
| | 63, 80 | | 32961 | LNZG-63/80 |
| | 100, 125 | | 32962 | LNZG-100/125 |
| 5 Swivel flange Dimensions online: → dsbg | | | | |
|  | 32 | ★ | 174383 | SNC-32 |
| | 40 | ★ | 174384 | SNC-40 |
| | 50 | ★ | 174385 | SNC-50 |
| | 63 | ★ | 174386 | SNC-63 |
| | 80 | ★ | 174387 | SNC-80 |
| | 100 | | 174388 | SNC-100 |
| 125 | | 174389 | SNC-125 | |
| 6 Clevis foot Technical data online: → lsng | | | | |
|  | 32 | | 31740 | LSNG-32 |
| | 40 | | 31741 | LSNG-40 |
| | 50 | | 31742 | LSNG-50 |
| | 63 | | 31743 | LSNG-63 |
| | 80 | | 31744 | LSNG-80 |
| | 100 | | 31745 | LSNG-100 |
| 125 | | 31746 | LSNG-125 | |
| 7 Clevis foot Technical data online: → lsng | | | | |
|  | 32 | | 31747 | LSNSG-32 |
| | 40 | | 31748 | LSNSG-40 |
| | 50 | | 31749 | LSNSG-50 |
| | 63 | | 31750 | LSNSG-63 |
| | 80 | | 31751 | LSNSG-80 |
| | 100 | | 31752 | LSNSG-100 |
| | 125 | | 31753 | LSNSG-125 |

| | For \varnothing | | Part No. | Type |
|-------------------------------------------------------------------------------------|-------------------|---|----------|----------|
| 8 Swivel flange Dimensions online: → dsbg | | | | |
|  | 32 | ★ | 174397 | SNCS-32 |
| | 40 | ★ | 174398 | SNCS-40 |
| | 50 | ★ | 174399 | SNCS-50 |
| | 63 | ★ | 174400 | SNCS-63 |
| | 80 | ★ | 174401 | SNCS-80 |
| | 100 | | 174402 | SNCS-100 |
| | 125 | | 174403 | SNCS-125 |
| 9 Clevis foot Technical data online: → lbg | | | | |
|  | 32 | | 31761 | LBG-32 |
| | 40 | | 31762 | LBG-40 |
| | 50 | | 31763 | LBG-50 |
| | 63 | | 31764 | LBG-63 |
| | 80 | | 31765 | LBG-80 |
| | 100 | | 31766 | LBG-100 |
| | 125 | | 31767 | LBG-125 |
| 10 Swivel flange Dimensions online: → dsbg | | | | |
|  | 32 | ★ | 174404 | SNCL-32 |
| | 40 | ★ | 174405 | SNCL-40 |
| | 50 | ★ | 174406 | SNCL-50 |
| | 63 | ★ | 174407 | SNCL-63 |
| | 80 | ★ | 174408 | SNCL-80 |
| | 100 | | 174409 | SNCL-100 |
| | 125 | | 174410 | SNCL-125 |
| 11 Swivel flange Dimensions online: → dsbg | | | | |
|  | 32 | ★ | 174390 | SNCB-32 |
| | 40 | ★ | 174391 | SNCB-40 |
| | 50 | ★ | 174392 | SNCB-50 |
| | 63 | ★ | 174393 | SNCB-63 |
| | 80 | ★ | 174394 | SNCB-80 |
| | 100 | | 174395 | SNCB-100 |
| | 125 | | 174396 | SNCB-125 |
| 12 Clevis foot Technical data online: → lng | | | | |
|  | 32 | ★ | 33890 | LNG-32 |
| | 40 | ★ | 33891 | LNG-40 |
| | 50 | ★ | 33892 | LNG-50 |
| | 63 | ★ | 33893 | LNG-63 |
| | 80 | ★ | 33894 | LNG-80 |
| | 100 | | 33895 | LNG-100 |
| | 125 | | 33896 | LNG-125 |
| 13 Clevis foot Technical data online: → lsn | | | | |
|  | 32 | | 5561 | LSN-32 |
| | 40 | | 5562 | LSN-40 |
| | 50 | | 5563 | LSN-50 |
| | 63 | | 5564 | LSN-63 |
| | 80 | | 5565 | LSN-80 |
| | 100 | | 5566 | LSN-100 |
| | 125 | | 6987 | LSN-125 |

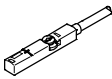
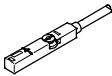
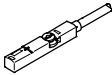

Standard cylinders DSBG, to ISO 15552

Accessories – Ordering data – Piston Ø 32 ... 125






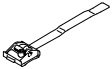



| | For Ø | Part No. | Type |
|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------|--------------|
| 14 Right-angle clevis foot Technical data online: → lqg | | | |
|  | 32 | 31768 | LQG-32 |
| | 40 | 31769 | LQG-40 |
| | 50 | 31770 | LQG-50 |
| | 63 | 31771 | LQG-63 |
| | 80 | 31772 | LQG-80 |
| | 100 | 31773 | LQG-100 |
| | 125 | 31774 | LQG-125 |
| 15 Rod eye Technical data online: → sgs | | | |
|  | 32 | ★ 9261 | SGS-M10x1,25 |
| | 40 | ★ 9262 | SGS-M12x1,25 |
| | 50, 63 | ★ 9263 | SGS-M16x1,5 |
| | 80, 100 | ★ 9264 | SGS-M20x1,5 |
| | 125 | 10774 | SGS-M27x2 |
| | 16 Rod clevis Technical data online: → sga | | |
|  | 32 | 32954 | SGA-M10x1,25 |
| | 40 | 10767 | SGA-M12x1,25 |
| | 50, 63 | 10768 | SGA-M16x1,5 |
| | 80, 100 | 10769 | SGA-M20x1,5 |
| | 125 | 10770 | SGA-M27x2 |
| 17 Coupling piece Technical data online: → ksg | | | |
|  | 32 | 32963 | KSG-M10x1,25 |
| | 40 | 32964 | KSG-M12x1,25 |
| | 50, 63 | 32965 | KSG-M16x1,5 |
| | 80, 100 | 32966 | KSG-M20x1,5 |
| | 125 | 32967 | KSG-M27x2 |
| 17 Coupling piece Technical data online: → ksz | | | |
|  | 32 | 36125 | KSZ-M10x1,25 |
| | 40 | 36126 | KSZ-M12x1,25 |
| | 50, 63 | 36127 | KSZ-M16x1,5 |
| | 80, 100 | 36128 | KSZ-M20x1,5 |


| | For Ø | Part No. | Type |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------|
| 18 Rod clevis Technical data online: → sg | | | |
|  | 32 | ★ 6144 | SG-M10x1,25 |
| | 40 | ★ 6145 | SG-M12x1,25 |
| | 50, 63 | ★ 6146 | SG-M16x1,5 |
| | 80, 100 | ★ 6147 | SG-M20x1,5 |
| | 125 | 14987 | SG-M27x2-B |
| 19 Self-aligning rod coupler Technical data online: → fk | | | |
|  | 32 | ★ 6140 | FK-M10x1,25 |
| | 40 | ★ 6141 | FK-M12x1,25 |
| | 50, 63 | ★ 6142 | FK-M16x1,5 |
| | 80, 100 | ★ 6143 | FK-M20x1,5 |
| | 125 | 10485 | FK-M27x2 |
| | 20 Guide unit for variable strokes from 10 ... 500 mm, with recirculating ball bearing guide Technical data online: → feng | | |
|  | 32 | 34487 | FENG-32-...-KF ¹ |
| | 40 | 34488 | FENG-40-...-KF ¹ |
| | 50 | 34489 | FENG-50-...-KF ¹ |
| | 63 | 34490 | FENG-63-...-KF ¹ |
| | 80 | 34491 | FENG-80-...-KF ¹ |
| | 100 | 34492 | FENG-100-...-KF ¹ |
| | 20 Guide unit for variable strokes from 10 ... 500 mm, with plain-bearing guide Technical data online: → feng | | |
|  | 32 | 34481 | FENG-32-...-GF ¹ |
| | 40 | 34482 | FENG-40-...-GF ¹ |
| | 50 | 34483 | FENG-50-...-GF ¹ |
| | 63 | 34484 | FENG-63-...-GF ¹ |
| | 80 | 34485 | FENG-80-...-GF ¹ |
| | 100 | 34486 | FENG-100-...-GF ¹ |

1) Enter required stroke. Order example: the order code for an appropriate guide unit for the standard cylinder DSBG-40-250 is FENG-40-250-KF (guide unit FENG - piston diameter 40 mm - stroke 250 mm - with recirculating ball bearing guide).


| | For Ø | Cable length [m] | Part No. | Type |
|------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|----------|---------------------------|
| 21 Proximity sensor for T-slot, magneto-resistive – N/O contact Technical data → 878 | | | | |
|  | PNP, cable | 2.5 | ★ 574335 | SMT-8M-A-PS-24V-E-2,5-OE |
| | PNP, plug connector | 0.3 | ★ 574334 | SMT-8M-A-PS-24V-E-0,3-M8D |
| | PNP, plug connector | 0.3 | ★ 574337 | SMT-8M-A-PS-24V-E-0,3-M12 |
| | NPN, cable | 2.5 | ★ 574338 | SMT-8M-A-NS-24V-E-2,5-OE |
| | NPN, plug connector | 0.3 | ★ 574339 | SMT-8M-A-NS-24V-E-0,3-M8D |
| Magneto-resistive – N/C contact Technical data → 878 | | | | |
|  | PNP, cable | 7.5 | ★ 574340 | SMT-8M-A-PO-24V-E-7,5-OE |
| 21 Magnetic reed – N/O contact Technical data → 873 | | | | |
|  | Cable | 2.5 | ★ 543862 | SME-8M-DS-24V-K-2,5-OE |
| | Cable | 5.0 | ★ 543863 | SME-8M-DS-24V-K-5,0-OE |
| | Cable | 2.5 | ★ 543872 | SME-8M-ZS-24V-K-2,5-OE |
| | Plug connector | 0.3 | ★ 543861 | SME-8M-DS-24V-K-0,3-M8D |
| Magnetic reed – N/C contact Technical data → 875 | | | | |
|  | Cable | 7.5 | ★ 546799 | SME-8M-DO-24V-K-7,5-OE |

Accessories – Ordering data – Piston Ø 32 ... 125

| | For Ø | Cable length [m] | Part No. | Type | |
|-------------------------------------------------------------------------------------|-------------------------|------------------|----------|----------------------|-------------------------------|
| 22 Connecting cable, straight socket | | | | | Technical data → 1161 |
|  | – | 2.5 | ★ 541333 | NEBU-M8G3-K-2.5-LE3 | |
| | – | 5.0 | ★ 541334 | NEBU-M8G3-K-5-LE3 | |
|  | – | 2.5 | ★ 541363 | NEBU-M12G5-K-2.5-LE3 | |
| | – | 5.0 | ★ 541364 | NEBU-M12G5-K-5-LE3 | |
| Angled socket | | | | | Technical data → 1161 |
|  | – | 2.5 | ★ 541338 | NEBU-M8W3-K-2.5-LE3 | |
| | – | 5.0 | ★ 541341 | NEBU-M8W3-K-5-LE3 | |
|  | – | 2.5 | 541367 | NEBU-M12W5-K-2.5-LE3 | |
| | – | 5.0 | 541370 | NEBU-M12W5-K-5-LE3 | |
| 23 Proximity sensor in block design, magnetic reed – N/O contact, pneumatic | | | | | Technical data online: → smeo |
|  | – | – | 31008 | SMPO-1-H-B | |
| 24 Mounting kit for proximity sensor SMPO-1 | | | | | |
|  | 32, 40, 50, 63, 80, 100 | – | 151226 | SMBS-2 | |
| 25 Mounting kit for proximity sensor SME/SMT-8 | | | | | |
|  | 32, 40, 50, 63, 80, 100 | – | 537806 | SMBZ-8-32/100 | |
|  | 32, 40, 50, 63, 80, 100 | – | ★ 538937 | SMBR-8-8/100-S6 | |
| 26 Mounting kit for proximity sensor SME/SMT-8 | | | | | |
|  | 125 | – | 1451483 | DASP-M4-125-A | |

| Function | For Ø | Connection | | Part No. | Type |
|---------------------------------------------------------------------------------------------------------------|----------|------------|------|----------|------------------|
| | | Thread | O.D. | | |
| 27 One-way flow control valve for exhaust air flow control¹⁾ with slotted head screw, metal | | | | | |
|  | 32 | G1/8 | 4 | ★ 193143 | GRLA-1/8-QS-4-D |
| | 40, 50 | G1/4 | 6 | ★ 193146 | GRLA-1/4-QS-6-D |
| | 63, 80 | G3/8 | 8 | ★ 193150 | GRLA-3/8-QS-8-D |
| | 100, 125 | G1/2 | 12 | ★ 193152 | GRLA-1/2-QS-12-D |

1) The recommended flow control valves are based on a tubing length to the valve of 1 m. For deviations of ±50%, flow control valves with a bigger or smaller flow rate must be selected to guarantee the optimum flow control function and cylinder speed.

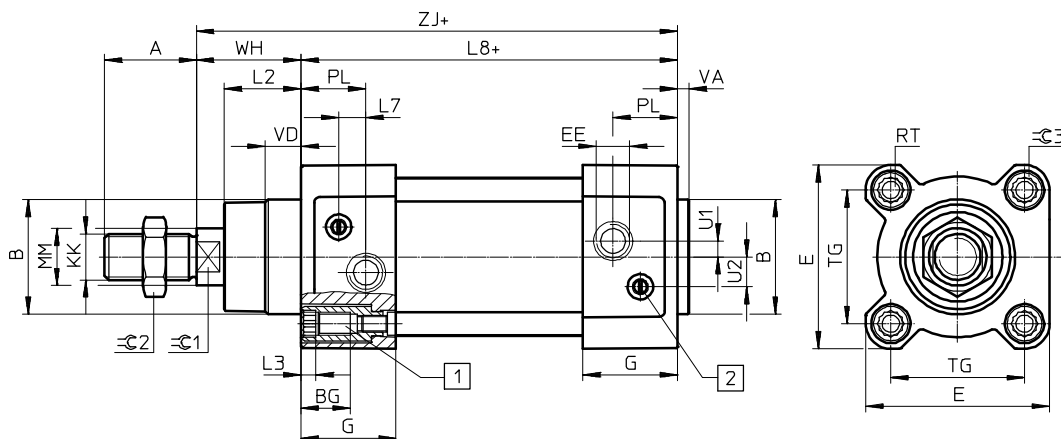
| | For Ø | Part No. | Type | |
|-------------------------------------------------------------------------------------|-------|----------|----------|-------------------------------|
| 30 Multi-position kit | | | | |
|  | 32 | 174418 | DPNC-32 | Technical data online: → dsbg |
| | 40 | 174419 | DPNC-40 | |
| | 50 | 174420 | DPNC-50 | |
| | 63 | 174421 | DPNC-63 | |
| | 80 | 174422 | DPNC-80 | |
| | 100 | 174423 | DPNC-100 | |

Standard cylinders DSBG, to ISO 15552

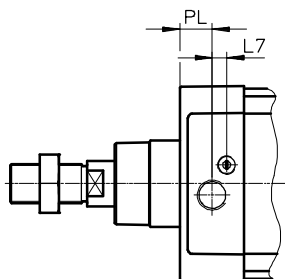
Dimensions – Piston \varnothing 32 ... 125

Download CAD data → www.festo.com

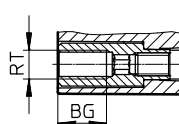
Basic design and A3 – Unlubricated operation



\varnothing 125



\varnothing 80 ... 125

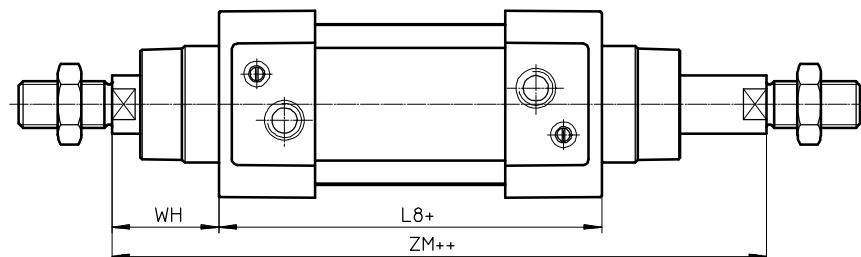


+ = plus stroke length

1 Socket head screw with female thread for mounting components

2 Regulating screw for adjustable end-position cushioning

T – Through piston rod



+ = plus stroke length

++ = plus 2x stroke length

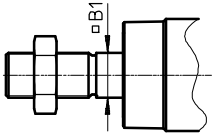
| \varnothing | A | B | BG | E | EE | G | U2 | U1 | KK | L2 | L3 | L7 | L8 |
|---------------|------|-------------------|------|------|-----------------|------|-----------|-----------|----------|----------------|------|-----|-----------|
| [mm] | -0.5 | \varnothing d11 | min. | +0.5 | | -0.2 | ± 0.1 | ± 0.1 | | | max. | | ± 0.4 |
| 32 | 22 | 30 | 16 | 45 | G $\frac{1}{8}$ | 28 | 5.7 | 5.25 | M10x1.25 | 18 $_{-0.2}$ | 5 | 6.5 | 94 |
| 40 | 24 | 35 | 16 | 54 | G $\frac{1}{4}$ | 33 | 8 | 4 | M12x1.25 | 21.3 $_{-0.2}$ | 5 | 7.5 | 105 |
| 50 | 32 | 40 | 16 | 64 | G $\frac{3}{4}$ | 33 | 10.4 | 5.5 | M16x1.5 | 26.8 $_{-0.2}$ | 5 | 9.5 | 106 |
| 63 | 32 | 45 | 16 | 75 | G $\frac{3}{8}$ | 40.5 | 12.75 | 6.25 | M16x1.5 | 27 $_{-0.2}$ | 5 | 9 | 121 |
| 80 | 40 | 45 | 17 | 93 | G $\frac{3}{8}$ | 43 | 12.5 | 8 | M20x1.5 | 34.2 $_{-0.2}$ | - | 11 | 128 |
| 100 | 40 | 55 | 17 | 110 | G $\frac{1}{2}$ | 48 | 13.5 | 10 | M20x1.5 | 38 $_{-0.2}$ | - | 7.5 | 138 |
| 125 | 54 | 60 | 20 | 136 | G $\frac{1}{2}$ | 44.7 | 13 | 8 | M27x2 | 45 $_{-0.3}$ | - | 10 | 160 |

| \varnothing | MM \varnothing | PL | RT | TG | VA | VD | WH | ZJ | ZM | \varnothing C1 | \varnothing C2 | \varnothing C3 |
|---------------|------------------|-----------|-----|-----------|-------------|------|------|-------|-------|------------------|------------------|------------------|
| [mm] | | ± 0.1 | | ± 0.3 | | +0.5 | +2.2 | +1.8 | +1 | | | |
| 32 | 12 | 19.5 | M6 | 32.5 | 4 $_{-0.2}$ | 10 | 25 | 119.1 | 146.1 | 10 | 16 | 6 |
| 40 | 16 | 22.5 | M6 | 38 | 4 $_{-0.2}$ | 10.5 | 28.7 | 133.9 | 164.8 | 13 | 18 | 6 |
| 50 | 20 | 22.5 | M8 | 46.5 | 4 $_{-0.2}$ | 11.5 | 35.6 | 141.8 | 179.8 | 17 | 24 | 8 |
| 63 | 20 | 27.5 | M8 | 56.5 | 4 $_{-0.2}$ | 15 | 35.9 | 157.1 | 195.4 | 17 | 24 | 8 |
| 80 | 25 | 30 | M10 | 72 | 4 $_{-0.2}$ | 15.7 | 45.4 | 173.6 | 221 | 22 | 30 | 6 |
| 100 | 25 | 31.5 | M10 | 89 | 4 $_{-0.2}$ | 19.2 | 49.3 | 187.5 | 238.8 | 22 | 30 | 6 |
| 125 | 32 | 22.5 | M12 | 110 | 6 $_{-0.3}$ | 20.5 | 64.1 | 225 | 290 | 27 | 41 | 8 |

Download CAD data → www.festo.com

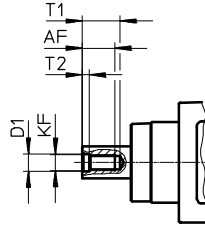
Dimensions – Piston Ø 32 ... 125

Q – With protection against rotation



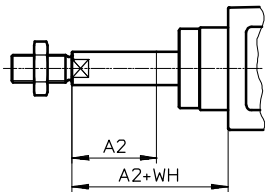
Note
Protection against rotation at one end in combination with the variant T.

F – Female thread



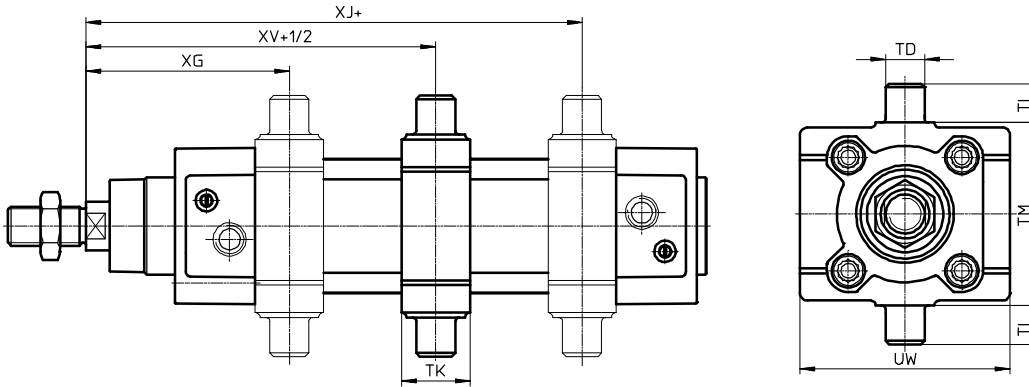
Note
Female thread at both ends in combination with the variant T.

...E – Piston rod extension



Note
Piston rod extension at one end in combination with the variant T.
Piston rod extension only at the square piston rod in combination with the variant T and Q.

...V – Swivel mounting position



Note
The dimensions for the swivel mounting position (...V) refer to the basic design without piston rod extension. The swivel mounting can be moved at any time.

+ = plus stroke length
+1/2 = plus half stroke length

| Ø [mm] | A2 | | AF | B1 | D1 | KF | T1 | T2 | WH |
|-----------|------|------|------|----|------|-----|------|-----|------|
| | min. | max. | min. | | | | max. | | +2.2 |
| 32 | 1 | 500 | 12 | 10 | 6.4 | M6 | 16 | 2.6 | 25 |
| 40 | 1 | 500 | 12 | 12 | 8.4 | M8 | 16 | 3.3 | 28.7 |
| 50 | 1 | 500 | 16 | 16 | 10.5 | M10 | 21 | 4.7 | 35.6 |
| 63 | 1 | 500 | 16 | 16 | 10.5 | M10 | 21 | 4.7 | 35.9 |
| 80 | 1 | 500 | 20 | 20 | 13 | M12 | 26.5 | 6.1 | 45.4 |
| 100 | 1 | 500 | 20 | 20 | 13 | M12 | 26.5 | 6.1 | 49.3 |
| 125 | 1 | 500 | 32 | – | 17 | M16 | 40 | 8 | 64.1 |

| Ø [mm] | TD | TK | TL | TM | UW | XG | XJ | XV |
|-----------|---------|----|-----|-----|-----|-----------|-----------|-----------|
| | Ø e9 | | h14 | h14 | | min. | max. | |
| 32 | 12 | 20 | 12 | 50 | 65 | 64±1.4 | 81±1.4 | 73±1.4 |
| 40 | 16 | 25 | 16 | 63 | 72 | 74.2±1.4 | 88.4±1.4 | 81.2±1.4 |
| 50 | 16 | 28 | 16 | 75 | 86 | 82.6±1.4 | 94.8±1.4 | 88.6±1.4 |
| 63 | 20 | 30 | 20 | 90 | 98 | 91.4±1.8 | 101.6±1.8 | 96.4±1.8 |
| 80 | 20 | 32 | 20 | 110 | 110 | 104.4±1.8 | 114.6±1.8 | 109.4±1.8 |
| 100 | 25 | 38 | 25 | 132 | 136 | 116.3±1.8 | 120.5±1.8 | 118.3±1.8 |
| 125 | 25 | 44 | 25 | 160 | 160 | 131.7±1.8 | 158.3±1.8 | 145±1.8 |



Overview/Configuration/Ordering
→ www.festo.com/catalogue/dsbg



Additional information/Support/User documentation
→ www.festo.com/sp/dsbg

Cylinders with piston rod
Standard cylinders
Cylinders to ISO 15552

DSBG



- + ISO 15552 (ISO 6431, VDMA 24562)
- + Sturdy tie rod design
- + For contactless position sensing
- + Optionally with protection against rotation
- + Extensive range of accessories makes it possible to install the cylinder virtually anywhere



- Sturdy tie rod design
- Strokes of up to 2700 mm
- Wide range of variants for customised applications
- Comprehensive range of mounting accessories for just about every type of installation
- Spare parts service
- Piston Ø 32 ... 125 → 75

→ www.festo.com/catalogue/dsbg

Product range overview – Piston Ø 160 ... 320

| Type/function | Piston Ø [mm] | Stroke [mm] | Force [N] | Product options | | | | | |
|---------------|---------------|-------------|-----------|-----------------|---|---|-----|---|----|
| | | | | V | T | P | PPV | A | N3 |
| DSBG | | | | | | | | | |
| Double-acting | 160 | 1 ... 2700 | 12,064 | ■ | ■ | ■ | ■ | ■ | ■ |
| | 200 | 1 ... 2700 | 18,850 | ■ | ■ | ■ | ■ | ■ | ■ |
| | 250 | 1 ... 2250 | 29,452 | - | ■ | ■ | ■ | ■ | ■ |
| | 320 | 1 ... 2250 | 48,255 | - | ■ | ■ | ■ | ■ | ■ |

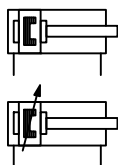
| Type/function | Piston Ø [mm] | Product options | | | | | | | | | |
|---------------|---------------|-----------------|----|------|------|-----|-----|-----|----|----|----|
| | | T1 | T4 | ...Y | ...E | M36 | M42 | M48 | B1 | B2 | B3 |
| DSBG | | | | | | | | | | | |
| Double-acting | 160 | ■ | ■ | - | ■ | ■ | - | - | ■ | ■ | ■ |
| | 200 | ■ | ■ | - | ■ | ■ | - | - | ■ | ■ | ■ |
| | 250 | ■ | - | ■ | ■ | - | ■ | - | ■ | ■ | ■ |
| | 320 | ■ | - | ■ | ■ | - | - | ■ | ■ | ■ | ■ |

Product options

| | | | | | | | |
|-----|-----------------------------------------------|-----|----------------------------------------|------|---------------------------------------------|----|--------------------------------------|
| V | With central swivel mounting | A | Position sensing | ...Y | Swivel mounting position (positive-locking) | B1 | Integrated stud bolts at both ends |
| T | Through piston rod | N3 | Standard conforms to ISO 15552 | ...E | Piston rod extension | B2 | Integrated stud bolts on bearing cap |
| P | Elastic cushioning rings/plates at both ends | R3 | High corrosion protection | ...L | Piston rod thread extension | B3 | Integrated stud bolts on end cap |
| PPV | Pneumatic cushioning, adjustable at both ends | T1 | Heat-resistant seals up to max. 120 °C | M36 | Piston rod thread M36 | | |
| | | T4 | Heat-resistant seals up to max. 150 °C | M42 | Piston rod thread M42 | | |
| | | EX4 | EU certification (II 2GD) | M48 | Piston rod thread M48 | | |

Standard cylinders DSBG, to ISO 15552

Technical data – Piston Ø 160 ... 320



| Technical data | | Dimensions → 90 | | | |
|-----------------------------------------|------|-----------------------------------------------|--------|------------|--------|
| Piston Ø | | 160 | 200 | 250 | 320 |
| Pneumatic connection | | G¾ | G¾ | G1 | G1 |
| Stroke ¹⁾ | | | | | |
| DSBG-... | [mm] | 1 ... 2700 | | 1 ... 2250 | |
| DSBG-...-E | [mm] | 1 ... 2000 | | | |
| Cushioning | | | | | |
| DSBG-...-P | | Elastic cushioning rings/plates at both ends | | | |
| DSBG-...-PPV | | Pneumatic cushioning, adjustable at both ends | | | |
| Cushioning length | [mm] | 48 | | 55 | 65 |
| Theoretical force at 6 bar, advancing | [N] | 12,064 | 18,850 | 29,452 | 48,255 |
| Theoretical force at 6 bar, retracting | [N] | 11,310 | 18,096 | 28,274 | 46,385 |
| Max. impact energy in the end positions | | | | | |
| DSBG-... | [J] | 3.3 | 4.8 | 7.2 | 12.6 |
| DSBG-...-T1/-T4 | [J] | 2.3 | 4 | 4.2 | 6 |

1) In combination with the position sensing option, the minimum stroke is 10 mm.

| Operating conditions | |
|-----------------------------------|------------------|
| Operating pressure | [bar] 0.6 ... 10 |
| Ambient temperature ²⁾ | |
| DSBG-... | [°C] -20 ... +80 |
| DSBG-...-T1 | [°C] 0 ... +120 |
| DSBG-...-T4 | [°C] 0 ... +150 |

2) Note operating range of proximity sensors.

| Materials | |
|-----------------|------------------------------------------|
| Piston rod | High-alloy steel |
| Bearing cap | Coated die-cast aluminium/cast aluminium |
| Cylinder barrel | Anodised wrought aluminium alloy |
| End cap | Coated die-cast aluminium/cast aluminium |
| Seals | TPE-U (PU), NBR |

Ordering – Product options

Configurable product

This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
 → www.festo.com/catalogue/...

Enter the type code in the search field.

Order code – Piston Ø 160 ... 320

| | | | | | | | | | | | | | | | | | | | |
|---------------------------------|--------------------------------------------------------|---|---|---|---|---|---|---|---|---|----|---|------------|---|---|---|---|---|---|
| DSBG | | - | - | - | - | - | - | - | - | - | N3 | - | - | - | - | - | - | - | - |
| Type | | | | | | | | | | | | | | | | | | | |
| DSBG | Standard cylinder, double-acting | | | | | | | | | | | | | | | | | | |
| Central swivel mounting | | | | | | | | | | | | | | | | | | | |
| - | None | | | | | | | | | | | | | | | | | | |
| V | Centrally clamped [1] | | | | | | | | | | | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | | | | | | | | | | | |
| Stroke [mm] | | | | | | | | | | | | | | | | | | | |
| 160, 200 | 25, 40, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500 | | | | | | | | | | | | 1 ... 2700 | | | | | | |
| 250, 320 | - | | | | | | | | | | | | 1 ... 2250 | | | | | | |
| Piston rod type | | | | | | | | | | | | | | | | | | | |
| - | Piston rod at one end | | | | | | | | | | | | | | | | | | |
| T | Through piston rod | | | | | | | | | | | | | | | | | | |
| Cushioning | | | | | | | | | | | | | | | | | | | |
| P | Elastic cushioning rings/plates at both ends | | | | | | | | | | | | | | | | | | |
| PPV | Pneumatic cushioning, adjustable at both ends | | | | | | | | | | | | | | | | | | |
| Position sensing | | | | | | | | | | | | | | | | | | | |
| A | Via proximity sensor [4] | | | | | | | | | | | | | | | | | | |
| Standard | | | | | | | | | | | | | | | | | | | |
| N3 | Conforms to ISO 15552 | | | | | | | | | | | | | | | | | | |
| Temperature range | | | | | | | | | | | | | | | | | | | |
| - | Standard | | | | | | | | | | | | | | | | | | |
| T1 | Heat resistant up to max. 120 °C | | | | | | | | | | | | | | | | | | |
| T4 | Heat resistant up to max. 150 °C [1] | | | | | | | | | | | | | | | | | | |
| Swivel mounting position | | | | | | | | | | | | | | | | | | | |
| - | None | | | | | | | | | | | | | | | | | | |
| ...Y | Positive-locking screw connection [2][3][6] | | | | | | | | | | | | | | | | | | |
| Piston rod extension | | | | | | | | | | | | | | | | | | | |
| - | None | | | | | | | | | | | | | | | | | | |
| ...E | 1 ... 500 mm [5] | | | | | | | | | | | | | | | | | | |
| Piston rod thread | | | | | | | | | | | | | | | | | | | |
| - | Standard | | | | | | | | | | | | | | | | | | |
| M36 | M36 | | | | | | | | | | | | [1] | | | | | | |
| M42 | M42 | | | | | | | | | | | | [2] | | | | | | |
| M48 | M48 | | | | | | | | | | | | [3] | | | | | | |
| Integrated stud bolts | | | | | | | | | | | | | | | | | | | |
| - | None | | | | | | | | | | | | | | | | | | |
| B1 | At both ends | | | | | | | | | | | | | | | | | | |
| B2 | On bearing cap | | | | | | | | | | | | | | | | | | |
| B3 | On end cap | | | | | | | | | | | | | | | | | | |

[1] Only for piston Ø 160, 200 [3] Only for piston Ø 320 [5] Only up to strokes of 2000 mm [6] Piston Ø 250: 198 ... 2459 mm
Piston Ø 320: 226 ... 2483 mm

[2] Only for piston Ø 250 [4] Minimum stroke 10 mm

Order example:

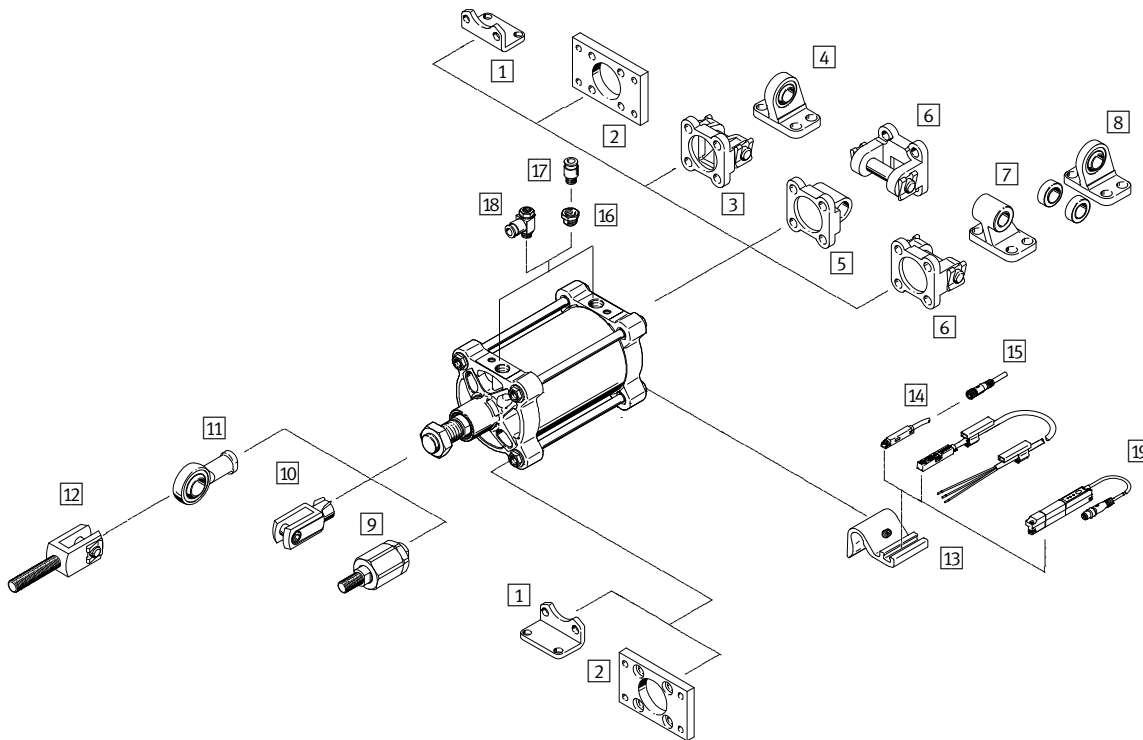
DSBG-160-500-PPVA-N3T1-M36-B2

Double-acting standard cylinder - without central swivel mounting - piston diameter 160 mm - stroke 500 mm - piston rod at one end - pneumatic cushioning, adjustable at both ends - position sensing via proximity sensor - standard conforms to ISO 15552 - heat resistant up to max. 120 °C - without swivel mounting position - without piston rod extension - with piston rod thread M36 - with integrated stud bolts on bearing cap

Standard cylinders DSBG, to ISO 15552

1

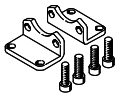
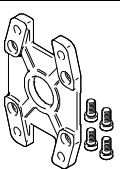
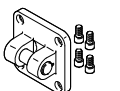
Accessories – Piston Ø 160 ... 320

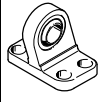
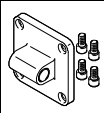
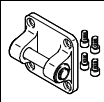


| | | For Ø | → Page/online |
|----|------------------------------|-------------|---------------|
| 1 | Foot mounting HNG | 160 ... 320 | 88 |
| 2 | Flange mounting FNG | 160 ... 320 | 88 |
| 3 | Swivel flange SNG | 160, 200 | 88 |
| 4 | Clevis foot LSNG | 160, 200 | 88 |
| 5 | Swivel flange SNGL | 160, 200 | 88 |
| 6 | Swivel flange SNGB | 160 ... 320 | 88 |
| 7 | Clevis foot LN/LNG | 160 ... 320 | 89 |
| 8 | Clevis foot LSN | 160 ... 320 | 89 |
| 9 | Self-aligning rod coupler FK | 160, 200 | 89 |
| 10 | Rod clevis SG | 160 ... 320 | 89 |
| 11 | Rod eye SGS | 160 ... 320 | 89 |

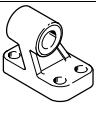
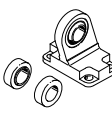


| | | For Ø | → Page/online |
|----|-----------------------------------|-------------|----------------------|
| 12 | Rod clevis SGA | 160, 200 | 89 |
| 13 | Sensor bracket DASP | 160 ... 320 | 89 |
| 14 | Proximity sensor SME/SMT-8M | 160 ... 320 | 89 |
| 15 | Connecting cable NEBU | 160 ... 320 | 89 |
| 16 | Reducing nipple NPFC | 160, 200 | 89 |
| | Reducing nipple D | 250, 320 | |
| 17 | Push-in fitting QS | 160, 200 | 1098 |
| 18 | One-way flow control valve GRLA | 160, 200 | 758 |
| 19 | Position transmitter SMAT-8M/SDAT | 160, 200 | dsbg |
| - | Trunnion support LNZG | 160 ... 320 | 88 |




Accessories – Ordering data – Piston Ø 160 ... 320




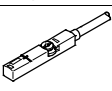




| | For Ø | Part No. | Type |
|----------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------|---------|
| 1 Foot mounting  | Dimensions online: → dsbg | | |
| | 160 | 34476 | HNG-160 |
| | 200 | 34477 | HNG-200 |
| | 250 | 157510 | HNG-250 |
| | 320 | 157511 | HNG-320 |
| 2 Flange mounting  | Dimensions online: → dsbg | | |
| | 160 | 34478 | FNG-160 |
| | 200 | 34479 | FNG-200 |
| | 250 | 157508 | FNG-250 |
| | 320 | 157509 | FNG-320 |
| 3 Swivel flange  | Dimensions online: → dsbg | | |
| | 160 | 152597 | SNG-160 |
| | 200 | 152598 | SNG-200 |

| | For Ø | Part No. | Type |
|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------|------------|
| 4 Clevis foot  | Dimensions online: → lsng | | |
| | 160 | 152599 | LSNG-160 |
| | 200 | 152600 | LSNG-200 |
| 5 Swivel flange  | Technical data online: → dsbg | | |
| | 160 | 151534 | SNGL-160 |
| | 200 | 151535 | SNGL-200 |
| 6 Swivel flange  | Dimensions online: → dsbg | | |
| | 160 | 34547 | SNGB-160 |
| | 200 | 562455 | SNGB-200-B |
| | 250 | 157512 | SNGB-250 |
| | 320 | 157513 | SNGB-320 |

Accessories – Ordering data – Piston Ø 160 ... 320

| | For Ø | Part No. | Type |
|-------------------------------------------------------------------------------------------------------------------|----------|--------------|-----------------|
| 7 Clevis foot Dimensions online: → ln | | | |
|  | 160 | 9037 | LN-160 |
| | 200 | 33898 | LNG-200 |
| | 250 | 9039 | LN-250 |
| | 320 | 9040 | LN-320 |
| 8 Clevis foot Technical data online: → lsn | | | |
|  | 160 | 6988 | LSN-160 |
| | 200 | 6989 | LSN-200 |
| | 250 | 6990 | LSN-250 |
| | 320 | 6991 | LSN-320 |
| 9 Self-aligning rod coupler Technical data online: → fk | | | |
|  | 160, 200 | 10746 | FK-M36x2 |
| | | | |
| 10 Rod clevis Technical data online: → sg | | | |
|  | 160, 200 | 9581 | SG-M36x2 |
| | 250 | 9582 | SG-M42x2 |
| | 320 | 9583 | SG-M48x2 |

| | For Ø | Part No. | Type |
|------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------|----------------------|
| 11 Rod eye Technical data online: → sgs | | | |
|  | 160, 200 | 10775 | SGS-M36x2 |
| | 250 | 10776 | SGS-M42x2 |
| | 320 | 10777 | SGS-M48x2 |
| | | | |
| 12 Rod clevis Technical data online: → sga | | | |
|  | 160, 200 | 10771 | SGA-M36x2 |
| | | | |
| 13 Sensor bracket for proximity sensor SME/SMT-8 Technical data online: → dsbg | | | |
|  | 160, 200 | 155813 | DASP-M4-125-A |
| | 250 | 1456781 | DASP-M4-250-A |
| | 320 | 3015256 | DASP-M4-320-A |

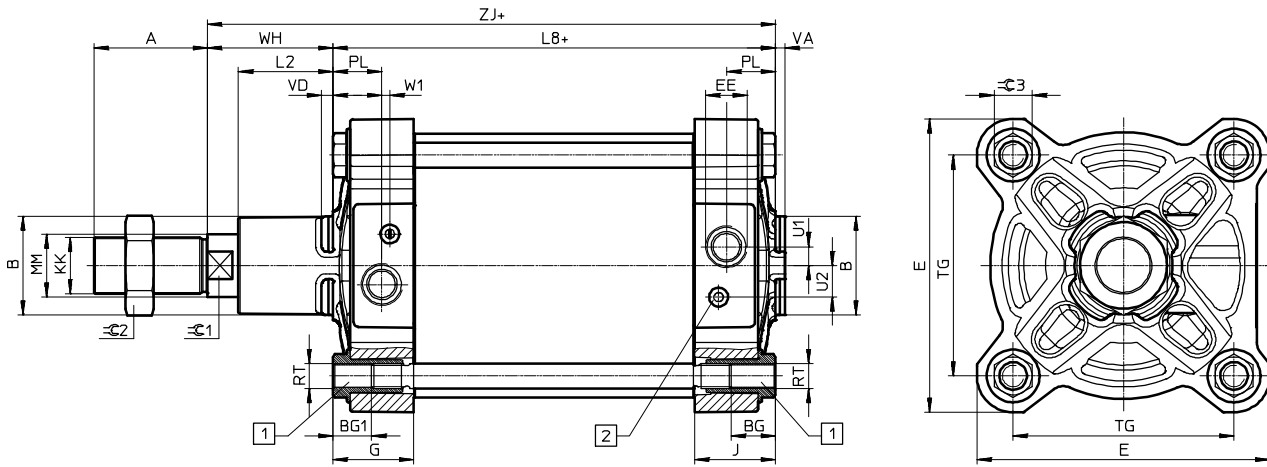
| | For Ø | Cable length [m] | Part No. | Type |
|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|----------------|----------------------------------|
| 14 Proximity sensor for T-slot, magneto-resistive – N/O contact Technical data → 878 | | | | |
|  | PNP, plug connector | 0.3 | 574334 | SMT-8M-A-PS-24V-E-0,3-M8D |
| | PNP, cable | 2.5 | 574335 | SMT-8M-A-PS-24V-E-2,5-OE |
| | PNP, plug connector | 0.3 | 574337 | SMT-8M-A-PS-24V-E-0,3-M12 |
|  | NPN, cable | 2.5 | 574338 | SMT-8M-A-NS-24V-E-2,5-OE |
| | NPN, plug connector | 0.3 | 574339 | SMT-8M-A-NS-24V-E-0,3-M8D |
| Magneto-resistive – N/C contact Technical data → 878 | | | | |
|  | PNP, cable | 7.5 | 574340 | SMT-8M-A-PO-24V-E-7,5-OE |
| Magnetic reed – N/O contact Technical data → 873 | | | | |
|  | Cable | 2.5 | 543862 | SME-8M-DS-24V-K-2,5-OE |
| | Cable | 5.0 | 543863 | SME-8M-DS-24V-K-5,0-OE |
| | Cable | 2.5 | 543872 | SME-8M-ZS-24V-K-2,5-OE |
| | Plug connector | 0.3 | 543861 | SME-8M-DS-24V-K-0,3-M8D |
| Magnetic reed – N/C contact Technical data → 873 | | | | |
|  | Cable | 7.5 | 546799 | SME-8M-DO-24V-K-7,5-OE |
| 15 Connecting cable, straight socket Technical data → 1161 | | | | |
|  | – | 2.5 | 541333 | NEBU-M8G3-K-2.5-LE3 |
| | – | 5.0 | 541334 | NEBU-M8G3-K-5-LE3 |
| | – | 2.5 | 541363 | NEBU-M12G5-K-2.5-LE3 |
| | – | 5.0 | 541364 | NEBU-M12G5-K-5-LE3 |
| Connecting cable, angled socket Technical data → 1161 | | | | |
|  | – | 2.5 | 541338 | NEBU-M8W3-K-2.5-LE3 |
| | – | 5.0 | 541341 | NEBU-M8W3-K-5-LE3 |
| | – | 2.5 | 541367 | NEBU-M12W5-K-2.5-LE3 |
| | – | 5.0 | 541370 | NEBU-M12W5-K-5-LE3 |
| 16 Reducing nipple Technical data online: → npfc | | | | |
|  | 160, 200 | – | 8030313 | NPFC-R-G34-G12-MF |
| | 250, 320 | – | 197634 | D-1/2l-1A |

Standard cylinders DSBG, to ISO 15552

1

Dimensions – Piston \varnothing 160 ... 320

Basic design

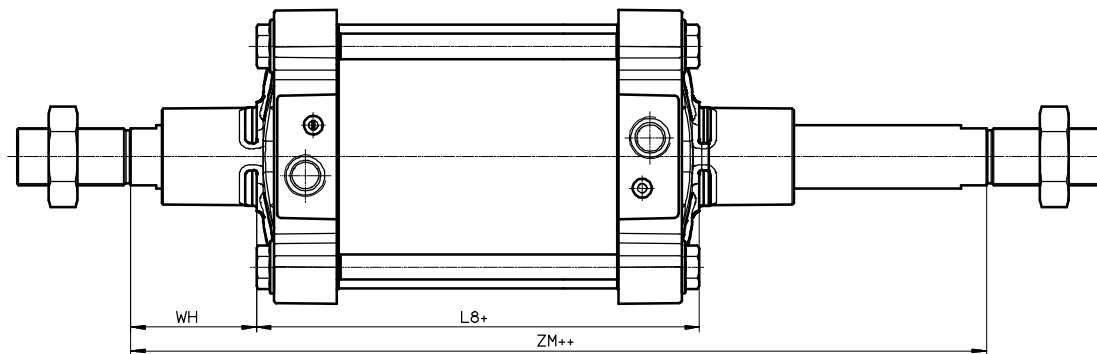


+ = plus stroke length

1 Socket head screw with female thread for mounting components

2 Regulating screw for adjustable end-position cushioning (PPV)

T – Through piston rod



+ = plus stroke length

++ = plus 2x stroke length

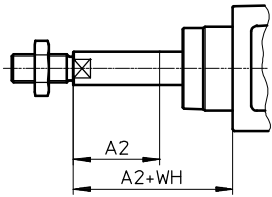
| \varnothing | A | B | BG | BG1 | E | EE | G | J |
|---------------|------|-------------------|------|-----------|-----------|-----------------|------|------|
| [mm] | -0.5 | \varnothing d11 | min. | ± 0.5 | ± 0.5 | | | |
| 160 | 72 | 65 | 24 | 25 | 186 | G $\frac{3}{4}$ | 52 | 52 |
| 200 | 72 | 75 | 24 | 25 | 230 | G $\frac{3}{4}$ | 48.2 | 50.2 |
| 250 | 84 | 90 | 25 | 26 | 284 | G1 | 53 | 53 |
| 320 | 96 | 110 | 28 | 29 | 347 | G1 | 60 | 60 |

| \varnothing | KK | | L2 | L8 | MM | PL | RT | TG | U1 |
|---------------|----------|---------------|----|---------------|----|------|-----|-----------|----|
| | DSBG-... | DSBG-...-M... | | | | | | | |
| [mm] | | | | | | | | ± 1.1 | |
| 160 | M36x2 | M36 | 60 | 180 ± 1.1 | 40 | 31 | M16 | 140 | 12 |
| 200 | M36x2 | M36 | 70 | 180 ± 1 | 40 | 30 | M16 | 175 | 12 |
| 250 | M42x2 | M42 | 80 | 200 ± 1 | 50 | 32 | M20 | 220 | 25 |
| 320 | M48x2 | M48 | 90 | 220 ± 2.2 | 63 | 37.5 | M24 | 270 | 25 |

| \varnothing | U2 | VA | VD | W1 | WH | ZJ | ZM | \varnothing 1 | \varnothing 2 | \varnothing 3 |
|---------------|----|----|------|-----|---------------|---------|---------------|-----------------|-----------------|-------------------|
| [mm] | | -1 | | | | ± 1 | | | | |
| 160 | 20 | 6 | 7.5 | 5 | 80 ± 1.3 | 260 | 342 ± 1 | 36 | 55 | 24 _{h13} |
| 200 | 20 | 6 | 7.5 | 5 | 95 ± 1.4 | 275 | 372 ± 1.2 | 36 | 55 | 24 _{h13} |
| 250 | 25 | 10 | 13.7 | 3 | 105 ± 1.5 | 305 | 410 ± 1.6 | 46 | 65 | 41 _{h14} |
| 320 | 25 | 10 | 10.7 | 1.5 | 120 ± 1.5 | 340 | 462 ± 1 | 55 | 75 | 50 _{h14} |

Dimensions – Piston \varnothing 160 ... 320

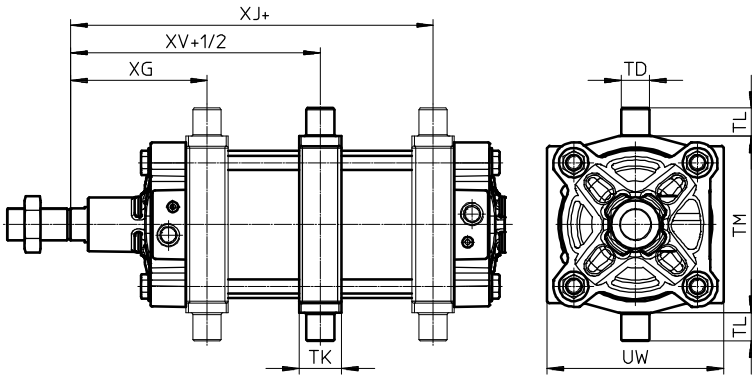
...E – Piston rod extension



Note
Piston rod extension at one end in combination with the variant T.

| \varnothing [mm] | A2 | | WH |
|-----------------------|------|------|---------------|
| | min. | max. | |
| 160 | 1 | 500 | 80 \pm 1.3 |
| 200 | 1 | 500 | 95 \pm 1.4 |
| 250 | 1 | 500 | 105 \pm 1.5 |
| 320 | 1 | 500 | 120 \pm 1.5 |

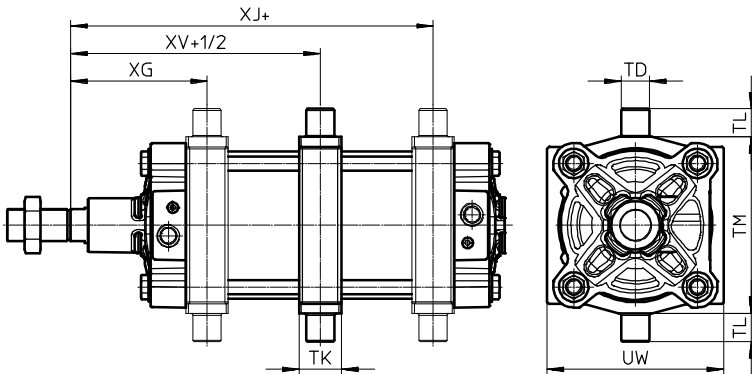
V – Central swivel mounting



+ = plus stroke length
+1/2 = plus half stroke length

| \varnothing [mm] | TD \varnothing e8 | TK | TL h14 | TM h14 | UW | XG \pm 0.5 | XJ \pm 0.5 | XV |
|-----------------------|---------------------------|----|-----------|-----------|-----|-----------------|-----------------|-----|
| 160 | 32 | 48 | 32 | 200 | 200 | 157.5 | 182.5 | 170 |
| 200 | 32 | 48 | 32 | 250 | 240 | 169 | 200.5 | 185 |

...Y – Swivel mounting position



Note
The swivel mounting has a positive-locking screw connection.

+ = plus stroke length
+1/2 = plus half stroke length

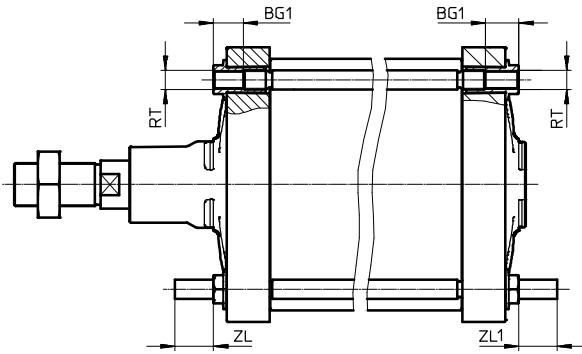
| \varnothing [mm] | TD \varnothing e8 | TK | TL h14 | TM h14 | UW | XG \pm 2.4 | XJ \pm 2.4 | XV \pm 2.4 |
|-----------------------|---------------------------|----|-----------|-----------|-----|-----------------|-----------------|-----------------|
| 250 | 40 | 60 | 40 | 320 | 319 | 198 | 209 | 205 |
| 320 | 50 | 70 | 50 | 400 | 385 | 226 | 233 | 230 |

Standard cylinders DSBG, to ISO 15552

1

Dimensions – Piston \varnothing 160 ... 320

B1/B2/B3 – Integrated stud bolt



| \varnothing | BG | BG1 | RT | ZL | ZL1 ¹⁾ |
|---------------|----|-----------|-----|-----------|-------------------|
| [mm] | | ± 0.5 | | ± 0.5 | |
| 160 | 24 | 25 | M16 | 32 | 32 |
| 200 | 24 | 25 | M16 | 32 | 32 |
| 250 | 25 | 26 | M20 | 40 | 40 |
| 320 | 28 | 29 | M24 | 50 | 50 |

1) Tolerances depending on variant:
 B1: ZL1 = +1/-2; B3: ZL1 = ± 0.5



Overview/Configuration/Ordering
→ www.festo.com/catalogue/dsbf



Additional information/Support/User documentation
→ www.festo.com/sp/dsbf

Cylinders with piston rod
Standard cylinders

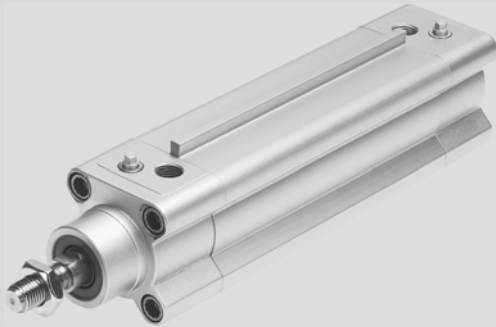
Cylinders to ISO15552, Clean Design

DSBF



- + ISO 15552 with increased corrosion protection
- + Resistant to conventional cleaning agents
- + FDA-approved lubrication and sealing on the basic design
- + Long service life thanks to optional seal for unlubricated operation
- + Hygienic mounting of the sensors possible
- + Comprehensive range of mounting accessories for just about every type of installation

Standard cylinders DSBF-C, to ISO 15552, Clean Design



- Standard cylinder with increased corrosion protection
- Resistant to conventional cleaning agents
- Long service life thanks to optional seal for unlubricated operation
- Hygienic mounting of the proximity sensors possible
- Strokes of up to 2800 mm
- Comprehensive range of mounting accessories for just about every type of installation
- Spare parts service

→ www.festo.com/catalogue/dsbf

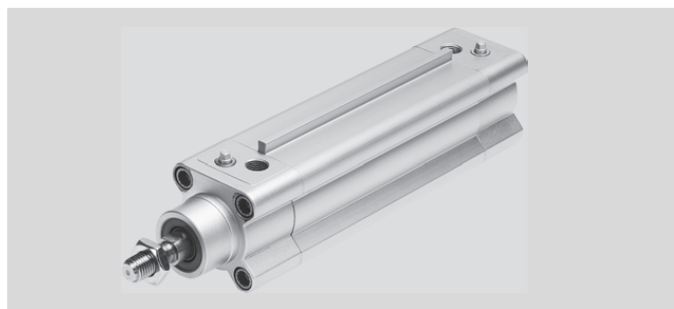
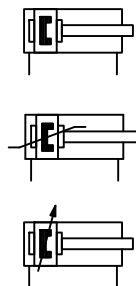
Product range overview

| Type/function | Piston Ø [mm] | Stroke [mm] | Force [N] | Product options | | | | | | | | | | | | |
|---------------|------------------------------|-------------|--------------|-----------------|---|---|-----|-----|----|----|----|----|----|------|---|--|
| | | | | T | F | P | PPV | PPS | N3 | T1 | T3 | T4 | A3 | ...E | R | |
| DSBF-C | | | | | | | | | | | | | | | | |
| Double-acting | 32, 40, 50, 63, 80, 100, 125 | 1 ... 2800 | 483 ... 7363 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |

Product options

| | | | | | | | |
|---|--------------------------|-----|---------------------------------------------------|----|----------------------------------------|------|-------------------------------------|
| L | Low friction | P | Elastic cushioning rings/plates at both ends | T1 | Heat-resistant seals up to max. 120 °C | A3 | Suitable for unlubricated operation |
| U | Uniformly slow movement | PPS | Pneumatic cushioning, self-adjusting at both ends | T3 | Low temperature | EX4 | EU certification (II 2GD) |
| T | Through piston rod | PPV | Pneumatic cushioning, adjustable at both ends | T4 | Heat-resistant seals up to max. 150 °C | ...E | Piston rod extension |
| F | Female piston rod thread | A | Position sensing | A1 | Increased chemical resistance | ...L | Piston rod thread extension |
| | | N3 | Standard conforms to ISO 15552 | A2 | Hard scraper | R | Mounting rail for sensors |

Technical data



| Technical data | | Dimensions → 99 | | | | | | |
|-------------------------------------------------|----------|---------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Piston Ø | | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| Pneumatic connection | | G $\frac{1}{8}$ | G $\frac{1}{4}$ | G $\frac{1}{4}$ | G $\frac{3}{8}$ | G $\frac{3}{8}$ | G $\frac{1}{2}$ | G $\frac{1}{2}$ |
| Piston rod thread | | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 | M20x1.5 | M20x1.5 | M27x2 |
| Stroke | | | | | | | | |
| DSBF... | [mm] | 1 ... 2800 | | | | | | |
| DSBF...-E | [mm] | 1 ... 2000 | | | | | | |
| Cushioning | | | | | | | | |
| DSBF...-P | | Elastic cushioning rings/plates at both ends | | | | | | |
| DSBF...-PPS | | Pneumatic cushioning, self-adjusting at both ends | | | | | | |
| DSBF...-PPV | | Pneumatic cushioning, adjustable at both ends | | | | | | |
| Cushioning length | PPV [mm] | 17 | 19 | 22 | 22 | 31 | 31 | 45 |
| Min. stroke with position sensing ¹⁾ | [mm] | 18 | 17 | 13 | 10 | 10 | 10 | 10 |
| Theoretical force at 6 bar, advancing | [N] | 483 | 754 | 1178 | 1870 | 3016 | 4712 | 7363 |
| Theoretical force at 6 bar, retracting | [N] | 415 | 633 | 990 | 1682 | 2721 | 4418 | 6881 |
| Max. impact energy in the end positions | | | | | | | | |
| DSBF... | [J] | 0.4 | 0.7 | 1.0 | 1.3 | 1.8 | 2.5 | 3.3 |
| DSBF...-T1/T3/T4 | [J] | 0.2 | 0.35 | 0.5 | 0.65 | 0.9 | 1.25 | 1.65 |

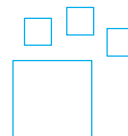
1) Values apply to proximity sensor SMT-C1, the minimum stroke for proximity sensor CRSMT-8M is 10 mm.

| Operating conditions | | Dimensions → 99 | | | | | | |
|-----------------------------------|-------|-----------------|----|------------|----|------------|-----|------------|
| Piston Ø | | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| Operating pressure | | | | | | | | |
| DSBF... | [bar] | 0.6 ... 12 | | 0.4 ... 12 | | | | 0.2 ... 10 |
| DSBF...-T3 | [bar] | 1 ... 12 | | | | | | |
| DSBF...-A3 | [bar] | 1.5 ... 12 | | 1 ... 12 | | 0.6 ... 12 | | 0.6 ... 10 |
| Ambient temperature ²⁾ | | | | | | | | |
| DSBF... | [°C] | -20 ... +80 | | | | | | |
| DSBF...-T1 | [°C] | 0 ... +120 | | | | | | |
| DSBF...-T3 | [°C] | -40 ... +80 | | | | | | |
| DSBF...-T4 | [°C] | 0 ... +150 | | | | | | |

2) Note operating range of proximity sensors.

| Materials | |
|-----------------|----------------------------------|
| Piston rod | High-alloy stainless steel |
| Bearing cap | Coated die-cast aluminium |
| Cylinder barrel | Anodised wrought aluminium alloy |
| End cap | Coated die-cast aluminium |
| Seals | NBR, PUR |

Product options



Configurable product

This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
[→ www.festo.com/catalogue/...](http://www.festo.com/catalogue/...)

Enter the type code in the search field.

Standard cylinders DSBF-C, to ISO 15552, Clean Design

1

Order code

| | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------------------------------------------------------|------|---|---|---|--|---|--|---|--|------------|--|---|---|----|---|--|---|--|---|-----|---|
| | | DSBF | - | C | - | | - | | - | | - | | A | - | N3 | - | | - | | - | | R |
| Type | | | | | | | | | | | | | | | | | | | | | | |
| DSBF | Standard cylinder | | | | | | | | | | | | | | | | | | | | | |
| Version | | | | | | | | | | | | | | | | | | | | | | |
| C | Easy-to-clean design | | | | | | | | | | | | | | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | | | | | | | | | | | | | | |
| Stroke [mm] | | | | | | | | | | | | | | | | | | | | | | |
| 32, 40, 50, 63, 80, 100, 125 | 25, 40, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500 | | | | | | | | | | 1 ... 2800 | | | | | | | | | | | |
| Piston rod type | | | | | | | | | | | | | | | | | | | | | | |
| - | Piston rod at one end | | | | | | | | | | | | | | | | | | | | | |
| T | Through piston rod | | | | | | | | | | | | | | | | | | | | | |
| Piston rod thread type | | | | | | | | | | | | | | | | | | | | | | |
| - | Male thread | | | | | | | | | | | | | | | | | | | | | |
| F | Female thread | | | | | | | | | | | | | | | | | | | | | |
| Cushioning | | | | | | | | | | | | | | | | | | | | | | |
| P | Elastic cushioning rings/plates at both ends | | | | | | | | | | | | | | | | | | | | | |
| PPS | Pneumatic cushioning, self-adjusting at both ends | | | | | | | | | | | | | | | | | | | | [1] | |
| PPV | Pneumatic cushioning, adjustable at both ends | | | | | | | | | | | | | | | | | | | | | |
| Position sensing | | | | | | | | | | | | | | | | | | | | | | |
| A | Via proximity sensor | | | | | | | | | | | | | | | | | | | | | |
| Standard | | | | | | | | | | | | | | | | | | | | | | |
| N3 | Conforms to ISO 15552 | | | | | | | | | | | | | | | | | | | | | |
| Temperature range | | | | | | | | | | | | | | | | | | | | | | |
| - | Standard | | | | | | | | | | | | | | | | | | | | | |
| T1 | Heat resistant up to max. 120 °C | | | | | | | | | | | | | | | | | | | | [2] | |
| T3 | Low temperature | | | | | | | | | | | | | | | | | | | | | |
| T4 | Heat resistant up to max. 150 °C | | | | | | | | | | | | | | | | | | | | [2] | |
| Wiper seal variant | | | | | | | | | | | | | | | | | | | | | | |
| - | None | | | | | | | | | | | | | | | | | | | | | |
| A3 | Suitable for unlubricated operation | | | | | | | | | | | | | | | | | | | | | |
| Piston rod extension | | | | | | | | | | | | | | | | | | | | | | |
| ...E | 1 ... 500 mm | | | | | | | | | | | | | | | | | | | | [3] | |
| Sensor mounting | | | | | | | | | | | | | | | | | | | | | | |
| R | Mounting rail for sensors | | | | | | | | | | | | | | | | | | | | | |

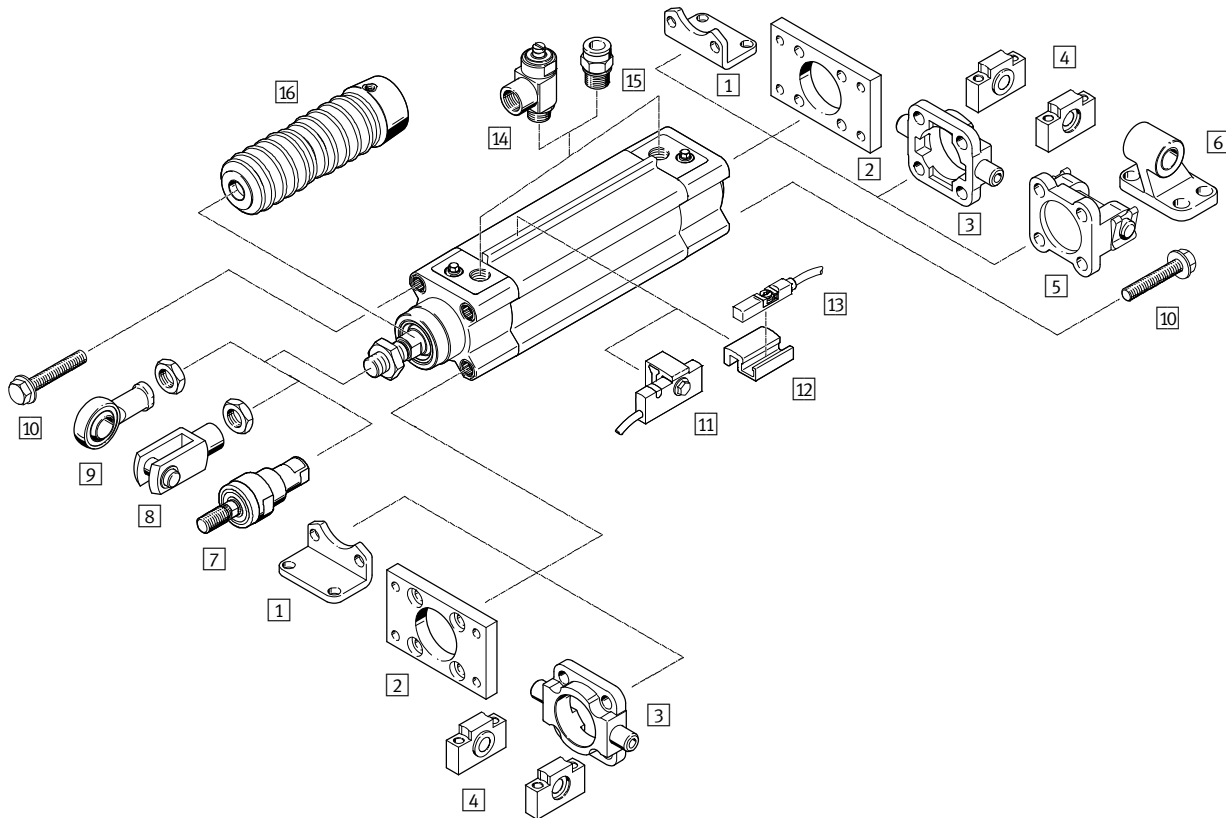
- [1] Not with temperature range T1, T3, T4
- [2] Not with wiper seal variant A3
- [3] Only up to strokes of 2000 mm

Order example:

DSBF-C-32-500-PPVA-N3T1-200E-R

Standard cylinder - easy-to-clean design - piston diameter 32 mm - stroke 500 mm - piston rod at one end - male thread - pneumatic cushioning, self-adjusting at both ends - position sensing via proximity sensor - standard conforms to ISO 15552 - heat resistant up to max. 120 °C - no wiper seal variant - piston rod extension 200 mm - mounting rail for sensors

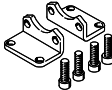
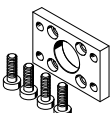
Accessories

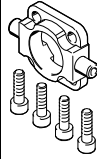



| | | → Page/online |
|---|--------------------------------|---------------|
| 1 | Foot mounting CRHNC | 97 |
| 2 | Flange mounting CRFNG | 97 |
| 3 | Trunnion flange CRZNG | 97 |
| 4 | Trunnion support CRLNZG | 97 |
| 5 | Swivel flange SNCB- ... -R3 | 98 |
| 6 | Clevis foot CRLNG | 98 |
| 7 | Self-aligning rod coupler CRFK | 98 |
| 8 | Rod clevis CRSG | 98 |

| | | → Page/online |
|----|-----------------------------------|----------------------|
| 9 | Rod eye CRSGS | 98 |
| 10 | Blanking screw DAMD | 98 |
| 11 | Proximity sensor SMT-C1 | 98 |
| 12 | Mounting kit SMB-8-C | 98 |
| 13 | Proximity sensor CRSMT-8M | 98 |
| 14 | One-way flow control valve CRGRLA | 98 |
| 15 | Push-in fitting NPQH/CRQS/CRQSL | dsbf |
| 16 | Protective bellows kit DADB | dsbf |

Accessories – Ordering data

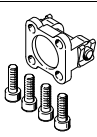


| | For Ø | Part No. | Type |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------|-----------|
|  | 1 Foot mounting Dimensions online: → dsbf | | |
| | 32 | 176937 | CRHNC-32 |
| | 40 | 176938 | CRHNC-40 |
| | 50 | 176939 | CRHNC-50 |
| | 63 | 176940 | CRHNC-63 |
| | 80 | 176941 | CRHNC-80 |
| | 100 | 176942 | CRHNC-100 |
| | 125 | 176943 | CRHNC-125 |
|  | 2 Flange mounting Dimensions online: → dsbf | | |
| | 32 | 161846 | CRFNG-32 |
| | 40 | 161847 | CRFNG-40 |
| | 50 | 161848 | CRFNG-50 |
| | 63 | 161849 | CRFNG-63 |
| | 80 | 161850 | CRFNG-80 |
| | 100 | 161851 | CRFNG-100 |
| | 125 | 185363 | CRFNG-125 |




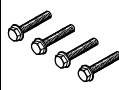
| | For Ø | Part No. | Type |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------|----------|----------------|
|  | 3 Trunnion flange Dimensions online: → dsbf | | |
| | 32 | 161852 | CRZNG-32 |
| | 40 | 161853 | CRZNG-40 |
| | 50 | 161854 | CRZNG-50 |
| | 63 | 161855 | CRZNG-63 |
| | 80 | 161856 | CRZNG-80 |
| | 100 | 161857 | CRZNG-100 |
| | 125 | 185362 | CRZNG-125 |
|  | 4 Trunnion support Dimensions online: → crlnlg | | |
| | 32 | 161874 | CRLNZG-32 |
| | 40, 50 | 161875 | CRLNZG-40/50 |
| | 63, 80 | 161876 | CRLNZG-63/80 |
| | 100, 125 | 161877 | CRLNZG-100/125 |

Standard cylinders DSBF-C, to ISO 1552, Clean Design




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
Accessories – Ordering data


| | For Ø | Part No. | Type |
|-------------------------------------------------------------------------------------------------------------------|---------|----------|---------------|
| 5 Swivel flange Dimensions online: → dsbf | | | |
|  | 32 | 176944 | SNCB-32-R3 |
| | 40 | 176945 | SNCB-40-R3 |
| | 50 | 176946 | SNCB-50-R3 |
| | 63 | 176947 | SNCB-63-R3 |
| | 80 | 176948 | SNCB-80-R3 |
| | 100 | 176949 | SNCB-100-R3 |
| | 125 | 176950 | SNCB-125-R3 |
| 6 Clevis foot Technical data online: → crlng | | | |
|  | 32 | 161840 | CRLNG-32 |
| | 40 | 161841 | CRLNG-40 |
| | 50 | 161842 | CRLNG-50 |
| | 63 | 161843 | CRLNG-63 |
| | 80 | 161844 | CRLNG-80 |
| | 100 | 161845 | CRLNG-100 |
| | 125 | 176951 | CRLNG-125 |
| 7 Self-aligning rod coupler Technical data online: → crfk | | | |
|  | 32 | 2305778 | CRFK-M10x1,25 |
| | 40 | 2305779 | CRFK-M12x1,25 |
| | 50, 63 | 2490673 | CRFK-M16x1,5 |
| | 80, 100 | 2545677 | CRFK-M20x1,5 |

| | For Ø | Part No. | Type |
|-----------------------------------------------------------------------------------------------------|---------|----------|-------------------|
| 8 Rod clevis Technical data online: → crrsg | | | |
|  | 32 | 13569 | CRSG-M10x1,25 |
| | 40 | 13570 | CRSG-M12x1,25 |
| | 50, 63 | 13571 | CRSG-M16x1,5 |
|  | 80, 100 | 13572 | CRSG-M20x1,5 |
| | 125 | 185361 | CRSG-M27x2 |
| 9 Rod eye Technical data online: → crsgs | | | |
|  | 32 | 195582 | CRSGS-M10x1,25 |
| | 40 | 195583 | CRSGS-M12x1,25 |
| | 50, 63 | 195584 | CRSGS-M16x1,5 |
| | 80, 100 | 195585 | CRSGS-M20x1,5 |
| | 125 | 195586 | CRSGS-M27x2 |
| 10 Blanking screw¹⁾ | | | |
|  | 32, 40 | 1355016 | DAMD-PS-M6-12-R1 |
| | 50, 63 | 650121 | DAMD-PS-M8-16-R1 |
| | 80, 100 | 1355026 | DAMD-PS-M10-16-R1 |

1) Packaging unit 4 pieces.

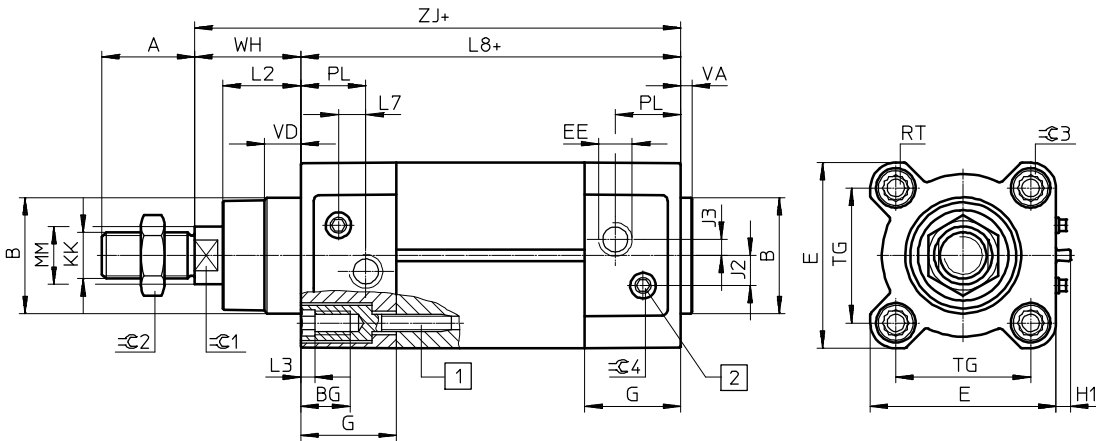
| | For Ø | Cable length [m] | Part No. | Type |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------|----------|---------------------------|
| 11 Proximity sensor, magneto-resistive – N/O contact Technical data online: → smt | | | | |
|  | PNP, cable | 5.0 | 571339 | SMT-C1-PS-24V-K-5,0-OE |
| | PNP, plug connector | 0.3 | 571342 | SMT-C1-PS-24V-K-0,3-M8D |
| | PNP, plug connector | 0.3 | 571341 | SMT-C1-PS-24V-K-0,3-M12 |
| 12 Mounting kit Technical data online: → dsbf | | | | |
|  | For mounting the proximity sensor CRSMT-8M on the mounting rail | – | 1806790 | SMB-8-C |
| 13 Proximity sensor for T-slot, magneto-resistive – N/O contact Technical data online: → crsmt-8m | | | | |
|  | PNP, cable | 5.0 | 574380 | CRSMT-8M-PS-24V-K-5,0-OE |
| | PNP, cable | 10.0 | 574381 | CRSMT-8M-PS-24V-K-10,0-OE |
| | PNP, plug connector | 0.3 | 574383 | CRSMT-8M-PS-24V-K-0,3-M8D |
| | PNP, plug connector | 0.3 | 574382 | CRSMT-8M-PS-24V-K-0,3-M12 |

| | Cable length [m] | Part No. | Type |
|----------------------------------------------------------------------------------------------------|------------------|----------|----------------------|
| 13 Connecting cable, straight socket Technical data → 1161 | | | |
|  | 2.5 | ★ 541333 | NEBU-M8G3-K-2.5-LE3 |
| | 5.0 | ★ 541334 | NEBU-M8G3-K-5-LE3 |
| | 2.5 | ★ 541363 | NEBU-M12G5-K-2.5-LE3 |
| | 5.0 | ★ 541364 | NEBU-M12G5-K-5-LE3 |
| Angled socket Technical data → 1161 | | | |
|  | 2.5 | ★ 541338 | NEBU-M8W3-K-2.5-LE3 |
| | 5.0 | ★ 541341 | NEBU-M8W3-K-5-LE3 |
| | 2.5 | 541367 | NEBU-M12W5-K-2.5-LE3 |
| | 5.0 | 541370 | NEBU-M12W5-K-5-LE3 |

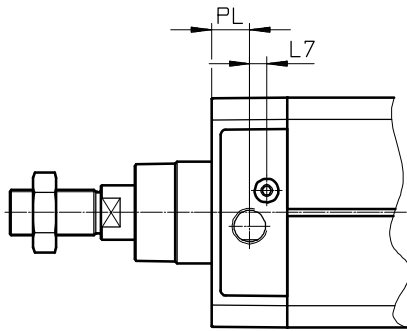
| | For Ø | Connection Thread | Part No. | Type |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------------|----------|--------------------------|
| 14 One-way flow control valve with slotted head screw, stainless steel for exhaust air flow control Technical data online: → grla | | | | |
|  | 32 | G $\frac{1}{8}$ | 161404 | CRGRLA- $\frac{1}{8}$ -B |
| | 40, 50 | G $\frac{1}{4}$ | 161405 | CRGRLA- $\frac{1}{4}$ -B |
| | 63, 80 | G $\frac{3}{8}$ | 161406 | CRGRLA- $\frac{3}{8}$ -B |
| | 100 | G $\frac{1}{2}$ | 161407 | CRGRLA- $\frac{1}{2}$ -B |

Dimensions

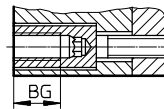
Basic design and A3 – Unlubricated operation



∅ 125



∅ 80 ... 125



+ = plus stroke length

- 1 Socket head screw with female thread for mounting components
- 2 Regulating screw for adjustable end-position cushioning

| ∅ | A | B | BG | E | EE | G | H1 | J2 | J3 |
|------|------|----------|------|------|-----------------|------|------|------|------|
| [mm] | -0.5 | ∅ d11 | min. | +0.5 | | -0.2 | ±0.2 | ±0.1 | ±0.1 |
| 32 | 22 | 30 | 16 | 45 | G $\frac{1}{8}$ | 28 | 5 | 5.7 | 5.3 |
| 40 | 24 | 35 | 16 | 54 | G $\frac{1}{4}$ | 33 | 5 | 8 | 4 |
| 50 | 32 | 40 | 16 | 64 | G $\frac{1}{4}$ | 33 | 5 | 10.4 | 5.5 |
| 63 | 32 | 45 | 16 | 75 | G $\frac{3}{8}$ | 40.5 | 5 | 12.8 | 6.3 |
| 80 | 40 | 45 | 17 | 93 | G $\frac{3}{8}$ | 43 | 5 | 12.5 | 8 |
| 100 | 40 | 55 | 17 | 110 | G $\frac{1}{2}$ | 48 | 5 | 13.5 | 10 |
| 125 | 54 | 60 | 20 | 136 | G $\frac{1}{2}$ | 44.7 | 5 | 13 | 8 |

| ∅ | KK | L2 | L3 | L7 | L8 | MM | PL | RT | TG |
|------|----------|----------------|------|-----|------|----|------|-----|------|
| [mm] | | | max. | | ±0.4 | ∅ | ±0.1 | | ±0.3 |
| 32 | M10x1.25 | 18 $_{-0.2}$ | 5 | 6.5 | 94 | 12 | 19.5 | M6 | 32.5 |
| 40 | M12x1.25 | 21.3 $_{-0.2}$ | 5 | 7.5 | 105 | 16 | 22.5 | M6 | 38 |
| 50 | M16x1.5 | 26.8 $_{-0.2}$ | 5 | 9.5 | 106 | 20 | 22.5 | M8 | 46.5 |
| 63 | M16x1.5 | 27 $_{-0.2}$ | 5 | 9 | 121 | 20 | 27.5 | M8 | 56.5 |
| 80 | M20x1.5 | 34.2 $_{-0.2}$ | - | 11 | 128 | 25 | 30 | M10 | 72 |
| 100 | M20x1.5 | 38 $_{-0.2}$ | - | 7.5 | 138 | 25 | 31.5 | M10 | 89 |
| 125 | M27x2 | 45.5 $_{-0.3}$ | - | 10 | 160 | 32 | 22.5 | M12 | 110 |

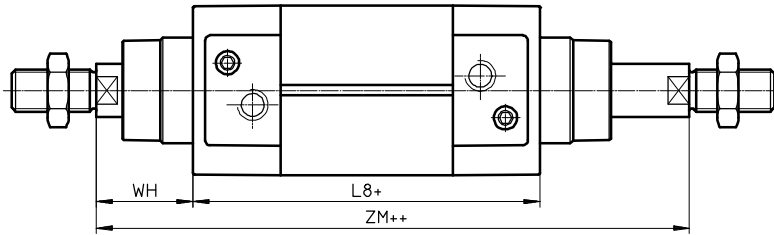
| ∅ | VA | VD | WH | ZJ | C1 | C2 | C3 | C4 |
|------|-------------|------|------|-------|----|----|----|----|
| [mm] | | +0.5 | +2.2 | +1.8 | | | | |
| 32 | 4 $_{-0.2}$ | 10 | 25 | 119.1 | 10 | 16 | 6 | 4 |
| 40 | 4 $_{-0.2}$ | 10.5 | 28.7 | 133.9 | 13 | 18 | 6 | 4 |
| 50 | 4 $_{-0.2}$ | 11.5 | 35.6 | 141.8 | 17 | 24 | 8 | 4 |
| 63 | 4 $_{-0.2}$ | 15 | 35.9 | 157.1 | 17 | 24 | 8 | 4 |
| 80 | 4 $_{-0.2}$ | 15.7 | 45.4 | 173.6 | 22 | 30 | 6 | 4 |
| 100 | 4 $_{-0.2}$ | 19.2 | 49.3 | 187.5 | 22 | 30 | 6 | 5 |
| 125 | 6 $_{-0.3}$ | 20.5 | 64.1 | 225 | 27 | 41 | 8 | 5 |

Standard cylinders DSBF-C, to ISO 15552, Clean Design

Dimensions

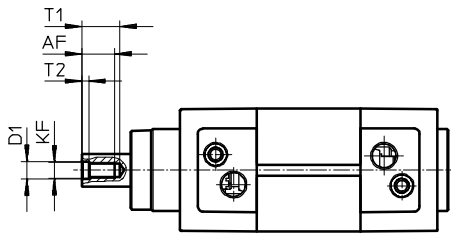
Download CAD data → www.festo.com

T – Through piston rod



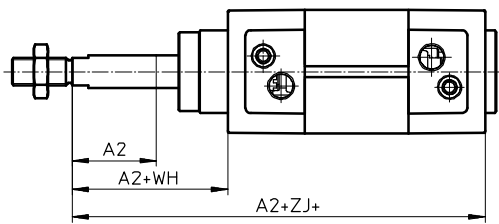
+ = plus stroke length
++ = plus 2x stroke length

F – Piston rod with female thread



Note
Female thread at both ends in combination with the variant T.

...E – Piston rod extension



Note
Piston rod extension at one end in combination with the variant T.

+ = plus stroke length

| ∅ [mm] | A2 max. | AF | D1 | KF | L8 ±0.4 |
|--------|---------|----|----------------------|-----|---------|
| 32 | 500 | 12 | 6.4 ^{+0.2} | M6 | 94 |
| 40 | | 12 | 8.4 ^{+0.2} | M8 | 105 |
| 50 | | 16 | 10.5 ^{+0.2} | M10 | 106 |
| 63 | | 16 | 10.5 ^{+0.2} | M10 | 121 |
| 80 | | 20 | 13 ^{+0.1} | M12 | 128 |
| 100 | | 20 | 13 ^{+0.1} | M12 | 138 |
| 125 | | 32 | 17 ^{+0.1} | M16 | 160 |

| ∅ [mm] | T1 | T2 +0.2 | WH +2.2 | ZJ +1.8 | ZM +1 |
|--------|------|---------|---------|---------|-------|
| 32 | 16 | 2.6 | 26 | 119.1 | 146.1 |
| 40 | 16 | 3.3 | 28.7 | 133.9 | 164.8 |
| 50 | 21 | 4.7 | 35.6 | 141.8 | 179.8 |
| 63 | 21 | 4.7 | 35.9 | 157.1 | 195.4 |
| 80 | 26.5 | 6.1 | 45.4 | 173.6 | 221 |
| 100 | 26.5 | 6.1 | 49.3 | 187.5 | 238.8 |
| 125 | 40 | 8 | 65 | 225 | 290 |



Overview/Configuration/Ordering
→ www.festo.com/catalogue/dnc



Additional information/Support/User documentation
→ www.festo.com/sp/dnc

Cylinders with piston rod
Standard cylinders

Cylinders to ISO 15552

DNC



- + ISO 15552 (ISO 6431, VDMA 24562)
- + With position sensing
- + Saves up to 11% on fitting space compared with ordinary standard cylinders
- + Wide range of variants
- + Profile slot for proximity sensors on three sides
- + No protruding proximity sensors

Standard cylinders DNC, to ISO 15552



- Strokes of up to 2000 mm
- Profile slot for proximity sensors on 3 sides
- Wide range of variants for customised applications
- Spare parts service
- Selected types in accordance with the ATEX Directive for explosive atmospheres → www.festo.com/catalogue/ex

→ www.festo.com/catalogue/dnc

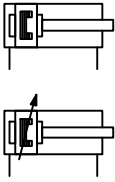
Product range overview

| Type/function | Piston Ø [mm] | Stroke [mm] | Force [N] | Product options | | | | | | → Page/online |
|-------------------------------------------------------|-----------------------------------------------|--------------|--------------|-----------------|-----|---|---|----|------------------------|------------------------|
| | | | | P | PPV | A | Q | S2 | S6 | |
| Double-acting | DNC – Basic design | | | | | | | | | |
| | 32, 40, 50, 63, 80, 100, 125 | 10 ... 2000 | 415 ... 7363 | ■ | ■ | ■ | ■ | ■ | ■ | 103 |
| | DNC-...-KP – With clamping unit | | | | | | | | | |
| | 32, 40, 50, 63, 80, 100, 125 | 10 ... 2000 | 415 ... 7363 | ■ | ■ | ■ | ■ | ■ | - | dnc-kp |
| | DNC-...-EL – With end-position locking | | | | | | | | | |
| 32, 40, 50, 63, 80, 100 | 10 ... 2000 | 415 ... 4712 | - | ■ | ■ | - | ■ | - | dnc-el | |
| DNC-...-V1 ... V6 – Cylinder/valve combination | | | | | | | | | | |
| 32, 40, 50, 63, 80, 100 | 10 ... 2000 | 415 ... 4712 | ■ | ■ | ■ | ■ | ■ | - | dnc-v | |

Product options

| | | | | | | | |
|-----|-----------------------------------------------|-----|---------------------------------|-----|--------------------------------------|-----|----------------------------------------|
| P | Elastic cushioning rings/plates at both ends | S20 | Through, hollow piston rod | K5 | Special piston rod thread | S6 | Heat-resistant seals up to max. 120 °C |
| PPV | Pneumatic cushioning, adjustable at both ends | K2 | Extended male piston rod thread | K7 | Piston rod with external hexagon | S10 | Slow speed |
| A | Position sensing | K3 | Female piston rod thread | K8 | Extended piston rod | S11 | Low friction |
| Q | Square piston rod | | | K10 | Smooth anodised aluminium piston rod | R3 | High corrosion protection |
| S2 | Through piston rod | | | | | R8 | Dust protection |

Technical data



| Technical data | | Dimensions → 109 | | | | | | |
|----------------------------------------|------|-----------------------------------------------|----------|---------|---------|---------|---------|-------|
| Piston Ø | | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| Pneumatic connection | | G1/8 | G1/4 | G1/4 | G3/8 | G3/8 | G1/2 | G1/2 |
| Piston rod end | | Male thread | | | | | | |
| Piston rod thread | | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 | M20x1.5 | M20x1.5 | M27x2 |
| Stroke | [mm] | 10 ... 2000 | | | | | | |
| Cushioning | | | | | | | | |
| DNC-...-P | | Elastic cushioning rings/plates at both ends | | | | | | |
| DNC-...-PPV | | Pneumatic cushioning, adjustable at both ends | | | | | | |
| Cushioning length | [mm] | 20 | 20 | 22 | 22 | 32 | 32 | 42 |
| Theoretical force at 6 bar, advancing | | | | | | | | |
| DNC-... | [N] | 483 | 754 | 1178 | 1870 | 3016 | 4712 | 7363 |
| DNC-...-S2 | [N] | 415 | 633 | 990 | 1682 | 2721 | 4418 | 6881 |
| Theoretical force at 6 bar, retracting | | | | | | | | |
| | [N] | 415 | 633 | 990 | 1682 | 2721 | 4418 | 6881 |
| Max. torque at the piston rod | | | | | | | | |
| | [Nm] | 0.8 | 1.1 | 1.5 | 1.5 | 3 | 3 | – |

Operating conditions

| | | | | |
|-----------------------------------|-------|-------------|--|------------|
| Piston Ø | | 32 ... 100 | | 125 |
| Operating pressure | | | | |
| DNC-... | [bar] | 0.6 ... 12 | | 0.6 ... 10 |
| DNC-...-S6 | [bar] | 0.6 ... 10 | | |
| Ambient temperature ¹⁾ | | | | |
| DNC-... | [°C] | –20 ... +80 | | |
| DNC-...-S6 | [°C] | 0 ... +120 | | |

1) Note operating range of proximity sensors.

Materials

| | |
|-----------------|---------------------------|
| Piston rod | High-alloy steel |
| Bearing cap | Coated die-cast aluminium |
| Cylinder barrel | Smooth anodised aluminium |
| End cap | Coated die-cast aluminium |
| Seals | TPE-U (PU) |

Standard cylinders DNC, to ISO 15552

1

Order code

| | | | | | | | | | | | | | |
|------------------------------------|--------------------------------------------------------|-------------|--|---|--|---|--|---|--|---|--|---|--|
| DNC | | - | | - | | - | | - | | - | | - | |
| Type | | | | | | | | | | | | | |
| DNC | Double-acting standard cylinder | | | | | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | | | | | |
| Stroke [mm] | | | | | | | | | | | | | |
| 32, 40, 50, 63, 80, 100, 125 | 25, 40, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500 | 10 ... 2000 | | | | | | | | | | | |
| 32, 40, 50, 63, 80, 100, 125 | 20, 30, 60, 70, 150, 300 | 1 | | | | | | | | | | | |
| Cushioning | | | | | | | | | | | | | |
| P | Elastic cushioning rings/plates at both ends | | | | | | | | | | | | |
| PPV | Pneumatic cushioning, adjustable at both ends | | | | | | | | | | | | |
| Position sensing | | | | | | | | | | | | | |
| - | None | | | | | | | | | | | | |
| A | Via proximity sensor | | | | | | | | | | | | |
| Protection against rotation | | | | | | | | | | | | | |
| - | None | | | | | | | | | | | | |
| Q | Square piston rod 2 | | | | | | | | | | | | |
| Piston rod type | | | | | | | | | | | | | |
| - | Piston rod at one end | | | | | | | | | | | | |
| S2 | Through piston rod | | | | | | | | | | | | |
| Temperature resistance | | | | | | | | | | | | | |
| - | Standard | | | | | | | | | | | | |
| S6 | Heat-resistant seals up to max. 120 °C | | | | | | | | | | | | |


- 1 Only with position sensing A
- 2 Not with piston Ø 125
Max. stroke: 10 ... 1500 mm

Order example:

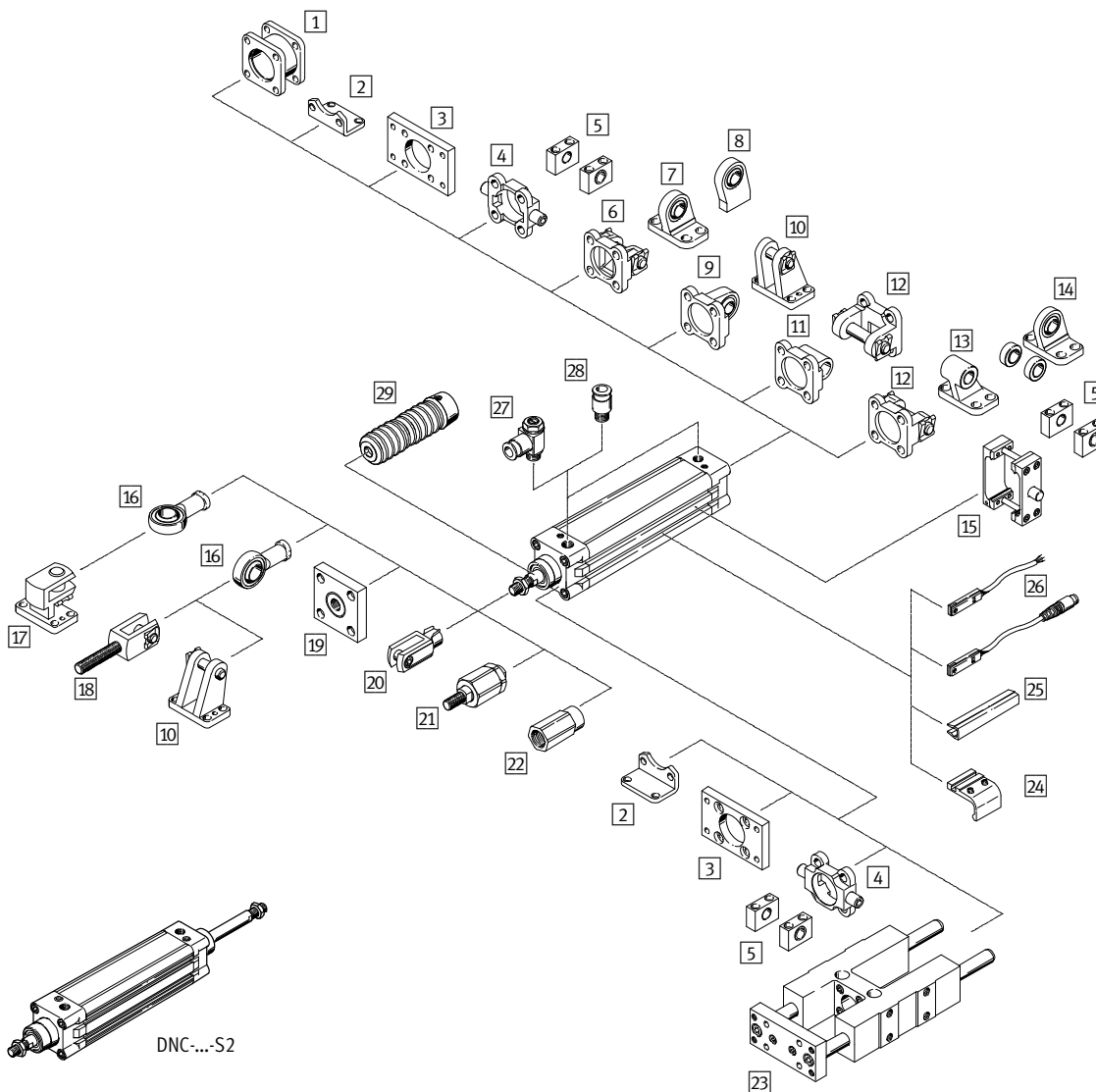
DNC-80-550-PPV-A-S2-S6

Double-acting standard cylinder DNC - piston diameter 80 mm - stroke 550 mm - pneumatic cushioning, adjustable at both ends - position sensing via proximity sensor - without protection against rotation - through piston rod - heat-resistant seals up to max. 120 °C

Ordering – Product options

| | | | | |
|-------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
|  | Configurable product | This product and all its options can be ordered using the configurator. | The configurator can be found under Products on the DVD or www.festo.com/catalogue/... | Enter the type code in the search field. |
|-------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|

Accessories




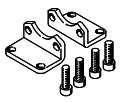

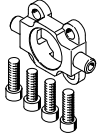
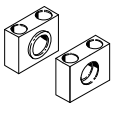
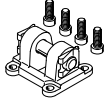
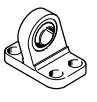
DNC...S2


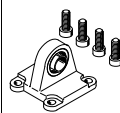
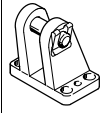
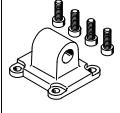
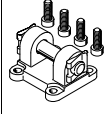

| | | → Page/ online |
|----|-------------------------|-------------------|
| 1 | Multi-position kit DPNC | 106 |
| 2 | Foot mounting HNC | 106 |
| | Foot mounting CRHNC | dnc |
| 3 | Flange mounting FNC | 106 |
| | Flange mounting CRFNG | dnc |
| 4 | Trunnion flange ZNCF | 106 |
| | Trunnion flange CRZNG | dnc |
| 5 | Trunnion support LNZG | 106 |
| | Trunnion support CRLNZG | dnc |
| 6 | Swivel flange SNC | 106 |
| 7 | Clevis foot LSNG | 106 |
| 8 | Clevis foot LSNSG | 106 |
| 9 | Swivel flange SNCS | 106 |
| 10 | Clevis foot LBG | 106 |
| 11 | Swivel flange SNCL | 106 |
| 12 | Swivel flange SNCB | 106 |
| | Swivel flange SNCB-R3 | dnc |
| 13 | Clevis foot LNG | 106 |
| | Clevis foot CRLNG | dnc |

| | | → Page/ online |
|----|-------------------------------------------------------|-------------------|
| 14 | Clevis foot LSN | 107 |
| 15 | Trunnion mounting kit DAMT | 107 |
| 16 | Rod eye SGS | 107 |
| | Rod eye CRSGS | dnc |
| 17 | Right-angle clevis foot LQG | 107 |
| 18 | Rod clevis SGA | 107 |
| 19 | Coupling piece KSG/KSZ | 107 |
| 20 | Rod clevis SG | 107 |
| | Rod clevis CRSG | dnc |
| 21 | Self-aligning rod coupler FK | 107 |
| 22 | Adapter AD | 107 |
| 23 | Guide unit FENG | 107 |
| 24 | Mounting kit SMB-8-FENG | 107 |
| 25 | Slot cover ABP-5-S | 107 |
| 26 | Proximity sensor SME/SMT and connecting cable NEBU | 108 |
| 27 | One-way flow control valve GRLA | 108 |
| 28 | Push-in fitting QS | 1098 |
| 29 | Protective bellows kit DADB | dnc |

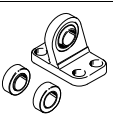
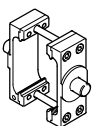



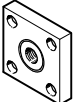
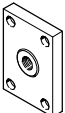
Standard cylinders DNC, to ISO 15552




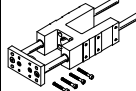
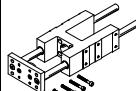


Accessories – Ordering data

| | For Ø | Part No. | Type |
|-------------------------------------------------------------------------------------------------------|----------|----------|--------------|
| 1 Multi-position kit Dimensions online: → dnc | | | |
|  | 32 | 174418 | DPNC-32 |
| | 40 | 174419 | DPNC-40 |
| | 50 | 174420 | DPNC-50 |
| | 63 | 174421 | DPNC-63 |
| | 80 | 174422 | DPNC-80 |
| | 100 | 174423 | DPNC-100 |
| | 125 | 174424 | DPNC-125 |
| 2 Foot mounting Dimensions online: → dnc | | | |
|  | 32 | ★ 174369 | HNC-32 |
| | 40 | ★ 174370 | HNC-40 |
| | 50 | ★ 174371 | HNC-50 |
| | 63 | ★ 174372 | HNC-63 |
| | 80 | ★ 174373 | HNC-80 |
| | 100 | 174374 | HNC-100 |
| | 125 | 174375 | HNC-125 |
| 3 Flange mounting Dimensions online: → dnc | | | |
|  | 32 | ★ 174376 | FNC-32 |
| | 40 | ★ 174377 | FNC-40 |
| | 50 | ★ 174378 | FNC-50 |
| | 63 | ★ 174379 | FNC-63 |
| | 80 | ★ 174380 | FNC-80 |
| | 100 | 174381 | FNC-100 |
| | 125 | 174382 | FNC-125 |
| 4 Trunnion flange Dimensions online: → dnc | | | |
|  | 32 | 174411 | ZNCF-32 |
| | 40 | 174412 | ZNCF-40 |
| | 50 | 174413 | ZNCF-50 |
| | 63 | 174414 | ZNCF-63 |
| | 80 | 174415 | ZNCF-80 |
| | 100 | 174416 | ZNCF-100 |
| | 125 | 174417 | ZNCF-125 |
| 5 Trunnion support Dimensions online: → lnzg | | | |
|  | 32 | 32959 | LNZG-32 |
| | 40, 50 | 32960 | LNZG-40/50 |
| | 63, 80 | 32961 | LNZG-63/80 |
| | 100, 125 | 32962 | LNZG-100/125 |
| 6 Swivel flange Dimensions online: → dnc | | | |
|  | 32 | ★ 174383 | SNC-32 |
| | 40 | ★ 174384 | SNC-40 |
| | 50 | ★ 174385 | SNC-50 |
| | 63 | ★ 174386 | SNC-63 |
| | 80 | ★ 174387 | SNC-80 |
| | 100 | 174388 | SNC-100 |
| | 125 | 174389 | SNC-125 |
| 7 Clevis foot Technical data online: → lsng | | | |
|  | 32 | 31740 | LSNG-32 |
| | 40 | 31741 | LSNG-40 |
| | 50 | 31742 | LSNG-50 |
| | 63 | 31743 | LSNG-63 |
| | 80 | 31744 | LSNG-80 |
| | 100 | 31745 | LSNG-100 |
| | 125 | 31746 | LSNG-125 |

| | For Ø | Part No. | Type |
|------------------------------------------------------------------------------------------------------|-------|----------|-----------|
| 8 Clevis foot Technical data online: → lsnsg | | | |
|  | 32 | 31747 | LSNSG-32 |
| | 40 | 31748 | LSNSG-40 |
| | 50 | 31749 | LSNSG-50 |
| | 63 | 31750 | LSNSG-63 |
| | 80 | 31751 | LSNSG-80 |
| | 100 | 31752 | LSNSG-100 |
| | 125 | 31753 | LSNSG-125 |
| 9 Swivel flange Dimensions online: → dnc | | | |
|  | 32 | ★ 174397 | SNCS-32 |
| | 40 | ★ 174398 | SNCS-40 |
| | 50 | ★ 174399 | SNCS-50 |
| | 63 | ★ 174400 | SNCS-63 |
| | 80 | ★ 174401 | SNCS-80 |
| | 100 | 174402 | SNCS-100 |
| | 125 | 174403 | SNCS-125 |
| 10 Clevis foot Technical data online: → lbg | | | |
|  | 32 | 31761 | LBG-32 |
| | 40 | 31762 | LBG-40 |
| | 50 | 31763 | LBG-50 |
| | 63 | 31764 | LBG-63 |
| | 80 | 31765 | LBG-80 |
| | 100 | 31766 | LBG-100 |
| | 125 | 31767 | LBG-125 |
| 11 Swivel flange Dimensions online: → dnc | | | |
|  | 32 | ★ 174404 | SNCL-32 |
| | 40 | ★ 174405 | SNCL-40 |
| | 50 | ★ 174406 | SNCL-50 |
| | 63 | ★ 174407 | SNCL-63 |
| | 80 | ★ 174408 | SNCL-80 |
| | 100 | 174409 | SNCL-100 |
| | 125 | 174410 | SNCL-125 |
| 12 Swivel flange Dimensions online: → dnc | | | |
|  | 32 | ★ 174390 | SNCB-32 |
| | 40 | ★ 174391 | SNCB-40 |
| | 50 | ★ 174392 | SNCB-50 |
| | 63 | ★ 174393 | SNCB-63 |
| | 80 | ★ 174394 | SNCB-80 |
| | 100 | 174395 | SNCB-100 |
| | 125 | 174396 | SNCB-125 |
| 13 Clevis foot Technical data online: → lng | | | |
|  | 32 | ★ 33890 | LNG-32 |
| | 40 | ★ 33891 | LNG-40 |
| | 50 | ★ 33892 | LNG-50 |
| | 63 | ★ 33893 | LNG-63 |
| | 80 | ★ 33894 | LNG-80 |
| | 100 | 33895 | LNG-100 |
| | 125 | 33896 | LNG-125 |

Accessories – Ordering data

| | For Ø | Part No. | Type |
|-----------------------------------------------------------------------------------------------------------------|---------|-----------|---------------|
| 14 Clevis foot Technical data online: → lsn | | | |
|  | 32 | 5561 | LSN-32 |
| | 40 | 5562 | LSN-40 |
| | 50 | 5563 | LSN-50 |
| | 63 | 5564 | LSN-63 |
| | 80 | 5565 | LSN-80 |
| | 100 | 5566 | LSN-100 |
| | 125 | 6987 | LSN-125 |
| 15 Trunnion mounting kit Dimensions online: → dnc | | | |
|  | 32 | ★ 2213233 | DAMT-V1-32-A |
| | 40 | ★ 2214899 | DAMT-V1-40-A |
| | 50 | ★ 2214909 | DAMT-V1-50-A |
| | 63 | ★ 2214971 | DAMT-V1-63-A |
| | 80 | ★ 163529 | DAMT-V1-80-A |
| | 100 | 163530 | DAMT-V1-100-A |
| | 125 | 163531 | DAMT-V7-125-A |
| 16 Rod eye Technical data online: → sgs | | | |
|  | 32 | ★ 9261 | SGS-M10x1,25 |
| | 40 | ★ 9262 | SGS-M12x1,25 |
| | 50, 63 | ★ 9263 | SGS-M16x1,5 |
| | 80, 100 | ★ 9264 | SGS-M20x1,5 |
| | 125 | 10774 | SGS-M27x2 |
| 17 Right-angle clevis foot Technical data online: → lqg | | | |
|  | 32 | 31768 | LQG-32 |
| | 40 | 31769 | LQG-40 |
| | 50 | 31770 | LQG-50 |
| | 63 | 31771 | LQG-63 |
| | 80 | 31772 | LQG-80 |
| | 100 | 31773 | LQG-100 |
| | 125 | 31774 | LQG-125 |
| 18 Rod clevis Technical data online: → sga | | | |
|  | 32 | 32954 | SGA-M10x1,25 |
| | 40 | 10767 | SGA-M12x1,25 |
| | 50, 63 | 10768 | SGA-M16x1,5 |
| | 80, 100 | 10769 | SGA-M20x1,5 |
| | 125 | 10770 | SGA-M27x2 |
| | | | |
| 19 Coupling piece Technical data online: → ksg | | | |
|  | 32 | 32963 | KSG-M10x1,25 |
| | 40 | 32964 | KSG-M12x1,25 |
| | 50, 63 | 32965 | KSG-M16x1,5 |
| | 80, 100 | 32966 | KSG-M20x1,5 |
| | 125 | 32967 | KSG-M27x2 |
| 19 Coupling piece Technical data online: → ksz | | | |
|  | 32 | 36125 | KSZ-M10x1,25 |
| | 40 | 32126 | KSZ-M12x1,25 |
| | 50, 63 | 36127 | KSZ-M16x1,5 |
| | 80, 100 | 36128 | KSZ-M20x1,5 |

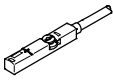
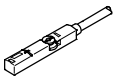
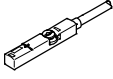

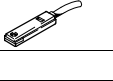


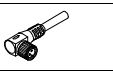
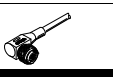
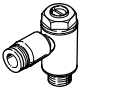
| | For Ø | Part No. | Type |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------|-----------------------------|
| 20 Rod clevis Technical data online: → sg | | | |
|  | 32 | ★ 6144 | SG-M10x1,25 |
| | 40 | ★ 6145 | SG-M12x1,25 |
| | 50, 63 | ★ 6146 | SG-M16x1,5 |
| | 80, 100 | ★ 6147 | SG-M20x1,5 |
| | 125 | 14987 | SG-M27x2-B |
| 21 Self-aligning rod coupler Technical data online: → fk | | | |
|  | 32 | ★ 6140 | FK-M10x1,25 |
| | 40 | ★ 6141 | FK-M12x1,25 |
| | 50, 63 | ★ 6142 | FK-M16x1,5 |
| | 80, 100 | ★ 6143 | FK-M20x1,5 |
| | 125 | 10485 | FK-M27x2 |
| 22 Adapter Technical data online: → ad | | | |
|  | 32 | 157333 | AD-M10x1,25-1/8 |
| | | 157334 | AD-M10x1,25-1/4 |
| | 40 | 160256 | AD-M12x1,25-1/4 |
| | | 160257 | AD-M12x1,25-3/8 |
| 23 Guide unit for variable strokes from 10 ... 500 mm, with recirculating ball bearing guide Technical data online: → feng | | | |
|  | 32 | 34487 | FENG-32-...-KF ¹ |
| | 40 | 34488 | FENG-40-...-KF ¹ |
| | 50 | 34489 | FENG-50-...-KF ¹ |
| | 63 | 34490 | FENG-63-...-KF ¹ |
| | 80 | 34491 | FENG-80-...-KF ¹ |
| 100 | 34492 | FENG-100-...-KF ¹ | |
| 23 Guide unit for variable strokes from 10 ... 500 mm, with plain-bearing guide Technical data online: → feng | | | |
|  | 32 | 34481 | FENG-32-...-GF ¹ |
| | 40 | 34482 | FENG-40-...-GF ¹ |
| | 50 | 34483 | FENG-50-...-GF ¹ |
| | 63 | 34484 | FENG-63-...-GF ¹ |
| | 80 | 34485 | FENG-80-...-GF ¹ |
| 100 | 34486 | FENG-100-...-GF ¹ | |
| 24 Mounting kit for proximity sensor, for SMT-/SME-8 in combination with guide unit FENG | | | |
|  | 32, 40 | 175705 | SMB-8-FENG-32/40 |
| | 50, 63 | 175706 | SMB-8-FENG-50/63 |
| | 80, 100 | 175707 | SMB-8-FENG-80/100 |
| 25 Slot cover²⁾ | | | |
|  | 32 ... 125 | 151680 | ABP-5-S |

1) Enter required stroke. Order example: the order code for an appropriate guide unit for the standard cylinder DNC-40-250 is FENG-40-250-KF (guide unit FENG - piston diameter 40 mm - stroke 250 mm - with recirculating ball bearing guide).

2) Packaging unit 2x 0,5 m.

Standard cylinders DNC, to ISO 15552

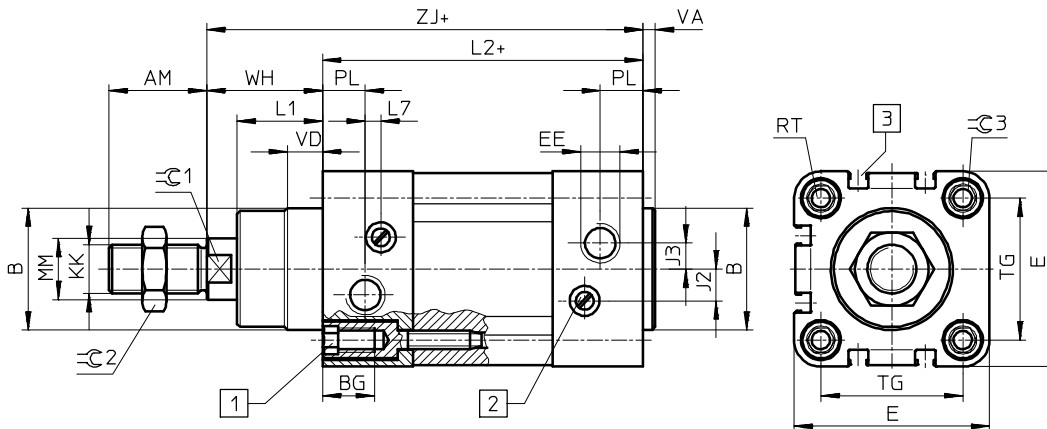
Accessories – Ordering data

| | For Ø | Cable length [m] | Part No. Type | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|---------------|---------------------------------------|
| | | | Thread | O.D. |
| 26 Proximity sensor for T-slot, magneto-resistive – N/O contact Technical data → 878 | | | | |
|  | PNP, cable | 2.5 | ★ | 574335 SMT-8M-A-PS-24V-E-2,5-OE |
| | PNP, plug connector | 0.3 | ★ | 574334 SMT-8M-A-PS-24V-E-0,3-M8D |
| | PNP, plug connector | 0.3 | ★ | 574337 SMT-8M-A-PS-24V-E-0,3-M12 |
| | NPN, cable | 2.5 | ★ | 574338 SMT-8M-A-NS-24V-E-2,5-OE |
| | NPN, plug connector | 0.3 | ★ | 574339 SMT-8M-A-NS-24V-E-0,3-M8D |
| Magneto-resistive – N/C contact Technical data → 878 | | | | |
|  | PNP, cable | 7.5 | ★ | 574340 SMT-8M-A-PO-24V-E-7,5-OE |
| 26 Magnetic reed – N/O contact Technical data → 873 | | | | |
|  | Cable | 2.5 | ★ | 543862 SME-8M-DS-24V-K-2,5-OE |
| | Cable | 5.0 | ★ | 543863 SME-8M-DS-24V-K-5,0-OE |
| | Cable | 2.5 | ★ | 543872 SME-8M-ZS-24V-K-2,5-OE |
| | Plug connector | 0.3 | ★ | 543861 SME-8M-DS-24V-K-0,3-M8D |
| Technical data → 875 | | | | |
|  | Cable | 2.5 | | 150855 SME-8-K-LED-24 |
| | Plug connector | 0.3 | | 150857 SME-8-S-LED-24 |
| Magnetic reed – N/C contact Technical data → 875 | | | | |
|  | Cable | 7.5 | | 160251 SME-8-O-K-LED-24 |
| 26 Connecting cable, straight socket Technical data → 1161 | | | | |
|  | – | 2.5 | ★ | 541333 NEBU-M8G3-K-2.5-LE3 |
| | – | 5.0 | ★ | 541334 NEBU-M8G3-K-5-LE3 |
|  | – | 2.5 | ★ | 541363 NEBU-M12G5-K-2.5-LE3 |
| | – | 5.0 | ★ | 541364 NEBU-M12G5-K-5-LE3 |
| Angled socket Technical data → 1161 | | | | |
|  | – | 2.5 | ★ | 541338 NEBU-M8W3-K-2.5-LE3 |
| | – | 5.0 | ★ | 541341 NEBU-M8W3-K-5-LE3 |
|  | – | 2.5 | | 541367 NEBU-M12W5-K-2.5-LE3 |
| | – | 5.0 | | 541370 NEBU-M12W5-K-5-LE3 |
| 27 One-way flow control valve for exhaust air flow control¹⁾ with slotted head screw, metal Technical data → 760 | | | | |
|  | 32 | G $\frac{1}{8}$ | 4 | ★ 193143 GRLA- $\frac{1}{8}$ -QS-4-D |
| | 40, 50 | G $\frac{1}{4}$ | 6 | ★ 193146 GRLA- $\frac{1}{4}$ -QS-6-D |
| | 63, 80 | G $\frac{3}{8}$ | 8 | ★ 193150 GRLA- $\frac{3}{8}$ -QS-8-D |
| | 100, 125 | G $\frac{1}{2}$ | 12 | ★ 193152 GRLA- $\frac{1}{2}$ -QS-12-D |

1) The recommended flow control valves are based on a tubing length to the valve of 1 m. For deviations of ±50%, flow control valves with a bigger or smaller flow rate must be selected to guarantee the optimum flow control function and cylinder speed.

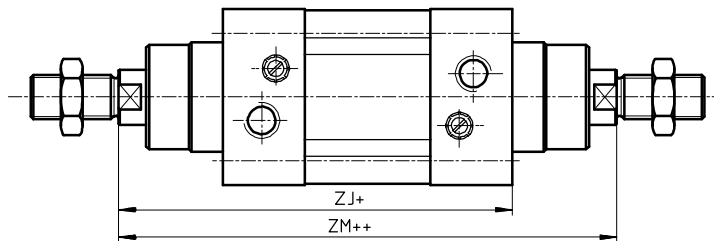
Dimensions

Download CAD data → www.festo.com

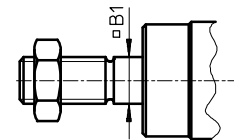


- 1 Socket head screw with female thread for mounting attachments
 - 2 Regulating screw for adjustable end-position cushioning
 - 3 Slot for proximity sensor SME/SMT-8
- + = plus stroke length

S2 – Through piston rod



Q – Square piston rod



Note

The thread types at both piston rod ends are identical. In combination with variant Q, the left-hand piston rod end is square, the right-hand piston rod end round.

+ = plus stroke length
++ = plus 2x stroke length

| ∅ | AM | B | B1 | BG | E | EE | J2 | J3 | KK | L1 | L2 | L7 |
|------|----|----------|----|----|-----|------|------|-----|----------|------|-----|------|
| [mm] | | ∅ d11 | □ | | | | | | | | | |
| 32 | 22 | 30 | 10 | 16 | 45 | G1/8 | 6 | 5.2 | M10x1.25 | 18 | 94 | 3.3 |
| 40 | 24 | 35 | 12 | 16 | 54 | G1/4 | 8 | 6 | M12x1.25 | 21.5 | 105 | 3.6 |
| 50 | 32 | 40 | 16 | 17 | 64 | G1/4 | 10.4 | 8.5 | M16x1.5 | 28 | 106 | 5.1 |
| 63 | 32 | 45 | 16 | 17 | 75 | G3/8 | 12.4 | 10 | M16x1.5 | 28.5 | 121 | 6.6 |
| 80 | 40 | 45 | 20 | 17 | 93 | G3/8 | 12.5 | 8 | M20x1.5 | 34.7 | 128 | 10.5 |
| 100 | 40 | 55 | 20 | 17 | 110 | G1/2 | 12 | 10 | M20x1.5 | 38.2 | 138 | 8 |
| 125 | 54 | 60 | - | 22 | 134 | G1/2 | 13 | 8 | M27x2 | 46 | 160 | 14 |

| ∅ | MM | PL | RT | TG | VA | VD | WH | ZJ | ZM | C1 | C2 | C3 |
|------|----|------|-----|------|----|------|----|-----|-----|----|----|----|
| [mm] | ∅ | | | | | | | | | | | |
| 32 | 12 | 15.6 | M6 | 32.5 | 4 | 10 | 26 | 120 | 148 | 10 | 16 | 6 |
| 40 | 16 | 14 | M6 | 38 | 4 | 10.5 | 30 | 135 | 167 | 13 | 18 | 6 |
| 50 | 20 | 14 | M8 | 46.5 | 4 | 11.5 | 37 | 143 | 183 | 17 | 24 | 8 |
| 63 | 20 | 17 | M8 | 56.5 | 4 | 15 | 37 | 158 | 199 | 17 | 24 | 8 |
| 80 | 25 | 16.4 | M10 | 72 | 4 | 15.7 | 46 | 174 | 222 | 22 | 30 | 6 |
| 100 | 25 | 18.8 | M10 | 89 | 4 | 19.2 | 51 | 189 | 240 | 22 | 30 | 6 |
| 125 | 32 | 18 | M12 | 110 | 6 | 20.5 | 65 | 225 | 291 | 27 | 36 | 8 |



Overview/Configuration/Ordering
→ www.festo.com/catalogue/dsnu



Additional information/Support/User documentation
→ www.festo.com/sp/dsnu

Cylinders with piston rod
Standard cylinders

Round cylinder to ISO 6432

DSNU/ESNU



- + ISO 6432 (Piston- \varnothing 8 ... 25 mm)
- + For position sensing
- + Wide range of variants
- + Good running performance and long service life
- + Piston rod with female or male thread



Overview/Configuration/Ordering
→ www.festo.com/catalogue/dsnu



Additional information/Support/User documentation
→ www.festo.com/sp/dsnu

Cylinders with piston rod
Round cylinders

Round cylinders

DSNU/ESNU



- + For position sensing
- + Wide range of variants
- + Good running performance and long service life
- + Piston rod with female or male thread

Round cylinders DSNU/DSNUP/DSN/ESNU/ESN



- For the highest requirements for running characteristics, service life and load carrying ability
- Universal use thanks to individual product options
- Wide range of accessories
- Selected types in accordance with the ATEX Directive for explosive atmospheres → www.festo.com/catalogue/ex
- ★ Quick ordering of basic designs → 115

→ www.festo.com/catalogue/dsnu

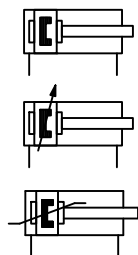
Product range overview

| Type/function | Version | Piston Ø [mm] | Stroke [mm] | Force [N] | Product options | | | | | | | | | | → Page/online |
|---------------|-----------------------------------------------------------------------------------|---------------------------------------|-------------|--------------|-----------------|-----|-----|---|---|----|----|----|----|----------------------|----------------------|
| | | | | | P | PPV | PPS | A | Q | S2 | KP | K8 | S6 | | |
| Double-acting | DSNU – Cylinder barrel: Stainless steel; End caps: Wrought aluminium alloy | | | | | | | | | | | | | | |
| | Basic design to ISO 6432 | 8, 10, 12, 16, 20, 25 | 1 ... 500 | 30 ... 295 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 113 |
| | Basic design | 32, 40, 50, 63 | 1 ... 500 | 483 ... 1870 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 113 |
| | MQ – Plain end cap, lateral connection | 8, 10, 12, 16, 20, 25, 32, 40, 50, 63 | 1 ... 500 | 30 ... 1870 | ■ | ■ | ■ | ■ | ■ | - | ■ | ■ | ■ | ■ | 113 |
| | MA – Plain end cap, axial connection | | | | ■ | - | - | ■ | ■ | - | ■ | ■ | ■ | ■ | dsnu |
| | MH – Direct mounting | | | | ■ | ■ | - | ■ | ■ | - | - | ■ | ■ | ■ | ■ |
| | DSNUP – Cylinder barrel: Wrought aluminium alloy; End caps: Polyamide | | | | | | | | | | | | | | |
| | Basic design to ISO 6432 | 16, 20, 25 | 25 ... 100 | 121 ... 295 | ■ | - | - | ■ | - | - | - | - | - | - | 119 |
| | DSN | | | | | | | | | | | | | | |
| | Basic design to ISO 6432 | 8, 10, 12, 16, 20, 25 | 1 ... 500 | 30 ... 295 | ■ | ■ | - | - | - | - | - | - | - | - | 122 |
| Single-acting | ESNU | | | | | | | | | | | | | | |
| | Basic design to ISO 6432 | 8, 10, 12, 16, 20, 25 | 1 ... 50 | 24 ... 270 | ■ | - | - | ■ | - | - | - | ■ | - | 124 | |
| | Basic design | 32, 40, 50, 63 | 1 ... 50 | 442 ... 1763 | ■ | - | - | ■ | - | - | - | ■ | - | 124 | |
| | MA – Plain end cap, axial connection | 8, 10, 12, 16, 20, 25 | 1 ... 50 | 24 ... 1763 | ■ | - | - | ■ | - | - | - | ■ | - | esnu | |
| | ESN | | | | | | | | | | | | | | |
| | Basic design to ISO 6432 | 8, 10, 12, 16, 20, 25 | 1 ... 50 | 24 ... 270 | ■ | - | - | - | - | - | - | - | - | - | 126 |

Product options

| | | | | | | | |
|-----|---------------------------------------------------|----|-----------------------------------------------|----|----------------------------------------|-----|----------------------------------|
| P | Elastic cushioning rings/plates at both ends | MQ | Alternative plain end cap, lateral connection | Q | With protection against rotation | K3 | Female piston rod thread |
| PPV | Pneumatic cushioning, adjustable at both ends | MA | Alternative plain end cap, axial connection | S2 | Through piston rod | K5 | Special piston rod thread |
| PPS | Pneumatic cushioning, self-adjusting at both ends | MH | Alternative end cap, direct mounting | KP | With clamping unit | K6 | Shortened male piston rod thread |
| A | Position sensing | | | K8 | Extended piston rod | S10 | Slow speed |
| | | | | S6 | Heat-resistant seals up to max. 120 °C | S11 | Low friction |
| | | | | K2 | Extended male piston rod thread | R3 | High corrosion protection |
| | | | | | | R8 | Wiper seal |

Technical data – Double-acting



| Technical data | | | | | | | | | | | Dimensions → 132 | |
|----------------------------------------|----------------------------------------------|----|---------------------------------------------------|----|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|--|
| Piston Ø | 8 | 10 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | | |
| Conforms to standard | ISO 6432 | | | | | | – | | | | | |
| Pneumatic connection | M5 | M5 | M5 | M5 | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{4}$ | G $\frac{1}{4}$ | G $\frac{1}{4}$ | G $\frac{3}{8}$ | |
| Piston rod end | Male thread | | | | | | | | | | | |
| Piston rod thread | M4 | M4 | M6 | M6 | M8 | M10x1.25 | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 | | |
| Stroke ¹⁾ | [mm] 1 ... 100 | | 1 ... 200 | | 1 ... 320 | | 1 ... 500 | | | | | |
| Cushioning | | | | | | | | | | | | |
| DSNU-...-P | Elastic cushioning rings/plates at both ends | | | | | | | | | | | |
| DSNU-...-PPV | – | | Pneumatic cushioning, adjustable at both ends | | | | | | | | | |
| DSNU-...-PPS | – | | Pneumatic cushioning, self-adjusting at both ends | | | | | | | | | |
| Cushioning length | | | | | | | | | | | | |
| DSNU-...-PPV | [mm] | – | 9 | 12 | 15 | 17 | 14 | 18 | 20 | 21 | | |
| DSNU-...-PPS | [mm] | – | | 12 | 15 | 17 | 14 | 18 | 20 | 21 | | |
| Theoretical force at 6 bar, advancing | [N] | 30 | 47 | 68 | 121 | 189 | 295 | 483 | 753 | 1178 | 1870 | |
| Theoretical force at 6 bar, retracting | [N] | 23 | 40 | 51 | 104 | 158 | 247 | 415 | 633 | 990 | 1682 | |

- 1) Cylinders with position sensing require a minimum stroke of 10 mm to ensure reliable sensing. Longer strokes on request.

Operating conditions

| Operating conditions | | | | | | | | | | | |
|-----------------------------------|-------|--------------------------|----|----|----------|----|----|----|----|----|--|
| Piston Ø | 8 | 10 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | |
| Operating pressure | | | | | | | | | | | |
| DSNU-... | [bar] | 1.5 ... 10 ²⁾ | | | 1 ... 10 | | | | | | |
| DSNU-...-S6 | [bar] | 1.5 ... 10 ²⁾ | | | 1 ... 10 | | | | | | |
| Ambient temperature ³⁾ | | | | | | | | | | | |
| DSNU-... | [°C] | –20 ... +80 | | | | | | | | | |
| DSNU-...-S6 | [°C] | 0 ... +120 | | | | | | | | | |

- 2) Piston-Ø: 12 mm, PPV – pneumatic cushioning, adjustable at both ends 2 ... 10 bar.

- 3) Note operating range of proximity sensors.

Materials

| | |
|-----------------|----------------------------------------|
| Piston rod | High-alloy stainless steel |
| Bearing cap | Clear anodised wrought aluminium alloy |
| Cylinder barrel | High-alloy stainless steel |
| End cap | Clear anodised wrought aluminium alloy |
| Seals | NBR, TPE-U (PU) |

Ordering – Product options

Configurable product

This product and all its options can be ordered using the configurator.

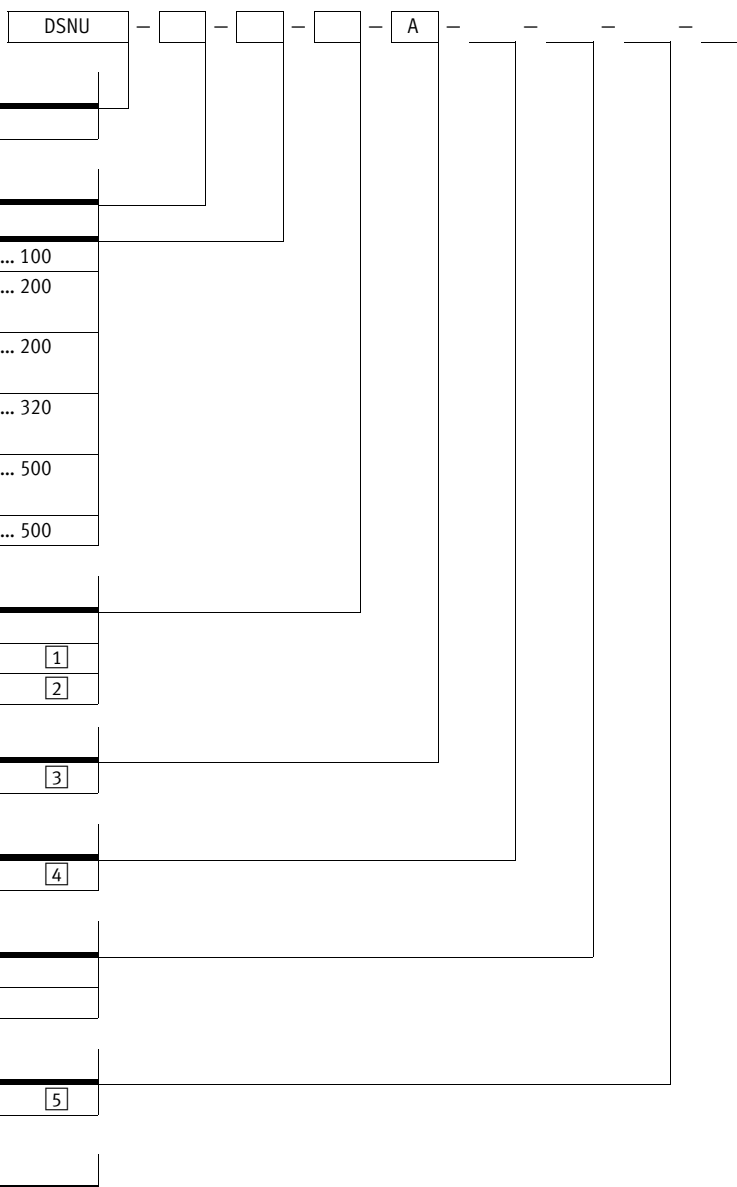
The configurator can be found under Products on the DVD or
[→ www.festo.com/catalogue/...](http://www.festo.com/catalogue/...)

Enter the type code in the search field.

Round cylinders DSNU

1

Order code – Double-acting



| Type | |
|------|------------------------------|
| DSNU | Double-acting round cylinder |

| Piston Ø [mm] | | |
|----------------|----------------------------------------------------------------------------------------------|-----------|
| | Stroke [mm] | |
| 8, 10 | 10, 15, 20, 25, 30, 40, 50, 60, 80, 100 | 1 ... 100 |
| 12 | 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 125, 160, 200 | 1 ... 200 |
| 16 | 10, 15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 100, 125, 150, 160, 200 | 1 ... 200 |
| 20 | 10, 15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 100, 125, 150, 160, 200, 250, 300, 320 | 1 ... 320 |
| 25 | 10, 15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 100, 125, 150, 160, 200, 250, 300, 320, 400, 500 | 1 ... 500 |
| 32, 40, 50, 63 | 25, 40, 50, 80, 100, 125, 160, 200, 250, 320 | 1 ... 500 |

| Cushioning | |
|------------|-------------------------------------------------------------------------------------------------------------------|
| P | Elastic cushioning rings/plates at both ends |
| PPV | Pneumatic cushioning, adjustable at both ends 1 |
| PPS | Pneumatic cushioning, self-adjusting at both ends 2 |

| Position sensing | |
|------------------|--------------------------------------------------------------------------------------|
| A | Via proximity sensor 3 |

| Alternative end cap | |
|---------------------|---------------------------------------------------------------------------------------------------|
| MQ | Plain end cap, lateral connection 4 |

| Piston rod type | |
|-----------------|-----------------------|
| - | Piston rod at one end |
| S2 | Through piston rod |

| Extended piston rod [mm] | |
|--------------------------|---------------------------------------------------------------------------|
| ... K8 | 1 ... 150 5 |

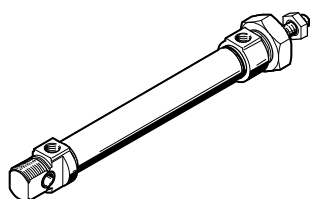
| Temperature resistance | |
|------------------------|--------------------------------------------------------------------------------------------------------|
| S6 | Heat-resistant seals up to max. 120 °C 6 |

- 1 Not with piston Ø 8, 10
- 2 Not with piston Ø 8, 10, 12
- 3 Minimum stroke: 10 mm
- 4 Not with piston rod type S2
- 5 Piston Ø 8, 10: 1 ... 50 mm
Piston Ø 12, 16: 1 ... 100 mm
Piston Ø 20: 1 ... 110 mm
Piston Ø 25: 1 ... 150 mm
- 6 Not for DSNU-12-...-PPV

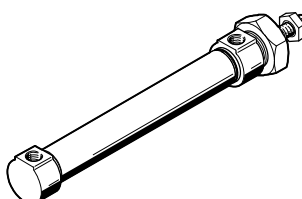
Ordering aid

Basic design

MQ – Plain end cap, lateral air connection



Order example:
DSNU-25-40-PPV-A
Double-acting round cylinder DSNU - piston diameter 25 mm - stroke 40 mm - pneumatic cushioning, adjustable at both ends - position sensing via proximity sensor - piston rod at one end - no extended piston rod - no heat-resistant seal



Order example:
DSNU-25-40-PPV-A-MQ
Double-acting round cylinder DSNU - piston diameter 25 mm - stroke 40 mm - pneumatic cushioning, adjustable at both ends - position sensing via proximity sensor - plain end cap, lateral connection - piston rod at one end - no extended piston rod - no heat-resistant seal

★ Quick ordering¹⁾

P – Elastic cushioning rings/plates at both ends

| Part No. | Type |
|-----------------------|-----------------|
| Piston Ø 12 mm | |
| 19189 | DSNU-12-10-P-A |
| 1908255 | DSNU-12-15-P-A |
| 1908256 | DSNU-12-20-P-A |
| 19190 | DSNU-12-25-P-A |
| 1908257 | DSNU-12-30-P-A |
| 19191 | DSNU-12-40-P-A |
| 19192 | DSNU-12-50-P-A |
| 1908258 | DSNU-12-60-P-A |
| 19193 | DSNU-12-80-P-A |
| 19194 | DSNU-12-100-P-A |
| 19195 | DSNU-12-125-P-A |
| 19196 | DSNU-12-160-P-A |
| 19197 | DSNU-12-200-P-A |
| Piston Ø 16 mm | |
| 19198 | DSNU-16-10-P-A |
| 1908259 | DSNU-16-15-P-A |
| 1908260 | DSNU-16-20-P-A |
| 19199 | DSNU-16-25-P-A |
| 1908261 | DSNU-16-30-P-A |
| 1908262 | DSNU-16-35-P-A |
| 19200 | DSNU-16-40-P-A |
| 19201 | DSNU-16-50-P-A |
| 1908263 | DSNU-16-60-P-A |
| 1908264 | DSNU-16-70-P-A |
| 19202 | DSNU-16-80-P-A |
| 19203 | DSNU-16-100-P-A |
| 19204 | DSNU-16-125-P-A |
| 19205 | DSNU-16-160-P-A |
| 1908265 | DSNU-16-150-P-A |
| 19206 | DSNU-16-200-P-A |

| Part No. | Type |
|-----------------------|-----------------|
| Piston Ø 20 mm | |
| 19207 | DSNU-20-10-P-A |
| 1908282 | DSNU-20-15-P-A |
| 1908283 | DSNU-20-20-P-A |
| 19208 | DSNU-20-25-P-A |
| 1908284 | DSNU-20-30-P-A |
| 1908285 | DSNU-20-35-P-A |
| 19209 | DSNU-20-40-P-A |
| 19210 | DSNU-20-50-P-A |
| 1908286 | DSNU-20-60-P-A |
| 1908287 | DSNU-20-70-P-A |
| 19211 | DSNU-20-80-P-A |
| 19212 | DSNU-20-100-P-A |
| 19213 | DSNU-20-125-P-A |
| 1908288 | DSNU-20-150-P-A |
| 19214 | DSNU-20-160-P-A |
| 19215 | DSNU-20-200-P-A |
| 19216 | DSNU-20-250-P-A |
| 19217 | DSNU-20-300-P-A |
| 34718 | DSNU-20-320-P-A |

| Part No. | Type |
|-----------------------|-----------------|
| Piston Ø 25 mm | |
| 19218 | DSNU-25-10-P-A |
| 1908305 | DSNU-25-15-P-A |
| 1908306 | DSNU-25-20-P-A |
| 19219 | DSNU-25-25-P-A |
| 1908307 | DSNU-25-30-P-A |
| 1908308 | DSNU-25-35-P-A |
| 19220 | DSNU-25-40-P-A |
| 19221 | DSNU-25-50-P-A |
| 1908309 | DSNU-25-60-P-A |
| 1908310 | DSNU-25-70-P-A |
| 19222 | DSNU-25-80-P-A |
| 19223 | DSNU-25-100-P-A |
| 19224 | DSNU-25-125-P-A |
| 1908311 | DSNU-25-150-P-A |
| 19225 | DSNU-25-160-P-A |
| 19226 | DSNU-25-200-P-A |
| 19227 | DSNU-25-250-P-A |
| 19228 | DSNU-25-300-P-A |
| 34719 | DSNU-25-320-P-A |

1) All products in this table are easy to select and quick to order.

Round cylinders DSNU

1

★ Quick ordering¹⁾

PPV – Pneumatic cushioning, adjustable at both ends

| Part No. | Type |
|-----------------------|-------------------|
| Piston Ø 16 mm | |
| 1908266 | DSNU-16-10-PPV-A |
| 1908267 | DSNU-16-15-PPV-A |
| 1908268 | DSNU-16-20-PPV-A |
| 33973 | DSNU-16-25-PPV-A |
| 1908269 | DSNU-16-30-PPV-A |
| 1908270 | DSNU-16-35-PPV-A |
| 19229 | DSNU-16-40-PPV-A |
| 19230 | DSNU-16-50-PPV-A |
| 1908271 | DSNU-16-60-PPV-A |
| 1908272 | DSNU-16-70-PPV-A |
| 19231 | DSNU-16-80-PPV-A |
| 19232 | DSNU-16-100-PPV-A |
| 19233 | DSNU-16-125-PPV-A |
| 1908273 | DSNU-16-150-PPV-A |
| 19234 | DSNU-16-160-PPV-A |
| 19235 | DSNU-16-200-PPV-A |

| Part No. | Type |
|-----------------------|-------------------|
| Piston Ø 20 mm | |
| 1908289 | DSNU-20-10-PPV-A |
| 1908290 | DSNU-20-15-PPV-A |
| 1908291 | DSNU-20-20-PPV-A |
| 33974 | DSNU-20-25-PPV-A |
| 1908292 | DSNU-20-30-PPV-A |
| 1908293 | DSNU-20-35-PPV-A |
| 19236 | DSNU-20-40-PPV-A |
| 19237 | DSNU-20-50-PPV-A |
| 1908294 | DSNU-20-60-PPV-A |
| 1908295 | DSNU-20-70-PPV-A |
| 19238 | DSNU-20-80-PPV-A |
| 19239 | DSNU-20-100-PPV-A |
| 19240 | DSNU-20-125-PPV-A |
| 1908296 | DSNU-20-150-PPV-A |
| 19241 | DSNU-20-160-PPV-A |
| 19242 | DSNU-20-200-PPV-A |
| 19243 | DSNU-20-250-PPV-A |
| 19244 | DSNU-20-300-PPV-A |
| 34720 | DSNU-20-320-PPV-A |

| Part No. | Type |
|-----------------------|-------------------|
| Piston Ø 25 mm | |
| 1908312 | DSNU-25-10-PPV-A |
| 1908313 | DSNU-25-15-PPV-A |
| 1908314 | DSNU-25-20-PPV-A |
| 33975 | DSNU-25-25-PPV-A |
| 1908315 | DSNU-25-30-PPV-A |
| 1908316 | DSNU-25-35-PPV-A |
| 19245 | DSNU-25-40-PPV-A |
| 19246 | DSNU-25-50-PPV-A |
| 1908317 | DSNU-25-60-PPV-A |
| 1908318 | DSNU-25-70-PPV-A |
| 19247 | DSNU-25-80-PPV-A |
| 19248 | DSNU-25-100-PPV-A |
| 19249 | DSNU-25-125-PPV-A |
| 1908319 | DSNU-25-150-PPV-A |
| 19250 | DSNU-25-160-PPV-A |
| 19251 | DSNU-25-200-PPV-A |
| 19252 | DSNU-25-250-PPV-A |
| 19253 | DSNU-25-300-PPV-A |
| 34721 | DSNU-25-320-PPV-A |

PPS – Pneumatic cushioning, self-adjusting at both ends

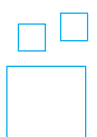
| Part No. | Type |
|-----------------------|-------------------|
| Piston Ø 16 mm | |
| 1908274 | DSNU-16-10-PPS-A |
| 1908275 | DSNU-16-15-PPS-A |
| 1908276 | DSNU-16-20-PPS-A |
| 559263 | DSNU-16-25-PPS-A |
| 1908277 | DSNU-16-30-PPS-A |
| 1908278 | DSNU-16-35-PPS-A |
| 559264 | DSNU-16-40-PPS-A |
| 559265 | DSNU-16-50-PPS-A |
| 1908279 | DSNU-16-60-PPS-A |
| 1908280 | DSNU-16-70-PPS-A |
| 559266 | DSNU-16-80-PPS-A |
| 559267 | DSNU-16-100-PPS-A |
| 559268 | DSNU-16-125-PPS-A |
| 1908281 | DSNU-16-150-PPS-A |
| 559269 | DSNU-16-160-PPS-A |
| 559270 | DSNU-16-200-PPS-A |

| Part No. | Type |
|-----------------------|-------------------|
| Piston Ø 20 mm | |
| 1908297 | DSNU-20-10-PPS-A |
| 1908298 | DSNU-20-15-PPS-A |
| 1908299 | DSNU-20-20-PPS-A |
| 559271 | DSNU-20-25-PPS-A |
| 1908300 | DSNU-20-30-PPS-A |
| 1908301 | DSNU-20-35-PPS-A |
| 559272 | DSNU-20-40-PPS-A |
| 559273 | DSNU-20-50-PPS-A |
| 1908302 | DSNU-20-60-PPS-A |
| 1908303 | DSNU-20-70-PPS-A |
| 559274 | DSNU-20-80-PPS-A |
| 559275 | DSNU-20-100-PPS-A |
| 559276 | DSNU-20-125-PPS-A |
| 1908304 | DSNU-20-150-PPS-A |
| 559277 | DSNU-20-160-PPS-A |
| 559278 | DSNU-20-200-PPS-A |
| 559279 | DSNU-20-250-PPS-A |
| 559280 | DSNU-20-300-PPS-A |
| 559281 | DSNU-20-320-PPS-A |

| Part No. | Type |
|-----------------------|-------------------|
| Piston Ø 25 mm | |
| 1908320 | DSNU-25-10-PPS-A |
| 1908321 | DSNU-25-15-PPS-A |
| 1908322 | DSNU-25-20-PPS-A |
| 559282 | DSNU-25-25-PPS-A |
| 1908323 | DSNU-25-30-PPS-A |
| 1908324 | DSNU-25-35-PPS-A |
| 559283 | DSNU-25-40-PPS-A |
| 559284 | DSNU-25-50-PPS-A |
| 1908325 | DSNU-25-60-PPS-A |
| 1908326 | DSNU-25-70-PPS-A |
| 559285 | DSNU-25-80-PPS-A |
| 559286 | DSNU-25-100-PPS-A |
| 559287 | DSNU-25-125-PPS-A |
| 1908327 | DSNU-25-150-PPS-A |
| 559288 | DSNU-25-160-PPS-A |
| 559289 | DSNU-25-200-PPS-A |
| 559290 | DSNU-25-250-PPS-A |
| 559291 | DSNU-25-300-PPS-A |
| 559292 | DSNU-25-320-PPS-A |

1) All products in this table are easy to select and quick to order.

Ordering – Product options



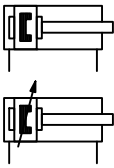
Configurable product

This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
[→ www.festo.com/catalogue/...](http://www.festo.com/catalogue/...)

Enter the type code in the search field.

Technical data – Double-acting with protection against rotation



Basic design

Lateral air connection MQ

| Technical data | | Dimensions → 132 | | | | | | | |
|----------------------------------------|----------------------------------------------|-----------------------------------------------|------|-----------------|-----------------|----------------------------------------------|-----------------|-----------------|-----------------|
| Piston Ø | | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Based on standard | | ISO 6432 | | | | – | | | |
| Pneumatic connection | | M5 | M5 | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{4}$ | G $\frac{1}{4}$ | G $\frac{3}{8}$ |
| Piston rod end | | Male thread | | | | | | | |
| Piston rod thread | | M6 | M6 | M8 | M10x1.25 | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 |
| Stroke ¹⁾ | [mm] | 5 ... 160 | | 5 ... 200 | 5 ... 250 | 5 ... 300 | 5 ... 400 | | 5 ... 500 |
| Cushioning | | | | | | | | | |
| DSNU-...-P | Elastic cushioning rings/plates at both ends | – | | | | Elastic cushioning rings/plates at both ends | | | |
| DSNU-...-PPV | – | Pneumatic cushioning, adjustable at both ends | | | | | | | |
| Cushioning length PPV | [mm] | – | 12 | 15 | 17 | 14 | 18 | 20 | 21 |
| Theoretical force at 6 bar, advancing | [N] | 68 | 121 | 189 | 295 | 483 | 753 | 1178 | 1870 |
| Theoretical force at 6 bar, retracting | [N] | 51 | 104 | 158 | 247 | 415 | 633 | 990 | 1682 |
| Max. torque at the piston rod | [Nm] | 0.10 | 0.10 | 0.20 | 0.45 | 0.8 | 1.1 | 1.5 | 1.5 |

- 1) Cylinders with position sensing require a minimum stroke of 10 mm to ensure reliable sensing. Longer strokes on request.

Operating conditions

| Operating conditions | | Dimensions → 132 | | | | | | | |
|-----------------------------------|-------|--------------------------|----|----------|----|----|----|----|----|
| Piston Ø | | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| Operating pressure | | | | | | | | | |
| DSNU-... | [bar] | 1.5 ... 10 ²⁾ | | 1 ... 10 | | | | | |
| DSNU-...-S6 | [bar] | 1.5 ... 10 ²⁾ | | 1 ... 10 | | | | | |
| Ambient temperature ³⁾ | | | | | | | | | |
| DSNU-... | [°C] | –20 ... +80 | | | | | | | |
| DSNU-...-S6 | [°C] | 0 ... +120 | | | | | | | |

- 2) Piston: Ø 12 mm, PPV – pneumatic cushioning, adjustable at both ends 2 ... 10 bar.
3) Note operating range of proximity sensors.

Materials

| | |
|-----------------|----------------------------------------|
| Piston rod | High-alloy stainless steel |
| Bearing cap | Clear anodised wrought aluminium alloy |
| Cylinder barrel | High-alloy stainless steel |
| End cap | Clear anodised wrought aluminium alloy |
| Seals | NBR, TPE-U (PU) |

Ordering – Product options

Configurable product

This product and all its options can be ordered using the configurator.

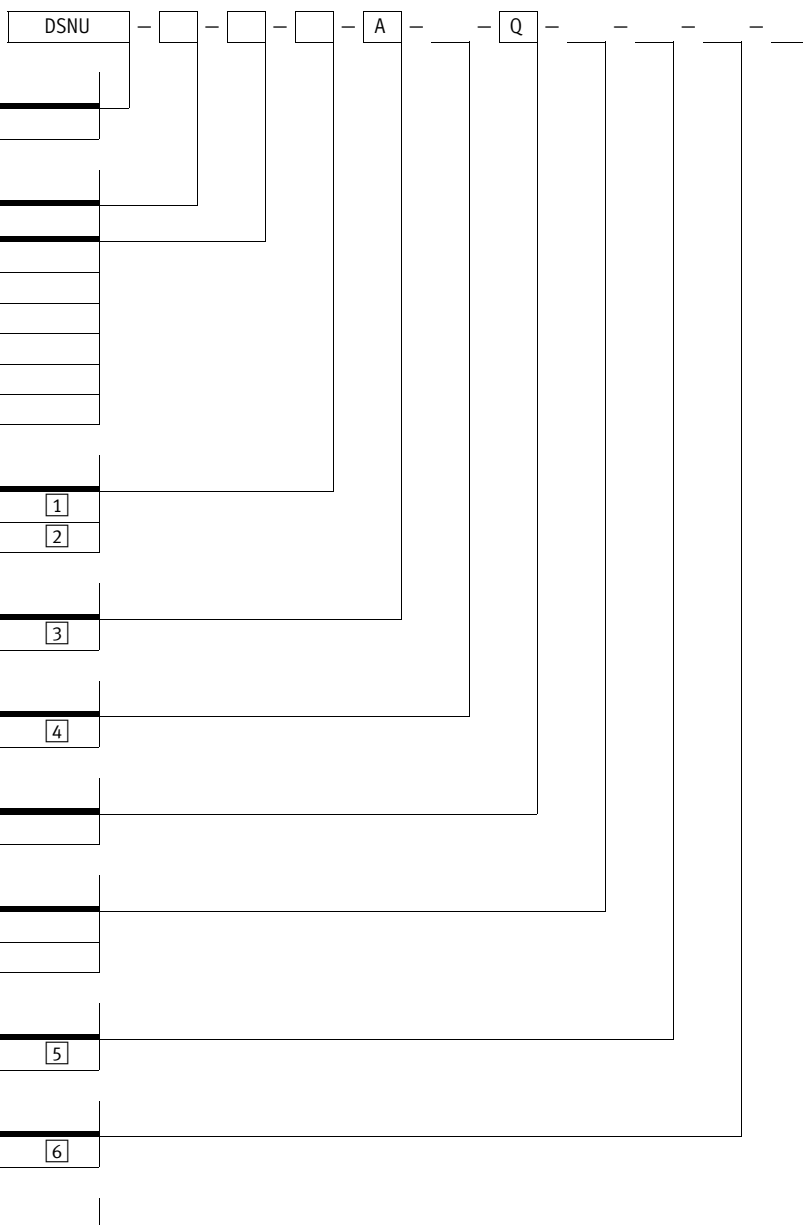
The configurator can be found under Products on the DVD or
[→ www.festo.com/catalogue/...](http://www.festo.com/catalogue/...)

Enter the type code in the search field.

Round cylinders DSNU-Q

1

Order code – Double-acting with protection against rotation



| Type | |
|------|------------------------------|
| DSNU | Double-acting round cylinder |

| Piston Ø [mm] | |
|---------------|-----------|
| Stroke [mm] | |
| 12, 16 | 5 ... 160 |
| 20 | 5 ... 200 |
| 25 | 5 ... 250 |
| 32 | 5 ... 300 |
| 40, 50 | 5 ... 400 |
| 63 | 5 ... 500 |

| Cushioning | |
|------------|----------------------------------------------------------------------------------|
| P | Elastic cushioning rings/plates at both ends 1 |
| PPV | Pneumatic cushioning, adjustable at both ends 2 |

| Position sensing | |
|------------------|---------------------------------------------------------|
| A | Via proximity sensor 3 |

| Alternative end cap | |
|---------------------|----------------------------------------------------------------------|
| MQ | Plain end cap, lateral connection 4 |

| Protection against rotation | |
|-----------------------------|-------------------|
| Q | Square piston rod |

| Piston rod type | |
|-----------------|-----------------------|
| - | Piston rod at one end |
| S2 | Through piston rod |

| Extended piston rod [mm] | |
|--------------------------|----------------------------------------------|
| ... K8 | 1 ... 150 5 |

| Clamping unit | |
|---------------|---------------------------------------------|
| KP | Attached 6 |

| Temperature resistance | |
|------------------------|---------------------------------------------------------------------------|
| S6 | Heat-resistant seals up to max. 120 °C 7 |

1 Not with piston Ø 16, 20, 25

3 Minimum stroke: 10 mm

5 Piston Ø 12, 16: 1 ... 100 mm

6 Only with S2

2 Not with piston Ø 12

4 Not with piston rod type S2

Piston Ø 20: 1 ... 110 mm

Not with S6

Piston Ø 25: 1 ... 150 mm

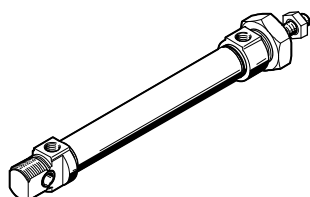
7 Only with piston Ø 32 ... 63

Piston Ø 32 ... 63: 1 ... 500 mm

Ordering aid

Basic design

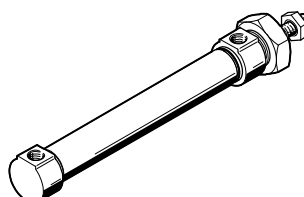
MQ – Plain end cap, lateral air connection



Order example:

DSNU-25-40-PPV-A-Q

Double-acting round cylinder DSNU - piston diameter 25 mm - stroke 40 mm - pneumatic cushioning, adjustable at both ends - position sensing via proximity sensor - square piston rod - piston rod at one end - no extended piston rod - no heat-resistant seal

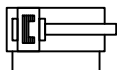


Order example:

DSNU-25-40-PPV-A-MQ-Q

Double-acting round cylinder DSNU - piston diameter 25 mm - stroke 40 mm - pneumatic cushioning, adjustable at both ends - position sensing via proximity sensor - plain end cap, lateral connection - square piston rod - piston rod at one end - no extended piston rod - no heat-resistant seal

Technical data – Double-acting



| Technical data | | Dimensions → 136 | | |
|--------------------------------------------|--|----------------------------------------------|-----------------|-----------------|
| Piston Ø | | 16 | 20 | 25 |
| Conforms to standard | | ISO 6432 | | |
| Pneumatic connection | | M5 | G $\frac{1}{8}$ | G $\frac{1}{8}$ |
| Piston rod end | | Male thread | | |
| Piston rod thread | | M6 | M8 | M10x1.25 |
| Stroke [mm] | | 25, 50, 100 | | |
| Cushioning | | Elastic cushioning rings/plates at both ends | | |
| Theoretical force at 6 bar, advancing [N] | | 121 | 189 | 295 |
| Theoretical force at 6 bar, retracting [N] | | 104 | 158 | 247 |

| Operating conditions | |
|----------------------------------------|-------------|
| Operating pressure [bar] | 1 ... 8 |
| Ambient temperature ¹⁾ [°C] | -10 ... +60 |

1) Note operating range of proximity sensors.

| Materials | |
|-----------------|----------------------------------|
| Piston rod | High-alloy steel |
| Bearing cap | PA reinforced |
| Cylinder barrel | Anodised wrought aluminium alloy |
| End cap | PA reinforced |
| Seals | NBR, TPE-U (PU) |

Order code – Double-acting

| | | | | | | | | | |
|-------------------------|----------------------------------------------|---|--|---|--|---|---|---|---|
| DSNUP | | - | | - | | - | P | - | A |
| Type | | | | | | | | | |
| DSNUP | Double-acting round cylinder | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | |
| | Stroke [mm] | | | | | | | | |
| 16, 20, 25 | 25, 50, 100 | | | | | | | | |
| Cushioning | | | | | | | | | |
| P | Elastic cushioning rings/plates at both ends | | | | | | | | |
| Position sensing | | | | | | | | | |
| A | Via proximity sensor | | | | | | | | |

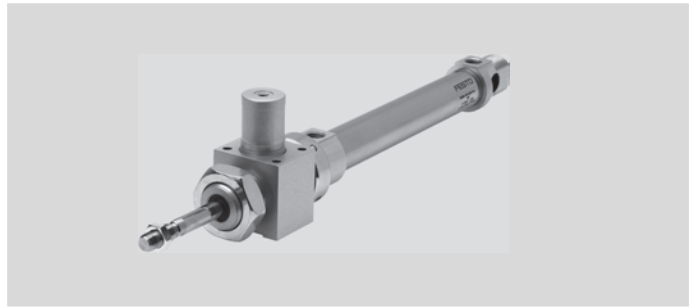
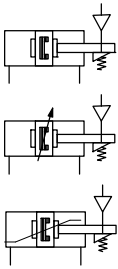
Order example:

DSNUP-20-50-P-A

Double-acting round cylinder DSNUP - piston diameter 20 mm - stroke 50 mm - elastic cushioning rings/plates at both ends - position sensing via proximity sensor

Round cylinders DSNU-...-KP, with clamping unit

1 Technical data – Double-acting with clamping unit



| Technical data | | | | | | | | | | | Dimensions → 134 | |
|----------------------------------------------------------|----------------------------------------------|-----|---------------------------------------------------|-----|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|--|
| Piston Ø | 8 | 10 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | | |
| Based on standard | ISO 6432 | | | | | | - | | | | | |
| Pneumatic connection | M5 | M5 | M5 | M5 | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{4}$ | G $\frac{1}{4}$ | G $\frac{1}{4}$ | G $\frac{3}{8}$ | |
| Release connection | M5 | M5 | M5 | M5 | M5 | M5 | M5 | M5 | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | |
| Piston rod end | Male thread | | | | | | | | | | | |
| Piston rod thread | M4 | M4 | M6 | M6 | M8 | M10x1.25 | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 | | |
| Stroke ¹⁾ | [mm] 1 ... 100 | | 1 ... 200 | | 1 ... 320 | | 1 ... 500 | | | | | |
| Cushioning | | | | | | | | | | | | |
| DSNU-...-P | Elastic cushioning rings/plates at both ends | | | | | | | | | | | |
| DSNU-...-PPV | - | | Pneumatic cushioning, adjustable at both ends | | | | | | | | | |
| DSNU-...-PPS | - | | Pneumatic cushioning, self-adjusting at both ends | | | | | | | | | |
| Cushioning length | | | | | | | | | | | | |
| DSNU-...-PPV | [mm] | - | | 9 | 12 | 15 | 17 | 14 | 18 | 20 | 21 | |
| DSNU-...-PPS | [mm] | - | | 12 | 15 | 17 | 14 | 18 | 20 | 21 | | |
| Theoretical force at 6 bar, advancing | [N] | 30 | 47 | 68 | 121 | 189 | 295 | 483 | 753 | 1178 | 1870 | |
| Theoretical force at 6 bar, retracting | [N] | 23 | 40 | 51 | 104 | 158 | 247 | 415 | 633 | 990 | 1682 | |
| Holding force of the clamping unit | [N] | 80 | 80 | 180 | 180 | 350 | 350 | 600 | 1000 | 1400 | 2000 | |
| Max. axial backlash with clamped piston rod without load | [mm] | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 | 0.7 | 0.7 | |

| Operating conditions | | |
|-----------------------------------|-------|-------------|
| Operating pressure | [bar] | 3 ... 10 |
| Ambient temperature ²⁾ | [°C] | -10 ... +80 |

- 1) Cylinders with position sensing require a minimum stroke of 10 mm to ensure reliable sensing. Longer strokes on request.
- 2) Note operating range of proximity sensors.

| Materials | |
|-----------------|----------------------------------------|
| Piston rod | High-alloy stainless steel |
| Bearing cap | Clear anodised wrought aluminium alloy |
| Cylinder barrel | High-alloy stainless steel |
| End cap | Clear anodised wrought aluminium alloy |
| Seals | NBR, TPE-U (PU) |

Ordering – Product options

Configurable product

This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
[→ www.festo.com/catalogue/...](http://www.festo.com/catalogue/...)

Enter the type code in the search field.

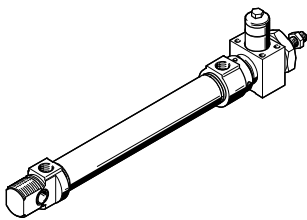
Order code – Double-acting with clamping unit

| | | | | | | | | | | | | | | | | |
|----------------------------|-----------------------------------------------------------------|------|---|--|---|--|---|--|---|---|-----------|--|---|--|---|----|
| | | DSNU | - | | - | | - | | - | A | - | | - | | - | KP |
| Type | | | | | | | | | | | | | | | | |
| DSNU | Double-acting round cylinder | | | | | | | | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | | | | | | | | |
| | Stroke [mm] | | | | | | | | | | | | | | | |
| 8, 10 | 10, 25, 40, 50, 80, 100 | | | | | | | | | | 1 ... 100 | | | | | |
| 12, 16 | 10, 25, 40, 50, 80, 100, 125, 160, 200 | | | | | | | | | | 1 ... 200 | | | | | |
| 20 | 10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 300, 320 | | | | | | | | | | 1 ... 320 | | | | | |
| 25 | 10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 300, 320, 400, 500 | | | | | | | | | | 1 ... 500 | | | | | |
| 32, 40, 50, 63 | 25, 40, 50, 80, 100, 125, 160, 200, 250, 300, 320 | | | | | | | | | | 1 ... 500 | | | | | |
| Cushioning | | | | | | | | | | | | | | | | |
| P | Elastic cushioning rings/plates at both ends | | | | | | | | | | | | | | | |
| PPV | Pneumatic cushioning, adjustable at both ends | | | | | | | | | | | | | | 1 | |
| PPS | Pneumatic cushioning, self-adjusting at both ends | | | | | | | | | | | | | | 2 | |
| Position sensing | | | | | | | | | | | | | | | | |
| A | Via proximity sensor | | | | | | | | | | | | | | 3 | |
| Alternative end cap | | | | | | | | | | | | | | | | |
| MQ | Plain end cap, lateral connection | | | | | | | | | | | | | | 4 | |
| Piston rod type | | | | | | | | | | | | | | | | |
| - | Piston rod at one end | | | | | | | | | | | | | | | |
| S2 | Through piston rod | | | | | | | | | | | | | | | |
| Clamping unit | | | | | | | | | | | | | | | | |
| KP | Attached | | | | | | | | | | | | | | | |

- 1 Not with piston Ø 8 and 10
- 2 Not with piston Ø 8, 10, 12

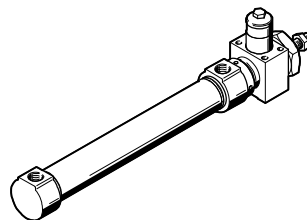
- 3 Minimum stroke: 10 mm
- 4 Not with piston rod type S2

Ordering aid
 Basic design



Order example:
 DSNU-25-40-PPV-A-KP
 Double-acting round cylinder DSNU - piston diameter 25 mm - stroke 40 mm - pneumatic cushioning, adjustable at both ends - position sensing via proximity sensor - piston rod at one end - clamping unit attached

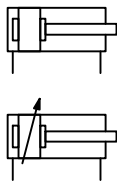
MQ – Plain end cap, lateral air connection



Order example:
 DSNU-25-40-PPV-A-MQ-KP
 Double-acting round cylinder DSNU - piston diameter 25 mm - stroke 40 mm - pneumatic cushioning, adjustable at both ends - position sensing via proximity sensor - plain end cap, lateral connection - piston rod at one end - clamping unit attached

Round cylinders DSN

Technical data – Double-acting



| Technical data | | Dimensions → 132 | | | | | |
|--------------------------------------------|--|----------------------------------------------|----|-----------|-----------------------------------------------|-----------------|-----------------|
| Piston Ø | | 8 | 10 | 12 | 16 | 20 | 25 |
| Conforms to standard | | ISO 6432 | | | | | |
| Pneumatic connection | | M5 | M5 | M5 | M5 | G $\frac{1}{8}$ | G $\frac{1}{8}$ |
| Piston rod end | | Male thread | | | | | |
| Piston rod thread | | M4 | M4 | M6 | M6 | M8 | M10x1.25 |
| Stroke [mm] | | 1 ... 100 | | 1 ... 200 | | 1 ... 320 | 1 ... 500 |
| Cushioning | | | | | | | |
| DSN-...-P | | Elastic cushioning rings/plates at both ends | | | | | |
| DSN-...-PPV | | - | | | Pneumatic cushioning, adjustable at both ends | | |
| Cushioning length PPV [mm] | | - | | | 12 | 15 | 17 |
| Theoretical force at 6 bar, advancing [N] | | 30 | 47 | 68 | 121 | 189 | 295 |
| Theoretical force at 6 bar, retracting [N] | | 23 | 40 | 51 | 104 | 158 | 247 |

| Operating conditions | | | | | | | |
|--------------------------|--|-------------|----|----|----------|----|----|
| Piston Ø | | 8 | 10 | 12 | 16 | 20 | 25 |
| Operating pressure [bar] | | 1.5 ... 10 | | | 1 ... 10 | | |
| Ambient temperature [°C] | | -20 ... +80 | | | | | |

| Materials | | | | | | |
|-----------------|--|----------------------------------------|--|--|--|--|
| Piston rod | | High-alloy stainless steel | | | | |
| Bearing cap | | Clear anodised wrought aluminium alloy | | | | |
| Cylinder barrel | | High-alloy stainless steel | | | | |
| End cap | | Clear anodised wrought aluminium alloy | | | | |
| Seals | | NBR, TPE-U (PU) | | | | |

Order code – Double-acting

| | | | | | | |
|-----|---|--|---|--|---|--|
| DSN | - | | - | | - | |
|-----|---|--|---|--|---|--|

| Type | |
|------|------------------------------|
| DSN | Double-acting round cylinder |

| Piston Ø [mm] | | |
|---------------|-----------------------------------------------------------------|-----------|
| | Stroke [mm] | |
| 8, 10 | 10, 25, 40, 50, 80, 100 | 1 ... 100 |
| 12, 16 | 10, 25, 40, 50, 80, 100, 125, 160, 200 | 1 ... 200 |
| 20 | 10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 300, 320 | 1 ... 320 |
| 25 | 10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 300, 320, 400, 500 | 1 ... 500 |

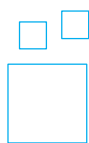
| Cushioning | |
|------------|------------------------------------------------------------|
| P | Elastic cushioning rings/plates at both ends |
| PPV | Pneumatic cushioning, adjustable at both ends ¹ |

¹ Not with piston Ø 8, 10, 12

Order example:

DSN-25-50-PPV - double-acting round cylinder DSN - piston diameter 25 mm - stroke 50 mm - pneumatic cushioning, adjustable at both ends

Ordering – Product options



Configurable
product

This product and all its options can
be ordered using the configurator.

The configurator can be found under
Products on the DVD or

→ www.festo.com/catalogue/...

Enter the type code in the search field.

★ Quick ordering¹⁾

P – Elastic cushioning rings/plates at both ends

| Part No. | Type |
|-----------------------|--------------|
| Piston Ø 12 mm | |
| 5047 | DSN-12-10-P |
| 5048 | DSN-12-25-P |
| 5049 | DSN-12-40-P |
| 5050 | DSN-12-50-P |
| 5051 | DSN-12-80-P |
| 5052 | DSN-12-100-P |
| 8519 | DSN-12-125-P |
| 5053 | DSN-12-160-P |
| 5054 | DSN-12-200-P |
| Piston Ø 16 mm | |
| 5056 | DSN-16-10-P |
| 5057 | DSN-16-25-P |
| 5058 | DSN-16-40-P |
| 5059 | DSN-16-50-P |
| 5060 | DSN-16-80-P |
| 5061 | DSN-16-100-P |
| 8520 | DSN-16-125-P |
| 5062 | DSN-16-160-P |
| 5063 | DSN-16-200-P |

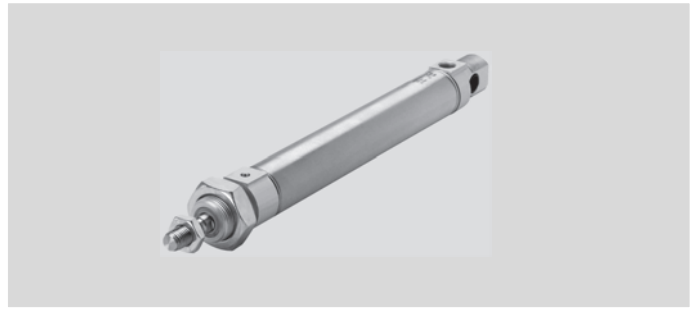
| Part No. | Type |
|-----------------------|--------------|
| Piston Ø 20 mm | |
| 5065 | DSN-20-10-P |
| 5066 | DSN-20-25-P |
| 5067 | DSN-20-40-P |
| 5068 | DSN-20-50-P |
| 5069 | DSN-20-80-P |
| 5070 | DSN-20-100-P |
| 8521 | DSN-20-125-P |
| 5071 | DSN-20-160-P |
| 5072 | DSN-20-200-P |
| 8522 | DSN-20-250-P |
| 5073 | DSN-20-300-P |
| 34710 | DSN-20-320-P |

| Part No. | Type |
|-----------------------|--------------|
| Piston Ø 25 mm | |
| 5075 | DSN-25-10-P |
| 5076 | DSN-25-25-P |
| 5077 | DSN-25-40-P |
| 5078 | DSN-25-50-P |
| 5079 | DSN-25-80-P |
| 5080 | DSN-25-100-P |
| 8523 | DSN-25-125-P |
| 5081 | DSN-25-160-P |
| 5082 | DSN-25-200-P |
| 8524 | DSN-25-250-P |
| 5083 | DSN-25-300-P |
| 34711 | DSN-25-320-P |

1) All products in this table are easy to select and quick to order.

Round cylinders ESNU

Technical data – Single-acting



| Technical data | | Dimensions → 132 | | | | | | | | | | |
|---------------------------------------|------|----------------------------------------------|-----|-----|------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| Piston Ø | | 8 | 10 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | |
| Conforms to standard | | ISO 6432 | | | | | | – | | | | |
| Pneumatic connection | | M5 | M5 | M5 | M5 | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{4}$ | G $\frac{1}{4}$ | G $\frac{3}{8}$ | |
| Piston rod end | | Male thread | | | | | | | | | | |
| Piston rod thread | | M4 | M4 | M6 | M6 | M8 | M10x1.25 | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 | |
| Stroke | [mm] | 1 ... 50 | | | | | | | | | | |
| Cushioning | | Elastic cushioning rings/plates at both ends | | | | | | | | | | |
| Theoretical force at 6 bar, advancing | [N] | 24 | 41 | 61 | 107 | 169 | 270 | 442 | 688 | 1071 | 1763 | |
| Theoretical spring return force | | | | | | | | | | | | |
| 10 mm stroke | [N] | 4.9 | 4.9 | 6.3 | 13.2 | 18.3 | 22.9 | 36 | 60 | 95 | 95 | |
| 25 mm stroke | [N] | 4.1 | 4.1 | 5.4 | 11.9 | 16.5 | 21.2 | 30 | 50 | 82 | 82 | |
| 50 mm stroke | [N] | 2.8 | 4.8 | 3.9 | 9.8 | 13.6 | 18.5 | 20 | 30 | 60 | 60 | |

| Operating conditions | | | | | | | | | | | | |
|-----------------------------------|-------|-------------|----|----|----|------------|----|----|----|----|----|--|
| Piston Ø | | 8 | 10 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | |
| Operating pressure | [bar] | 1.5 ... 10 | | | | 1.2 ... 10 | | | | | | |
| Ambient temperature ¹⁾ | [°C] | –20 ... +80 | | | | | | | | | | |

1) Note operating range of proximity sensors.

| Materials | | | | | | | | | | | |
|-----------------|--|----------------------------------------|--|--|--|--|--|--|--|--|--|
| Piston rod | | High-alloy stainless steel | | | | | | | | | |
| Bearing cap | | Clear anodised wrought aluminium alloy | | | | | | | | | |
| Cylinder barrel | | High-alloy stainless steel | | | | | | | | | |
| End cap | | Clear anodised wrought aluminium alloy | | | | | | | | | |
| Seals | | NBR, TPE-U (PU) | | | | | | | | | |

Order code – Single-acting

| | | | | | | | | | | | |
|---------------------------------------------|----------------------------------------------|----------|--|---|--|---|---|---|---|---|---|
| ESNU | | – | | – | | – | P | – | A | – | |
| Type | | | | | | | | | | | |
| ESNU | Single-acting round cylinder | | | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | | | |
| | Stroke [mm] | | | | | | | | | | |
| 8, 10, 12, 16, 20, 25, 32, 40, 50, 63 | 10, 25, 50 | 1 ... 50 | | | | | | | | | |
| Cushioning | | | | | | | | | | | |
| P | Elastic cushioning rings/plates at both ends | | | | | | | | | | |
| Position sensing | | | | | | | | | | | |
| A | Via proximity sensor | | | | | | | | | | 1 |
| Extended piston rod [mm] | | | | | | | | | | | |
| ... K8 | 1 ... 50 | | | | | | | | | | |

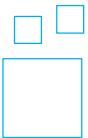
1 Minimum stroke: 10 mm

Order example:

ESNU-25-50-P-A

Single-acting round cylinder ESNU - piston diameter 25 mm - stroke 50 mm - elastic cushioning rings/plates at both ends - position sensing via proximity sensor

Ordering – Product options



Configurable product

This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
 → www.festo.com/catalogue/...

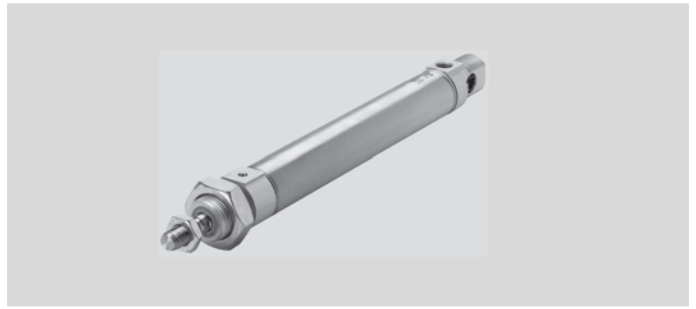
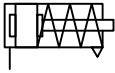
Enter the type code in the search field.

Round cylinders ESN

FESTO

1

Technical data – Single-acting



| Technical data | | Dimensions → 132 | | | | | |
|---------------------------------------|------|----------------------------------------------|-----|-----|------|-----------------|-----------------|
| Piston Ø | | 8 | 10 | 12 | 16 | 20 | 25 |
| Conforms to standard | | ISO 6432 | | | | | |
| Pneumatic connection | | M5 | M5 | M5 | M5 | G $\frac{1}{8}$ | G $\frac{1}{8}$ |
| Piston rod end | | Male thread | | | | | |
| Piston rod thread | | M4 | M4 | M6 | M6 | M8 | M10x1.25 |
| Stroke | [mm] | 1 ... 50 | | | | | |
| Cushioning | | Elastic cushioning rings/plates at both ends | | | | | |
| Theoretical force at 6 bar, advancing | [N] | 24 | 41 | 61 | 107 | 169 | 270 |
| Theoretical spring return force | | | | | | | |
| 10 mm stroke | [N] | 4.9 | 4.9 | 6.3 | 13.2 | 18.3 | 22.9 |
| 25 mm stroke | [N] | 4.1 | 4.1 | 5.4 | 11.9 | 16.5 | 21.2 |
| 50 mm stroke | [N] | 2.8 | 4.8 | 3.9 | 9.8 | 13.6 | 18.5 |

| Operating conditions | | Dimensions → 132 | | | | | |
|----------------------|-------|------------------|----|----|------------|----|----|
| Piston Ø | | 8 | 10 | 12 | 16 | 20 | 25 |
| Operating pressure | [bar] | 1.5 ... 10 | | | 1.2 ... 10 | | |
| Ambient temperature | [°C] | -20 ... +80 | | | | | |

| Materials | |
|-----------------|----------------------------------------|
| Piston rod | High-alloy stainless steel |
| Bearing cap | Clear anodised wrought aluminium alloy |
| Cylinder barrel | High-alloy stainless steel |
| End cap | Clear anodised wrought aluminium alloy |
| Seals | NBR, TPE-U (PU) |
| Spring | Spring steel |

Order code – Single-acting

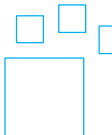
| | | | | | | | | |
|-----------------------|----------------------------------------------|----------|---|--|---|--|---|--|
| | | ESN | - | | - | | - | |
| Type | | | | | | | | |
| ESN | Single-acting standard cylinder | | | | | | | |
| Piston Ø [mm] | | | | | | | | |
| | Stroke [mm] | | | | | | | |
| 8, 10, 12, 16, 20, 25 | 10, 25, 50 | 1 ... 50 | | | | | | |
| Cushioning | | | | | | | | |
| P | Elastic cushioning rings/plates at both ends | | | | | | | |

Order example:

ESN-10-50-P

Single-acting standard cylinder ESN - piston diameter 10 mm - stroke 50 mm - elastic cushioning rings/plates at both ends

Ordering – Product options



Configurable product

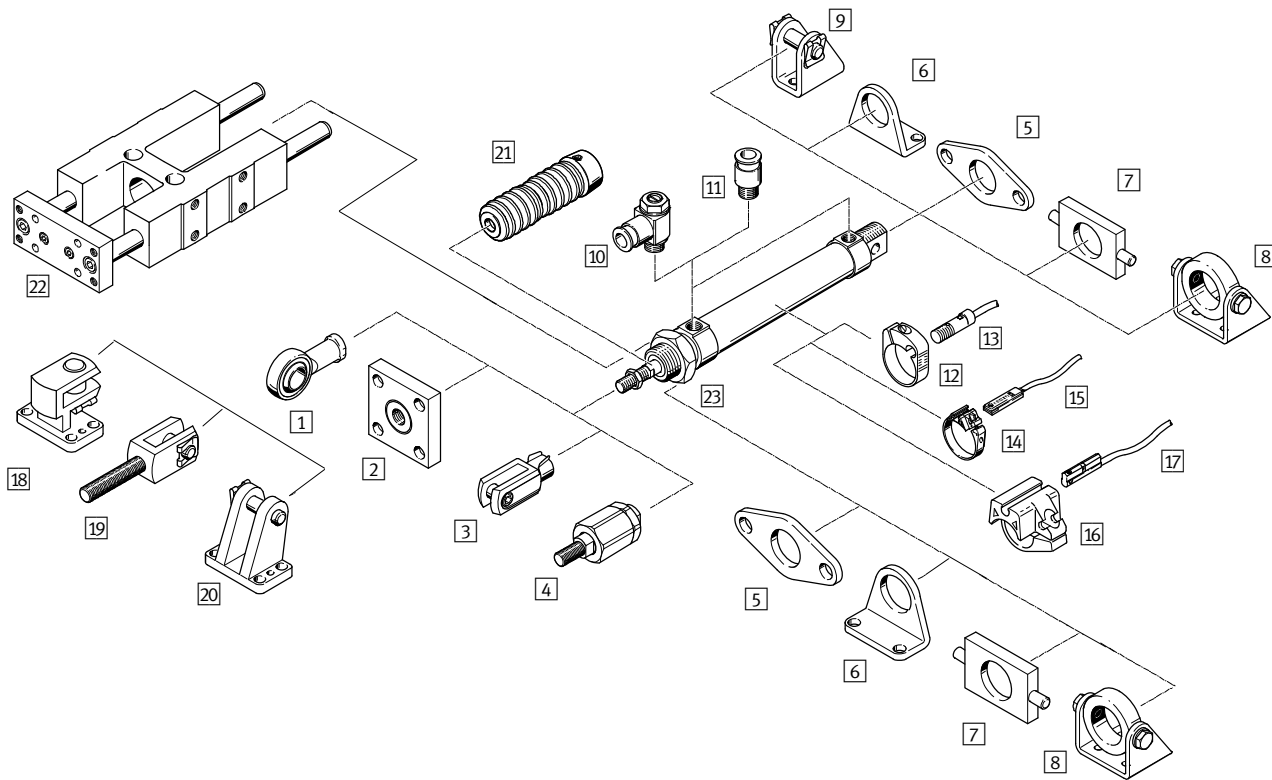
This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
 → www.festo.com/catalogue/...

Enter the type code in the search field.

Round cylinders DSNU/DSNUP/DSN/ESNU/ESN


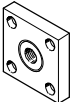
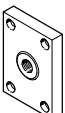



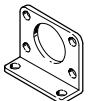
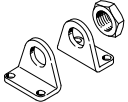
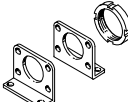
Accessories





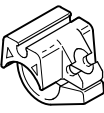



| | Piston Ø | DSNU/ESNU | DSNU- | | | | DSNUP | DSN/ESN | → Page/online |
|-----------------------------------------------------------------------------------------------------------------|-----------------------|-----------|--------|--------|--------|--------|--------|---------|-----------------------------|
| | | | MQ | Q | S2 | KP | | | |
| 1 Rod eye SGS Rod eye CRSGS | 8 ... 63 12 ... 63 | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | 129 dsnu |
| 2 Coupling piece KSG/KSZ | 12 ... 63 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 129 |
| 3 Rod clevis SG Rod clevis CRSG | 8 ... 63 12 ... 63 | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | 129 dsnu |
| 4 Self-aligning rod coupler FK Self-aligning rod coupler CRFK | 8 ... 63 25 ... 63 | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | 129 dsnu |
| 5 Flange mounting FBN Flange mounting CRFBN/CRFV | 8 ... 63 12 ... 63 | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | 129 dsnu |
| 6 Foot mounting HBN Foot mounting CRHBN/CRH | 8 ... 63 12 ... 63 | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | 129 dsnu |
| 7 Swivel mounting WBN | 8 ... 63 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 129 |
| 8 Swivel mounting SBN | 20 ... 63 | ■ | ■ | ■ | ■ | - | ■ | ■ | 129 |
| 9 Clevis foot LBN Clevis foot CRLBN | 8 ... 63 12 ... 63 | ■ ■ | - - | ■ ■ | - - | ■ ■ | ■ ■ | ■ ■ | 129 dsnu |
| 10 One-way flow control valve GRLA/GRLZ ¹⁾ One-way flow control valve CRGRLA ¹⁾ | 8 ... 63 8 ... 63 | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | 130 dsnu |
| 11 Push-in fitting QS | 8 ... 63 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 1098 |
| 12 Mounting kit SMBR Mounting kit CRSMBR | 8 ... 25 12 ... 63 | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | - - | - - | 129 dsnu |
| 13 Proximity sensor SMEO/SMT0 Proximity sensor CRSMEO-4 | 8 ... 63 8 ... 63 | ■ ■ | ■ ■ | ■ ■ | ■ ■ | ■ ■ | - - | - - | 130 dsnu |
| 14 Mounting kit SMBR-8 | 8 ... 63 | ■ | ■ | ■ | ■ | ■ | - | - | 129 |
| 15 Proximity sensor SME/SMT-8 | 8 ... 63 | ■ | ■ | ■ | ■ | ■ | - | - | 130 |
| 16 Mounting kit SMBR-10 | 8 ... 63 | ■ | ■ | ■ | ■ | ■ | - | - | 129 |
| 17 Proximity sensor SME/SMT-10 | 8 ... 63 | ■ | ■ | ■ | ■ | ■ | - | - | 131 |
| 18 Right-angle clevis foot LQG | 32 ... 63 | ■ | ■ | ■ | ■ | ■ | - | - | 131 |
| 19 Rod clevis SGA | 32 ... 63 | ■ | ■ | ■ | ■ | ■ | - | - | 131 |
| 20 Clevis foot LBG | 32 ... 63 | ■ | ■ | ■ | ■ | ■ | - | - | 131 |
| 21 Protective bellows kit DADB | 12 ... 63 | ■ | ■ | - | ■ | - | - | - | dsnu |
| 22 Guide unit FEN | 8 ... 25 | ■ | ■ | - | ■ | - | - | ■ | 131 |
| 23 Hex nut MSK | 16 ... 25 | ■ | ■ | ■ | ■ | ■ | - | ■ | 131 |



1) Only push-in fittings or one-way flow control valves with cylindrical connecting thread (M or G thread) should be used for the supply ports in combination with DSNUP.

Accessories – Ordering data



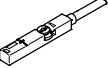
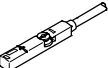
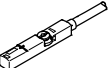


| | For Ø | Part No. | Type |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------|--------------|
| 1 Rod eye Technical data online: → sgs | | | |
|  | 8, 10 | 9253 | SGS-M4 |
| | 12, 16 | ★ 9254 | SGS-M6 |
| | 20 | ★ 9255 | SGS-M8 |
| | 25, 32 | ★ 9261 | SGS-M10x1,25 |
| | 40 | ★ 9262 | SGS-M12x1,25 |
| | 50, 63 | ★ 9263 | SGS-M16x1,5 |
| 2 Coupling piece Technical data online: → ksg | | | |
|  | 25, 32 | 32963 | KSG-M10x1,25 |
| | 40 | 32964 | KSG-M12x1,25 |
| | 50, 63 | 32965 | KSG-M16x1,5 |
| 2 Coupling piece Technical data online: → ksz | | | |
|  | 12, 16 | 36123 | KSZ-M6 |
| | 20 | 36124 | KSZ-M8 |
| | 25, 32 | 36125 | KSZ-M10x1,25 |
| | 40 | 36126 | KSZ-M12x1,25 |
| | 50, 63 | 36127 | KSZ-M15x1,5 |
| | 3 Rod clevis Technical data online: → sg | | |
|  | 8, 10 | 6532 | SG-M4 |
| | 12, 16 | ★ 3110 | SG-M6 |
| | 20 | ★ 3111 | SG-M8 |
| | 25, 32 | ★ 6144 | SG-M10x1,25 |
| | 40 | ★ 6145 | SG-M12x1,25 |
| | 50, 63 | ★ 6146 | SG-M16x1,5 |
| | 4 Self-aligning rod coupler Technical data online: → fk | | |
|  | 8, 10 | 6528 | FK-M4 |
| | 12, 16 | ★ 2061 | FK-M6 |
| | 20 | ★ 2062 | FK-M8 |
| | 25, 32 | ★ 6140 | FK-M10x1,25 |
| | 40 | ★ 6141 | FK-M12x1,25 |
| | 50, 63 | ★ 6142 | FK-M16x1,5 |
| 5 Flange mounting Dimensions online: → dsnu | | | |
|  | 8, 10 | 5129 | FBN-8/10 |
| | 12, 16 | 5130 | FBN-12/16 |
| | 20, 25 | 5131 | FBN-20/25 |
|  | 32 | 195855 | FBN-32 |
| | 40 | 195856 | FBN-40 |
| | 50 | 195857 | FBN-50 |
| | 63 | 195858 | FBN-63 |
| 6 Foot mounting Dimensions online: → dsnu | | | |
|  | 8, 10 | 5123 | HBN-8/10x1 |
| | | 5124 | HBN-8/10x2 |
| | 12, 16 | ★ 5125 | HBN-12/16x1 |
| | | ★ 5126 | HBN-12/16x2 |
| | | ★ 5127 | HBN-20/25x1 |
| 20, 25 | ★ 5128 | HBN-20/25x2 | |
|  | 32 | 195851 | HBN-32x2 |
| | 40 | 195852 | HBN-40x2 |
| | 50 | 195853 | HBN-50x2 |
| | 63 | 195854 | HBN-63x2 |

| | For Ø | Part No. | Type |
|-------------------------------------------------------------------------------------|---------------------------------------------------|----------|------------|
| 7 Swivel mounting Dimensions online: → dsnu | | | |
|  | 8, 10 | 8608 | WBN-8/10x1 |
| | 12, 16 | 8609 | WBN-12/16 |
| | 20, 25 | 8610 | WBN-20/25 |
| | 32 | 195863 | WBN-32 |
| | 40 | 195864 | WBN-40 |
| | 50, 63 | 195865 | WBN-50/63 |
| 8 Swivel mounting Dimensions online: → dsnu | | | |
|  | 20, 25 | 539927 | SBN-20/25 |
| | 32 | 539924 | SBN-32 |
| | 40 | 539925 | SBN-40 |
| | 50, 63 | 539926 | SBN-50/63 |
| 9 Clevis foot Technical data online: → lbn | | | |
|  | 8, 10 | 6057 | LBN-8/10 |
| | 12, 16 | ★ 6058 | LBN-12/16 |
| | 20, 25 | ★ 6059 | LBN-20/25 |
| | 32 | 195860 | LBN-32 |
| | 40 | 195861 | LBN-40 |
| | 50, 63 | 195862 | LBN-50/63 |
| | 12/14/16 Mounting kit for proximity sensor | | |
| SMT/SME-8 | | | |
|  | 8 | 175091 | SMBR-8-8 |
| | 10 | 175092 | SMBR-8-10 |
| | 12 | ★ 175093 | SMBR-8-12 |
| | 16 | ★ 175094 | SMBR-8-16 |
| | 20 | ★ 175095 | SMBR-8-20 |
| | 25 | ★ 175096 | SMBR-8-25 |
| | 32 | 175097 | SMBR-8-32 |
| | 40 | 175098 | SMBR-8-40 |
| | 50 | 175099 | SMBR-8-50 |
| | 63 | 175100 | SMBR-8-63 |
| SMT/SME-10 | | | |
|  | 8 | 175101 | SMBR-10-8 |
| | 10 | 173227 | SMBR-10-10 |
| | 12 | 175102 | SMBR-10-12 |
| | 16 | 173228 | SMBR-10-16 |
| | 20 | 175103 | SMBR-10-20 |
| | 25 | 175104 | SMBR-10-25 |
| | 32 | 175105 | SMBR-10-32 |
| | 40 | 175106 | SMBR-10-40 |
| | 50 | 175107 | SMBR-10-50 |
| | 63 | 175108 | SMBR-10-63 |
| Round design SMT0/SME0-4 | | | |
|  | 8 | 19272 | SMBR-8 |
| | 10 | 19273 | SMBR-10 |
| | 12 | 19274 | SMBR-12 |
| | 16 | 19275 | SMBR-16 |
| | 20 | 19276 | SMBR-20 |
| | 25 | 19277 | SMBR-25 |











Accessories – Ordering data

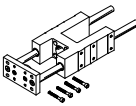


| | For Ø | Connection | | Part No. | Type |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------------|------|----------|-----------------|
| | | Thread | O.D. | | |
| 10 One-way flow control valve with slotted head screw, metal¹⁾ for exhaust air flow control Technical data → 760 | | | | | |
|  | 12, 16 | M5 | 3 | ★ 193137 | GRLA-M5-QS-3-D |
| | 20, 25 | G1/8 | 4 | ★ 193143 | GRLA-1/8-QS-4-D |
| | 32 | G1/8 | 6 | ★ 193144 | GRLA-1/8-QS-6-D |
| | 40 | G1/4 | 6 | ★ 193146 | GRLA-1/4-QS-6-D |
| | 50 | G1/4 | 8 | ★ 193147 | GRLA-1/4-QS-8-D |
| | 63 | G3/8 | 8 | ★ 193150 | GRLA-3/8-QS-8-D |
| For supply air flow control Technical data → 760 | | | | | |
|  | 12, 16 | M5 | 3 | ★ 193153 | GRLZ-M5-QS-3-D |
| | 20, 25 | G1/8 | 4 | ★ 193157 | GRLZ-1/8-QS-4-D |
| | 32 | G1/8 | 4 | ★ 193158 | GRLZ-1/8-QS-6-D |

1) The recommended flow control valves are based on a tubing length to the valve of 1 m. For deviations of ±50%, flow control valves with a bigger or smaller flow rate must be selected to guarantee the optimum flow control function and cylinder speed.

| | For Ø | Cable length [m] | | Part No. | Type |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|---|----------|---------------------------|
| | | | | | |
| 13 Proximity sensor, round design, magneto-resistive – N/O contact Technical data online: → smt0 | | | | | |
|  | PNP, cable | 2.5 | | 152836 | SMT0-4U-PS-K-LED-24 |
| | PNP, plug connector | – | | 152742 | SMT0-4U-PS-S-LED-24 |
| | NPN, cable | 2.5 | | 152837 | SMT0-4U-NS-K-LED-24 |
| | NPN, plug connector | – | | 152743 | SMT0-4U-NS-S-LED-24 |
| Magnetic reed – N/O contact Technical data online: → smeo | | | | | |
|  | Cable | 2.5 | | 36198 | SME0-4U-K-LED-24 |
| | Cable | 5.0 | | 175401 | SME0-4U-K5-LED-24 |
| | Plug connector | – | | 151526 | SME0-4U-S-LED-24-B |
| 15 Proximity sensor for T-slot, magneto-resistive – N/O contact Technical data → 878 | | | | | |
|  | PNP, cable | 2.5 | ★ | 574335 | SMT-8M-A-PS-24V-E-2,5-OE |
| | PNP, plug connector | 0.3 | ★ | 574334 | SMT-8M-A-PS-24V-E-0,3-M8D |
| | PNP, plug connector | 0.3 | ★ | 574337 | SMT-8M-A-PS-24V-E-0,3-M12 |
| | NPN, cable | 2.5 | ★ | 574338 | SMT-8M-A-NS-24V-E-2,5-OE |
| | NPN, plug connector | 0.3 | ★ | 574339 | SMT-8M-A-NS-24V-E-0,3-M8D |
| Magneto-resistive – N/C contact Technical data → 878 | | | | | |
|  | PNP, cable | 7.5 | ★ | 574340 | SMT-8M-A-PO-24V-E-7,5-OE |
| Magnetic reed – N/O contact Technical data → 873 | | | | | |
|  | Cable | 2.5 | ★ | 543862 | SME-8M-DS-24V-K-2,5-OE |
| | Cable | 5.0 | ★ | 543863 | SME-8M-DS-24V-K-5,0-OE |
| | Cable | 2.5 | ★ | 543872 | SME-8M-ZS-24V-K-2,5-OE |
| | Plug connector | 0.3 | ★ | 543861 | SME-8M-DS-24V-K-0,3-M8D |
| Magnetic reed – N/C contact Technical data → 875 | | | | | |
|  | Cable | 2.5 | | 150855 | SME-8-K-LED-24 |
| | Plug connector | 0.3 | | 150857 | SME-8-S-LED-24 |
| Magnetic reed – N/C contact Technical data → 875 | | | | | |
|  | Cable | 7.5 | | 160251 | SME-8-O-K-LED-24 |

Accessories – Ordering data

| | For Ø | Cable length [m] | | Part No. | Type | |
|-------------------------------------------------------------------------------------|---------------------|------------------|---|----------|----------------------------|------------------------------|
| 17 Proximity sensor for C-slot, magneto-resistive – N/O contact | | | | | | Technical data → 892 |
|  | PNP, cable | 2.5 | ★ | 551373 | SMT-10M-PS-24V-E-2,5-L-OE | |
| | PNP, plug connector | 0.3 | ★ | 551375 | SMT-10M-PS-24V-E-0,3-L-M8D | |
| | PNP, plug connector | 0.3 | ★ | 551376 | SMT-10M-PS-24V-E-0,3-Q-M8D | |
| Magnetic reed – N/O contact | | | | | | Technical data → 892 |
|  | Plug connector | 0.3 | ★ | 551367 | SME-10M-DS-24V-E-0,3-L-M8D | |
| | Cable | 2.5 | ★ | 551365 | SME-10M-DS-24V-E-2,5-L-OE | |
| | Cable | 2.5 | ★ | 551369 | SME-10M-ZS-24V-E-2,5-L-OE | |
|  | Plug connector | 0.3 | | 173212 | SME-10-SL-LED-24 | |
| | Cable | 2.5 | | 173210 | SME-10-KL-LED-24 | |
| 13/15/17 Connecting cable, straight socket | | | | | | Technical data → 1161 |
|  | – | 2.5 | ★ | 541333 | NEBU-M8G3-K-2.5-LE3 | |
| | – | 5.0 | ★ | 541334 | NEBU-M8G3-K-5-LE3 | |
|  | – | 2.5 | ★ | 541363 | NEBU-M12G5-K-2.5-LE3 | |
| | – | 5.0 | ★ | 541364 | NEBU-M12G5-K-5-LE3 | |
| Angled socket | | | | | | Technical data → 1161 |
|  | – | 2.5 | ★ | 541338 | NEBU-M8W3-K-2.5-LE3 | |
| | – | 5.0 | ★ | 541341 | NEBU-M8W3-K-5-LE3 | |
|  | – | 2.5 | | 541367 | NEBU-M12W5-K-2.5-LE3 | |
| | – | 5.0 | | 541370 | NEBU-M12W5-K-5-LE3 | |
| 18 Right-angle clevis foot | | | | | | Technical data online: → lqg |
|  | 32 | – | | 31768 | LQG-32 | |
| | 40 | – | | 31769 | LQG-40 | |
| | 50 | – | | 31770 | LQG-50 | |
| | 63 | – | | 31771 | LQG-63 | |
| 19 Rod clevis | | | | | | Technical data online: → sga |
|  | 32 | – | | 32954 | SGA-M10x1,25 | |
| | 40 | – | | 10767 | SGA-M12x1,25 | |
| | 50, 63 | – | | 10768 | SGA-M16x1,5 | |
| 20 Clevis foot | | | | | | Technical data online: → lbg |
|  | 32 | – | | 31761 | LBG-32 | |
| | 40 | – | | 31762 | LBG-40 | |
| | 50 | – | | 31763 | LBG-50 | |
| | 63 | – | | 31764 | LBG-63 | |

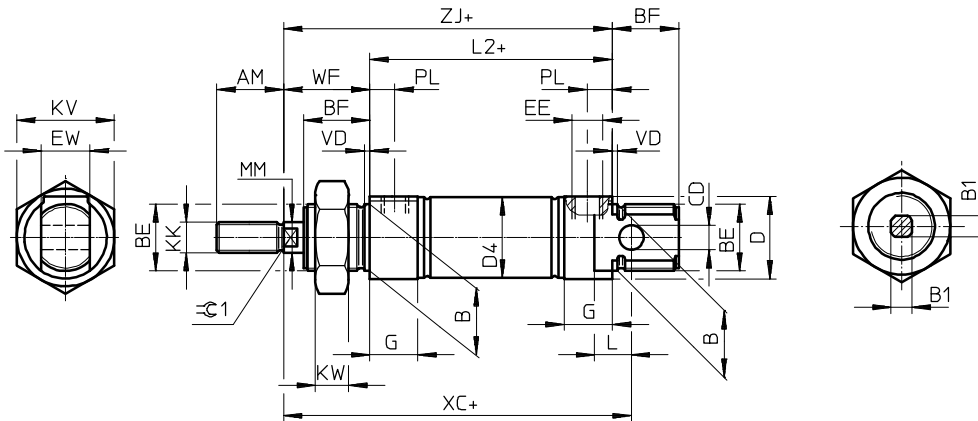
| | For Ø | Stroke | | Part No. | Type | |
|-------------------------------------------------------------------------------------|----------------------------------------------|-----------|---|----------|------------------|------------------------------|
| 22 Guide unit for variable strokes | | | | | | |
|  | With recirculating ball bearing guide | | | | | Technical data online: → fen |
| | 8, 10 | 1 ... 100 | | 35197 | FEN-8/10-...-KF | |
| | 12, 16 | 1 ... 200 | | 33481 | FEN-12/16-...-KF | |
| | 20 | 2 ... 250 | | 33482 | FEN-20-...-KF | |
| | 25 | 2 ... 250 | | 33483 | FEN-25-...-KF | |
|  | With plain-bearing guide | | | | | Technical data online: → fen |
| | 8, 10 | 1 ... 100 | | 35196 | FEN-8/10-...-GF | |
| | 12, 16 | 1 ... 200 | | 19168 | FEN-12/16-...-GF | |
| | 20 | 2 ... 250 | | 19169 | FEN-20-...-GF | |
| | 25 | 2 ... 250 | | 19170 | FEN-25-...-GF | |
| 23 Hex nut | | | | | | |
|  | 16 | | | 189007 | MSK-M16X1,5 | |
| | 20, 25 | | ★ | 189009 | MSK-M22X1,5 | |

Round cylinders DSNU/DSNUP/DSN/ESNU/ESN

1

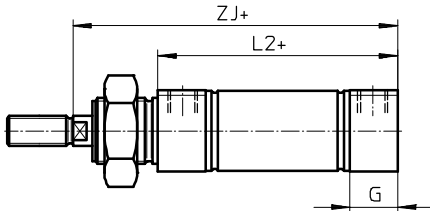
Dimensions

Basic design – Ø 8 ... 25

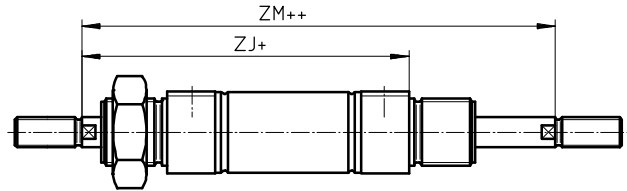


Note
Piston rod nut is not included in the scope of delivery with Ø 8 ... 20.

MQ – Lateral air connection

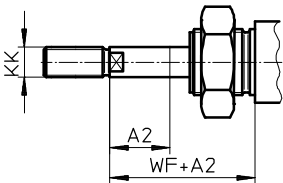


S2 – Through piston rod



Note
The thread types at both piston rod ends are identical. In combination with variant Q, the left-hand piston rod end is square, the right-hand piston rod end round.

K8 – Extended piston rod



Note
If variant K8 is required in combination with S2, the piston rod will only be extended on one side.

+ = plus stroke length
++ = plus 2x stroke length

| Ø [mm] | A2 max. | AM | B Ø h9 | B1 □ | BE | BF | CD Ø H9 | D Ø | D4 Ø | EE | EW | G | KK |
|-----------|------------|----|--------------|---------|----------|----|---------------|--------|---------|-----------------|----|----|------|
| 8 | 50 | 12 | 12 | - | M12x1.25 | 12 | 4 | 15 | 9.3 | M5 | 8 | 10 | M4 |
| 10 | | | | 11.3 | | | | | | | | | |
| 12 | 100 | 16 | 16 | 5.5 | M16x1.5 | 17 | 6 | 20 | 13.3 | | 12 | | M6 |
| 16 | | | | 17.3 | | | | | | | | | |
| 20 | 110 | 20 | 22 | 7 | M22x1.5 | 20 | 8 | 27 | 21.3 | G $\frac{1}{8}$ | 16 | 16 | M8 |
| 25 | 150 | 22 | | 9 | | 22 | | | | | | | 26.5 |

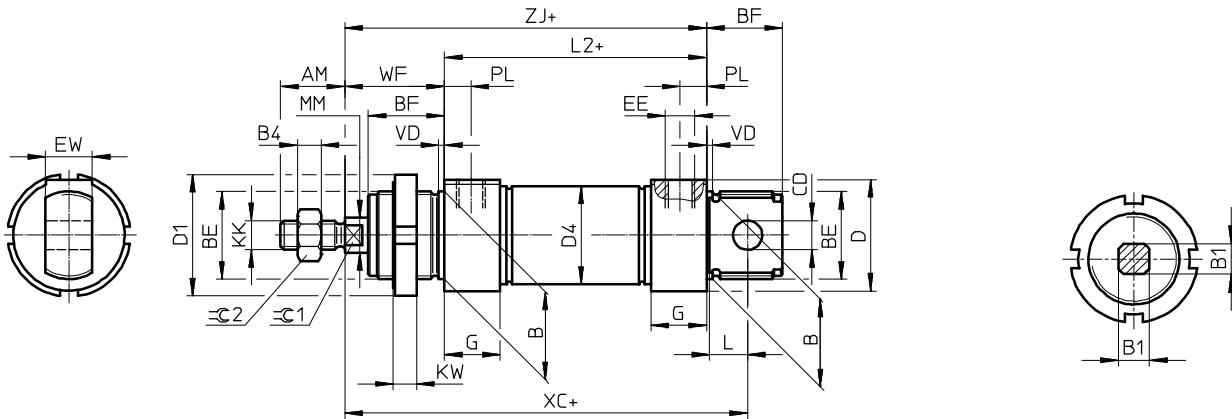
| Ø [mm] | KV | KW | L | L2 | MM Ø | PL | VD | WF | XC ±1 | ZM | ZJ | ⊖C1 |
|-----------|----|----|----|------|---------|----|----|-----|----------|------|-------|------|
| 8 | 19 | 6 | 6 | 46 | 4 | 6 | 2 | 16 | 64 | 78.4 | 62 | - |
| 10 | | | | 50 | | | | | | | | |
| 12 | 24 | 8 | 9 | 56 | 6 | | | 22 | 75 | 82 | 94 | 100 |
| 16 | | | | 68 | | 8 | 24 | | | | | |
| 20 | 32 | 11 | 12 | 69.5 | 10 | | | 8.2 | 28 | 104 | 125.5 | 97.2 |
| 25 | | | | | | | | | | | | |

Dimensions

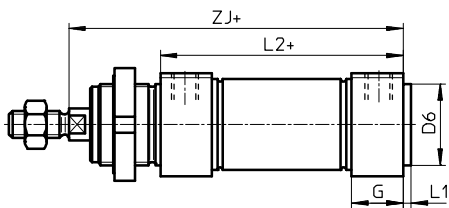
Basic design – Ø 32 ... 63

Download CAD data → www.festo.com

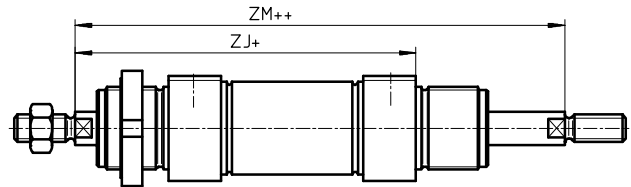
Q – Square piston rod



MQ – Lateral air connection



S2 – Through piston rod



Note

The thread types at both piston rod ends are identical. In combination with variant Q, the left-hand piston rod end is square, the right-hand piston rod end is round.

+ = plus stroke length
++ = plus 2x stroke length

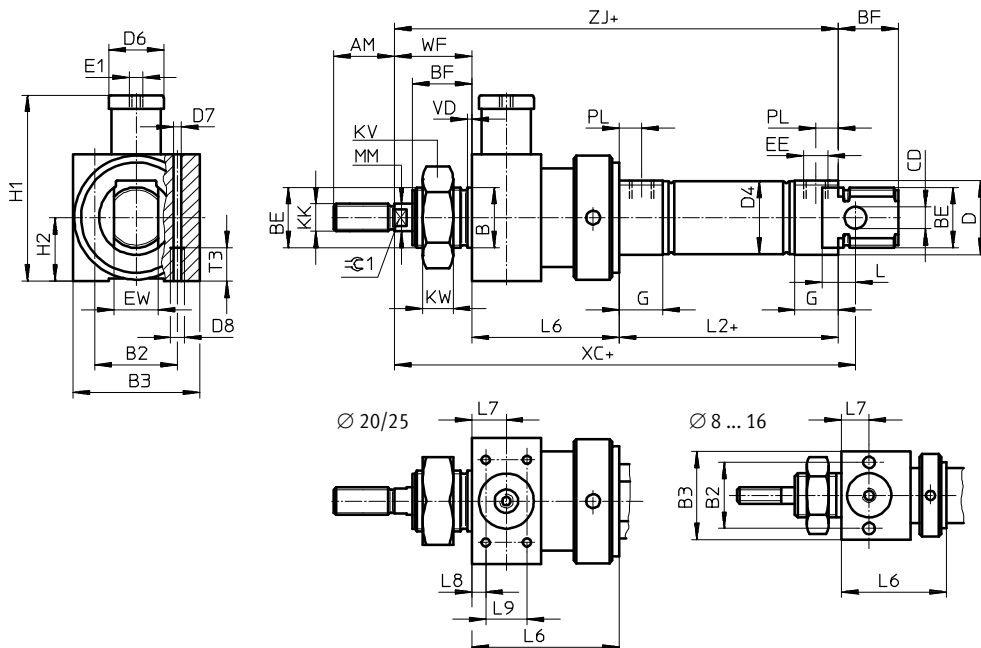
| Ø | AM | B | B1 | B4 | BE | BF | CD | D | D1 | D4 | D6 | EE | EW | G |
|------|----|---------|----|----|---------|----|----------|----|----|------|----|-------------------------------|----|----|
| [mm] | | Ø h9 | □ | | | | Ø E10 | Ø | Ø | Ø | Ø | | | |
| 32 | 22 | 30 | 10 | 5 | M30x1.5 | 26 | 10 | 38 | 42 | 33.6 | 30 | G ¹ / ₈ | 16 | 19 |
| 40 | 24 | 38 | 12 | 6 | M38x1.5 | 30 | 12 | 46 | 50 | 41.6 | 38 | G ¹ / ₄ | 18 | 25 |
| 50 | 32 | 45 | 16 | 8 | M45x1.5 | 33 | 16 | 57 | 60 | 52.4 | 45 | | 21 | |
| 63 | | | | | | | | 70 | | 65.4 | | G ³ / ₈ | | |

| Ø | KK | KW | L | L1 | L2 | MM | PL | VD | WF | XC | ZJ | ZM | ⊖1 | ⊖2 |
|------|----------|----|----|----|------|----|----|----|----|-------|-------|-------|----|----|
| [mm] | | | | | | Ø | | | | ±1 | | | | |
| 32 | M10x1.25 | 8 | 13 | 3 | 69.5 | 12 | 9 | 2 | 34 | 117.5 | 103.5 | 137.5 | 10 | 16 |
| 40 | M12x1.25 | | 15 | | 84.6 | | | | 16 | | | | | |
| 50 | M16x1.5 | 10 | 16 | 4 | 86.2 | 20 | 12 | 3 | 44 | 147.2 | 130.2 | 174.2 | 17 | 24 |
| 63 | | | | | 94.2 | | | | 13 | | | | | |

Round cylinders DSNU/DSNUP/DSN/ESNU/ESN

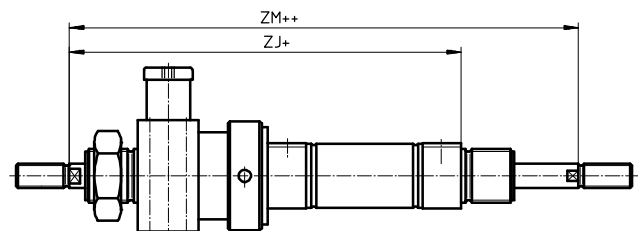
Dimensions

Basic design KP – With clamping unit Ø 8 ... 25



Note
Piston rod nut is not included in the scope of delivery with Ø 8 ... 20.

S2 – Through piston rod



Note
The thread types at both piston rod ends are identical. The clamping unit is mounted on only one side. In combination with variant Q, the right-hand piston rod is square, the left-hand piston rod round. The clamping unit is mounted on the left-hand, round piston rod.

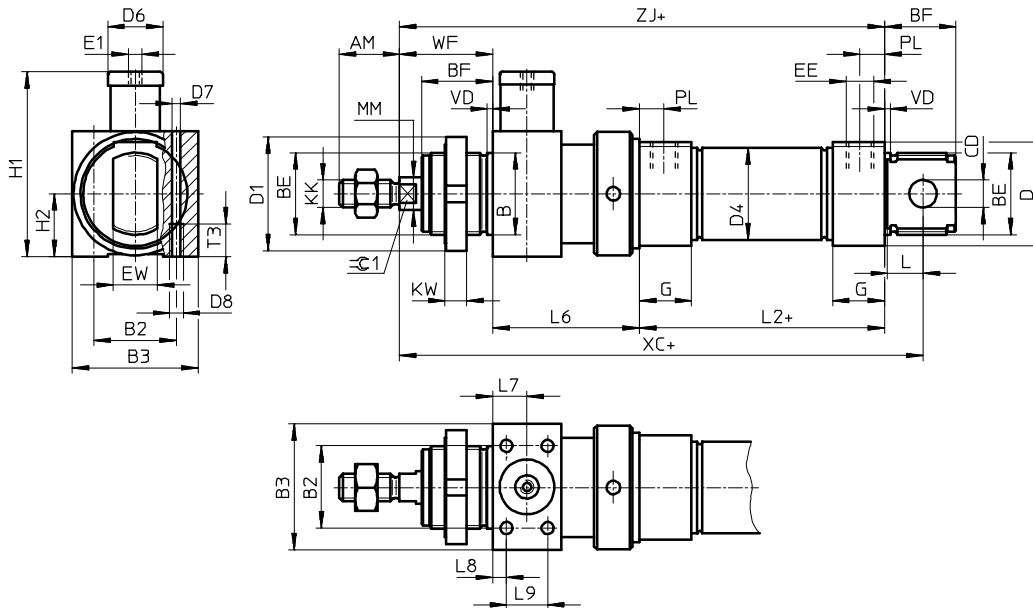
+ = plus stroke length
++ = plus 2x stroke length

| Ø | AM | B | B2 | B3 | BE | BF | CD | D | D4 | D6 | D7 | D8 | E1 | EE | EW | G | H1 | H2 |
|------|----|---------|------|----|----------|----|---------|----|------|----|-----|----|----|-------------------------------|----|----|------|------|
| [mm] | | Ø h9 | | | | | Ø H9 | Ø | Ø | Ø | Ø | | | | | | | |
| 8 | 12 | 12 | 19.5 | 27 | M12x1.25 | 12 | 4 | 15 | 9.3 | 12 | | | | | | | 34.5 | 13.5 |
| 10 | | | | | | | | | 11.3 | | | | | M5 | 8 | 10 | | |
| 12 | | | | | | | | | 13.3 | | | | | | | | 41 | 16 |
| 16 | 16 | 16 | 24 | 32 | M16x1.5 | 17 | 6 | 20 | 17.3 | 16 | 4.2 | M5 | M5 | | | | | |
| 20 | 20 | | | | | 20 | 8 | 27 | 21.3 | | | | | G ¹ / ₈ | 16 | 16 | 62.5 | 18 |
| 25 | 22 | 22 | 27 | 36 | M22x1.5 | 22 | | | 26.5 | 20 | | | | | | | | |

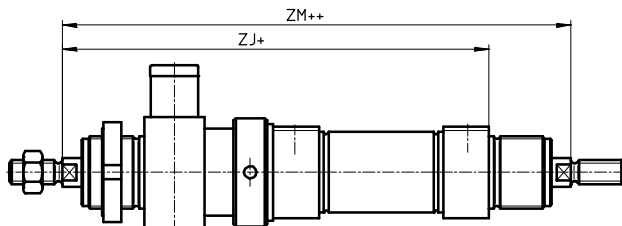
| Ø | KK | KV | KW | MM | L | L2 | L6 | L7 | L8 | L9 | T3 | PL | VD | WF | XC | ZJ | ZM | ≈C1 |
|------|----------|----|----|----|----|------|----------|----|-----|----|----|-----|----|----|-----|-------|-------|-----|
| [mm] | | | | Ø | | | | | | | | | | | ±1 | | | |
| 8 | | | | | | | | | - | - | | | | 16 | 93 | 91 | 107 | - |
| 10 | M4 | 19 | 6 | 4 | 6 | 46 | 29 ±0.65 | 8 | | | | | | | | | | |
| 12 | | | | | | 50 | | | | | | 6 | | | | | | |
| 16 | M6 | 24 | 8 | 6 | 9 | 56 | 38 ±0.75 | 10 | | | 11 | | 2 | 22 | 113 | 110 | 132 | 5 |
| 20 | | | | | | 68 | 47 ±0.75 | | | | | | | | 120 | 116 | 138 | |
| 25 | M8 | | | 8 | 12 | 69.5 | 48 ±0.75 | 13 | 4.5 | 20 | | 8.2 | | 24 | 142 | 139 | 163 | 7 |
| | M10x1.25 | 32 | 11 | 10 | | | | | | | | | | 28 | 152 | 145.5 | 173.5 | 9 |

Dimensions

Basic design KP – With clamping unit Ø 32 ... 63



S2 – Through piston rod



Note

The thread types at both piston rod ends are identical. The clamping unit is mounted on only one side. In combination with variant Q, the right-hand piston rod is square, the left-hand piston rod round. The clamping unit is mounted on the left-hand, round piston rod.

+ = plus stroke length
++ = plus 2x stroke length

| ∅ | AM | B ∅ h9 | B2 | B3 | BE | BF | CD ∅ E10 | D ∅ | D1 ∅ | D4 ∅ | D6 | D7 | D8 | E1 | EE | EW | G | H1 |
|----|----|--------------|----|----|---------|----|----------------|--------|---------|---------|-----|-----|-------------------------------|-------------------------------|-------------------------------|----|----|-------|
| 32 | 22 | 30 | 30 | 46 | M30x1.5 | 26 | 10 | 38 | 42 | 33.6 | 20 | 4.4 | M5 | M5 | G ¹ / ₈ | 16 | 19 | 67.5 |
| 40 | 24 | 38 | 36 | 56 | M38x1.5 | 30 | 12 | 46 | 50 | 41.6 | 24 | 6.8 | M8 | G ¹ / ₈ | G ¹ / ₄ | 18 | 25 | 89 |
| 50 | 32 | 45 | 50 | 65 | M45x1.5 | 33 | 57 | 60 | 52.4 | 30 | 8.5 | M10 | G ³ / ₈ | | | 21 | | 21 |
| 63 | | | 54 | 72 | | | 70 | | | | | | | 65.4 | 38 | | 28 | 121.5 |

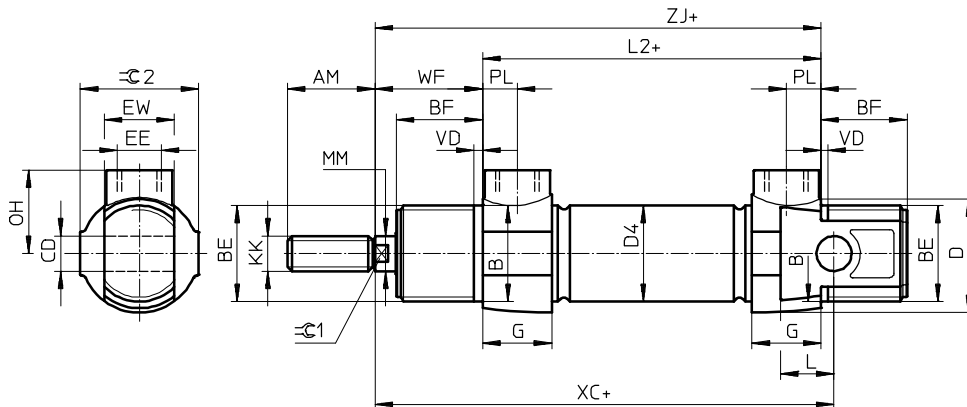
| ∅ | H2 | KK | KW | MM ∅ | L | L2 | L6 ±0.75 | L7 | L8 | L9 | T3 | PL | VD | WF | XC ±1 | ZJ | ZM | ≈C1 |
|----|------|----------|----|---------|----|------|-------------|------|----|------|-------|-------|----|-------|----------|-------|-------|-------|
| 32 | 23 | M10x1.25 | 8 | 12 | 13 | 69.5 | 55 | 12.5 | 5 | 15 | 12 | 9 | 2 | 34.5 | 173 | 159 | 191 | 10 |
| 40 | 28 | M12x1.25 | 10 | 16 | 15 | 84.6 | 69 | 17 | 7 | 20 | 18 | 12 | 3 | 40.5 | 210.1 | 194.1 | 230.1 | 13 |
| 50 | 32.5 | M16x1.5 | | 20 | 16 | 86.2 | 78 | 20 | | 26 | 20 | | | 26 | 20 | 45.5 | 226.7 | 209.7 |
| 63 | 36 | | | 20 | 24 | 8 | 32 | 21 | 13 | 46.5 | 243.7 | 226.7 | | 268.7 | | | | |

Round cylinders DSNU/DSNUP/DSN/ESNU/ESN

Dimensions

DSNUP Ø 16 ... 25

Download CAD data → www.festo.com



Note
 Only push-in fittings or one-way flow control valves with cylindrical connecting thread (M or G thread) should be used for the supply ports.
 Piston rod nut is not included in the scope of delivery with Ø 16/20.

+ = plus stroke length

| Ø | AM | B | BE | BF | CD | D | D4 | EE |
|------|----|---------|---------|----|---------|----|----|------|
| [mm] | | Ø h9 | | | Ø H9 | Ø | Ø | |
| 16 | 16 | 16 | M16x1.5 | 17 | 6 | 20 | 18 | M5 |
| 20 | 20 | 22 | M22x1.5 | 20 | 8 | 27 | 22 | G1/8 |
| 25 | 22 | 22 | M22x1.5 | 22 | 8 | 27 | 27 | G1/8 |

| Ø | EW | G | KK | L | L2 | MM | OH | PL | VD |
|------|----|----|----------|----|----|----|----|-----|----|
| [mm] | | | | | | Ø | | | |
| 16 | 12 | 10 | M6 | 8 | 56 | 6 | 14 | 4.9 | 2 |
| 20 | 16 | 16 | M8 | 12 | 68 | 8 | 19 | 7.9 | 2 |
| 25 | 16 | 16 | M10x1.25 | 12 | 70 | 10 | 19 | 7.9 | 2 |

| Ø | WF | XC | ZJ | Ø 1 | Ø 2 | Max. tightening torque of thread [Nm] | |
|------|----|-----|----|-----|-----|---------------------------------------|-----|
| | | | | | | BE ¹⁾ | EE |
| [mm] | | ±1 | | | | | |
| 16 | 22 | 82 | 78 | 5 | 19 | 12/8 | 1.3 |
| 20 | 24 | 95 | 92 | 7 | 27 | 22/15 | 6 |
| 25 | 28 | 104 | 98 | 9 | 27 | 22/15 | 6 |

1) Bearing cap/end cap.



Overview/Configuration/Order
→ www.festo.com/catalogue/adngf

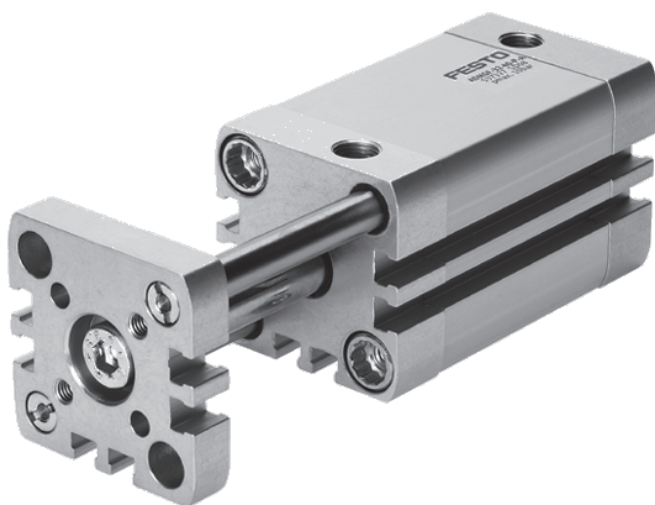


Additional information/Support/User documentation
→ www.festo.com/sp/adngf

Drives with guides
Drives with guide rods

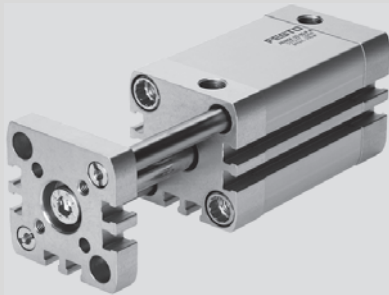
Compact cylinders, standard hole pattern

ADNGF



- + Mounting hole pattern to ISO 21287
- + Piston rod secured against rotation by means of guide rod and yoke plate
- + Plain-bearing guide
- + With position sensing
- + Optionally with through piston rod

Compact cylinders ADNGF, standard hole pattern



- Compact cylinder with standard hole pattern, based on ISO 21287
- Piston rod secured against rotation by means of two guide rods and a yoke plate
- Mounting accessories from the standard range for ADN
- Spare parts service

→ www.festo.com/catalogue/adngf

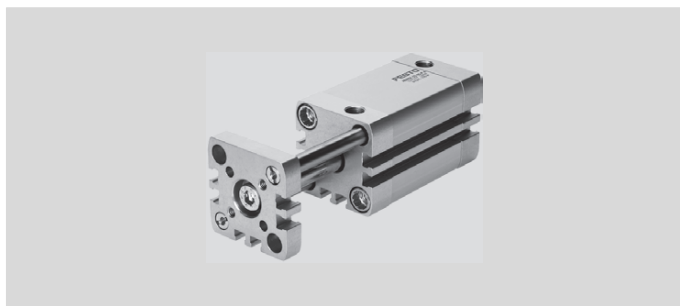
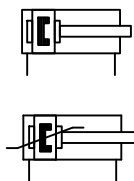
Product range overview

| Type/function | Version | Piston Ø [mm] | Stroke [mm] | Force [N] | Product options | | | | |
|---------------|------------------------|-----------------------------------------|----------------|--------------|-----------------|-----|---|----|----|
| | | | | | P | PPS | A | S2 | S6 |
| ADNGF | | | | | | | | | |
| Double-acting | Non-rotating with yoke | 12, 16, 20, 25, 32, 40, 50, 63, 80, 100 | 1 ... 400 | 68 ... 4712 | ■ | ■ | ■ | ■ | ■ |

Product options

| | | | | | |
|-----|---------------------------------------------------|----|--------------------|----|----------------------------------------|
| P | Elastic cushioning rings/plates at both ends | A | Position sensing | S6 | Heat-resistant seals up to max. 120 °C |
| PPS | Pneumatic cushioning, self-adjusting at both ends | S2 | Through piston rod | TL | Laser etched rating plate |

Technical data – Double-acting



| Technical data | | Dimensions → 144 | | | | | | | | | |
|----------------------------------------|--------------------|----------------------------------------------|-----|---------------------------------------------------|-----|-----------|------|------|------|------|-----------|
| Piston Ø | | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
| Pneumatic connection | | M5 | M5 | M5 | M5 | G1/8 | G1/8 | G1/8 | G1/8 | G1/8 | G1/8 |
| Stroke | | 1 ... 200 | | 3 ... 200 | | 5 ... 300 | | | | | 5 ... 400 |
| Cushioning | ADNGF-...-P | Elastic cushioning rings/plates at both ends | | | | | | | | | |
| | ADNGF-...-PPS | – | | Pneumatic cushioning, self-adjusting at both ends | | | | | | | |
| Cushioning length | ADNGF-...-PPS [mm] | – | | 3 | 3.5 | 4 | 5 | 6 | 7 | 7.5 | 10 |
| Theoretical force at 6 bar, advancing | ADNGF-... [N] | 68 | 121 | 188 | 295 | 483 | 754 | 1178 | 1870 | 3016 | 4712 |
| | ADNGF-...-S2 [N] | 51 | 90 | 141 | 247 | 415 | 686 | 1057 | 1750 | 2827 | 4524 |
| Theoretical force at 6 bar, retracting | ADNGF-... [N] | 51 | 90 | 141 | 247 | 415 | 686 | 1057 | 1750 | 2827 | 4524 |
| | ADNGF-...-S2 [N] | 51 | 90 | 141 | 247 | 415 | 686 | 1057 | 1750 | 2827 | 4524 |

Operating conditions

| Operating conditions | | Dimensions → 144 | | | | | | | | | |
|-----------------------------------|---------------------|------------------|----|------------|----------|----------|------------|----|----|----|-----|
| Piston Ø | | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
| Operating pressure | ADNGF-... [bar] | 1.5 ... 10 | | | 1 ... 10 | | | | | | |
| | ADNGF-...-PPS [bar] | – | | 1.9 ... 10 | | | 1.4 ... 10 | | | | |
| | ADNGF-...-S2 [bar] | 1.5 ... 10 | | | | 1 ... 10 | | | | | |
| Ambient temperature ¹⁾ | ADNGF-... [°C] | –20 ... +80 | | | | | | | | | |
| | ADNGF-...-S6 [°C] | 0 ... +120 | | | | | | | | | |

1) Note operating range of proximity sensors.

Materials

| | | | |
|-----------------|--------------|--------------------|---------------------------|
| Piston Ø | | 12 ... 80 | 100 |
| End cap | | Anodised aluminium | Coated die-cast aluminium |
| Cylinder barrel | | Anodised aluminium | |
| Piston rod | | High-alloy steel | |
| Seals | ADNGF-... | TPE-U(PUR) | |
| | ADNGF-...-S6 | FPM | |

Compact cylinders ADNGF, standard hole pattern

1

Order code

| | | | | | | | | | | | | | |
|-------|--|---|-----|---|-----|---|-----|---|---|---|-----|---|-----|
| ADNGF | | - | [] | - | [] | - | [] | - | A | - | [] | - | [] |
|-------|--|---|-----|---|-----|---|-----|---|---|---|-----|---|-----|

| Type | | |
|-------|--------------------------------|--|
| ADNGF | Double-acting compact cylinder | |

| Piston Ø [mm] | | |
|---------------|---------------------------------------|-----------|
| | Stroke [mm] | |
| 12 | 5, 10, 15, 20, 25, 30, 40 | 1 ... 200 |
| 16 | 5, 10, 15, 20, 25, 30, 40, 50 | 1 ... 200 |
| 20, 25 | 5, 10, 15, 20, 25, 30, 40, 50, 60 | 3 ... 200 |
| 32, 40, 50 | 5, 10, 15, 20, 25, 30, 40, 50, 60, 80 | 5 ... 300 |
| 63, 80 | 10, 15, 20, 25, 30, 40, 50, 60, 80 | 5 ... 300 |
| 100 | 10, 15, 20, 25, 30, 40, 50, 60, 80 | 5 ... 400 |

| Cushioning | |
|------------|------------------------------------------------------------------|
| P | Elastic cushioning rings/plates at both ends |
| PPS | Pneumatic cushioning, self-adjusting at both ends ^[1] |

| Position sensing | |
|------------------|----------------------|
| A | Via proximity sensor |

| Piston rod type | |
|-----------------|-----------------------|
| - | Yoke plate at one end |
| S2 | Through piston rod |

| Temperature resistance | |
|------------------------|-------------------------------------------------------|
| S6 | Heat-resistant seals up to max. 120 °C ^[2] |

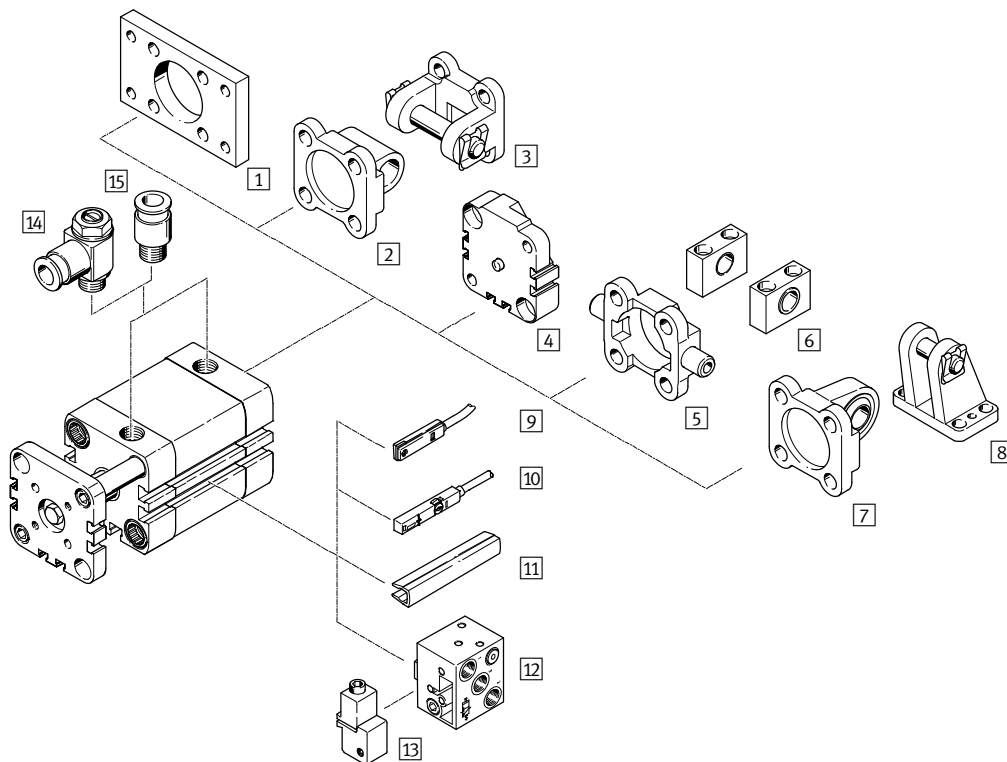
- ^[1] Not with piston Ø 12, 16
Not with temperature resistance S6
Minimum stroke 5 mm
- ^[2] Maximum stroke: 250 mm

Order example:

ADNGF-50-50-P-A-S2-S6

Double-acting compact cylinder ADNGF - piston diameter 50 mm - stroke 50 mm - elastic cushioning rings/plates at both ends - position sensing via proximity sensor - through piston rod - heat-resistant seals up to max. 120 °C

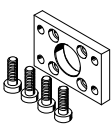
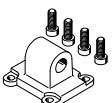
Accessories

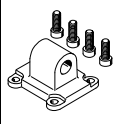
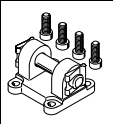


| | | Basic design | S2 | → Page/online |
|---|-------------------------|--------------|----|---------------|
| 1 | Flange mounting FNC | ■ | ■ | 141 |
| 2 | Swivel flange SNCL | ■ | - | 141 |
| 3 | Swivel flange SNCB | ■ | - | 141 |
| 4 | Multi-position kit DPNA | ■ | - | 142 |
| 5 | Trunnion flange ZNCF | ■ | ■ | 142 |
| 6 | Trunnion support LNZG | ■ | ■ | 142 |
| 7 | Swivel flange SNCS | ■ | - | 142 |
| 8 | Clevis foot LBG | ■ | - | 142 |

| | | Basic design | S2 | → Page/online |
|----|--------------------------------------|--------------|----|-------------------------|
| 9 | Proximity sensor SME-/SMT-8 | ■ | ■ | 142 |
| 10 | Proximity sensor SME-/SMT-8M | ■ | ■ | 142 |
| 11 | Slot cover ABP-5-S | ■ | ■ | 143 |
| 12 | Proximity sensor SMPO-8E | ■ | ■ | smpo-8e |
| 13 | Mounting kit SMB-8E | ■ | ■ | smb-8e |
| 14 | One-way flow control valve GRLA/GRLZ | ■ | ■ | 143 |
| 15 | Push-in fitting QS | ■ | ■ | 1098 |
| - | Connecting cable NEBU | ■ | ■ | 142 |

Accessories – Ordering data

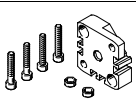
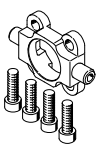
| | For Ø | Part No. | Type |
|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------|---------|
| 1 Flange mounting  | Dimensions online: → adngf | | |
| | 12 | 537245 | FNC-12 |
| | 16 | 537246 | FNC-16 |
| | 20 | 537247 | FNC-20 |
| | 25 | 537248 | FNC-25 |
| | 32 | ★ 174376 | FNC-32 |
| | 40 | ★ 174377 | FNC-40 |
| | 50 | ★ 174378 | FNC-50 |
| | 63 | ★ 174379 | FNC-63 |
| | 80 | ★ 174380 | FNC-80 |
| 100 | 174381 | FNC-100 | |
| 2 Swivel flange  | Dimensions online: → adn | | |
| | 12 | 537790 | SNCL-12 |
| | 16 | 537791 | SNCL-16 |
| | 20 | 537792 | SNCL-20 |
| | 25 | 537793 | SNCL-25 |

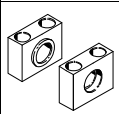
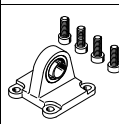
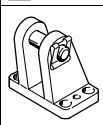
| | For Ø | Part No. | Type |
|---------------------------------------------------------------------------------------------------------------|------------------------------------------|----------|---------|
| 2 Swivel flange  | Dimensions online: → adn | | |
| | 32 | ★ 174404 | SNCL-32 |
| | 40 | ★ 174405 | SNCL-40 |
| | 50 | ★ 174406 | SNCL-50 |
| | 63 | ★ 174407 | SNCL-63 |
| | 80 | ★ 174408 | SNCL-80 |
| 100 | 174409 | SNCL-100 | |
| 3 Swivel flange  | Dimensions online: → adn | | |
| | 32 | ★ 174390 | SNCB-32 |
| | 40 | ★ 174391 | SNCB-40 |
| | 50 | ★ 174392 | SNCB-50 |
| | 63 | ★ 174393 | SNCB-63 |
| | 80 | ★ 174394 | SNCB-80 |
| 100 | 174395 | SNCB-100 | |

Compact cylinders ADNGF, standard hole pattern

1


Accessories – Ordering data

| | For Ø | Part No. | Type |
|-------------------------------------------------------------------------------------------------------|-------|----------|----------|
| 4 Multi-position kit Dimensions online: → adn | | | |
|  | 12 | 537263 | DPNA-12 |
| | 16 | 537264 | DPNA-16 |
| | 20 | 537265 | DPNA-20 |
| | 25 | 537266 | DPNA-25 |
| | 32 | 537267 | DPNA-32 |
| | 40 | 537268 | DPNA-40 |
| | 50 | 537269 | DPNA-50 |
| | 63 | 537270 | DPNA-63 |
| | 80 | 537271 | DPNA-80 |
| | 100 | 537272 | DPNA-100 |
| 5 Trunnion flange Dimensions online: → adn | | | |
|  | 32 | 174411 | ZNCF-32 |
| | 40 | 174412 | ZNCF-40 |
| | 50 | 174413 | ZNCF-50 |
| | 63 | 174414 | ZNCF-63 |
| | 80 | 174415 | ZNCF-80 |
| | 100 | 174416 | ZNCF-100 |



| | For Ø | Part No. | Type |
|-----------------------------------------------------------------------------------------------------|--------|----------|--------------|
| 6 Trunnion support Dimensions online: → adn | | | |
|  | 32 | 32959 | LNZG-32 |
| | 40, 50 | 32960 | LNZG-40/50 |
| | 63, 80 | 32961 | LNZG-63/80 |
| | 100 | 32962 | LNZG-100/125 |
| 7 Swivel flange Dimensions online: → adn | | | |
|  | 32 | ★ 174397 | SNCS-32 |
| | 40 | ★ 174398 | SNCS-40 |
| | 50 | ★ 174399 | SNCS-50 |
| | 63 | ★ 174400 | SNCS-63 |
| | 80 | ★ 174401 | SNCS-80 |
| | 100 | 174402 | SNCS-100 |
| 8 Clevis foot Dimensions online: → adn | | | |
|  | 32 | 31761 | LBG-32 |
| | 40 | 31762 | LBG-40 |
| | 50 | 31763 | LBG-50 |
| | 63 | 31764 | LBG-63 |
| | 80 | 31765 | LBG-80 |
| | 100 | 31766 | LBG-100 |

| | For Ø | Cable length [m] | Part No. | Type |
|--------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|----------|-------------------------|
| 9/10 Proximity sensor for T-slot, magneto-resistive – N/O contact Technical data → 878 | | | | |
|  | PNP, cable | 2.5 | ★ 574335 | SMT-8M-PS-24V-K-2,5-OE |
| | PNP, plug connector | 0.3 | ★ 574334 | SMT-8M-PS-24V-K-0,3-M8D |
| | PNP, plug connector | 0.3 | ★ 574337 | SMT-8M-PS-24V-K-0,3-M12 |
| | NPN, cable | 2.5 | ★ 574338 | SMT-8M-NS-24V-K-2,5-OE |
| | NPN, plug connector | 0.3 | ★ 574339 | SMT-8M-NS-24V-K-0,3-M8D |
| Magneto-resistive – N/C contact Technical data → 878 | | | | |
|  | PNP, cable | 7.5 | ★ 574340 | SMT-8M-A-PO-24V-K7,5-OE |
| Magnetic reed – N/O contact Technical data → 873 | | | | |
|  | Cable | 2.5 | ★ 543862 | SME-8M-DS-24V-K-2,5-OE |
| | Cable | 5.0 | ★ 543863 | SME-8M-DS-24V-K-5,0-OE |
| | Cable | 2.5 | ★ 543872 | SME-8M-ZS-24V-K-2,5-OE |
| | Plug connector | 0.3 | ★ 543861 | SME-8M-DS-24V-K-0,3-M8D |
|  | Cable | 2.5 | 150855 | SME-8-K-LED-24 |
| | Plug connector | 0.3 | 150857 | SME-8-S-LED-24 |
| Magnetic reed – N/C contact Technical data → 875 | | | | |
|  | – | 7.5 | 160251 | SME-8-O-K-LED-24 |
| Connecting cable, straight socket Technical data → 1161 | | | | |
|  | – | 2.5 | ★ 541333 | NEBU-M8G3-K-2.5-LE3 |
| | – | 5.0 | ★ 541334 | NEBU-M8G3-K-5-LE3 |
|  | – | 2.5 | ★ 541363 | NEBU-M12G5-K-2.5-LE3 |
| | – | 5.0 | ★ 541364 | NEBU-M12G5-K-5-LE3 |
| Angled socket Technical data → 1161 | | | | |
|  | – | 2.5 | ★ 541338 | NEBU-M8W3-K-2.5-LE3 |
| | – | 5.0 | ★ 541341 | NEBU-M8W3-K-5-LE3 |
|  | – | 2.5 | 541367 | NEBU-M12W5-K-2.5-LE3 |
| | – | 5.0 | 541370 | NEBU-M12W5-K-5-LE3 |

Accessories – Ordering data

| | For Ø | Part No. | Type |
|-----------------------------------------------------------------------------------|------------|---------------|----------------|
| 11 Slot cover ¹⁾ | | | |
|  | 12 ... 100 | 151680 | ABP-5-S |

1) Packaging unit 2x 0.5 m.

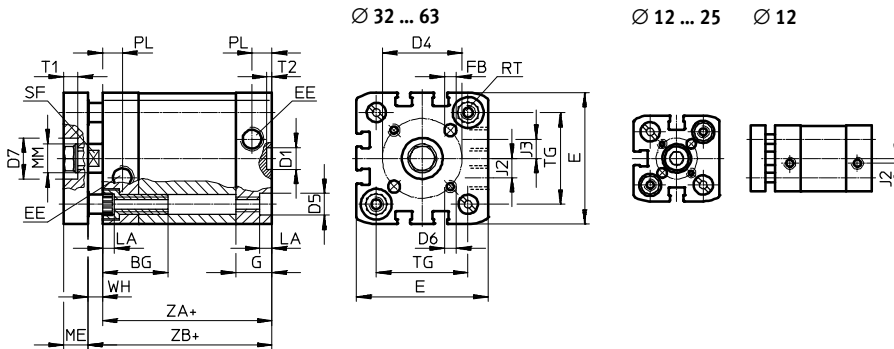
| Function | For Ø | Connection | | Part No. | Type |
|-----------------------------------------------------------------------------------|---------------------|-----------------|------|----------|-----------------------------|
| | | Thread | O.D. | | |
| 14 One-way flow control valve with slotted head screw, metal ²⁾ | | | | | |
| for exhaust air flow control | | | | | Technical data → 758 |
|  | 12, 16, 20, 25 | M5 | 3 | ★ 193137 | GRLA-M5-QS-3-D |
| | 32 | G $\frac{1}{8}$ | 4 | ★ 193143 | GRLA- $\frac{1}{8}$ -QS-4-D |
| | 40, 50, 63, 80, 100 | | 6 | ★ 193144 | GRLA- $\frac{1}{8}$ -QS-6-D |
| For supply air flow control | | | | | Technical data → 758 |
|  | 12, 16, 20, 25 | M5 | 3 | ★ 193153 | GRLZ-M5-QS-3-D |
| | 32 | G $\frac{1}{8}$ | 4 | ★ 193157 | GRLZ- $\frac{1}{8}$ -QS-4-D |
| | 40, 50, 63, 80, 100 | | 6 | ★ 193158 | GRLZ- $\frac{1}{8}$ -QS-6-D |

2) The recommended flow control valves are based on a tubing length to the valve of 1 m. For deviations of $\pm 50\%$, flow control valves with a bigger or smaller flow rate must be selected to guarantee the optimum flow control function and cylinder speed.

Compact cylinders ADNGF, standard hole pattern

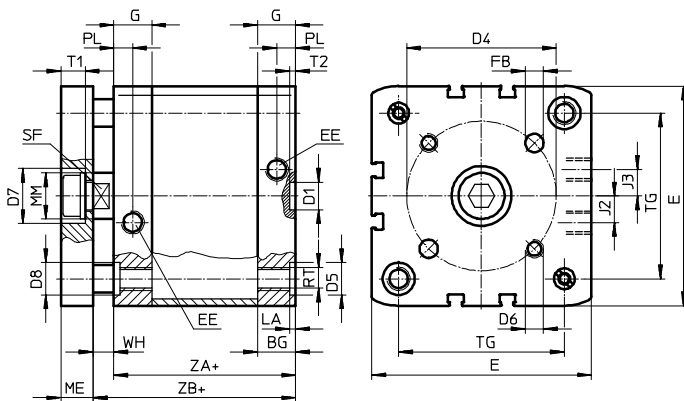
Dimensions

Basic design – Ø 12 ... 63



+ = plus stroke length

Basic design – Ø 80 ... 100



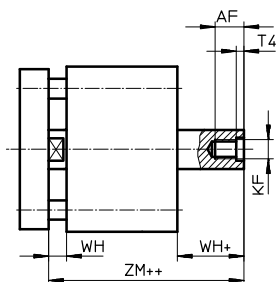
+ = plus stroke length

| Ø | BG | D1 | D4 | D5 | D6 | D7 | D8 | E | EE | FB | G | J2 | J3 | LA |
|------|------|---------|------|----------------------|-----|----------------------|----------------------|-----------------------|----|---------|------|------|-----|------|
| [mm] | min. | Ø H9 | ±0.1 | Ø F9 | | Ø H9 | | | | Ø H8 | | | | +0.2 |
| 12 | 17 | 9 | 12 | 6 | M3 | - | - | 27.5 ^{+0.3} | M5 | 3 | 10.5 | 2 | - | 3.5 |
| 16 | | | 14 | | | | | 29 ^{+0.3} | | | 11 | | | |
| 20 | 17 | | M4 | 35.5 ^{+0.3} | 4 | 12 | | 2.6 | | | | | | |
| 25 | 19.5 | | 22 | 14 | | 39.5 ^{+0.3} | | | | | | | | |
| 32 | 26 | 12 | 28 | 9 | M5 | 17 | 47 ^{+0.3} | G ^{1/8} | 5 | 15 | 6 | 8 | 5 | |
| 40 | | | 33 | | | | 54.5 ^{+0.3} | | | | | | | |
| 50 | 27 | 12 | 42 | 12 | M6 | 22 | 65.5 ^{+0.3} | | 6 | 8 | 16.5 | 11.5 | 2.6 | |
| 63 | | | 50 | | | | 75.5 ^{+0.3} | | | | | | | |
| 80 | 17 | 12 | 65 | 15 | M8 | 24 | 14 | 95.5 ^{+0.6} | 10 | 21.5 | 20 | 2.6 | | |
| 100 | 21.5 | | 80 | | M10 | | | 113.5 ^{+0.6} | | | | | | |

| Ø | ME | MM | PL | RT | SF | T1 | T2 | TG | WH | | ZA | ZB | |
|------|----|---------|------|-----|-----|------|------|------|------|-------------|------|------|-------------|
| [mm] | | Ø h8 | +0.2 | | h13 | | +0.1 | ±0.2 | +1.3 | PPS +1.4 | ±0.3 | +1.2 | PPS +1.3 |
| 12 | 6 | 6 | 6 | M4 | 5 | - | 2.1 | 16 | 4.2 | - | 35 | 39.2 | - |
| 16 | | 8 | | | 7 | | | 18 | 4.7 | | | 39.7 | |
| 20 | 8 | 10 | | M5 | 9 | 5 | | 22 | 5.5 | 5.5 | 37 | 42.5 | 42.5 |
| 25 | | | | | 26 | | | 39 | | | 44.5 | 45.3 | |
| 32 | 10 | 12 | M6 | 10 | 6 | 32.5 | 6 | 6.5 | 44 | 50 | 50.6 | | |
| 40 | | | | 38 | | 6.1 | | | 6.6 | 45 | 51.1 | 51.7 | |
| 50 | 12 | 16 | 8.2 | M8 | 13 | 7.5 | 2.6 | 46.5 | 7.7 | 8.2 | 49 | 52.7 | 53.2 |
| 63 | | | | | | | | 56.5 | 7.5 | 8 | 54 | 56.5 | 57 |
| 80 | 14 | 20 | 10.5 | M10 | 17 | 10.5 | 72 | 8.9 | 9.4 | 54 | 62.9 | 63.4 | |
| 100 | | | | | | | 89 | 9 | 9.8 | 67 | 76 | 76.8 | |

Dimensions

S2 – Through piston rod



+ = plus stroke length
++ = plus 2x stroke length

| ∅ [mm] | AF min. | KF | T4 | WH | | ZM | |
|-----------|------------|-----|-----|----------------------|--------------------|----------------------|----------------------|
| | | | | P +1.3 | PPS +1.4 | P | PPS |
| 12 | 8 | M3 | 1.5 | 4.2 | - | 44.5 ^{+0.5} | - |
| 16 | 10 | M4 | | 4.7 | | 45.7 ^{+0.5} | |
| 20 | 14 | M6 | 2.6 | 5.5 | 5.5 | 49.5 ^{+0.5} | 49.5 ^{+0.5} |
| 25 | | | | | | 51.5 ^{+0.5} | 51.5 ^{+0.5} |
| 32 | 16 | M8 | 3.3 | 6 | 6.5 | 57.5 ^{+0.5} | 58.6 ^{+0.6} |
| 40 | | | | 6.1 | 6.6 | 58.6 ^{+0.6} | 59.7 ^{+0.7} |
| 50 | 20 | M10 | 4.7 | 8.2 | 8.2 | 62.0 ^{+0.6} | 63.1 ^{+0.7} |
| 63 | | | | 8.1 | 8 | 65.4 ^{+0.6} | 66.5 ^{+0.7} |
| 80 | | | | 8.9 | 9.4 | 73.2 ^{+0.6} | 74.3 ^{+0.7} |
| 100 | | 9 | 9.8 | 86.4 ^{+0.6} | 88 ^{+0.7} | | |



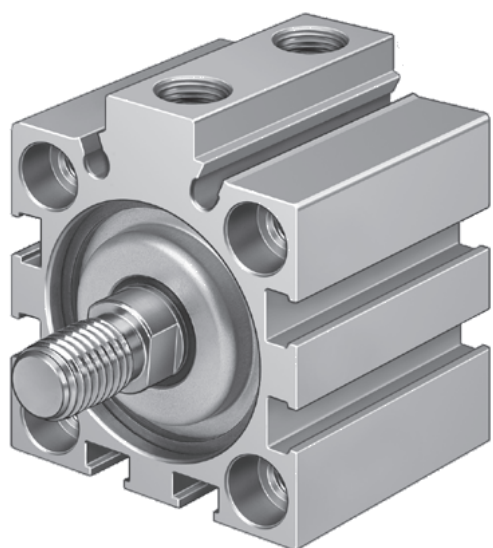
Overview/Configuration/Ordering
→ www.festo.com/catalogue/advc



Additional information/Support/User documentation
→ www.festo.com/sp/advc

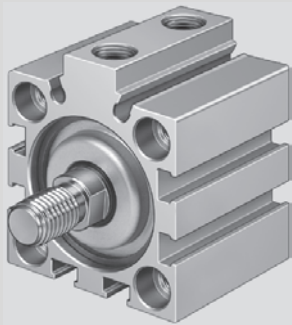
Cylinders with piston rod
Short-stroke cylinders and compact cylinders
Short-stroke cylinders

ADVC/AEVC



- + Short-stroke cylinder with standard hole pattern to VDMA 24562 from diameter 32 mm
- + Little space required
- + High clamping forces in a compact size
- + With position sensing via proximity sensor for T-slot and for C-slot
- + Piston rod with female or male thread

Short-stroke cylinders ADVC/AEVC



- Compact cylinders for short strokes and tight fitting spaces
- Mounting hole pattern to ISO 15552 from \varnothing 32 mm
- Application-oriented housing and piston rod options
- Supply ports and profile slot for proximity sensors on one side
- ★ Quick ordering of basic designs → 151

→ www.festo.com/catalogue/advc

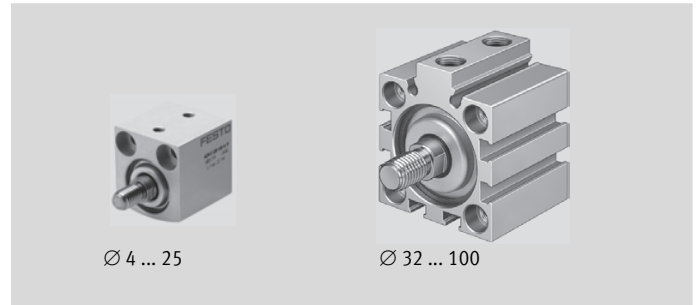
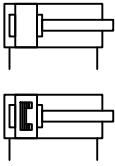
Product range overview

| Type/function | Piston \varnothing [mm] | Stroke [mm] | Force [N] | Product options | | | | | → Page/ online |
|---------------------|------------------------------|-------------------|--------------|-------------------|---|---|---|---|-------------------|
| | | | | Piston rod thread | | | P | A | |
| | | | | A | I | - | | | |
| Double-acting | ADVC | | | | | | | | |
| | 4 | 2.5, 5 | 7.5 | ■ | - | ■ | ■ | - | 149 |
| | 6, 10 | 5, 10 | 17 ... 47 | ■ | - | ■ | ■ | ■ | |
| | 12 | 5, 10 | 68 | ■ | ■ | ■ | ■ | ■ | |
| | 16, 20, 25 | 5, 10, 15, 20, 25 | 121 ... 295 | ■ | ■ | - | ■ | ■ | |
| | 32, 40 | 5, 10, 15, 20, 25 | 483, 754 | ■ | ■ | - | ■ | ■ | |
| 50, 63, 80, 100 | 10, 15, 20, 25 | 1178 ... 4712 | ■ | ■ | - | ■ | ■ | | |
| Single-acting | AEVC | | | | | | | | |
| | 4 | 2.5, 5 | 5 | ■ | - | ■ | ■ | - | 153 |
| | 6, 10 | 5, 10 | 11 ... 41 | ■ | - | ■ | ■ | ■ | |
| | 12 | 5, 10 | 59 | ■ | ■ | ■ | ■ | ■ | |
| | 16, 20, 25 | 5, 10, 25 | 105 ... 270 | ■ | ■ | - | ■ | ■ | |
| | 32 | 5, 10, 25 | 450 | ■ | ■ | - | ■ | ■ | |
| 40, 50, 63, 80, 100 | 10, 25 | 700 ... 4500 | ■ | ■ | - | ■ | ■ | | |

Product options

- | | | | |
|---|----------------|---|----------------------------------------------|
| A | Male thread | P | Elastic cushioning rings/plates at both ends |
| I | Female thread | A | Position sensing |
| - | Without thread | | |

Technical data – Double-acting



Ø 4 ... 25

Ø 32 ... 100

| Technical data | | | | | | | | Dimensions → 160 |
|----------------------------------------|-----|----------------------------------------------|-----------------|-----------------|-----------------|-----------------|-------------------|------------------|
| Piston Ø | | 4 | 6 | 10 | 12 | 16 | 20 | 25 |
| Pneumatic connection | | M3 | M3 | M5 | M5 | M5 | M5 | M5 |
| Female piston rod thread | | – | – | – | M3 | M4 | M5 | M5 |
| Male piston rod thread | | M2 | M3 | M4 | M5 | M6 | M8 | M8 |
| Stroke | | 2,5, 5 | 5, 10 | | | | 5, 10, 15, 20, 25 | |
| Cushioning | | Elastic cushioning rings/plates at both ends | | | | | | |
| Theoretical force at 6 bar, advancing | [N] | 7.5 | 17 | 47 | 68 | 121 | 189 | 295 |
| Theoretical force at 6 bar, retracting | [N] | 5.7 | 13 | 40 | 51 | 91 | 141 | 247 |
| Piston Ø | | 32 | 40 | 50 | 63 | 80 | 100 | |
| Pneumatic connection | | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{4}$ | |
| Female piston rod thread | | M6 | M6 | M8 | M8 | M10 | M12 | |
| Male piston rod thread | | M10x1.25 | M10x1.25 | M12x1.25 | M12x1.25 | M16x1.5 | M20x1.5 | |
| Stroke | | 5, 10, 15, 20, 25 | | 10, 15, 20, 25 | | | | |
| Cushioning | | Elastic cushioning rings/plates at both ends | | | | | | |
| Theoretical force at 6 bar, advancing | [N] | 483 | 754 | 1178 | 1870 | 3016 | 4712 | |
| Theoretical force at 6 bar, retracting | [N] | 415 | 686 | 1056 | 1750 | 2847 | 4418 | |

| Operating conditions | | | | | | | | | | | | | | |
|-----------------------------------|-------|-------------|-----------|---------|----------|----|----|----|------------|----|----|----|----|-----|
| Piston Ø | | 4 | 6 | 10 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
| Operating pressure | [bar] | 2 ... 8 | 1.5 ... 8 | 1 ... 8 | 1 ... 10 | | | | 0.6 ... 10 | | | | | |
| Ambient temperature ¹⁾ | [°C] | –20 ... +80 | | | | | | | | | | | | |

1) Note operating range of proximity sensors.

| Materials | | | | | | | | | | | | | | |
|-----------------|--|----------------------------------|--|--|--|--|--|------------------|--|--|--|--|-----------|--|
| Piston Ø | | 4 | | | | | | | | | | | 6 ... 100 | |
| Piston rod | | Anodised wrought aluminium alloy | | | | | | High-alloy steel | | | | | | |
| Bearing cap | | Anodised wrought aluminium alloy | | | | | | | | | | | | |
| Cylinder barrel | | Anodised wrought aluminium alloy | | | | | | | | | | | | |
| End cap | | Anodised wrought aluminium alloy | | | | | | | | | | | | |
| Seals | | HNBR, NBR | | | | | | HNBR, TPE-U (PU) | | | | | | |

Short-stroke cylinders ADVC

1

Order code – Double-acting

| | | | | | | | | | | | |
|--------------------------|-----------------------------------------------------------|---|--|---|--|---|--|---|---|---|--|
| ADVC | | – | | – | | – | | – | P | – | |
| Type | | | | | | | | | | | |
| ADVC | Double-acting short-stroke cylinder | | | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | | | |
| | Stroke [mm] | | | | | | | | | | |
| 4 | 2.5, 5 | | | | | | | | | | |
| 6, 10, 12 | 5, 10 | | | | | | | | | | |
| 16, 20, 25 | 5, 10, 15, 20, 25 | | | | | | | | | | |
| 32, 40 | 5, 10, 15, 20, 25 | | | | | | | | | | |
| 50, 63, 80, 100 | 10, 15, 20, 25 | | | | | | | | | | |
| Piston rod thread | | | | | | | | | | | |
| A | Male thread | | | | | | | | | | |
| I | Female thread 1 | | | | | | | | | | |
| – | Without thread 2 | | | | | | | | | | |
| Cushioning | | | | | | | | | | | |
| P | Elastic cushioning rings/plates at both ends | | | | | | | | | | |
| Position sensing | | | | | | | | | | | |
| – | None | | | | | | | | | | |
| A | Via proximity sensor 3 | | | | | | | | | | |

- 1 Not with piston Ø 4, 6 and 10
- 2 Only for piston Ø 4, 6, 10 and 12
- 3 From piston Ø 6

Order example:

ADVC-12-10-A-P-A

Double-acting short-stroke cylinder ADVC - piston diameter 12 mm - stroke 10 mm - male thread - elastic cushioning rings/plates at both ends - position sensing via proximity sensor

Ordering – Product options



Configurable product

This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
[→ www.festo.com/catalogue/...](http://www.festo.com/catalogue/...)

Enter the type code in the search field.

★ Quick ordering¹⁾

Male thread

| Part No. | Type |
|-----------------------|------------------|
| Piston Ø 12 mm | |
| 188094 | ADVC-12-5-A-P |
| 188095 | ADVC-12-10-A-P |
| 188092 | ADVC-12-5-A-P-A |
| 188093 | ADVC-12-10-A-P-A |
| Piston Ø 16 mm | |
| 188123 | ADVC-16-5-A-P |
| 188124 | ADVC-16-10-A-P |
| 188125 | ADVC-16-15-A-P |
| 188126 | ADVC-16-20-A-P |
| 188127 | ADVC-16-25-A-P |
| 188118 | ADVC-16-5-A-P-A |
| 188119 | ADVC-16-10-A-P-A |
| 188120 | ADVC-16-15-A-P-A |
| 188121 | ADVC-16-20-A-P-A |
| 188122 | ADVC-16-25-A-P-A |
| Piston Ø 20 mm | |
| 188155 | ADVC-20-5-A-P |
| 188156 | ADVC-20-10-A-P |
| 188157 | ADVC-20-15-A-P |
| 188158 | ADVC-20-20-A-P |
| 188159 | ADVC-20-25-A-P |
| 188150 | ADVC-20-5-A-P-A |
| 188151 | ADVC-20-10-A-P-A |
| 188152 | ADVC-20-15-A-P-A |
| 188153 | ADVC-20-20-A-P-A |
| 188154 | ADVC-20-25-A-P-A |

| Part No. | Type |
|-----------------------|------------------|
| Piston Ø 25 mm | |
| 188187 | ADVC-25-5-A-P |
| 188188 | ADVC-25-10-A-P |
| 188189 | ADVC-25-15-A-P |
| 188190 | ADVC-25-20-A-P |
| 188191 | ADVC-25-25-A-P |
| 188182 | ADVC-25-5-A-P-A |
| 188183 | ADVC-25-10-A-P-A |
| 188184 | ADVC-25-15-A-P-A |
| 188185 | ADVC-25-20-A-P-A |
| 188186 | ADVC-25-25-A-P-A |
| Piston Ø 32 mm | |
| 188219 | ADVC-32-5-A-P |
| 188220 | ADVC-32-10-A-P |
| 188221 | ADVC-32-15-A-P |
| 188222 | ADVC-32-20-A-P |
| 188223 | ADVC-32-25-A-P |
| 188214 | ADVC-32-5-A-P-A |
| 188215 | ADVC-32-10-A-P-A |
| 188216 | ADVC-32-15-A-P-A |
| 188217 | ADVC-32-20-A-P-A |
| 188218 | ADVC-32-25-A-P-A |

| Part No. | Type |
|-----------------------|------------------|
| Piston Ø 40 mm | |
| 188247 | ADVC-40-5-A-P |
| 188248 | ADVC-40-10-A-P |
| 188249 | ADVC-40-15-A-P |
| 188250 | ADVC-40-20-A-P |
| 188251 | ADVC-40-25-A-P |
| 188242 | ADVC-40-5-A-P-A |
| 188243 | ADVC-40-10-A-P-A |
| 188244 | ADVC-40-15-A-P-A |
| 188245 | ADVC-40-20-A-P-A |
| 188246 | ADVC-40-25-A-P-A |
| Piston Ø 50 mm | |
| 188272 | ADVC-50-10-A-P |
| 188273 | ADVC-50-15-A-P |
| 188274 | ADVC-50-20-A-P |
| 188275 | ADVC-50-25-A-P |
| 188268 | ADVC-50-10-A-P-A |
| 188269 | ADVC-50-15-A-P-A |
| 188270 | ADVC-50-20-A-P-A |
| 188271 | ADVC-50-25-A-P-A |
| Piston Ø 63 mm | |
| 188296 | ADVC-63-10-A-P |
| 188297 | ADVC-63-15-A-P |
| 188298 | ADVC-63-20-A-P |
| 188299 | ADVC-63-25-A-P |
| 188292 | ADVC-63-10-A-P-A |
| 188293 | ADVC-63-15-A-P-A |
| 188294 | ADVC-63-20-A-P-A |
| 188295 | ADVC-63-25-A-P-A |

1) All products in this table are easy to select and quick to order.

Short-stroke cylinders ADVC

1

★ Quick ordering¹⁾

Female thread

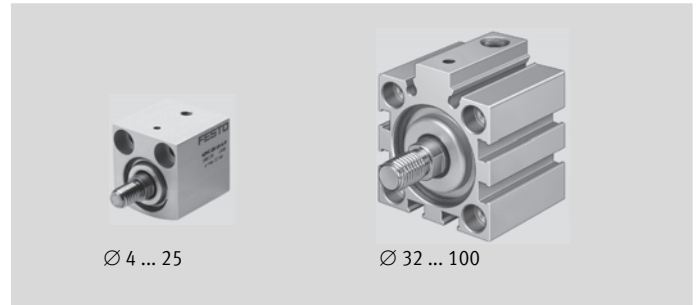
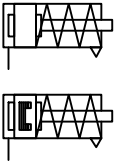
| Part No. | Type |
|-----------------------|------------------|
| Piston Ø 12 mm | |
| 188090 | ADVC-12-5-I-P |
| 188091 | ADVC-12-10-I-P |
| 188088 | ADVC-12-5-I-P-A |
| 188089 | ADVC-12-10-I-P-A |
| Piston Ø 16 mm | |
| 188113 | ADVC-16-5-I-P |
| 188114 | ADVC-16-10-I-P |
| 188115 | ADVC-16-15-I-P |
| 188116 | ADVC-16-20-I-P |
| 188117 | ADVC-16-25-I-P |
| 188108 | ADVC-16-5-I-P-A |
| 188109 | ADVC-16-10-I-P-A |
| 188110 | ADVC-16-15-I-P-A |
| 188111 | ADVC-16-20-I-P-A |
| 188112 | ADVC-16-25-I-P-A |
| Piston Ø 20 mm | |
| 188145 | ADVC-20-5-I-P |
| 188146 | ADVC-20-10-I-P |
| 188147 | ADVC-20-15-I-P |
| 188148 | ADVC-20-20-I-P |
| 188149 | ADVC-20-25-I-P |
| 188140 | ADVC-20-5-I-P-A |
| 188141 | ADVC-20-10-I-P-A |
| 188142 | ADVC-20-15-I-P-A |
| 188143 | ADVC-20-20-I-P-A |
| 188144 | ADVC-20-25-I-P-A |

| Part No. | Type |
|-----------------------|------------------|
| Piston Ø 25 mm | |
| 188177 | ADVC-25-5-I-P |
| 188178 | ADVC-25-10-I-P |
| 188179 | ADVC-25-15-I-P |
| 188180 | ADVC-25-20-I-P |
| 188181 | ADVC-25-25-I-P |
| 188172 | ADVC-25-5-I-P-A |
| 188173 | ADVC-25-10-I-P-A |
| 188174 | ADVC-25-15-I-P-A |
| 188175 | ADVC-25-20-I-P-A |
| 188176 | ADVC-25-25-I-P-A |
| Piston Ø 32 mm | |
| 188209 | ADVC-32-5-I-P |
| 188210 | ADVC-32-10-I-P |
| 188211 | ADVC-32-15-I-P |
| 188212 | ADVC-32-20-I-P |
| 188213 | ADVC-32-25-I-P |
| 188204 | ADVC-32-5-I-P-A |
| 188205 | ADVC-32-10-I-P-A |
| 188206 | ADVC-32-15-I-P-A |
| 188207 | ADVC-32-20-I-P-A |
| 188208 | ADVC-32-25-I-P-A |

| Part No. | Type |
|-----------------------|------------------|
| Piston Ø 40 mm | |
| 188237 | ADVC-40-5-I-P |
| 188238 | ADVC-40-10-I-P |
| 188239 | ADVC-40-15-I-P |
| 188240 | ADVC-40-20-I-P |
| 188241 | ADVC-40-25-I-P |
| 188232 | ADVC-40-5-I-P-A |
| 188233 | ADVC-40-10-I-P-A |
| 188234 | ADVC-40-15-I-P-A |
| 188235 | ADVC-40-20-I-P-A |
| 188236 | ADVC-40-25-I-P-A |
| Piston Ø 50 mm | |
| 188264 | ADVC-50-10-I-P |
| 188265 | ADVC-50-15-I-P |
| 188266 | ADVC-50-20-I-P |
| 188267 | ADVC-50-25-I-P |
| 188260 | ADVC-50-10-I-P-A |
| 188261 | ADVC-50-15-I-P-A |
| 188262 | ADVC-50-20-I-P-A |
| 188263 | ADVC-50-25-I-P-A |
| Piston Ø 63 mm | |
| 188288 | ADVC-63-10-I-P |
| 188289 | ADVC-63-15-I-P |
| 188290 | ADVC-63-20-I-P |
| 188291 | ADVC-63-25-I-P |
| 188284 | ADVC-63-10-I-P-A |
| 188285 | ADVC-63-15-I-P-A |
| 188286 | ADVC-63-20-I-P-A |
| 188287 | ADVC-63-25-I-P-A |

1) All products in this table are easy to select and quick to order.

Technical data – Single-acting



Ø 4 ... 25

Ø 32 ... 100

| Technical data | | | | | | | Dimensions → 167 | |
|--------------------------------------------|--|----------------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-----|
| Piston Ø | | 4 | 6 | 10 | 12 | 16 | 20 | 25 |
| Pneumatic connection | | M3 | M3 | M5 | M5 | M5 | M5 | M5 |
| Female piston rod thread | | – | – | – | M3 | M4 | M5 | M5 |
| Male piston rod thread | | M2 | M3 | M4 | M5 | M6 | M8 | M8 |
| Stroke [mm] | | 2.5, 5 | 5, 10 | | | 5, 10, 25 | | |
| Cushioning | | Elastic cushioning rings/plates at both ends | | | | | | |
| Theoretical force at 6 bar, advancing [N] | | 5 | 11 | 41 | 59 | 105 | 170 | 270 |
| Theoretical force at 6 bar, retracting [N] | | 1 | 3 | 3 | 4 | 5 | 10 ¹⁾ | 15 |
| Piston Ø | | 32 | 40 | 50 | 63 | 80 | 100 | |
| Pneumatic connection | | G ¹ / ₈ | G ¹ / ₈ | G ¹ / ₈ | G ¹ / ₈ | G ¹ / ₈ | G ¹ / ₄ | |
| Female piston rod thread | | M6 | M6 | M8 | M8 | M10 | M12 | |
| Male piston rod thread | | M10x1.25 | M10x1.25 | M12x1.25 | M12x1.25 | M16x1.5 | M20x1.5 | |
| Stroke | | 5, 10, 25 | 10, 25 | | | | | |
| Cushioning | | Elastic cushioning rings/plates at both ends | | | | | | |
| Theoretical force at 6 bar, advancing [N] | | 450 | 700 | 1120 | 1800 | 2900 | 4500 | |
| Theoretical force at 6 bar, retracting [N] | | 22 | 28 | 40 | 50 | 85 | 140 | |

1) AEVC-63-5 = 5 N.

| Operating conditions | | | | | | | | | | | | | | |
|----------------------------------------|--|-------------|---------|-----------|------------|----|----|----|----------|----|----|----|----|-----|
| Piston Ø | | 4 | 6 | 10 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
| Operating pressure [bar] | | 2.5 ... 8 | 2 ... 8 | 1.5 ... 8 | 1.5 ... 10 | | | | 1 ... 10 | | | | | |
| Ambient temperature ²⁾ [°C] | | –20 ... +80 | | | | | | | | | | | | |

2) Note operating range of proximity sensors.

| Materials | |
|-----------------|-----------------------------------------------------|
| Piston Ø | 4 6 ... 100 |
| Piston rod | Anodised wrought aluminium alloy High-alloy steel |
| Bearing cap | Anodised wrought aluminium alloy |
| Cylinder barrel | Anodised wrought aluminium alloy |
| End cap | Anodised wrought aluminium alloy |
| Seals | HNBR, NBR HNBR, TPE-U (PU) |

Short-stroke cylinders AEVC

1

Order code – Single acting

| | | | | | | | | | | | |
|--------------------------|--|-----------------------------------------------------------|--|---|--|---|--|---|---|---|--|
| AEVC | | – | | – | | – | | – | P | – | |
| Type | | | | | | | | | | | |
| AEVC | | Single-acting short-stroke cylinder | | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | | | |
| | | Stroke [mm] | | | | | | | | | |
| 4 | | 2.5, 5 | | | | | | | | | |
| 6, 10, 12 | | 5, 10 | | | | | | | | | |
| 16, 20, 25 | | 5, 10, 25 | | | | | | | | | |
| 32 | | 5, 10, 25 | | | | | | | | | |
| 40, 50, 63, 80, 100 | | 10, 25 | | | | | | | | | |
| Piston rod thread | | | | | | | | | | | |
| A | | Male thread | | | | | | | | | |
| I | | Female thread 1 | | | | | | | | | |
| – | | Without thread 2 | | | | | | | | | |
| Cushioning | | | | | | | | | | | |
| P | | Elastic cushioning rings/plates at both ends | | | | | | | | | |
| Position sensing | | | | | | | | | | | |
| – | | None | | | | | | | | | |
| A | | Via proximity sensor 3 | | | | | | | | | |

1 Not with piston Ø 4, 6 and 10

2 Only with piston Ø 4, 6, 10 and 12

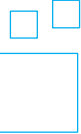
3 From piston Ø 6

Order example:

AEVC-63-10-I-P-A

Single-acting short-stroke cylinder - piston diameter 63 - stroke 10 mm - female thread - elastic cushioning rings/plates at both ends - position sensing via proximity sensor

Ordering – Product options



Configurable product

This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
[➔ www.festo.com/catalogue/...](http://www.festo.com/catalogue/...)

Enter the type code in the search field.

★ Quick ordering¹⁾

Male thread

| Part No. | Type |
|-----------------------|----------------|
| Piston Ø 12 mm | |
| 188086 | AEVC-12-5-A-P |
| 188087 | AEVC-12-10-A-P |
| Piston Ø 16 mm | |
| 188105 | AEVC-16-5-A-P |
| 188106 | AEVC-16-10-A-P |
| 188107 | AEVC-16-25-A-P |
| Piston Ø 20 mm | |
| 188137 | AEVC-20-5-A-P |
| 188138 | AEVC-20-10-A-P |
| 188139 | AEVC-20-25-A-P |

| Part No. | Type |
|-----------------------|----------------|
| Piston Ø 25 mm | |
| 188169 | AEVC-25-5-A-P |
| 188170 | AEVC-25-10-A-P |
| 188171 | AEVC-25-25-A-P |
| Piston Ø 32 mm | |
| 188201 | AEVC-32-5-A-P |
| 188202 | AEVC-32-10-A-P |
| 188203 | AEVC-32-25-A-P |
| Piston Ø 40 mm | |
| 188230 | AEVC-40-10-A-P |
| 188231 | AEVC-40-25-A-P |

| Part No. | Type |
|-----------------------|----------------|
| Piston Ø 50 mm | |
| 188258 | AEVC-50-10-A-P |
| 188259 | AEVC-50-25-A-P |
| Piston Ø 63 mm | |
| 188282 | AEVC-63-10-A-P |
| 188283 | AEVC-63-25-A-P |

Female thread

| Part No. | Type |
|-----------------------|----------------|
| Piston Ø 12 mm | |
| 188082 | AEVC-12-5-I-P |
| 188083 | AEVC-12-10-I-P |
| Piston Ø 16 mm | |
| 188099 | AEVC-16-5-I-P |
| 188100 | AEVC-16-10-I-P |
| 188101 | AEVC-16-25-I-P |
| Piston Ø 20 mm | |
| 188131 | AEVC-20-5-I-P |
| 188132 | AEVC-20-10-I-P |
| 188133 | AEVC-20-25-I-P |

| Part No. | Type |
|-----------------------|----------------|
| Piston Ø 25 mm | |
| 188163 | AEVC-25-5-I-P |
| 188164 | AEVC-25-10-I-P |
| 188165 | AEVC-25-25-I-P |
| Piston Ø 32 mm | |
| 188195 | AEVC-32-5-I-P |
| 188196 | AEVC-32-10-I-P |
| 188197 | AEVC-32-25-I-P |

| Part No. | Type |
|-----------------------|----------------|
| Piston Ø 40 mm | |
| 188226 | AEVC-40-10-I-P |
| 188227 | AEVC-40-25-I-P |
| Piston Ø 50 mm | |
| 188254 | AEVC-50-10-I-P |
| 188255 | AEVC-50-25-I-P |
| Piston Ø 63 mm | |
| 188278 | AEVC-63-10-I-P |
| 188279 | AEVC-63-25-I-P |

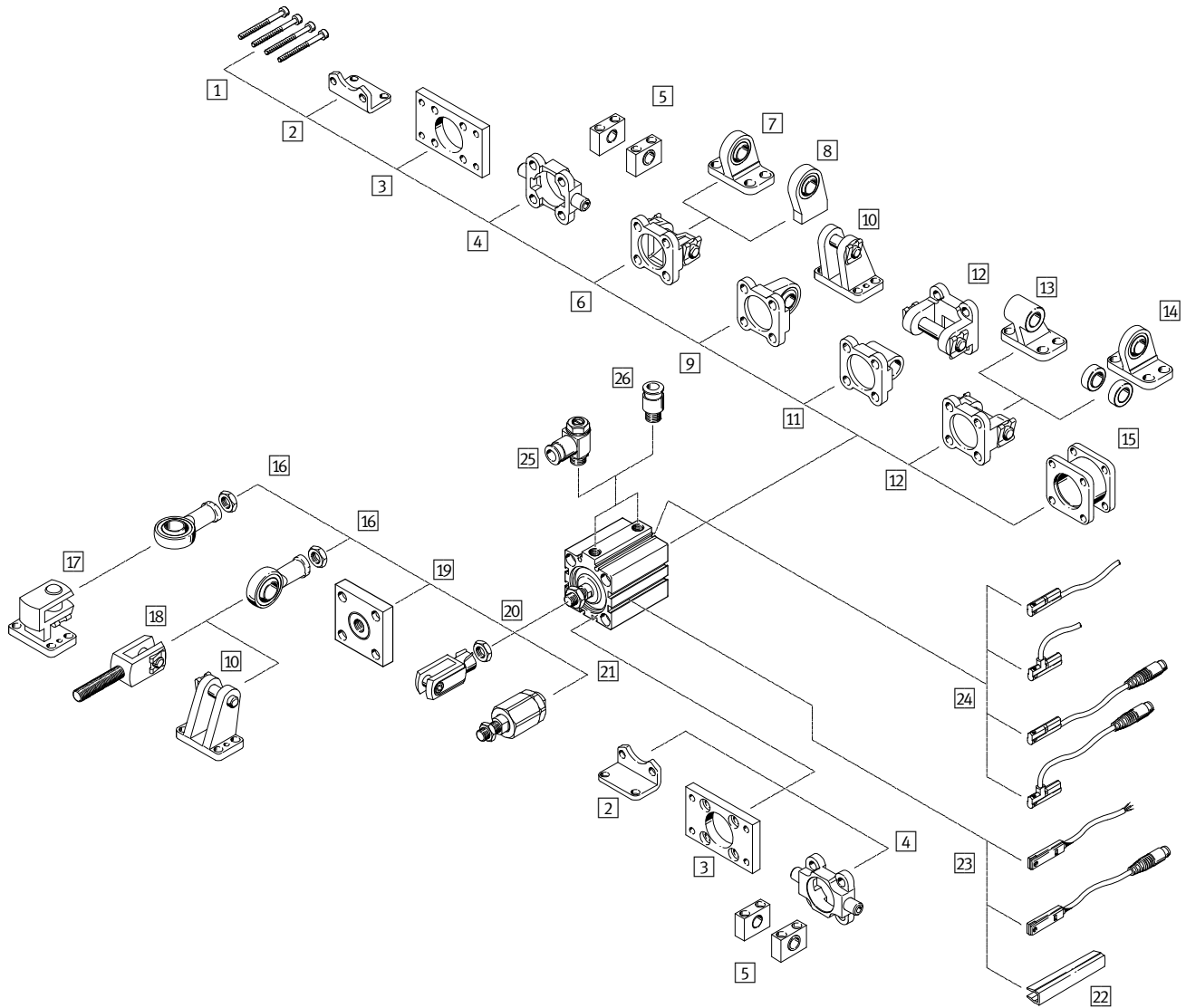
1) All products in this table are easy to select and quick to order.

Short-stroke cylinders ADVC/AEVC

1

Accessories

Ø 32 ... 100



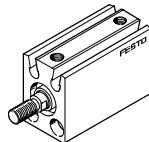
Ø 4 ... 25

Without position sensing



Ø 6 ... 25


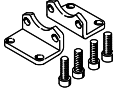

With position sensing

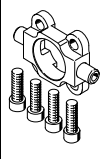
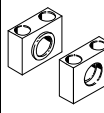
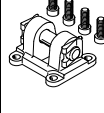


Accessories

| | Piston Ø | → Page/online | | |
|----------------------------------------------------------------------------|-------------|---------------|---------------|------------|
| | | 4, 6, 12 | 10, 16 ... 25 | 32 ... 100 |
| 1 Mounting screws (not included in the scope of delivery) | ■ DIN 84 | ■ DIN 912 | ■ DIN 912 | – |
| 1 Mounting screws for Ø 80, 100 (not included in the scope of delivery) | – | – | ■ | 157 |
| 2 Foot mounting HNC | – | – | ■ | 157 |
| 3 Flange mounting FNC | – | – | ■ | 157 |
| 4 Trunnion flange ZNCF | – | – | ■ | 157 |
| 5 Trunnion support LNZG | – | – | ■ | 157 |
| 6 Swivel flange SNC | – | – | ■ | 157 |
| 7 Clevis foot LSNG | – | – | ■ | 158 |
| 8 Clevis foot LSNSG | – | – | ■ | 158 |
| 9 Swivel flange SNCS | – | – | ■ | 158 |
| 10 Clevis foot LBG | – | – | ■ | 158 |
| 11 Swivel flange SNCL | – | – | ■ | 158 |
| 12 Swivel flange SNCB | – | – | ■ | 158 |
| 13 Clevis foot LNG | – | – | ■ | 158 |
| 14 Clevis foot LSN | – | – | ■ | 158 |
| 15 Multi-position kit DPNC | – | – | ■ | 158 |
| 16 Rod eye SGS | – | ■ | ■ | 158 |
| 17 Right-angle clevis foot LQG | – | ■ | ■ | 158 |
| 18 Rod clevis SGA | – | – | ■ | 158 |
| 19 Coupling piece KSG | – | – | ■ | 158 |
| 20 Rod clevis SG | – | ■ | ■ | 158 |
| 21 Self-aligning rod coupler FK | ■ Ø 12 | ■ | ■ | 159 |
| 22 Slot cover ABP-5-S | – | – | ■ | 159 |
| 23 Proximity sensor SMT-/SME-8 and connecting cable NEBU | – | – | ■ | 159 |
| 24 Proximity sensor SMT-/SME-10 and connecting cable NEBU | – | ■ | ■ | 159 |
| 25 One-way flow control valve GRLA | ■ | ■ | ■ | 159 |
| 26 Push-in fitting QS | ■ | ■ | ■ | 1098 |

Accessories – Ordering data

| | For Ø | Part No. | Type |
|-------------------------------------------------------------------------------------|---------|----------|-------------------------------------------|
| 1 Screw ¹⁾ | | | |
|  | 80, 100 | | HNC, FNC, SNC, SNCS, SNCL, SNCB |
| | | | M10x30 |
| | 80 | | ZNCF |
| | 100 | | ZNCF |
| | | | M10x40 |
| | | | M10x50 |
| 2 Foot mounting | | | Dimensions online: → advc |
|  | 32 | ★ 174369 | HNC-32 |
| | 40 | ★ 174370 | HNC-40 |
| | 50 | ★ 174371 | HNC-50 |
| | 63 | ★ 174372 | HNC-63 |
| | 80 | ★ 174373 | HNC-80 |
| | 100 | ★ 174374 | HNC-100 |
| 3 Flange mounting | | | Dimensions online: → advc |
|  | 32 | ★ 174376 | FNC-32 |
| | 40 | ★ 174377 | FNC-40 |
| | 50 | ★ 174378 | FNC-50 |
| | 63 | ★ 174379 | FNC-63 |
| | 80 | ★ 174380 | FNC-80 |
| | 100 | ★ 174381 | FNC-100 |

| | For Ø | Part No. | Type |
|-------------------------------------------------------------------------------------|--------|----------|-------------------------------------------|
| 4 Trunnion flange | | | Dimensions online: → advc |
|  | 32 | 174411 | ZNCF-32 |
| | 40 | 174412 | ZNCF-40 |
| | 50 | 174413 | ZNCF-50 |
| | 63 | 174414 | ZNCF-63 |
| | 80 | 174415 | ZNCF-80 |
| | 100 | 174416 | ZNCF-100 |
| 5 Trunnion support | | | Dimensions online: → lnzg |
|  | 32 | 32959 | LNZG-32 |
| | 40, 50 | 32960 | LNZG-40/50 |
| | 63, 80 | 32961 | LNZG-63/80 |
| | 100 | 32962 | LNZG-100/125 |
| 6 Swivel flange | | | Dimensions online: → advc |
|  | 32 | ★ 174383 | SNC-32 |
| | 40 | ★ 174384 | SNC-40 |
| | 50 | ★ 174385 | SNC-50 |
| | 63 | ★ 174386 | SNC-63 |
| | 80 | ★ 174387 | SNC-80 |
| | 100 | ★ 174388 | SNC-100 |



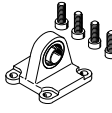
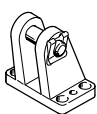
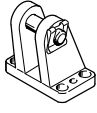
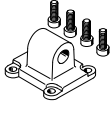
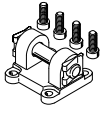
1) Packaging unit 1 piece.


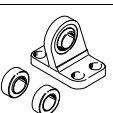




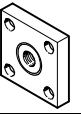

Short-stroke cylinders ADVC/AEVC

FESTO




1

Accessories – Ordering data

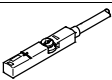
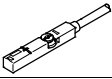
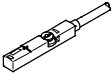



| | For Ø | Part No. | Type |
|-------------------------------------------------------------------------------------------------|--------|----------|-----------|
| 7 Clevis foot Technical data online: → lsng | | | |
|  | 32 | 31740 | LSNG-32 |
| | 40 | 31741 | LSNG-40 |
| | 50 | 31742 | LSNG-50 |
| | 63 | 31743 | LSNG-63 |
| | 80 | 31744 | LSNG-80 |
| | 100 | 31745 | LSNG-100 |
| 8 Clevis foot Technical data online: → lsnsg | | | |
|  | 32 | 31747 | LSNSG-32 |
| | 40 | 31748 | LSNSG-40 |
| | 50 | 31749 | LSNSG-50 |
| | 63 | 31750 | LSNSG-63 |
| | 80 | 31751 | LSNSG-80 |
| | 100 | 31752 | LSNSG-100 |
| 9 Swivel flange Dimensions online: → advc | | | |
|  | 32 | ★ 174397 | SNCS-32 |
| | 40 | ★ 174398 | SNCS-40 |
| | 50 | ★ 174399 | SNCS-50 |
| | 63 | ★ 174400 | SNCS-63 |
| | 80 | ★ 174401 | SNCS-80 |
| | 100 | 174402 | SNCS-100 |
| 10 Clevis foot used with swivel flange SNCS Technical data online: → lbg | | | |
|  | 32 | 31761 | LBG-32 |
| | 40 | 31762 | LBG-40 |
| | 50 | 31763 | LBG-50 |
| | 63 | 31764 | LBG-63 |
| | 80 | 31765 | LBG-80 |
| | 100 | 31766 | LBG-100 |
| 10 Clevis foot used with rod eye SGS Technical data online: → lbg | | | |
|  | 32, 40 | 31761 | LBG-32 |
| | 50, 63 | 31762 | LBG-40 |
| | 80 | 31763 | LBG-50 |
| | | 31764 | LBG-63 |
| | 100 | 31765 | LBG-80 |
| | | 31766 | LBG-100 |
| 11 Swivel flange Dimensions online: → advc | | | |
|  | 32 | ★ 174404 | SNCL-32 |
| | 40 | ★ 174405 | SNCL-40 |
| | 50 | ★ 174406 | SNCL-50 |
| | 63 | ★ 174407 | SNCL-63 |
| | 80 | ★ 174408 | SNCL-80 |
| | 100 | 174409 | SNCL-100 |
| 12 Swivel flange Dimensions online: → advc | | | |
|  | 32 | ★ 174390 | SNCB-32 |
| | 40 | ★ 174391 | SNCB-40 |
| | 50 | ★ 174392 | SNCB-50 |
| | 63 | ★ 174393 | SNCB-63 |
| | 80 | ★ 174394 | SNCB-80 |
| | 100 | 174395 | SNCB-100 |



| | For Ø | Part No. | Type |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------|--------------|
| 13 Clevis foot Technical data online: → lng | | | |
|  | 32 | ★ 33890 | LNG-32 |
| | 40 | ★ 33891 | LNG-40 |
| | 50 | ★ 33892 | LNG-50 |
| | 63 | ★ 33893 | LNG-63 |
| | 80 | ★ 33894 | LNG-80 |
| | 100 | 33895 | LNG-100 |
| | 14 Clevis foot Technical data online: → lsn | | |
|  | 32 | 5561 | LSN-32 |
| | 40 | 5562 | LSN-40 |
| | 50 | 5563 | LSN-50 |
| | 63 | 5564 | LSN-63 |
| | 80 | 5565 | LSN-80 |
| | 100 | 5566 | LSN-100 |
| | 15 Multi-position kit Dimensions online: → advc | | |
|  | 32 | 174418 | DPNC-32 |
| | 40 | 174419 | DPNC-40 |
| | 50 | 174420 | DPNC-50 |
| | 63 | 174421 | DPNC-63 |
| | 80 | 174422 | DPNC-80 |
| | 100 | 174423 | DPNC-100 |
| | 16 Rod eye Technical data online: → sgs | | |
|  | 10 | 9253 | SGS-M4 |
| | 16 | ★ 9254 | SGS-M6 |
| | 20, 25 | ★ 9255 | SGS-M8 |
| | 32, 40 | ★ 9261 | SGS-M10x1,25 |
| | 50, 63 | ★ 9262 | SGS-M12x1,25 |
| | 80 | ★ 9263 | SGS-M16x1,5 |
| | 100 | ★ 9264 | SGS-M20x1,5 |
| | 17 Right-angle clevis foot Technical data online: → lqg | | |
|  | 32, 40 | 31768 | LQG-32 |
| | 50, 63 | 31769 | LQG-40 |
| | 80 | 31770 | LQG-50 |
| | | 31771 | LQG-63 |
| | 100 | 31772 | LQG-80 |
| | | 31773 | LQG-100 |
| 18 Rod clevis Technical data online: → sga | | | |
|  | 32, 40 | 32954 | SGA-M10x1,25 |
| | 50, 63 | 10767 | SGA-M12x1,25 |
| | 80 | 10768 | SGA-M16x1,5 |
| | 100 | 10769 | SGA-M20x1,5 |
| | 19 Coupling piece Technical data online: → ksg | | |
|  | 32, 40 | 32963 | KSG-M10x1,25 |
| | 50, 63 | 32964 | KSG-M12x1,25 |
| | 80 | 32965 | KSG-M16x1,5 |
| | 100 | 32966 | KSG-M20x1,5 |
| 20 Rod clevis Technical data online: → sg | | | |
|  | 10 | 6532 | SG-M4 |
| | 16 | ★ 3110 | SG-M6 |
| | 20, 25 | ★ 3111 | SG-M8 |
| | 32, 40 | ★ 6144 | SG-M10x1,25 |
| | 50, 63 | ★ 6145 | SG-M12x1,25 |
| | 80 | ★ 6146 | SG-M16x1,5 |
| | 100 | ★ 6147 | SG-M20x1,5 |

Accessories – Ordering data

| | For Ø | Part No. | Type | | Cable length [m] | Part No. | Type | |
|-----------------------------------------------------------------------------------|-------------------------------------|----------|-------------|-----------------------------------------------------------------------------------|--------------------------------------------|--------------------|----------------------|--|
|  | 21 Self-aligning rod coupler | | | Technical data online: → fk | | | | |
| | 10 | 6528 | FK-M4 |  | 2.5 m | ★ 541333 | NEBU-M8G3-K-2.5-LE3 | |
| | 12 | 30984 | FK-M5 | | 5.0 m | ★ 541334 | NEBU-M8G3-K-5-LE3 | |
| | 16 | ★ 2061 | FK-M6 | | 2.5 m | ★ 541363 | NEBU-M12G5-K-2.5-LE3 | |
| | 20, 25 | ★ 2062 | FK-M8 | | 5.0 m | ★ 541364 | NEBU-M12G5-K-5-LE3 | |
| | 32, 40 | ★ 6140 | FK-M10x1,25 | | Angled socket Technical data → 1161 | | | |
| | 50, 63 | ★ 6141 | FK-M12x1,25 | | 2.5 m | ★ 541338 | NEBU-M8W3-K-2.5-LE3 | |
| | 80 | ★ 6142 | FK-M16x1,5 | | 5.0 m | ★ 541341 | NEBU-M8W3-K-5-LE3 | |
| | 100 | ★ 6143 | FK-M20x1,5 | | 2.5 m | 541367 | NEBU-M12W5-K-2.5-LE3 | |
| | | | 5.0 m | | 541370 | NEBU-M12W5-K-5-LE3 | | |
|  | 22 Slot cover¹⁾ | | | | | | | |
| | 32, 40, 50, 63, 80, 100 | 151680 | ABP-5-S | | | | | |

1) Packaging unit 2x 0.5 m.

| | For Ø | Cable length [m] | Part No. | Type | |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------------|----------|----------------------------|--|
|  | 23 Proximity sensor for T-slot, magneto-resistive – N/O contact Technical data → 878 | | | | |
| | PNP, cable | 2.5 | ★ 574335 | SMT-8M-A-PS-24V-E-2,5-OE | |
| | PNP, plug connector | 0.3 | ★ 574334 | SMT-8M-A-PS-24V-E-0,3-M8D | |
| | PNP, plug connector | 0.3 | ★ 574337 | SMT-8M-A-PS-24V-E-0,3-M12 | |
| | NPN, cable | 2.5 | ★ 574338 | SMT-8M-A-NS-24V-E-2,5-OE | |
| | NPN, plug connector | 0.3 | ★ 574339 | SMT-8M-A-NS-24V-E-0,3-M8D | |
|  | Magneto-resistive – N/C contact Technical data → 878 | | | | |
| | PNP, cable | 7.5 | ★ 574340 | SMT-8M-A-PO-24V-E-7,5-OE | |
|  | Magnetic reed – N/O contact Technical data → 873 | | | | |
| | Cable | 2.5 | ★ 543862 | SME-8M-DS-24V-K-2,5-OE | |
| | Cable | 5.0 | ★ 543863 | SME-8M-DS-24V-K-5,0-OE | |
| | Cable | 2.5 | ★ 543872 | SME-8M-ZS-24V-K-2,5-OE | |
| | Plug connector | 0.3 | ★ 543861 | SME-8M-DS-24V-K-0,3-M8D | |
|  | Magnetic reed – N/C contact Technical data → 875 | | | | |
| | Cable | 7.5 | 160251 | SME-8-O-K-LED-24 | |
|  | 24 Proximity sensor for C-slot, magneto-resistive – N/O contact Technical data → 892 | | | | |
| | PNP, plug connector | 0.3 | ★ 551375 | SMT-10M-PS-24V-E-0,3-L-M8D | |
| | PNP, cable | 2.5 | ★ 551373 | SMT-10M-PS-24V-E-2,5-L-OE | |
|  | Magnetic reed – N/O contact Technical data → 890 | | | | |
| | Plug connector | 0.3 | 173212 | SME-10-SL-LED-24 | |
| | Cable | 2.5 | 173210 | SME-10-KL-LED-24 | |

| Function | For Ø | Connection | | Part No. | Type |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------|----------|-------------------------------------------|
| | | Thread | O.D. | | |
|  | 25 One-way flow control valve with slotted head screw, metal²⁾ for exhaust air flow control Technical data → 758 | | | | |
| | 10, 12, 16, 20 | M5 | 3 | ★ 193137 | GRLA-M5-QS-3-D |
| | 25 | | 4 | ★ 193138 | GRLA-M5-QS-4-D |
| | 32 | G ¹ / ₈ | 6 | ★ 193144 | GRLA- ¹ / ₈ -QS-6-D |
| | 40, 50, 63, 80 | | 8 | ★ 193145 | GRLA- ¹ / ₈ -QS-8-D |
| | 100 | | 8 | ★ 193147 | GRLA- ¹ / ₄ -QS-8-D |
|  | For supply air flow control Technical data → 758 | | | | |
| | 10, 12, 16, 20 | M5 | 3 | ★ 193153 | GRLZ-M5-QS-3-D |
| | 25 | | 4 | ★ 193154 | GRLZ-M5-QS-4-D |
| | 32 | G ¹ / ₈ | 6 | ★ 193158 | GRLZ- ¹ / ₈ -QS-6-D |
| | 40, 50, 63, 80 | | 8 | ★ 193159 | GRLZ- ¹ / ₈ -QS-8-D |

2) The recommended flow control valves are based on a tubing length to the valve of 1 m. For deviations of ±50%, flow control valves with a bigger or smaller flow rate must be selected to guarantee the optimum flow control function and cylinder speed.

Short-stroke cylinders ADVC

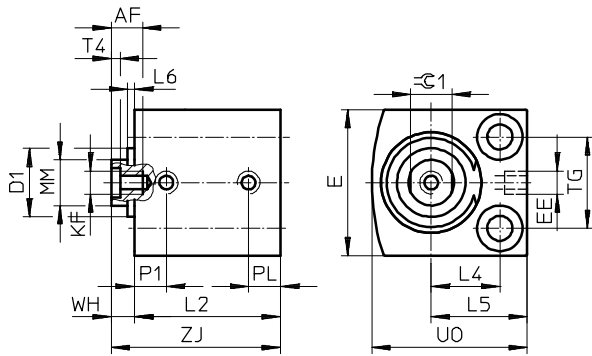
1

Dimensions

Download CAD data → www.festo.com

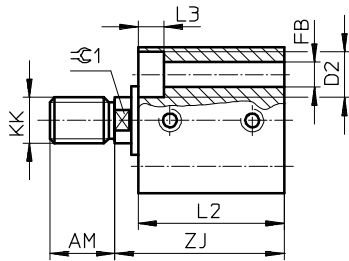
Without position sensing – Ø 4 ... 25

ADVC-...-I-P – With female thread

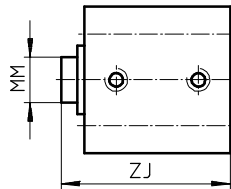


Note
 Ø 4
 Do not exceed the maximum screw-in depth of 3 mm and maximum tightening torque of 0.7 Nm.
 Ø 10
 The bearing cap can protrude up to 0.65 mm depending on the tolerance position.
 Ø 12
 The bearing cap can protrude up to 0.35 mm depending on the tolerance position.

ADVC-...-A-P – With male thread



ADVC-...-P – Without thread



| Ø | Stroke | AF | AM | D1 | D2 | E | EE | FB | KF | KK | L2 | L3 |
|------|--------|------|------|--------|---------------------|------|----|-----|----|----|------|-----|
| [mm] | [mm] | min. | -0.5 | Ø max. | Ø | max. | | Ø | | | +0.2 | |
| 4 | 2.5 | - | 6 | - | 3.3 ^{+0.1} | 10 | M3 | 1.8 | - | M2 | 13 | 1.8 |
| | 5 | | | | | | | | | | 15.5 | |
| 6 | 5 | - | 6 | - | 5 ^{+0.1} | 13 | M3 | 2.9 | - | M3 | 16 | 2.9 |
| | 10 | | | | | | | | | | 21 | |
| 10 | 5 | - | 8 | 7.5 | 5.8 ^{+0.1} | 18 | M5 | 3.4 | - | M4 | 21 | 3.4 |
| | 10 | | | | | | | | | | 24 | |
| 12 | 5 | 8 | 8 | 10.7 | 6 ^{H13} | 20 | M5 | 3.4 | M3 | M5 | 23 | 3.4 |
| | 10 | | | | | | | | | | 28 | |
| 16 | 5 | 10 | 12 | - | 8 ^{H13} | 25 | M5 | 4.5 | M4 | M6 | 23 | 4.6 |
| | 10 | | | | | | | | | | 28 | |
| | 15 | | | | | | | | | | 33 | |
| | 20 | | | | | | | | | | 38 | |
| | 25 | | | | | | | | | | 43 | |
| 20 | 5 | 12 | 12 | - | 10 ^{H13} | 32 | M5 | 5.5 | M5 | M8 | 27 | 5.7 |
| | 10 | | | | | | | | | | 32 | |
| | 15 | | | | | | | | | | 37 | |
| | 20 | | | | | | | | | | 42 | |
| | 25 | | | | | | | | | | 47 | |
| 25 | 5 | 12 | 12 | - | 10 ^{H13} | 38 | M5 | 5.5 | M5 | M8 | 27.5 | 5.7 |
| | 10 | | | | | | | | | | 32.5 | |
| | 15 | | | | | | | | | | 37.5 | |
| | 20 | | | | | | | | | | 42.5 | |
| | 25 | | | | | | | | | | 47.5 | |

Dimensions

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| ∅ [mm] | Stroke [mm] | L4 | L5 | L6 max. | MM ∅ | P1 | PL | T4 | TG ±0.1 | UO max. | WH | ZJ ±0.8 | ≙C1 |
|-----------|----------------|------|------|------------|---------|------|------|-----|------------|------------|-----|------------|-----|
| 4 | 2.5 | 4 | 6.5 | - | 2 | 3.7 | 3.2 | - | 5.8 | 10 | 1 | 14 | - |
| | 5 | | | | | | | | | | | 16.5 | |
| 6 | 5 | 6 | 9 | - | 3 | 4.7 | 3 | - | 7 | 14 | 1 | 17 | - |
| | 10 | | | | | | | | | | | 22 | |
| 10 | 5 | 8 | 11.5 | 0.7 | 4 | 5.2 | 5.2 | - | 11 | 19 | 1.5 | 22.5 | - |
| | 10 | | | | | 6 | 5.5 | | | | | 25.5 | |
| 12 | 5 | 9 | 13 | 0.4 | 6 | 5.75 | 5.75 | 1.5 | 13 | 22 | 4 | 27 | 5 |
| | 10 | | | | | 9 | 6 | | | | | 32 | |
| 16 | 5 | 11.5 | 16.5 | - | 8 | 6 | 6 | 2 | 15 | 27 | 4 | 27 | 7 |
| | 10 | | | | | 7.5 | | | | | | 32 | |
| | 15 | | | | | 7.5 | | | | | | 37 | |
| | 20 | | | | | 7.5 | | | | | | 42 | |
| | 25 | | | | | 7.5 | | | | | | 47 | |
| 20 | 5 | 15 | 21 | - | 10 | 7.5 | 7 | 2 | 20 | 34 | 5 | 32 | 9 |
| | 10 | | | | | 7.5 | | | | | | 37 | |
| | 15 | | | | | 7.5 | | | | | | 42 | |
| | 20 | | | | | 7.5 | | | | | | 47 | |
| | 25 | | | | | 7.5 | | | | | | 52 | |
| 25 | 5 | 15.5 | 21.5 | - | 10 | 8 | 6.5 | 2 | 26 | 37 | 5 | 32.5 | 9 |
| | 10 | | | | | 8 | | | | | | 37.5 | |
| | 15 | | | | | 8 | | | | | | 42.5 | |
| | 20 | | | | | 8 | | | | | | 47.5 | |
| | 25 | | | | | 8 | | | | | | 52.5 | |

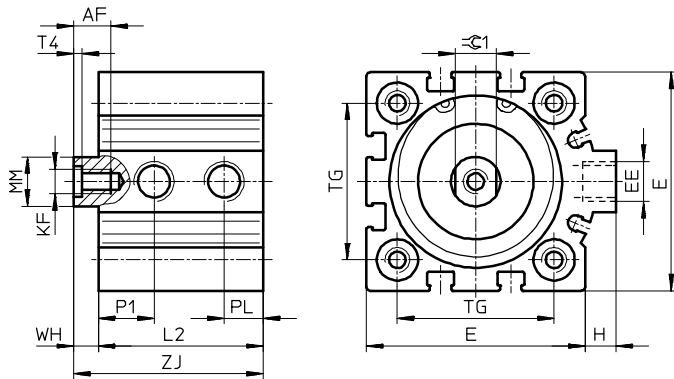
Short-stroke cylinders ADVC

1

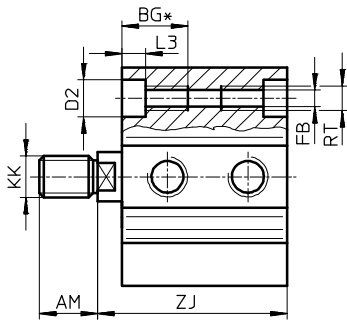
Dimensions

Without position sensing – Ø 32 ... 100

ADVC-...-I-P – With female thread



ADVC-...-A-P – With male thread



| Ø | AF | AM | BG ¹⁾ | D2 | E | EE | FB | H | KF | KK ²⁾ |
|------|------|------|------------------|---------|------|------|-----|-----|-----|------------------|
| [mm] | min. | -0.5 | min. | Ø F9 | max. | | Ø | | | |
| 32 | 12 | 14 | 21.7 | 9 | 45 | G1/8 | 5.2 | 7 | M6 | M10x1.25 |
| 40 | 12 | 14 | 21.7 | 9 | 53.5 | G1/8 | 5.2 | 7 | M6 | M10x1.25 |
| 50 | 16 | 16 | 22.8 | 11 | 63.5 | G1/8 | 6.8 | 7 | M8 | M12x1.25 |
| 63 | 16 | 16 | 22.8 | 11 | 75 | G1/8 | 6.8 | 7.5 | M8 | M12x1.25 |
| 80 | 20 | 22 | 25 | 14 | 93 | G1/8 | 8.5 | 7 | M10 | M16x1.5 |
| 100 | 24 | 28 | 25 | 14 | 113 | G1/4 | 8.5 | 13 | M12 | M20x1.5 |

1) Continuous thread with shorter sizes.
 2) Nut for piston rod thread included in the scope of delivery.

Dimensions

Download CAD data → www.festo.com

| ∅ | Stroke | L2 | L3 | MM ∅ | P1 | PL | RT | T4 | TG | WH | ZJ | ±1 |
|------|--------|------|-----|---------|------|------|-----|-----|------|----|------|----|
| [mm] | [mm] | +0.2 | | | | | | | ±0.1 | | ±0.8 | |
| 32 | 5 | 34 | 5.7 | 12 | 9 | 8.5 | M6 | 2.6 | 32.5 | 6 | 40 | 10 |
| | 10 | 39 | | | | | | | | | 45 | |
| | 15 | 44 | | | | | | | | | 50 | |
| | 20 | 49 | | | | | | | | | 55 | |
| | 25 | 54 | | | | | | | | | 60 | |
| 40 | 5 | 34.5 | 5.7 | 12 | 11 | 9 | M6 | 2.6 | 38 | 6 | 40.5 | 10 |
| | 10 | 39.5 | | | | | | | | | 45.5 | |
| | 15 | 44.5 | | | | | | | | | 50.5 | |
| | 20 | 49.5 | | | | | | | | | 55.5 | |
| | 25 | 54.5 | | | | | | | | | 60.5 | |
| 50 | 10 | 38 | 6.8 | 16 | 11.3 | 9.5 | M8 | 3.3 | 46.5 | 8 | 46 | 13 |
| | 15 | 43 | | | | | | | | | 51 | |
| | 20 | 48 | | | | | | | | | 56 | |
| | 25 | 53 | | | | | | | | | 61 | |
| 63 | 10 | 45 | 6.8 | 16 | 12.5 | 11.5 | M8 | 3.3 | 56.5 | 8 | 53 | 13 |
| | 15 | 50 | | | | | | | | | 58 | |
| | 20 | 55 | | | | | | | | | 63 | |
| | 25 | 60 | | | | | | | | | 68 | |
| 80 | 10 | 50 | 9 | 20 | 15 | 15 | M10 | 4.7 | 72 | 8 | 58 | 17 |
| | 15 | 55 | | | | | | | | | 63 | |
| | 20 | 60 | | | | | | | | | 68 | |
| | 25 | 65 | | | | | | | | | 73 | |
| 100 | 10 | 59 | 9 | 25 | 16.5 | 19 | M10 | 6.1 | 89 | 10 | 69 | 22 |
| | 15 | 64 | | | | | | | | | 74 | |
| | 20 | 69 | | | | | | | | | 79 | |
| | 25 | 74 | | | | | | | | | 84 | |

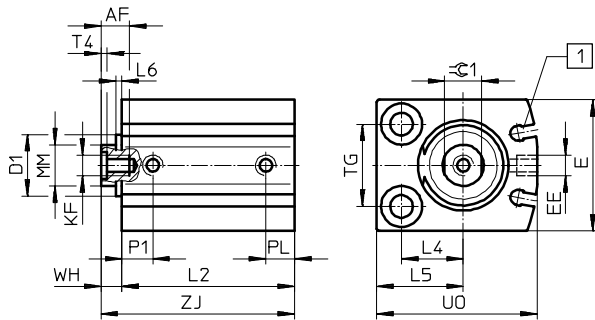
Short-stroke cylinders ADVC

1

Dimensions

With position sensing – Ø 6 ... 25

ADVC-...-I-P-A – With female thread



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Note

Ø 10

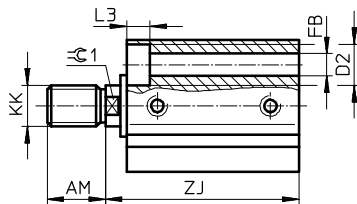
The bearing cap can protrude up to 0.65 mm depending on the tolerance position.

Ø 12

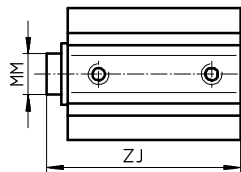
The bearing cap can protrude up to 0.35 mm depending on the tolerance position.

1 Slot for proximity sensor
SME/SMT-10

ADVC-...-A-P-A – With male thread



ADVC-...-P-A – Without thread



| Ø [mm] | Stroke [mm] | AF min. | AM -0.5 | D1 Ø max. | D2 Ø | E max. | EE | FB Ø | KF | KK | L2 +0.2 | L3 |
|-----------|----------------|------------|------------|-----------------|----------|-----------|----|---------|----|----|------------|-----|
| 6 | 5 | - | 6 | - | 5 +0.1 | 16 | M3 | 2.9 | - | M3 | 25.5 | 2.9 |
| | 10 | | | | | | | | | | 30.5 | |
| 10 | 5 | - | 8 | 7.5 | 5.8 +0.1 | 21 | M5 | 3.4 | - | M4 | 27 | 3.4 |
| | 10 | | | | | | | | | | 32 | |
| 12 | 5 | 8 | 8 | 10.7 | 6 H13 | 24 | M5 | 3.4 | M3 | M5 | 36 | 3.4 |
| | 10 | | | | | | | | | | 41 | |
| 16 | 5 | 10 | 12 | - | 8 H13 | 28 | M5 | 4.5 | M4 | M6 | 35 | 4.6 |
| | 10 | | | | | | | | | | 40 | |
| | 15 | | | | | | | | | | 45 | |
| | 20 | | | | | | | | | | 50 | |
| | 25 | | | | | | | | | | 55 | |
| 20 | 5 | 12 | 12 | - | 10 H13 | 32 | M5 | 5.5 | M5 | M8 | 37 | 5.7 |
| | 10 | | | | | | | | | | 42 | |
| | 15 | | | | | | | | | | 47 | |
| | 20 | | | | | | | | | | 52 | |
| | 25 | | | | | | | | | | 57 | |
| 25 | 5 | 12 | 12 | - | 10 H13 | 38 | M5 | 5.5 | M5 | M8 | 37 | 5.7 |
| | 10 | | | | | | | | | | 42 | |
| | 15 | | | | | | | | | | 47 | |
| | 20 | | | | | | | | | | 52 | |
| | 25 | | | | | | | | | | 57 | |

Dimensions

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| ∅ [mm] | Stroke [mm] | L4 | L5 | L6 max. | MM ∅ | P1 | PL | T4 | TG ±0.1 | UO max. | WH | ZJ ±0.8 | ≅1 |
|-----------|----------------|------|------|------------|---------|-----|----|-----|------------|------------|-----|------------|----|
| 6 | 5 | 5 | 8 | - | 3 | 5.2 | 3 | - | 10 | 16 | 1 | 26.5 | - |
| | 10 | | | | | | | | | | | 31.5 | |
| 10 | 5 | 7 | 10.5 | 0.7 | 4 | 6 | 6 | - | 14 | 22 | 1.5 | 28.5 | - |
| | 10 | | | | | | | | | | | 33.5 | |
| 12 | 5 | 8 | 12 | 0.4 | 6 | 7 | 6 | 1.5 | 16 | 26 | 4 | 40 | 5 |
| | 10 | | | | | | | | | | | 45 | |
| 16 | 5 | 12 | 17 | - | 8 | 8 | 6 | 2 | 18 | 32 | 4 | 39 | 7 |
| | 10 | | | | | | | | | | | 44 | |
| | 15 | | | | | | | | | | | 49 | |
| | 20 | | | | | | | | | | | 54 | |
| | 25 | | | | | | | | | | | 59 | |
| 20 | 5 | 15 | 21 | - | 10 | 7.5 | 7 | 2 | 20 | 39 | 5 | 42 | 9 |
| | 10 | | | | | | | | | | | 47 | |
| | 15 | | | | | | | | | | | 52 | |
| | 20 | | | | | | | | | | | 57 | |
| | 25 | | | | | | | | | | | 62 | |
| 25 | 5 | 15.5 | 21.5 | - | 10 | 10 | 6 | 2 | 26 | 42 | 5 | 42 | 9 |
| | 10 | | | | | | | | | | | 47 | |
| | 15 | | | | | | | | | | | 52 | |
| | 20 | | | | | | | | | | | 57 | |
| | 25 | | | | | | | | | | | 62 | |

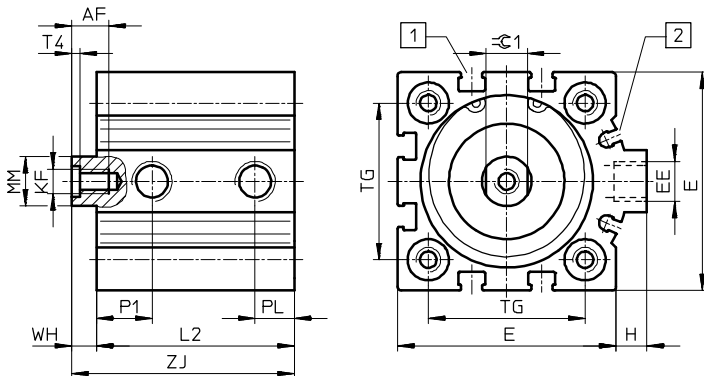
Short-stroke cylinders ADVC

1

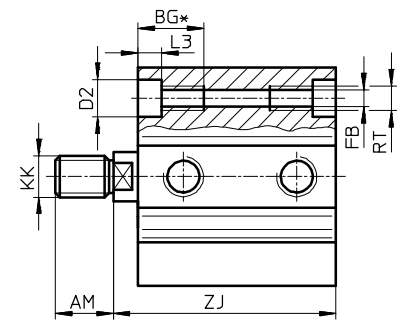
Dimensions

With position sensing – Ø 32 ... 100

ADVC-...-I-P-A – With female thread



ADVC-...-A-P-A – With male thread



- 1 Slot for proximity sensor SME/SMT-8
- 2 Slot for proximity sensor SME/SMT-10

| Ø | AF | AM | BG ¹⁾ | D2 Ø | E | EE | FB Ø | H | KF | KK ²⁾ |
|------|------|------|------------------|---------|------|-----------------|---------|-----|-----|------------------|
| [mm] | min. | -0.5 | min. | F9 | max. | | | | | |
| 32 | 12 | 14 | 21.7 | 9 | 45 | G $\frac{1}{8}$ | 5.2 | 7 | M6 | M10x1.25 |
| 40 | 12 | 14 | 21.7 | 9 | 53.5 | G $\frac{1}{8}$ | 5.2 | 7 | M6 | M10x1.25 |
| 50 | 16 | 16 | 22.8 | 11 | 63.5 | G $\frac{1}{8}$ | 6.8 | 7 | M8 | M12x1.25 |
| 63 | 16 | 16 | 22.8 | 11 | 75 | G $\frac{1}{8}$ | 6.8 | 7.5 | M8 | M12x1.25 |
| 80 | 20 | 22 | 25 | 14 | 93 | G $\frac{1}{8}$ | 8.5 | 7 | M10 | M16x1.5 |
| 100 | 24 | 28 | 25 | 14 | 113 | G $\frac{1}{4}$ | 8.5 | 13 | M12 | M20x1.5 |

1) Continuous thread with shorter sizes.
 2) Nut for piston rod thread included in the scope of delivery.

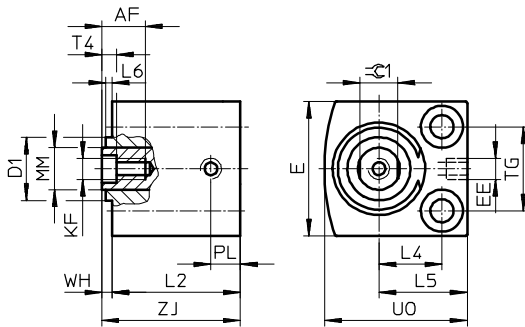
| Ø | Stroke | L2 | L3 | MM Ø | P1 | PL | RT | T4 | TG | WH | ZJ | ⊙1 |
|------|--------|------|-----|---------|------|------|-----|-----|------|----|------|----|
| [mm] | [mm] | +0.2 | | | | | | | ±0.1 | | ±0.8 | |
| 32 | 5 | 38 | 5.7 | 12 | 9 | 8.5 | M6 | 2.6 | 32.5 | 6 | 44 | 10 |
| | 10 | 43 | | | | | | | | | 49 | |
| | 15 | 48 | | | | | | | | | 54 | |
| | 20 | 53 | | | | | | | | | 59 | |
| | 25 | 58 | | | | | | | | | 64 | |
| 40 | 5 | 43 | 5.7 | 12 | 13.5 | 9.5 | M6 | 2.6 | 38 | 6 | 49 | 10 |
| | 10 | 48 | | | | | | | | | 54 | |
| | 15 | 53 | | | | | | | | | 59 | |
| | 20 | 58 | | | | | | | | | 64 | |
| | 25 | 63 | | | | | | | | | 69 | |
| 50 | 10 | 48 | 6.8 | 16 | 11.3 | 9.5 | M8 | 3.3 | 46.5 | 8 | 56 | 13 |
| | 15 | 53 | | | | | | | | | 61 | |
| | 20 | 58 | | | | | | | | | 66 | |
| | 25 | 63 | | | | | | | | | 71 | |
| 63 | 10 | 51 | 6.8 | 16 | 12.5 | 10.5 | M8 | 3.3 | 56.5 | 8 | 59 | 13 |
| | 15 | 56 | | | | | | | | | 64 | |
| | 20 | 61 | | | | | | | | | 69 | |
| | 25 | 66 | | | | | | | | | 74 | |
| 80 | 10 | 59 | 9 | 20 | 15 | 8.5 | M10 | 4.7 | 72 | 8 | 67 | 17 |
| | 15 | 64 | | | | | | | | | 72 | |
| | 20 | 69 | | | | | | | | | 77 | |
| | 25 | 74 | | | | | | | | | 82 | |
| 100 | 10 | 68 | 9 | 25 | 16.5 | 10.5 | M10 | 6.1 | 89 | 10 | 78 | 22 |
| | 15 | 73 | | | | | | | | | 83 | |
| | 20 | 78 | | | | | | | | | 88 | |
| | 25 | 83 | | | | | | | | | 93 | |

Dimensions

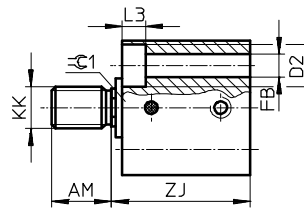
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Without position sensing – Ø 4 ... 25

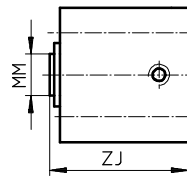
AEVC-...-I-P – With female thread



AEVC-...-A-P – With male thread



AEVC-...-P – Without thread



Note

Ø 10

The bearing cap can protrude up to 0.65 mm depending on the tolerance position.

Ø 12

The bearing cap can protrude up to 0.35 mm depending on the tolerance position.

| Ø [mm] | Stroke [mm] | AF min. | AM -0.5 | D1 Ø max. | D2 Ø | E max. | EE | FB Ø | KF | KK | L2 +0.2 | L3 |
|-----------|----------------|------------|------------|-----------------|---------------------|-----------|----|---------|----|----|------------|-----|
| 4 | 2.5 | - | 6 | - | 3.3 ^{+0.1} | 10 | M3 | 1.8 | - | M2 | 13 | 1.8 |
| | 5 | | | | | | | | | | 15.5 | |
| 6 | 5 | - | 6 | - | 5 ^{+0.1} | 13 | M3 | 2.9 | - | M3 | 16 | 2.9 |
| | 10 | | | | | | | | | | 23.4 | |
| 10 | 5 | - | 8 | 7.5 | 5.8 ^{+0.1} | 18 | M5 | 3.4 | - | M4 | 16 | 3.4 |
| | 10 | | | | | | | | | | 23 | |
| 12 | 5 | 8 | 8 | 10.7 | 6 ^{H13} | 20 | M5 | 3.4 | M3 | M5 | 16 | 3.4 |
| | 10 | | | | | | | | | | 27.5 | |
| 16 | 5 | 10 | 12 | - | 8 ^{H13} | 25 | M5 | 4.5 | M4 | M6 | 20 | 4.6 |
| | 10 | | | | | | | | | | 27.5 | |
| | 25 | | | | | | | | | | 47 | |
| 20 | 5 | 8 | 12 | - | 10 ^{H13} | 32 | M5 | 5.5 | M5 | M8 | 20 | 5.7 |
| | 10 | 12 | | | | | | | | | 30.5 | |
| | 25 | 48.5 | | | | | | | | | | |
| 25 | 5 | 12 | 12 | - | 10 ^{H13} | 38 | M5 | 5.5 | M5 | M8 | 26.1 | 5.7 |
| | 10 | | | | | | | | | | 31.1 | |
| | 25 | | | | | | | | | | 50.2 | |

| Ø [mm] | Stroke [mm] | L4 | L5 | L6 max. | MM Ø | PL | T4 | TG ±0.1 | UO max. | WH | ZJ ±0.8 | ≈C1 |
|-----------|----------------|------|------|------------|---------|-----|-----|------------|------------|----|------------|-----|
| 4 | 2.5 | 4 | 6.5 | - | 2 | 3.2 | - | 5.8 | 10 | 1 | 14 | - |
| | 5 | | | | | | | | | | 16.5 | |
| 6 | 5 | 6 | 9 | - | 3 | 3 | - | 7 | 14 | 1 | 17 | - |
| | 10 | | | | | | | | | | 24.4 | |
| 10 | 5 | 8 | 11.5 | 0.7 | 4 | 5.5 | - | 11 | 19 | 1 | 17 | - |
| | 10 | | | | | | | | | | 24 | |
| 12 | 5 | 9 | 13 | 0.4 | 6 | 6 | 1.5 | 13 | 22 | 1 | 17 | - |
| | 10 | | | | | | | | | | 28.5 | |
| 16 | 5 | 11.5 | 16.5 | - | 8 | 6 | 2 | 15 | 27 | 1 | 21 | 7 |
| | 10 | | | | | | | | | | 28.5 | |
| | 25 | | | | | | | | | | 48 | |
| 20 | 5 | 15 | 21 | - | 10 | 7 | 2 | 20 | 34 | 1 | 21 | 9 |
| | 10 | | | | | | | | | | 31.5 | |
| | 25 | | | | | | | | | | 49.5 | |
| 25 | 5 | 15.5 | 21.5 | - | 10 | 6.5 | 2 | 26 | 37 | 1 | 27.1 | 9 |
| | 10 | | | | | | | | | | 32.1 | |
| | 25 | | | | | | | | | | 51.2 | |

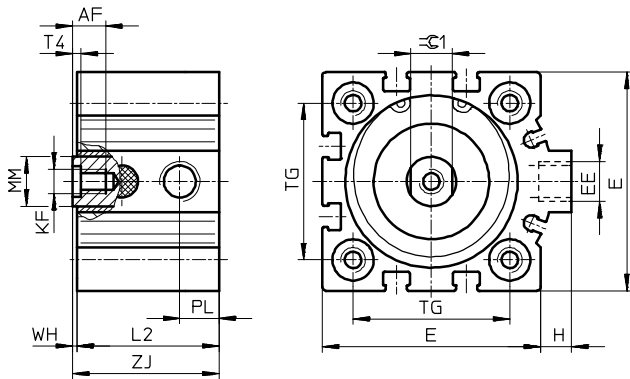
Short-stroke cylinders AEVC

1

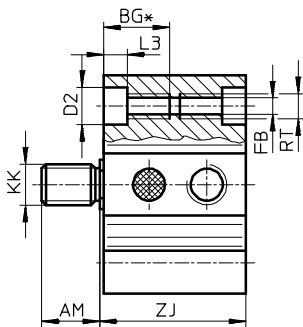
Dimensions

Without position sensing – Ø 32 ... 100

AEVC-...-I-P – With female thread



AEVC-...-A-P – With male thread



| Ø | Stroke | AF | AM | BG ¹⁾ | D2 | E | EE | FB | H | KF | KK ²⁾ | L2 | L3 | MM | PL | RT | T4 | TG | WH | ZJ | ⊖C1 |
|------|--------|------|------|------------------|------|------|-------------------------------|-----|-----|-----|------------------|------|-----|----|------|-----|-----|------|-----|------|-----|
| [mm] | [mm] | min. | -0.5 | min. | Ø F9 | max. | | Ø | | | | +0.2 | | Ø | | | | ±0.1 | | ±0.8 | |
| 32 | 5 | | | | | | | | | | | 26 | | | | | | | | 27 | 10 |
| | 10 | 12 | 14 | 21.7 | 9 | 45 | G ¹ / ₈ | 5.2 | 7 | M6 | M10x1.25 | 35 | 5.7 | 12 | 9.5 | M6 | 2.6 | 32.5 | 1 | 36 | |
| | 25 | | | | | | | | | | | 50 | | | | | | | | 51 | |
| 40 | 10 | 12 | 14 | 21.7 | 9 | 53.5 | G ¹ / ₈ | 5.2 | 7 | M6 | M10x1.25 | 34.5 | 5.7 | 12 | 9.5 | M6 | 2.6 | 38 | 1 | 35.5 | 10 |
| | 25 | | | | | | | | | | | 54.5 | | | | | | | | 55.5 | |
| 50 | 10 | 16 | 16 | 22.8 | 11 | 63.5 | G ¹ / ₈ | 6.8 | 7 | M8 | M12x1.25 | 30.6 | 6.8 | 16 | 9.5 | M8 | 3.3 | 46.5 | 0.5 | 31.1 | 13 |
| | 25 | | | | | | | | | | | 53 | | | | | | | | 53.5 | |
| 63 | 10 | 16 | 16 | 22.8 | 11 | 75 | G ¹ / ₈ | 6.8 | 7.5 | M8 | M12x1.25 | 35 | 6.8 | 16 | 11.5 | M8 | 3.3 | 56.5 | 1 | 36 | 13 |
| | 25 | | | | | | | | | | | 57 | | | | | | | | 58 | |
| 80 | 10 | 20 | 22 | 25 | 14 | 93 | G ¹ / ₈ | 8.5 | 7 | M10 | M16x1.5 | 52 | 9 | 20 | 15 | M10 | 4.7 | 72 | 1 | 53 | 17 |
| | 25 | | | | | | | | | | | 67 | | | | | | | | 68 | |
| 100 | 10 | 24 | 28 | 25 | 14 | 113 | G ¹ / ₄ | 8.5 | 13 | M12 | M20x1.5 | 59 | 9 | 25 | 19 | M10 | 6.1 | 89 | 1 | 60 | 22 |
| | 25 | | | | | | | | | | | 74 | | | | | | | | 75 | |

1) Continuous thread with shorter sizes.
 2) Nut for male piston rod thread included in the scope of delivery.



Overview/Configuration/Ordering
→ www.festo.com/catalogue/dgc



Additional information/Support/User documentation
→ www.festo.com/sp/dgc

Rodless cylinders
Mechanically coupled cylinders
Linear drives

DGC-K



- + Compact design: 30% narrower than the basic design DGC-G
- + Low moving dead weight
- + Without external guide, for simple drive functions
- + Easy assembly and installation
- + Fully interchangeable with the linear drive DGP

Linear drives DGC-K



- Compact dimensions
- Without external guide, for simple drive functions
- Easy assembly and installation
- Low moving dead weight
- Symmetrical design
- Spare parts service

→ www.festo.com/catalogue/dgc

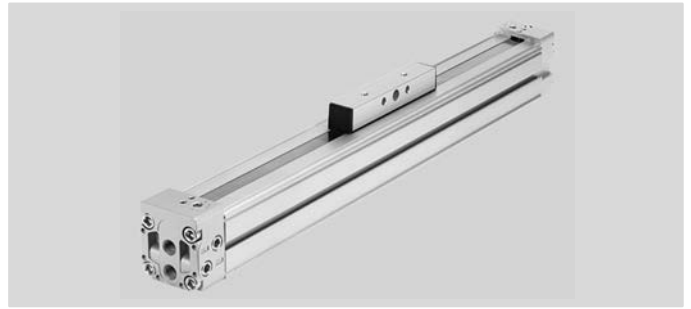
Product range overview

| Type/Function | Piston Ø [mm] | Stroke [mm] | Force [N] | Product options | | | | | → Page/online |
|---------------|------------------------------------------------------|-------------|--------------|-----------------|---|----|----|----|------------------------|
| | | | | PPV | A | GK | D2 | FK | |
| Double-acting | DGC-...-K – Compact design | | | | | | | | |
| | 18, 25, 32, 40, 50, 63, 80 | 1 ... 8500 | 153 ... 3016 | ■ | ■ | ■ | ■ | ■ | 171 |
| | DGC-...-G – Basic design | | | | | | | | |
| | 8, 12, 18, 25, 32, 40, 50, 63 | 1 ... 8500 | 30 ... 1870 | ■ | ■ | - | - | ■ | 183 |
| | DGC-...-GF – Plain-bearing guide | | | | | | | | |
| | 18, 25, 32, 40, 50, 63 | 1 ... 8500 | 153 ... 1870 | ■ | ■ | - | - | - | 186 |
| Double-acting | DGC-...-KF – Recirculating ball bearing guide | | | | | | | | |
| | 8, 12, 18, 25, 32, 40, 50, 63 | 1 ... 8500 | 30 ... 1870 | ■ | ■ | - | - | - | 189 |
| | DGC-...-HD – Heavy-duty design | | | | | | | | |
| | 18, 25, 40 | 10 ... 5000 | 153 ... 754 | - | - | - | - | - | 213 |
| Without drive | DGC-FA – Passive guide axis | | | | | | | | |
| | 8, 12, 18, 25, 32, 40, 50, 63 | 1 ... 5000 | - | - | - | - | - | - | dgc-fa |

Product options

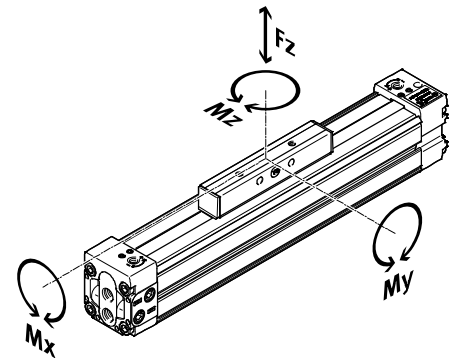
| | | | | | | | |
|-----|-----------------------------------------------|----|--------------------------|----|---------------------------------------------------|-----|---------------------------|
| PPV | Pneumatic cushioning, adjustable at both ends | GK | Basic design | H1 | Lubrication approved for use in food applications | EX2 | EU certification (II 3GD) |
| A | Position sensing | GV | Extended piston rod | FK | Moment compensator | EX3 | EU certification (II 2G) |
| | | D2 | Supply port at both ends | | | | |

Data sheet



Technical data

Dimensions → 177



| Piston | 18 | 25 | 32 | 40 | 50 | 63 | 80 |
|------------------------------------|-----------------------------------------------|-----------------|-----|-----------------|------------|-----------------|-----------------|
| Pneumatic connection | M5 | G $\frac{1}{8}$ | | G $\frac{1}{4}$ | | G $\frac{3}{8}$ | G $\frac{1}{2}$ |
| Stroke [mm] | 1 ... 3000 | 1 ... 8500 | | | 1 ... 6000 | 1 ... 5000 | 1 ... 3000 |
| Cushioning | Pneumatic cushioning, adjustable at both ends | | | | | | |
| Cushioning length [mm] | 16 | 18 | 20 | 30 | | | 83 |
| Theoretical force at 6 bar [N] | 153 | 295 | 483 | 754 | 1178 | 1870 | 3016 |
| Max. permissible force F_z [N] | 120 | 330 | 480 | 800 | 1200 | 1600 | 2500 |
| Max. permissible torque M_x [Nm] | 0.8 | 1.2 | 1.9 | 3.8 | 6 | 5.7 | 30.6 |
| Max. permissible torque M_y [Nm] | 11 | 20 | 40 | 60 | 120 | 150 | 400 |
| Max. permissible torque M_z [Nm] | 1 | 3 | 5 | 8 | 15 | 24 | 100 |

Operating conditions

| Piston | 18 | 25 | 32 | 40 | 50 | 63 | 80 |
|----------------------------------------|-------------|----|----|----|-----------|----|----|
| Operating pressure [bar] | 2 ... 8 | | | | 1.5 ... 8 | | |
| Ambient temperature ¹⁾ [°C] | -10 ... +60 | | | | | | |

1) Note operating range of proximity sensors.

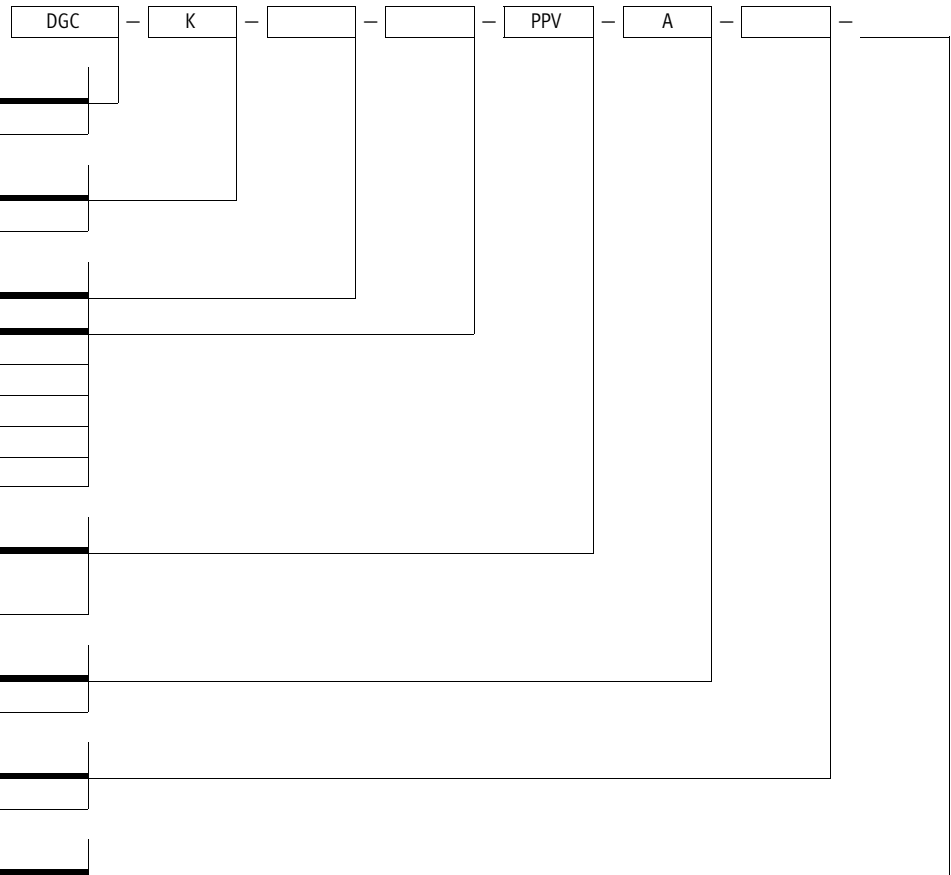
Materials

| Piston | 18 | 25 | 32 | 40 | 50 | 63 | 80 |
|---------|--------------------|----|----|----|----------------------------|----|----|
| End cap | Die-cast aluminium | | | | Gravity die-cast aluminium | | |
| Seals | NBR | | | | | | |
| | TPE-U (PU) | | | | | | |

Linear drives DGC-K

1

Order code



| Type | |
|------|--------------|
| DGC | Linear drive |

| Guide | |
|-------|---------|
| K | Compact |

| Piston Ø [mm] | |
|---------------|-------------|
| | Stroke [mm] |
| 18 | 1 ... 3000 |
| 25, 32, 40 | 1 ... 8500 |
| 50 | 1 ... 6000 |
| 63 | 1 ... 5000 |
| 80 | 1 ... 3000 |

| Cushioning | |
|------------|-----------------------------------------------|
| PPV | Pneumatic cushioning, adjustable at both ends |

| Position sensing | |
|------------------|----------------------|
| A | Via proximity sensor |

| Basic design | |
|--------------|-----------------|
| GK | Standard piston |

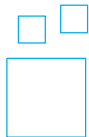
| Supply port | |
|-------------|--------------|
| | At one end |
| D2 | At both ends |

Order example:

DGC-K-25-200-PPV-A-GK

Linear drive DGC - compact - piston diameter 25 mm - stroke 200 mm - pneumatic cushioning, adjustable at both ends - position sensing via proximity sensor - standard piston - supply port at one end

Ordering – Product options



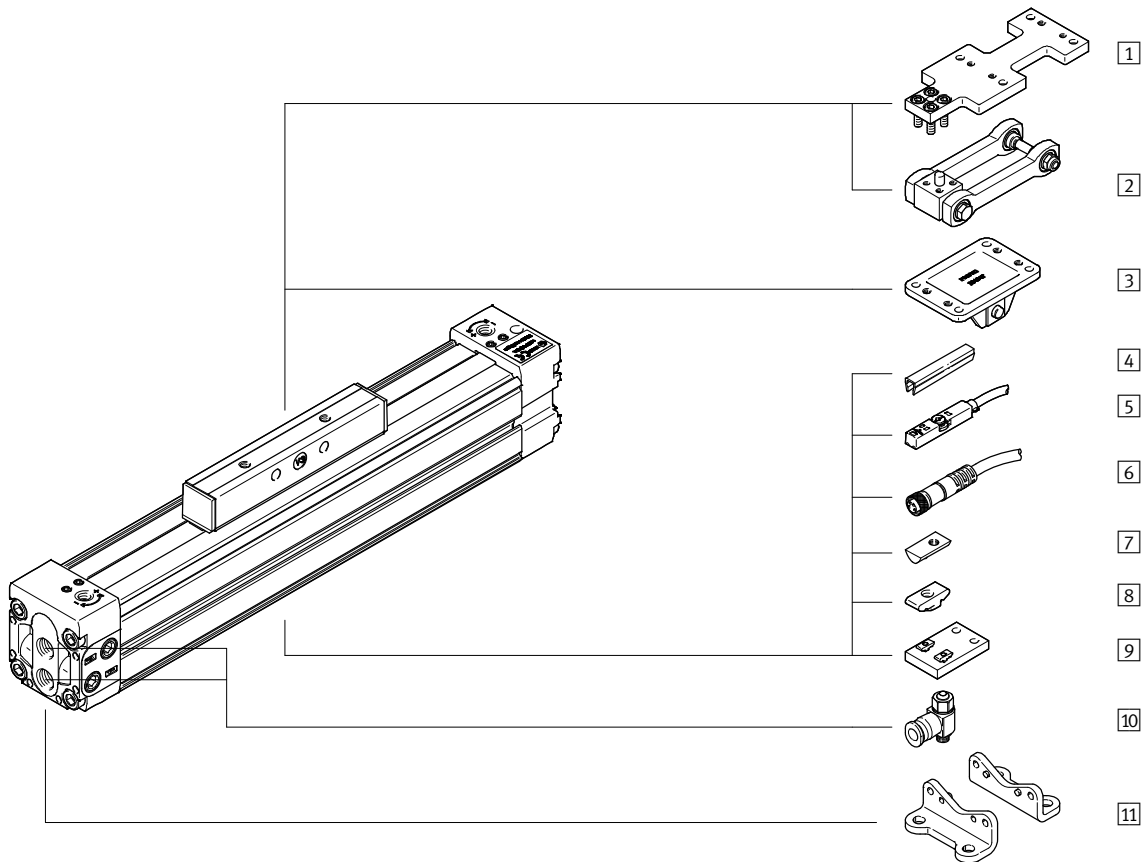
Configurable product

This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
 → www.festo.com/catalogue/...

Enter the type code in the search field.

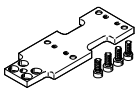
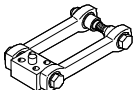
Accessories

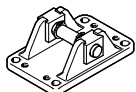



| | | → Page/online |
|---|--------------------------------|---------------|
| 1 | Adapter plate DAMF | 174 |
| 2 | Moment compensator DARD-...-M | 174 |
| 3 | Moment compensator DARD-...-S | 174 |
| 4 | Slot cover ABP | 174 |
| 5 | Proximity sensor SMT-8M/SME-8M | 174 |
| 6 | Connecting cable NEBU | 174 |



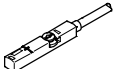



| | | → Page/online |
|----|---------------------------------|---------------|
| 7 | Slot nut for mounting slot NST | 174 |
| 8 | Slot nut for mounting slot ABAN | 175 |
| 9 | Central support MUP | 175 |
| 10 | One-way flow control valve GRLA | 175 |
| 11 | Foot mounting HP | 175 |

Accessories – Ordering data

| | For Ø | Part no. | Type |
|---------------------------------------------------------------------------------------------------------|-------|----------|--------------|
| 1 Adapter plate Dimensions online: → dgc | | | |
|  | 18 | 2349281 | DAMF-18-FKP |
| | 25 | 2349282 | DAMF-25-FKP |
| | 32 | 2349283 | DAMF-32-FKP |
| | 40 | 2349284 | DAMF-40-FKP |
| | 50 | 2349285 | DAMF-50-FKP |
| | 63 | 2349286 | DAMF-63-FKP |
| | 80 | 2349287 | DAMF-80-FKP |
| 2 Moment compensator Dimensions online: → dgc | | | |
|  | 18 | 2349274 | DARD-L1-18-M |
| | 25 | 2349275 | DARD-L1-25-M |
| | 32 | 2349276 | DARD-L1-32-M |
| | 40 | 2349277 | DARD-L1-40-M |
| | 50 | 2349278 | DARD-L1-50-M |
| | 63 | 2349279 | DARD-L1-63-M |
| | 80 | 2349280 | DARD-L1-80-M |




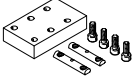
| | For Ø | Part no. | Type |
|---------------------------------------------------------------------------------------------------------|-----------------|----------|--------------|
| 3 Moment compensator Dimensions online: → dgc | | | |
|  | 18 | 8001411 | DARD-L1-18-S |
| | 25 | 8001412 | DARD-L1-32-S |
| | 32 | 8001412 | DARD-L1-32-S |
| | 40 | 8001413 | DARD-L1-40-S |
| | 50 | 8001414 | DARD-L1-63-S |
| | 63 | 8001414 | DARD-L1-63-S |
| | 80 | 8001415 | DARD-L1-80-S |
| 4 Slot cover¹⁾ | | | |
|  | 32, 40 | 151681 | ABP-5 |
| | 50, 63, 80 | 151682 | ABP-8 |
| | 18, 25, 32, 40, | 563360 | ABP-5-S1 |
| | 50, 63, 80 | | |


1) Packaging unit 2x 0.5 m.


| | For Ø | Cable length [m] | Part no. | Type |
|--------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------|----------|---------------------------|
| 5 Proximity sensor for T-slot, magneto-resistive – N/O contact²⁾ Technical data → 878 | | | | |
|  | PNP, cable | 2.5 | ★ 574335 | SMT-8M-A-PS-24V-E-2,5-OE |
| | PNP, plug | 0.3 | ★ 574334 | SMT-8M-A-PS-24V-E-0,3-M8D |
| | PNP, plug | 0.3 | ★ 574337 | SMT-8M-A-PS-24V-E-0,3-M12 |
| | NPN, cable | 2.5 | ★ 574338 | SMT-8M-A-NS-24V-E-2,5-OE |
| | NPN, plug | 0.3 | ★ 574339 | SMT-8M-A-NS-24V-E-0,3-M8D |
| Magneto-resistive – N/C contact Technical data → 878 | | | | |
|  | PNP, cable | 7.5 | ★ 574340 | SMT-8M-A-PO-24V-E-7,5-OE |
| Magnetic reed – N/O contact Technical data → 873 | | | | |
|  | Cable | 2.5 | ★ 543862 | SME-8M-DS-24V-K-2,5-OE |
| | Cable | 5.0 | ★ 543863 | SME-8M-DS-24V-K-5,0-OE |
| | Cable | 2.5 | ★ 543872 | SME-8M-ZS-24V-K-2,5-OE |
| | Plug | 0.3 | ★ 543861 | SME-8M-DS-24V-K-0,3-M8D |
| Magnetic reed – N/C contact Technical data → 875 | | | | |
|  | Cable | 7.5 | ★ 546799 | SME-8M-DO-24V-K-7,5-OE |
| 6 Connecting cable, straight socket Technical data → 1161 | | | | |
|  | – | 2.5 | ★ 541333 | NEBU-M8G3-K-2.5-LE3 |
| | – | 5.0 | ★ 541334 | NEBU-M8G3-K-5-LE3 |
| | – | 2.5 | ★ 541363 | NEBU-M12G5-K-2.5-LE3 |
| | – | 5.0 | ★ 541364 | NEBU-M12G5-K-5-LE3 |
| Angled socket Technical data → 1161 | | | | |
|  | – | 2.5 | ★ 541338 | NEBU-M8W3-K-2.5-LE3 |
| | – | 5.0 | ★ 541341 | NEBU-M8W3-K-5-LE3 |
| | – | 2.5 | 541367 | NEBU-M12W5-K-2.5-LE3 |
| | – | 5.0 | 541370 | NEBU-M12W5-K-5-LE3 |

2) When using the variant DGC-K...-D2 (supply port at both ends), it is only possible to use proximity sensors that can be inserted in the slot from above.

Accessories – Ordering data

| | For Ø | Part no. | Type | |
|------------------------------------------------------------------------------------------------------|---------------|----------------|-----------------------------------|--|
| 7/8 Slot nut Dimensions online: → dgc | | | | |
|  | 18, 25 | 526091 | NST-HMV-M4^{2),3)} | |
|  | 32, 40 | 150914 | NST-5-M5 | |
| | 50, 63, 80 | 150915 | NST-8-M6 | |
|  | 18, 25 | 8003032 | ABAN-1M4-5¹⁾ | |
| 9 Central support Dimensions online: → dgc | | | | |
|  | 18 | 150736 | MUP-18/25 | |
| | | 1711704 | MUP-18/25-P | |
| | 25 | 150736 | MUP-25/25 | |
| | | 1711704 | MUP-18/25-P | |
| | 32 | 150737 | MUP-32 | |
| | 40 | 150738 | MUP-40 | |
| | 50 | 150739 | MUP-50 | |
| | 63 | 150800 | MUP-63 | |
| 80 | 158455 | MUP-80 | | |

| | For Ø | Connection | | Part no. | Type | |
|---------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------|------|----------|---------------|---------------------------|
| | | Thread | O.D. | | | |
| 10 One-way flow control valve with slotted head screw, metal Technical data → 758 | | | | | | |
|  | 18 | M5 | 3 | ★ | 193137 | GRLA-M5-QS-3-D |
| | | | 6 | ★ | 193139 | GRLA-M5-QS-6-D |
| | 25, 32 | G $\frac{1}{8}$ | 8 | | 162966 | GRLA-1/8-QS-8-RS-B |
| | 40, 50 | G $\frac{1}{4}$ | 8 | | 162968 | GRLA-1/4-QS-8-RS-B |
| | 63 | G $\frac{3}{8}$ | 8 | | 162970 | GRLA-3/8-QS-8-RS-B |
| | 80 | G $\frac{1}{2}$ | 12 | ★ | 193152 | GRLA-1/2-QS-12-D |

| | For Ø | Part no. | Type | |
|-----------------------------------------------------------------------------------------------------|-------|---------------|--------------|--|
| 11 Foot mounting Dimensions online: → dgc | | | | |
|  | 18 | 158472 | HP-18 | |
| | 25 | 150731 | HP-25 | |
| | 32 | 150732 | HP-32 | |
| | 40 | 150733 | HP-40 | |
| | 50 | 150734 | HP-50 | |
| | 63 | 150735 | HP-63 | |
| | 80 | 158453 | HP-80 | |

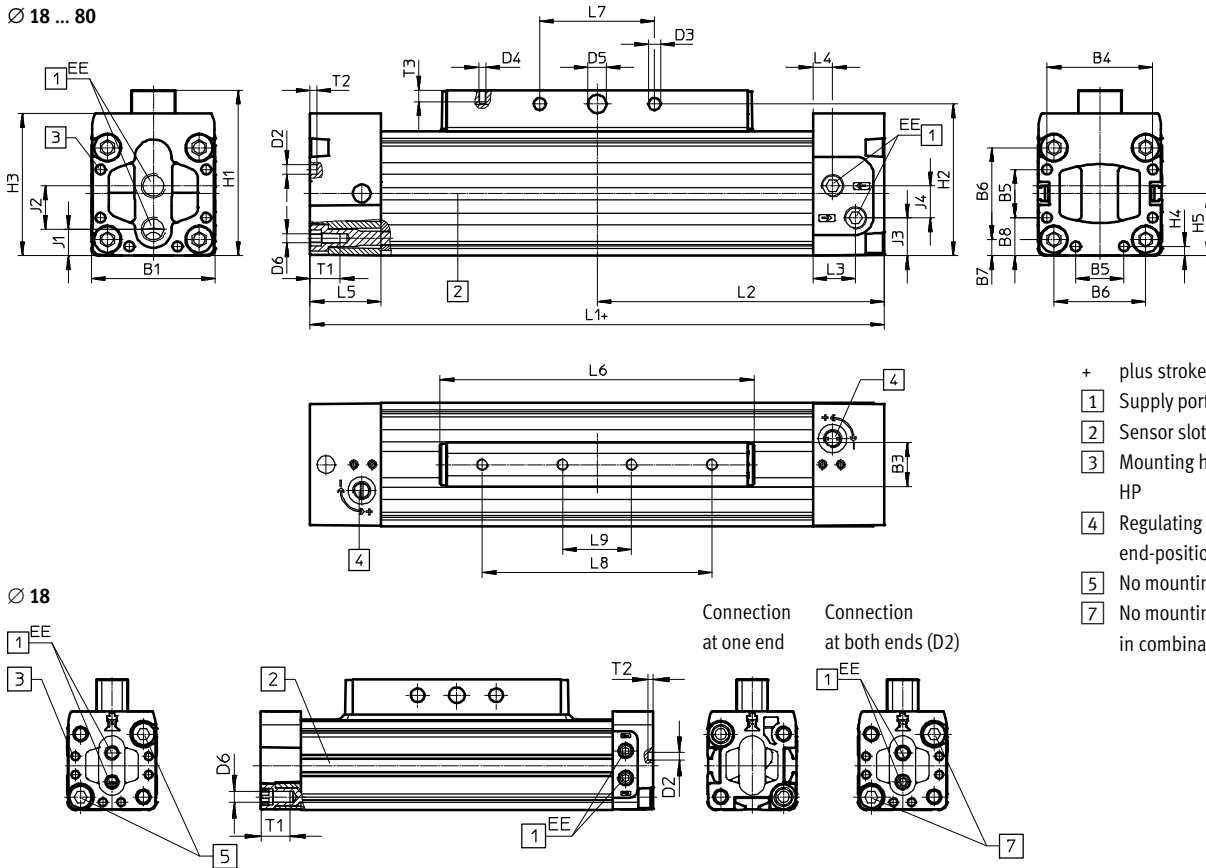
- 1) Packaging unit 4 pieces.
- 2) Packaging unit 10 pieces.
- 3) Piston size 18 and 25 cannot be used with DGC...-D2 (supply port at both ends).

Linear drives DGC-K

1

Dimensions

∅ 18 ... 80



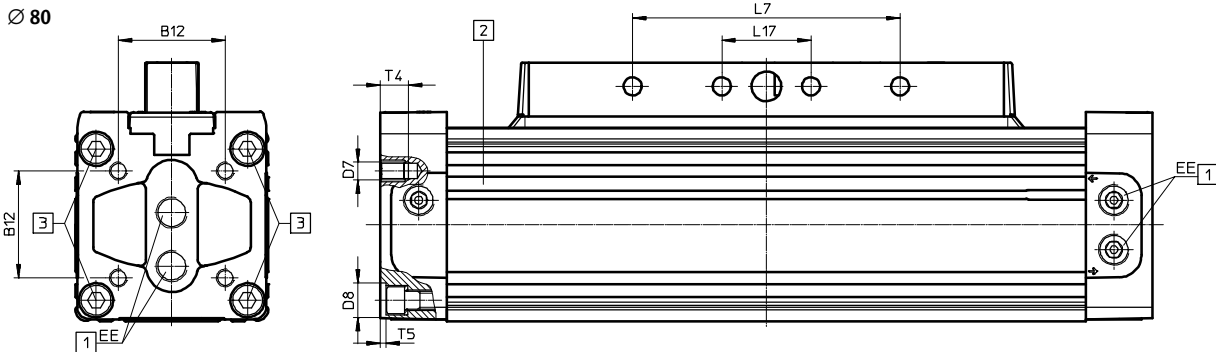
- + plus stroke length
- 1 Supply port options on 3 sides
- 2 Sensor slot for proximity sensor
- 3 Mounting hole for foot mounting HP
- 4 Regulating screw for adjustable end-position cushioning
- 5 No mounting thread with ∅ 18
- 7 No mounting thread with ∅ 18, in combination with variant D2

| ∅ | B1 | B3 | B4 | B5 | B6 | B7 | B8 | D2 | D3 | D4 | D5 | D6 | EE |
|------|--------------------------|------|------|----|------|------|------|-----|------|-----|-------------------|----|------|
| [mm] | | ±0.2 | | | | | | ∅ | ∅ | | ∅ | | |
| 18 | 34 ^{+0.2/-0.05} | 12 | 28 | 7 | 24 | 5 | 13.5 | 3 | 5.2 | M5 | 6 ^{H7} | M5 | M5 |
| 25 | 45 ^{+0.4} | 19 | 39.1 | 18 | 32.5 | 6.3 | 13.5 | 3.3 | 5.2 | M5 | 8 ^{H7} | M4 | G1/8 |
| 32 | 54 ^{+0.4} | 19 | 46 | 21 | 40 | 7 | 16.5 | 4.3 | 5.2 | M5 | 8 ^{H7} | M5 | G1/8 |
| 40 | 64 ^{+0.4} | 21 | 53 | 28 | 49 | 7.5 | 18 | 4.3 | 6.5 | M6 | 10 ^{H7} | M5 | G1/4 |
| 50 | 90 ^{+0.4} | 24 | 76 | 44 | 72 | 9 | 23 | 6.3 | 8.5 | M 8 | 12 ^{H7} | M6 | G1/4 |
| 63 | 106 ^{+0.4} | 24 | 89 | 44 | 83 | 11.5 | 31 | 6.3 | 8.5 | M 8 | 12 ^{H7} | M8 | G3/8 |
| 80 | 130 ^{+0.8} | 36 | - | - | 102 | 14 | 29 | - | 12.2 | M12 | 20 ^{H10} | - | G1/2 |

| ∅ | H1 | H2 | H3 | H4 | H5 | J1 | J2 | J3 | J4 | L1 | | L2 | |
|------|------|------|-------|-----|------|------|------|------|------|-----|-----|-----|-----|
| | | | | | | | | | | GK | GV | GK | GV |
| [mm] | | | | | | | | | | | | | |
| 18 | 49.8 | 43.8 | 37.6 | 3 | 17 | 10.7 | 11.1 | 12.2 | 10.4 | 150 | 230 | 75 | 115 |
| 25 | 63 | 57 | 51 | 3 | 22.5 | 9 | 16.7 | 15.7 | 13 | 200 | 300 | 100 | 150 |
| 32 | 72 | 66 | 61.8 | 4 | 27 | 11.4 | 19 | 17.1 | 14 | 250 | 380 | 125 | 190 |
| 40 | 86 | 78 | 71.8 | 5.5 | 32 | 13.5 | 22 | 19.5 | 21 | 300 | 470 | 150 | 235 |
| 50 | 115 | 106 | 99 | 7 | 45 | 21 | 30.8 | 27 | 29.3 | 350 | 550 | 175 | 275 |
| 63 | 131 | 122 | 115 | 8.5 | 53 | 25 | 36 | 32 | 33 | 400 | 650 | 200 | 325 |
| 80 | 174 | 158 | 140.5 | - | 85 | 37 | 36 | 48.1 | 33.3 | 520 | - | 260 | - |

| ∅ | L3 | L4 | L5 | L6 | | L7 | L8 | L9 | T1 | T2 | T3 |
|------|------|------|------|-----|-----|----------|----------|----------|------|----|------|
| | | | | GK | GV | | | | | | |
| [mm] | | | | | | | | | | | |
| 18 | 5 | 5 | 15.5 | 85 | 165 | 30±0.1 | 60±0.1 | - | 11 | 2 | 10 |
| 25 | 17 | 7 | 25 | 109 | 209 | 30±0.1 | 50±0.1 | - | 13 | 2 | 7.5 |
| 32 | 18.5 | 8.5 | 31 | 135 | 265 | 50±0.1 | 100±0.1 | 30±0.1 | 13.2 | 3 | 7.5 |
| 40 | 11.5 | 11.5 | 31 | 171 | 341 | 70±0.1 | 130±0.1 | 40±0.1 | 13.2 | 4 | 10.5 |
| 50 | 14 | 14 | 34 | 206 | 406 | 80±0.1 | 150±0.1 | 50±0.1 | 15.2 | 6 | 12.5 |
| 63 | 13.5 | 13.5 | 34 | 234 | 484 | 110±0.1 | 190±0.1 | 70±0.1 | 21.2 | 6 | 12.5 |
| 80 | 19 | 19 | 45 | 334 | - | 180±0.15 | 230±0.15 | 115±0.15 | - | - | 19 |

Dimensions

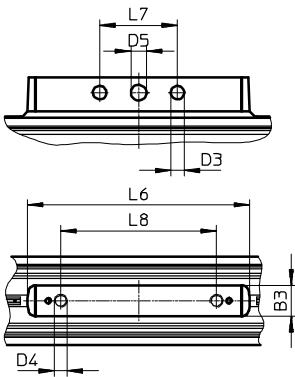


- 1 Supply port options on 3 sides
- 2 Sensor slot for proximity sensor
- 3 Mounting hole for foot mounting HP

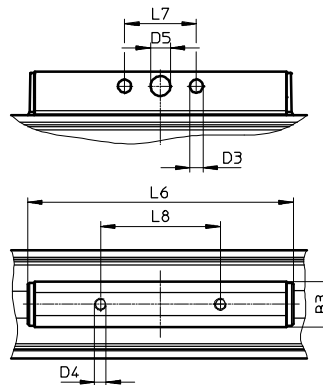
| ∅ | B12 | D7 | D8 | EE | L7 | L17 | T4 | T5 |
|------|-----|-----|----|----|----------|-------|----|----|
| [mm] | | | ∅ | | | ±0.15 | | |
| 80 | 72 | M12 | 23 | G½ | 180±0.15 | 60 | 18 | 4 |

GK – Standard piston

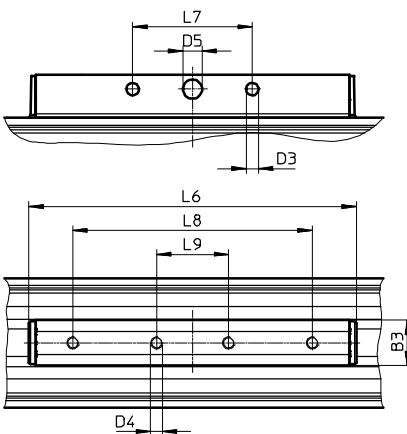
∅ 18



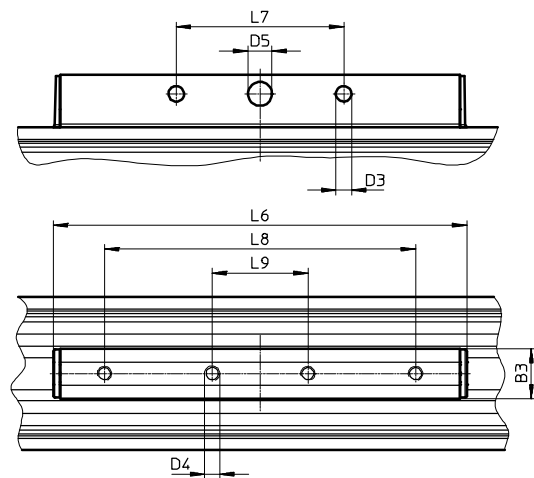
∅ 25



∅ 32



∅ 40



| ∅ | B3 | D3 | D4 | D5 | L6 | L7 | L8 | L9 |
|------|------|------|----|---------|-----|------|------|------|
| [mm] | ±0.2 | +0.2 | | ∅ H7 | | ±0.1 | ±0.1 | ±0.1 |
| 18 | 12 | 5.2 | M5 | 6 | 85 | 30 | 60 | – |
| 25 | 19 | 5.2 | M5 | 8 | 109 | 30 | 50 | – |
| 32 | 19 | 5.2 | M5 | 8 | 135 | 50 | 100 | 30 |
| 40 | 21 | 6.5 | M6 | 10 | 171 | 70 | 130 | 40 |

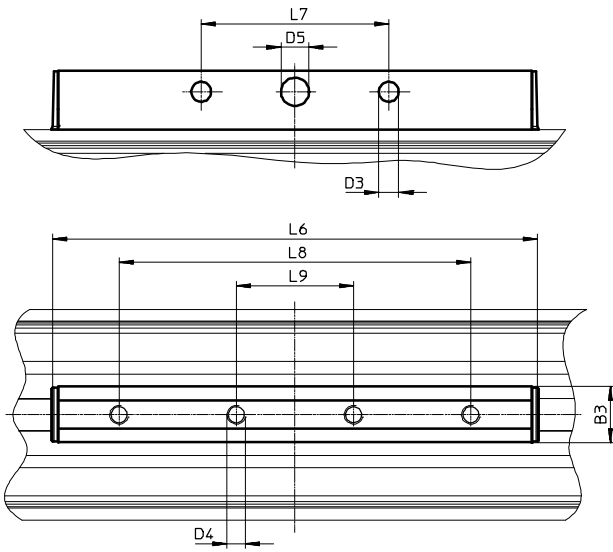
Linear drives DGC-K

1

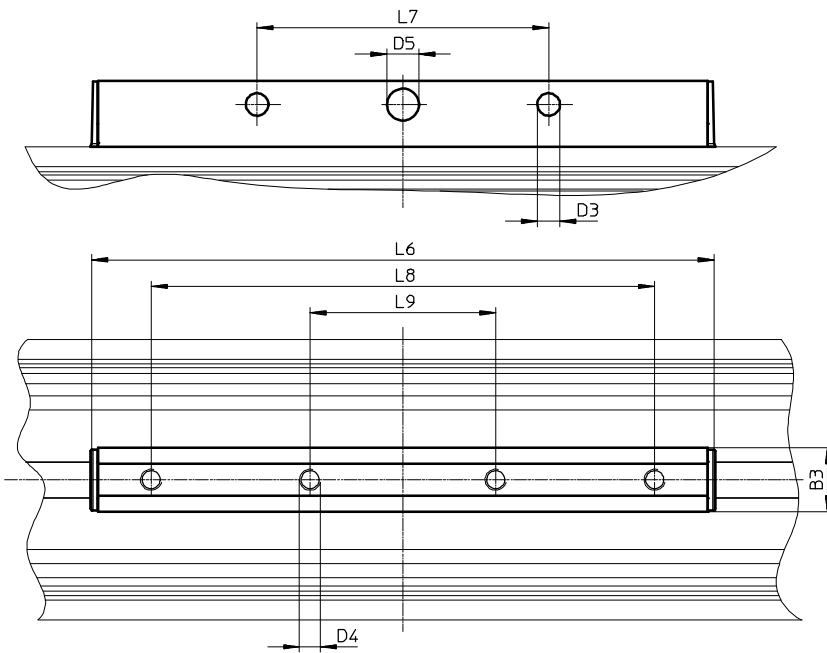
Dimensions

GK – Standard piston

Ø 50



Ø 63

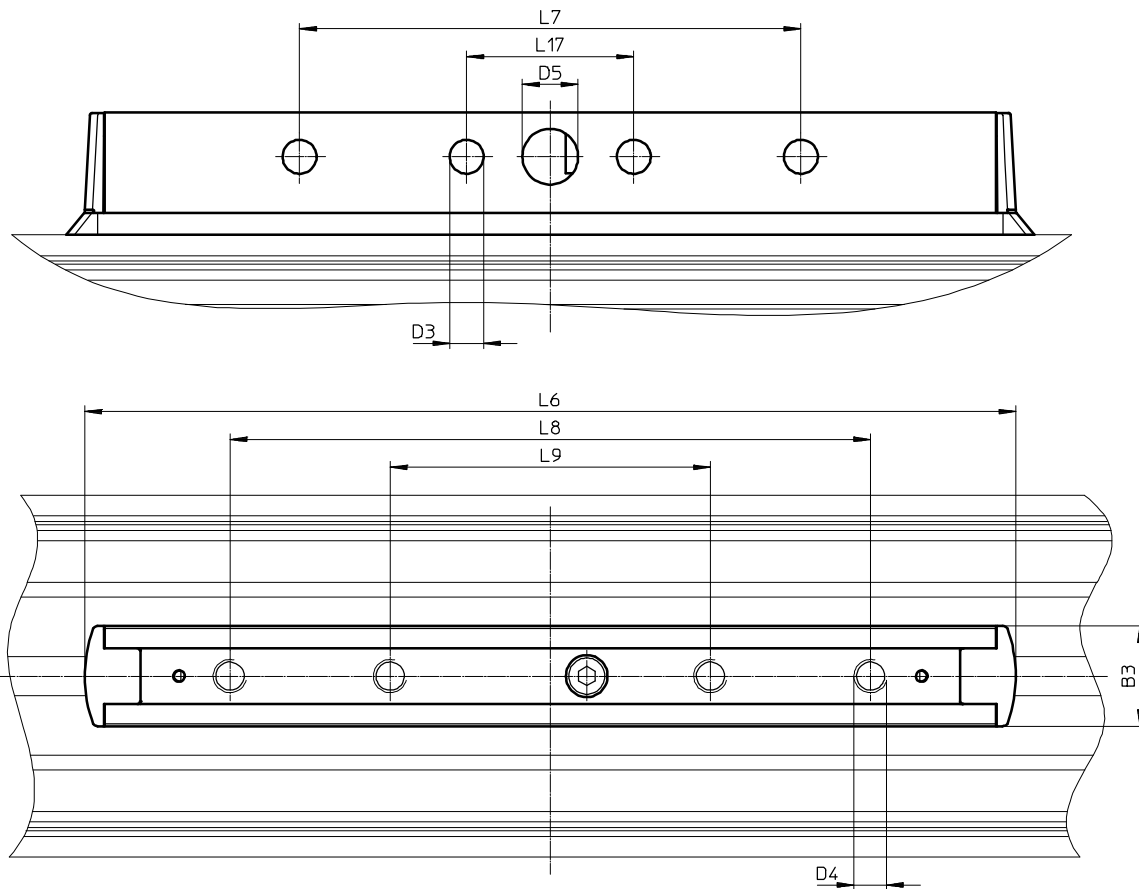


| Ø | B3 | D3 | D4 | D5 | L6 | L7 | L8 | L9 |
|------|------|-----------|-----|---------|-----|------|------|------|
| [mm] | ±0.2 | Ø +0.2 | | Ø H7 | | ±0.1 | ±0.1 | ±0.1 |
| 50 | 24 | 8.5 | M 8 | 12 | 206 | 80 | 150 | 50 |
| 63 | 24 | 8.5 | M 8 | 12 | 234 | 110 | 190 | 70 |

Dimensions

GK – Standard piston

∅ 80



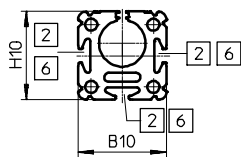
| ∅ | B3 | D3 | D4 | D5 | L6 | L7 | L8 | L9 | L17 |
|------|------|-----------|-----|----------|-----|-------|-------|-------|-----|
| [mm] | ±0.2 | ∅ +0.2 | | ∅ H10 | | ±0.15 | ±0.15 | ±0.15 | |
| 80 | 36 | 12.2 | M12 | 20 | 334 | 180 | 230 | 115 | 60 |

Linear drives DGC-K

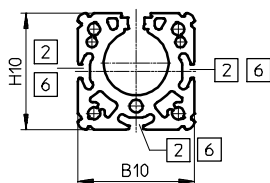
Dimensions

Profile barrel

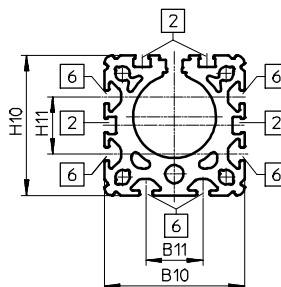
Ø 18



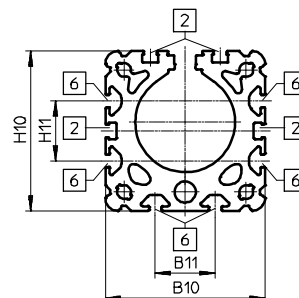
Ø 25



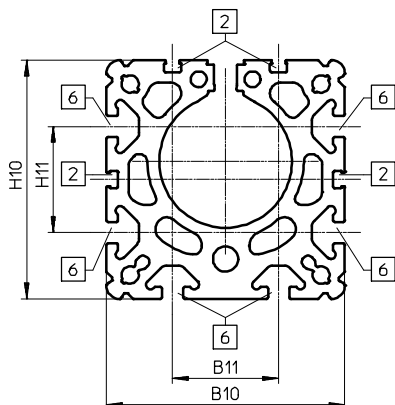
Ø 32



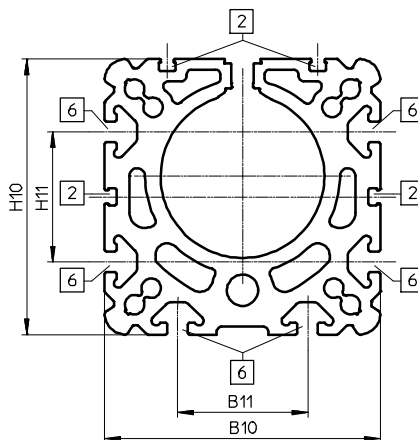
Ø 40



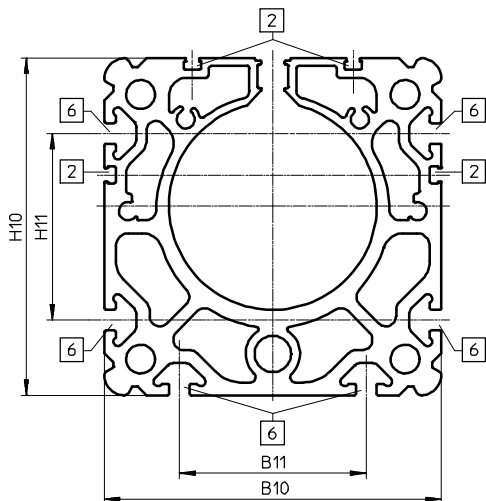
Ø 50



Ø 63



Ø 80



- 2 Sensor slot for proximity sensor
- 6 Mounting slot for slot nut

| Ø | B10 | B11 | H10 | H11 |
|------|-----|-----|-----|-----|
| [mm] | | | | |
| 18 | 34 | - | 34 | - |
| 25 | 45 | - | 45 | - |
| 32 | 54 | 22 | 54 | 22 |
| 40 | 64 | 24 | 64 | 24 |
| 50 | 90 | 40 | 90 | 40 |
| 63 | 106 | 50 | 106 | 50 |
| 80 | 130 | 72 | 130 | 72 |



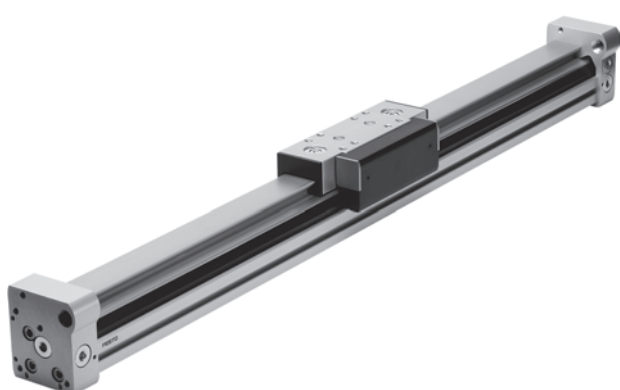
Overview/Configuration/Ordering
→ www.festo.com/catalogue/dgc



Additional information/Support/User documentation
→ www.festo.com/sp/dgc

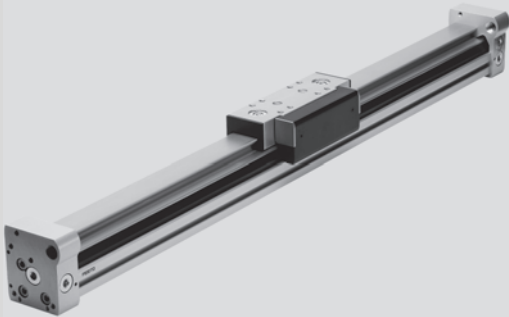
Rodless cylinders
Mechanically coupled cylinders
Linear drives

DGC



- + Basic design, plain or recirculating ball bearing guide
- + Optimised mounting options
- + High-precision guide
- + Optimised sealing system
- + All settings accessible from one side
- + Optionally with variable end stops and intermediate position module
- + Exchangeable with DGPL thanks to foot mountings
- + Software tool available for bearing calculation
- + Optional: NSF-H1 lubricant for the food industry
- + Optional: clamping unit for holding loads

Linear drives DGC



- Compact dimensions
- Quick and sturdy installation and mounting
- High precision and load carrying capacity
- Excellent running characteristics and low air consumption
- Precision interfaces
- Many additional features
- Spare parts service

→ www.festo.com/catalogue/dgc

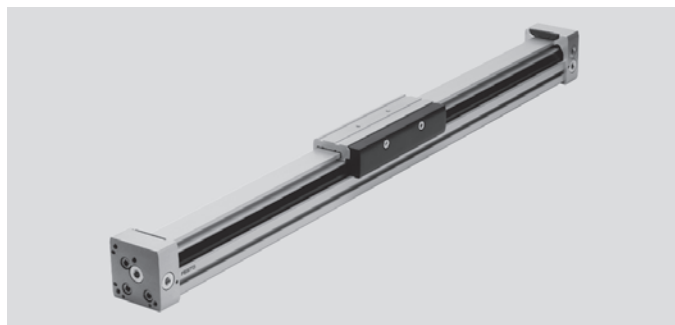
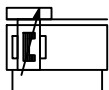
Product range overview

| Type/function | Piston Ø [mm] | Stroke [mm] | Force [N] | Product options | | | | | → Page/online |
|---------------|------------------------------------------------------|-------------|--------------|-----------------|-----|-----|------|---|------------------------|
| | | | | P | PPV | YSR | YSRW | A | |
| Double-acting | DGC-...-K – Compact design | | | | | | | | |
| | 18, 25, 32, 40, 50, 63, 80 | 1 ... 8500 | 153 ... 3016 | - | ■ | - | - | ■ | 171 |
| | DGC-...-G – Basic design | | | | | | | | |
| | 8, 12, 18, 25, 32, 40, 50, 63 | 1 ... 8500 | 30 ... 1870 | ■ | ■ | ■ | ■ | ■ | 183 |
| | DGC-...-GF – Plain-bearing guide | | | | | | | | |
| | 18, 25, 32, 40, 50, 63 | 1 ... 8500 | 153 ... 1870 | - | ■ | ■ | ■ | ■ | 186 |
| Double-acting | DGC-...-KF – Recirculating ball bearing guide | | | | | | | | |
| | 8, 12, 18, 25, 32, 40, 50, 63 | 1 ... 8500 | 30 ... 1870 | ■ | ■ | ■ | ■ | ■ | 189 |
| | DGC-...-HD – Heavy-duty design | | | | | | | | |
| | 18, 25, 40 | 10 ... 5000 | 153 ... 754 | - | - | ■ | ■ | ■ | 213 |
| Without drive | DGC-FA – Passive guide axis | | | | | | | | |
| | 8, 12, 18, 25, 32, 40, 50, 63 | 1 ... 5000 | - | ■ | - | ■ | ■ | - | dgc-fa |

Product options

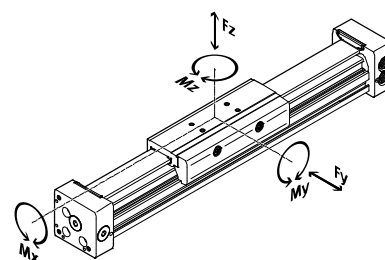
| | | | | | | | |
|-----|-----------------------------------------------|------|---------------------------------------------|----|---------------------------------------------------|----|--------------------------------------|
| N | NPT thread | YSRW | Self-adjusting shock absorber, progressive | H1 | Lubrication approved for use in food applications | 1H | Clamping unit |
| P | Elastic cushioning rings/plates at both ends | A | Position sensing | C | Lubrication adapter | PN | Pneumatically actuated clamping unit |
| PPV | Pneumatic cushioning, adjustable at both ends | DL | Supply port at the left end or at both ends | KL | Additional slide on left | | |
| YSR | Self-adjusting shock absorber | GP | Protected recirculating ball bearing guide | KR | Additional slide on right | | |

Data sheet



Technical data

Dimensions → 195



| Piston | 8 | 12 | 18 | 25 | 32 | 40 | 50 | 63 |
|--------------------------------------|--------------------------------------------|------------|-----------------------------------------------|------------|------|------|------|------------|
| Pneumatic port | M5 | | | G1/8 | | G1/4 | | G3/8 |
| Stroke [mm] | 1 ... 1500 | 1 ... 2000 | 1 ... 3000 | 1 ... 8500 | | | | 1 ... 5000 |
| Cushioning | | | | | | | | |
| DGC-...-P | Elastic cushioning rings/pads at both ends | | - | | | | | |
| DGC-...-PPV | - | | Pneumatic cushioning, adjustable at both ends | | | | | |
| DGC-...-YSR... | Self-adjusting shock absorber at both ends | | - | | | | | |
| Cushioning length ¹⁾ [mm] | - | | 16.5 | 15.5 | 17.5 | 29.5 | 29.8 | 31.1 |
| Theoretical force at 6 bar [N] | 30 | 68 | 153 | 295 | 483 | 754 | 1178 | 1870 |
| Max. permissible force F_y [N] | 150 | 300 | 70 | 180 | 250 | 370 | 480 | 650 |
| Max. permissible force F_z [N] | 150 | 300 | 340 | 540 | 800 | 1100 | 1600 | 2000 |
| Max. permissible torque M_x [Nm] | 0.5 | 1.3 | 1.9 | 4 | 9 | 12 | 20 | 26 |
| Max. permissible torque M_y [Nm] | 2 | 5 | 12 | 20 | 40 | 60 | 150 | 150 |
| Max. permissible torque M_z [Nm] | 2 | 5 | 4 | 5 | 12 | 25 | 37 | 48 |

1) With PPV cushioning.

Operating conditions

| Piston | 8 | 12 | 18 | 25 | 32 | 40 | 50 | 63 |
|----------------------------------------|------------|-------------|---------|----|----|-----------|----|----|
| Operating pressure [bar] | 2.5 ... 8 | | 2 ... 8 | | | 1.5 ... 8 | | |
| Ambient temperature ²⁾ [°C] | +5 ... +60 | -10 ... +60 | | | | | | |

2) Note operating range of proximity sensors.

Materials

| | |
|---------------------------|--------------------|
| Guide rail | Anodised aluminium |
| Slide | Anodised aluminium |
| End cap | Anodised aluminium |
| Cylinder barrel | Anodised aluminium |
| Piston seal | TPE-U (PU) |
| Sealing band / Cover band | TPE-U (PU) |
| Slide elements | PA |

Linear drives DGC-G, basic design

1

Order code

| | | | | | | | | | | | | | |
|----------------------------|--------------------------------------------------------|---|--|---|--|---|---|---|--|---|---|---|---|
| DGC | | - | | - | | - | G | - | | - | A | - | |
| Type | | | | | | | | | | | | | |
| DGC | Linear drive | | | | | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | | | | | |
| | Stroke [mm] | | | | | | | | | | | | |
| 8 | 1 ... 1500 | | | | | | | | | | | | |
| 12 | 1 ... 2000 | | | | | | | | | | | | |
| 18 | 1 ... 3000 | | | | | | | | | | | | |
| 25, 32, 40 | 1 ... 8500 | | | | | | | | | | | | |
| 50, 63 | 1 ... 5000 | | | | | | | | | | | | |
| Guidance | | | | | | | | | | | | | |
| G | Basic design | | | | | | | | | | | | |
| Cushioning | | | | | | | | | | | | | |
| P | Elastic cushioning rings/ plates at both ends | | | | | | | | | | | | 1 |
| PPV | Pneumatic cushioning, adjustable at both ends | | | | | | | | | | | | 2 |
| YSR | Self-adjusting shock absorber at both ends | | | | | | | | | | | | 1 |
| YSRW | Self-adjusting progressive shock absorber at both ends | | | | | | | | | | | | 1 |
| Position sensing | | | | | | | | | | | | | |
| A | Via proximity sensors | | | | | | | | | | | | |
| Bedienungsanleitung | | | | | | | | | | | | | |
| O | Without operating instructions | | | | | | | | | | | | |

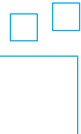
- 1 Only with piston Ø 8 and 12
- 2 Not with piston Ø 8 and 12

Order example:

DGC-25-200-G-PPV-A-0

Linear drive DGC - piston diameter 25 mm - stroke 200 mm - basic design - pneumatic cushioning, adjustable at both ends - position sensing via proximity sensor - without operating instructions

Ordering – Product options

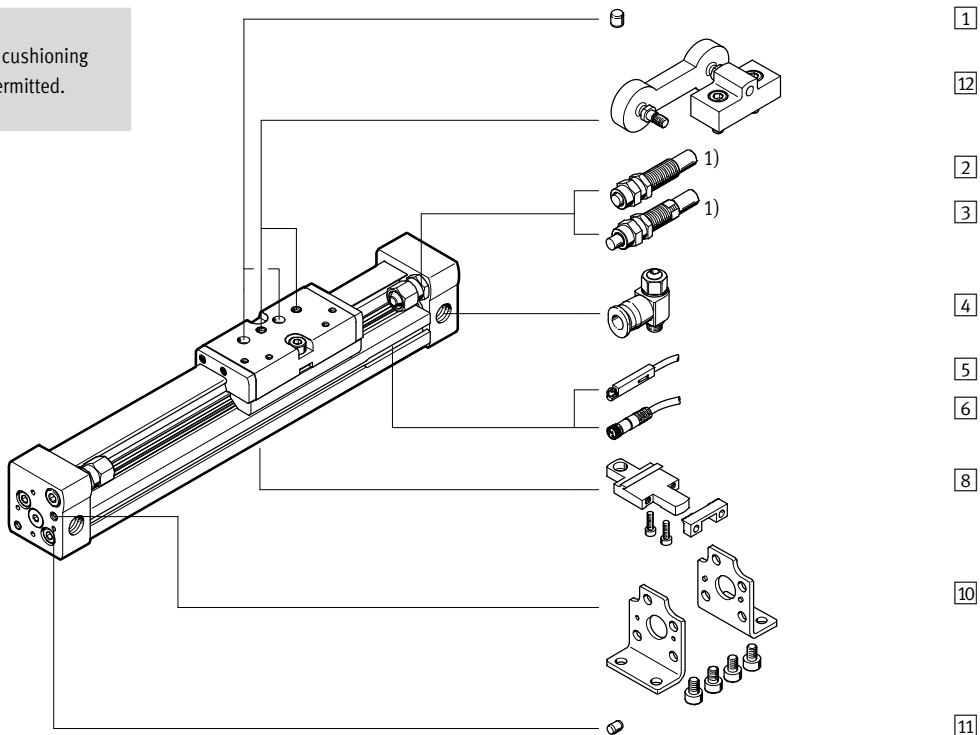
| | | | | |
|-------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
|  | <p>Configurable product</p> | <p>This product and all its options can be ordered using the configurator.</p> | <p>The configurator can be found under Products on the DVD or</p> <p>→ www.festo.com/catalogue/...</p> | <p>Enter the type code in the search field.</p> |
|-------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|

Accessories

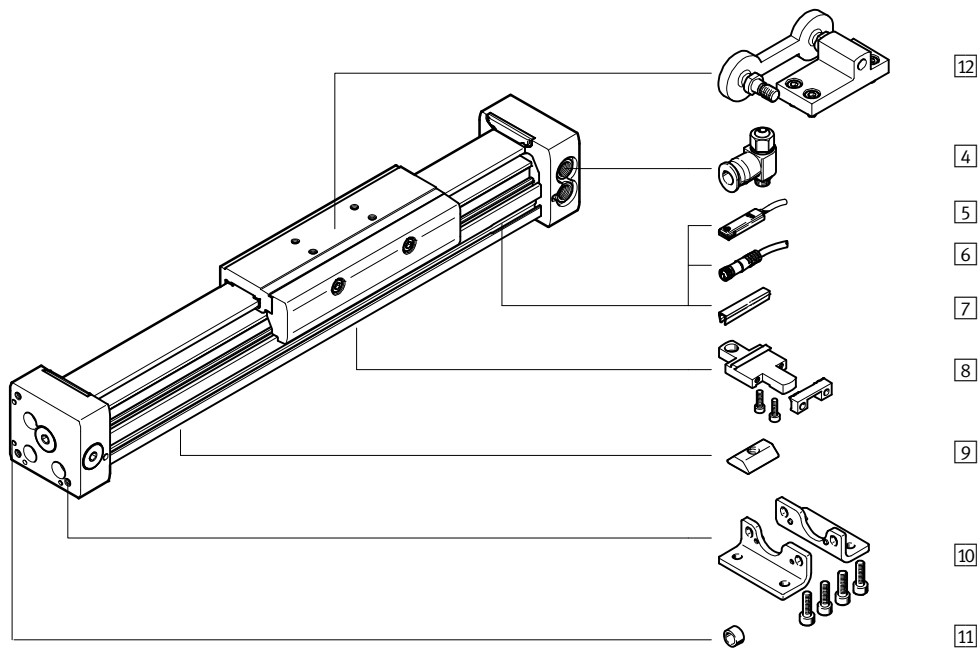
DGC-8/-12

Note

1) Operation without cushioning components is not permitted.



DGC-18 ... 63



| | | → Page/online |
|---|---------------------------------|---------------|
| 1 | Centring pin ZBS ¹⁾ | 192 |
| 2 | Shock absorber YSR | 184 |
| 3 | Shock absorber YSRW-DGC | 192 |
| 4 | One-way flow control valve GRLA | 192 |
| 5 | Proximity sensor SME/SMT | 193 |
| 6 | Connecting cable NEBU | 193 |

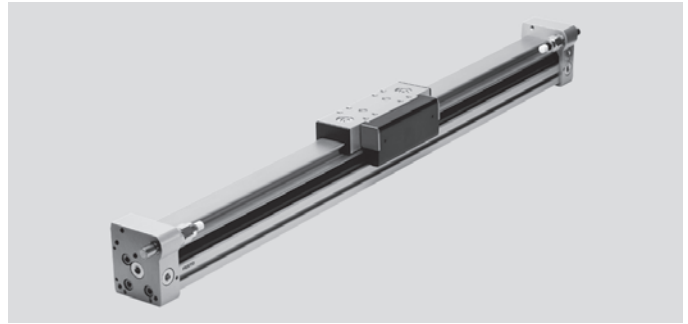
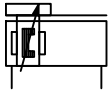
| | | → Page/online |
|----|--------------------------------------|---------------|
| 7 | Slot cover ABP-S | 194 |
| 8 | Profile mounting MUC | 194 |
| 9 | Slot nut HMBN | 194 |
| 10 | Foot mounting HPC | 194 |
| 11 | Centring pin ZBS/centring sleeve ZBH | 192 |
| 12 | Moment compensator FKC | 194 |

1) Included in the scope of delivery of the drive.

Linear drives DGC-GF, with plain-bearing guide

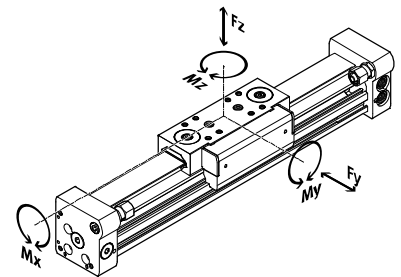
1

Data sheet



Technical data

Dimensions → 200



| Piston | 18 | 25 | 32 | 40 | 50 | 63 |
|--------------------------------------|-----------------------------------------------|------------|------|------|------------|------|
| Pneumatic port | M5 | G1/8 | | G1/4 | | G3/8 |
| Stroke [mm] | 1 ... 3000 | 1 ... 8500 | | | 1 ... 5000 | |
| Cushioning | | | | | | |
| DGC-...-PPV | Pneumatic cushioning, adjustable at both ends | | | | | |
| DGC-...-YSR... | Self-adjusting shock absorber at both ends | | | | | |
| Cushioning length ¹⁾ [mm] | 16.5 | 15.5 | 17.5 | 29.5 | 29.8 | 31.1 |
| Theoretical force at 6 bar [N] | 153 | 295 | 483 | 754 | 1178 | 1870 |
| Max. permissible force F_y [N] | 440 | 640 | 900 | 1380 | 1500 | 2300 |
| Max. permissible force F_z [N] | 540 | 1300 | 1800 | 2000 | 2870 | 4460 |
| Max. permissible torque M_x [Nm] | 3.4 | 8.5 | 15 | 28 | 54 | 96 |
| Max. permissible torque M_y [Nm] | 20 | 40 | 70 | 110 | 270 | 450 |
| Max. permissible torque M_z [Nm] | 8.5 | 20 | 33 | 54 | 103 | 187 |

1) With PPV cushioning.

| Operating conditions | | | | | | |
|----------------------------------------|-------------|----|----|-----------|----|----|
| Piston | 18 | 25 | 32 | 40 | 50 | 63 |
| Operating pressure [bar] | 2 ... 8 | | | 1.5 ... 8 | | |
| Ambient temperature ²⁾ [°C] | -10 ... +60 | | | | | |

2) Note operating range of proximity sensors.

| Materials | |
|--------------------------|--------------------|
| Guide rail | Anodised aluminium |
| Slide | Anodised aluminium |
| End cap | Anodised aluminium |
| Cylinder barrel | Anodised aluminium |
| Piston seal | TPE-U (PU) |
| Sealing band/cover strip | TPE-U (PU) |
| Slide elements | PA |

Order code

| | | | | | | | | | | | | | | | |
|-------------------------------|--------------------------------------------------------|-----|---|--|---|--|---|----|---|--|---|---|---|--|--|
| | | DGC | - | | - | | - | GF | - | | - | A | - | | |
| Type | | | | | | | | | | | | | | | |
| DGC | Linear drive | | | | | | | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | | | | | | | |
| | Stroke [mm] | | | | | | | | | | | | | | |
| 18 | 1 ... 3000 | | | | | | | | | | | | | | |
| 25, 32, 40 | 1 ... 8500 | | | | | | | | | | | | | | |
| 50, 63 | 1 ... 5000 | | | | | | | | | | | | | | |
| Guide | | | | | | | | | | | | | | | |
| GF | Plain-bearing guide | | | | | | | | | | | | | | |
| Cushioning | | | | | | | | | | | | | | | |
| PPV | Pneumatic cushioning, adjustable at both ends | | | | | | | | | | | | | | |
| YSR | Self-adjusting shock absorber at both ends | | | | | | | | | | | | | | |
| YSRW | Self-adjusting progressive shock absorber at both ends | | | | | | | | | | | | | | |
| Position sensing | | | | | | | | | | | | | | | |
| A | Via proximity sensors | | | | | | | | | | | | | | |
| Operating instructions | | | | | | | | | | | | | | | |
| O | Without operating instructions | | | | | | | | | | | | | | |

Order example:

DGC-18-250-GF-PPV-A-O

Linear drive DGC - piston diameter 18 mm - stroke 250 mm - plain-bearing guide - adjustable pneumatic cushioning at both ends - position sensing via proximity sensor - without operating instructions

Ordering – Product options

| | | | | |
|--|------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| | <p>Configurable product</p> | <p>This product and all its options can be ordered using the configurator.</p> | <p>The configurator can be found under Products on the DVD or → www.festo.com/catalogue/...</p> | <p>Enter the type code in the search field.</p> |
|--|------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|

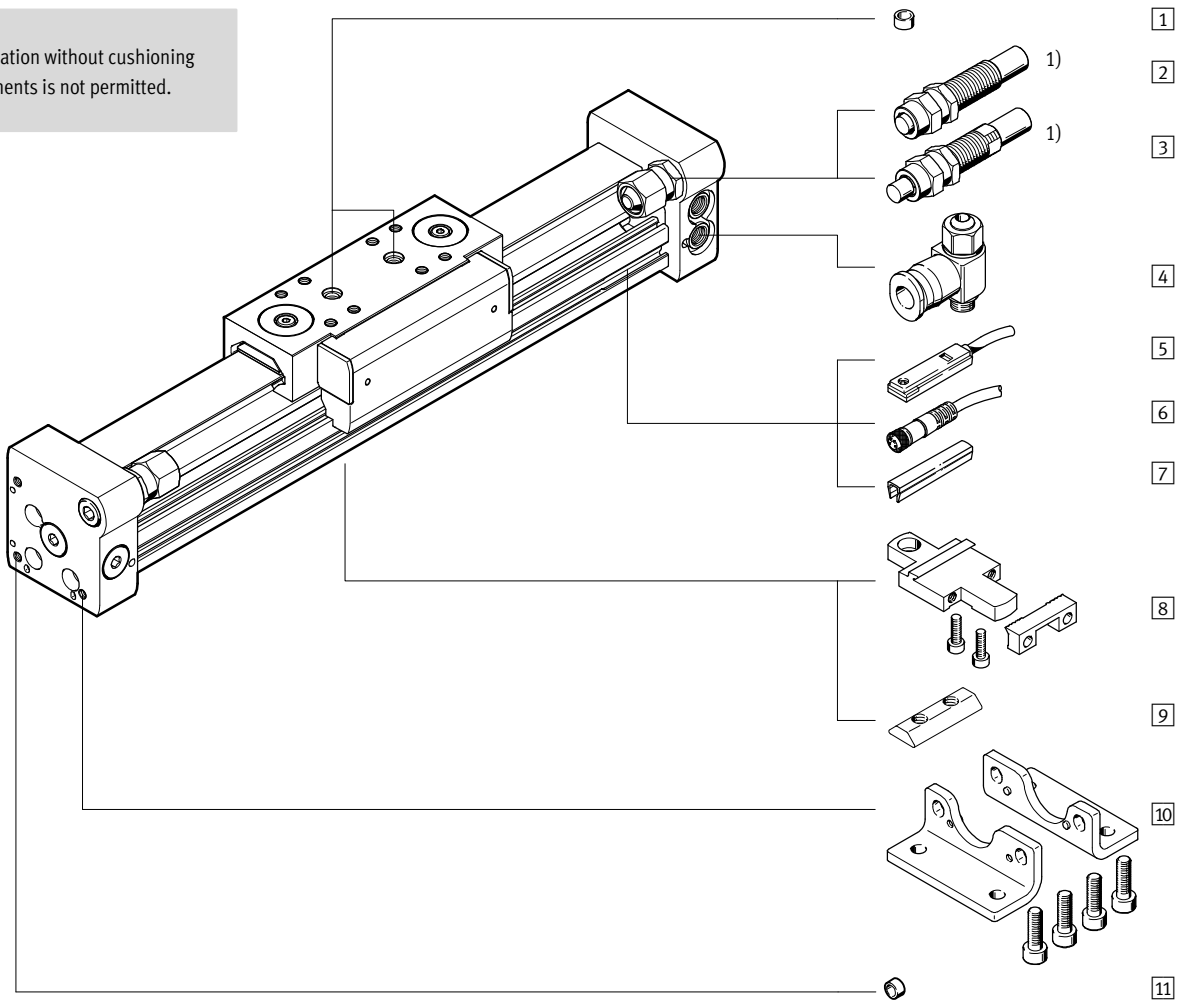
Linear drives DGC-GF, with plain-bearing guide

1

Accessories

Note

1) Operation without cushioning components is not permitted.

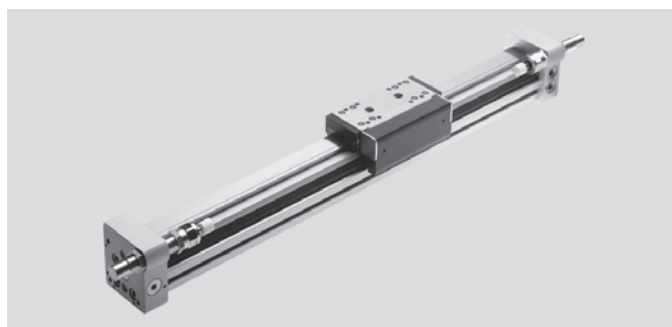
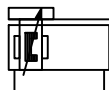


| | | → Page/online |
|---|-------------------------------------------|---------------|
| 1 | Centring pin/sleeve ZBS/ZBH ¹⁾ | 192 |
| 2 | Shock absorber YSR | 187 |
| 3 | Shock absorber YSRW-DGC | 192 |
| 4 | One-way flow control valve GRLA | 192 |
| 5 | Proximity sensor SME-/SMT-8 | 193 |
| 6 | Connecting cable NEBU | 193 |

| | | → Page/online |
|----|----------------------|---------------|
| 7 | Slot cover ABP-S | 194 |
| 8 | Profile mounting MUC | 194 |
| 9 | Slot nut HMBN | 194 |
| 10 | Foot mounting HPC | 194 |
| 11 | Centring sleeve ZBH | 192 |

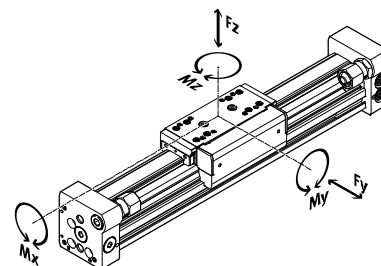
1) Included in the scope of delivery of the axis.

Data sheet



Technical data

Dimensions → 205



| Piston | 8 | 12 | 18 | 25 | 32 | 40 | 50 | 63 |
|--------------------------------------|--------------------------------------------|------------|-----------------------------------------------|-----------------|------|-----------------|------|-----------------|
| Pneumatic port | M5 | | | G $\frac{1}{8}$ | | G $\frac{1}{4}$ | | G $\frac{3}{8}$ |
| Stroke [mm] | 1 ... 1300 | 1 ... 1900 | 1 ... 3000 | 1 ... 8500 | | | | |
| Cushioning | | | | | | | | |
| DGC-...-P | Elastic cushioning rings/pads at both ends | | – | | | | | |
| DGC-...-PPV | – | | Pneumatic cushioning, adjustable at both ends | | | | | |
| DGC-...-YSR... | Self-adjusting shock absorber at both ends | | | | | | | |
| Cushioning length ¹⁾ [mm] | – | | 16.5 | 15.5 | 17.5 | 29.5 | 29.8 | 31.1 |
| Theoretical force at 6 bar [N] | 30 | 68 | 153 | 295 | 483 | 754 | 1178 | 1870 |
| Max. permissible force F_y [N] | 300 | 650 | 1850 | 3050 | 3310 | 6890 | 6890 | 15200 |
| Max. permissible force F_z [N] | 300 | 650 | 1850 | 3050 | 3310 | 6890 | 6890 | 15200 |
| Max. permissible torque M_x [Nm] | 1.7 | 3.5 | 16 | 36 | 54 | 144 | 144 | 529 |
| Max. permissible torque M_y [Nm] | 4.5 | 10 | 51 | 97 | 150 | 380 | 634 | 1157 |
| Max. permissible torque M_z [Nm] | 4.5 | 10 | 51 | 97 | 150 | 380 | 634 | 1157 |

1) With PPV cushioning.

Operating conditions

| Piston | 8 | 15 | 18 | 25 | 32 | 40 | 50 | 63 |
|----------------------------------------|-------------|----|---------|----|----|-----------|----|----|
| Operating pressure [bar] | 2.5 ... 8 | | 2 ... 8 | | | 1.5 ... 8 | | |
| Ambient temperature ²⁾ [°C] | –10 ... +60 | | | | | | | |

2) Note operating range of proximity sensors.

Materials

| | |
|--------------------------|--------------------|
| Guide rail | High-alloy steel |
| Slide | High-alloy steel |
| End cap | Anodised aluminium |
| Cylinder barrel | Anodised aluminium |
| Piston seal | TPE-U (PU) |
| Sealing band/cover strip | TPE-U (PU) |
| Slide elements | PA |

Linear drives DGC-KF, with recirculating ball bearing guide

1

Order code

| | | | | | | | | | | | | | |
|-------------------------------|--------------------------------------------------------|---|--|---|--|---|----|---|--|---|---|---|---|
| DGC | | - | | - | | - | KF | - | | - | A | - | |
| Type | | | | | | | | | | | | | |
| DGC | Linear drive | | | | | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | | | | | |
| | Stroke [mm] | | | | | | | | | | | | |
| 8 | 1 ... 1300 | | | | | | | | | | | | |
| 12 | 1 ... 1900 | | | | | | | | | | | | |
| 18 | 1 ... 3000 | | | | | | | | | | | | |
| 25, 32, 40 | 1 ... 8500 | | | | | | | | | | | | |
| 50, 63 | 1 ... 5000 | | | | | | | | | | | | |
| Guide | | | | | | | | | | | | | |
| KF | Recirculating ball bearing guide | | | | | | | | | | | | |
| Cushioning | | | | | | | | | | | | | |
| P | Elastic cushioning rings/ plates at both ends | | | | | | | | | | | | 1 |
| PPV | Pneumatic cushioning, adjustable at both ends | | | | | | | | | | | | 2 |
| YSR | Self-adjusting shock absorber at both ends | | | | | | | | | | | | |
| YSRW | Self-adjusting progressive shock absorber at both ends | | | | | | | | | | | | |
| Position sensing | | | | | | | | | | | | | |
| A | Via proximity sensors | | | | | | | | | | | | |
| Operating instructions | | | | | | | | | | | | | |
| O | Without operating instructions | | | | | | | | | | | | |


- 1 Only with piston Ø 8 and 12
- 2 Not with piston Ø 8 and 12

Order example:

DGC-12-200-KF-YSRW-A-O

Linear drive DGC - piston diameter 12 mm - stroke 200 mm - recirculating ball bearing guide - shock absorber at both ends, self-adjusting, progressive - position sensing via proximity sensor - without operating instructions

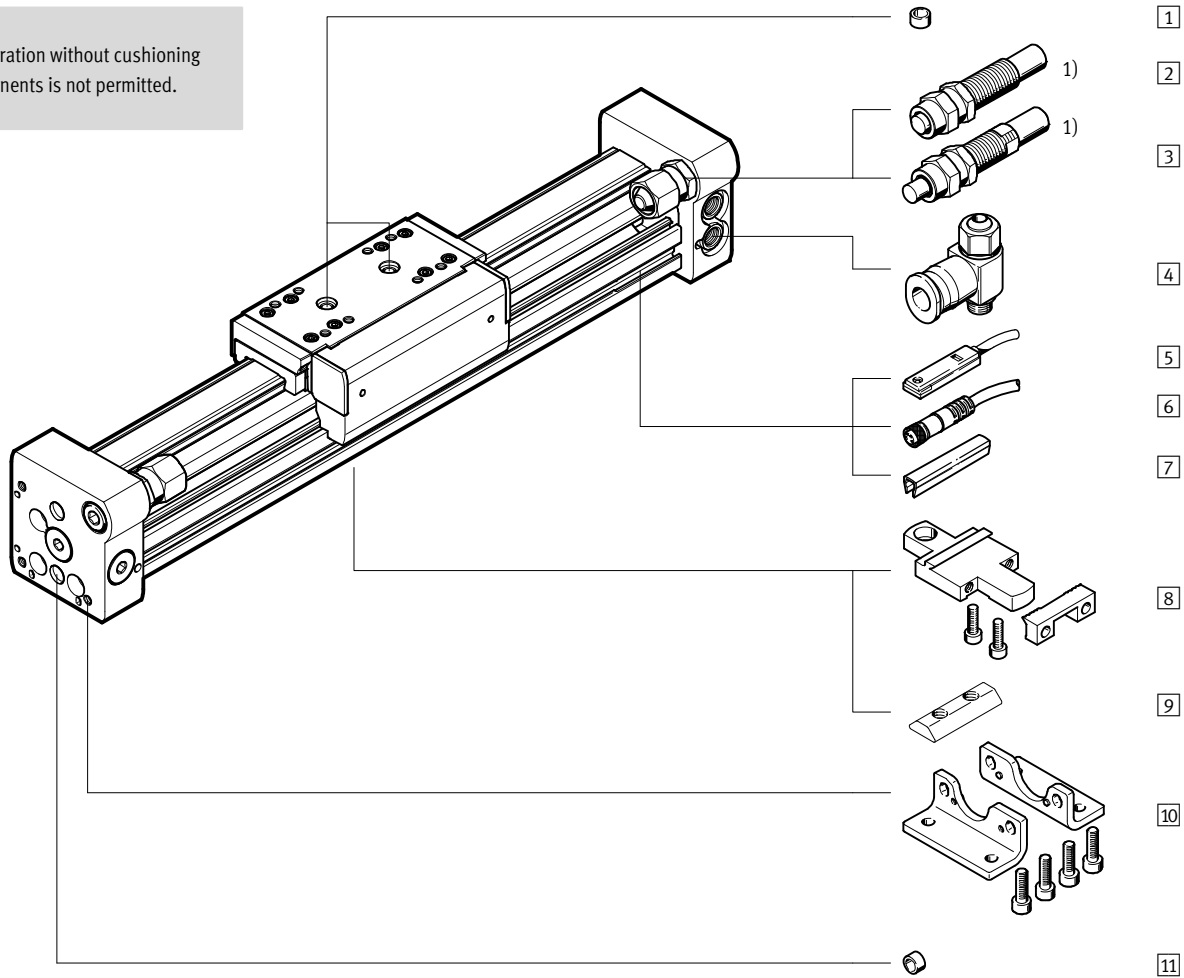
Ordering – Product options

| | | | | |
|-------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
|  | <p>Configurable product</p> | <p>This product and all its options can be ordered using the configurator.</p> | <p>The configurator can be found under Products on the DVD or → www.festo.com/catalogue/...</p> | <p>Enter the type code in the search field.</p> |
|-------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|

Accessories

Note

1) Operation without cushioning components is not permitted.


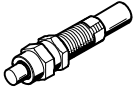


| | | → Page/online |
|---|-------------------------------------------|---------------|
| 1 | Centring pin/sleeve ZBS/ZBH ¹⁾ | 192 |
| 2 | Shock absorber YSR | 190 |
| 3 | Shock absorber YSRW-DGC | 192 |
| 4 | One-way flow control valve GRLA | 192 |
| 5 | Proximity sensor SME-/SMT-8 | 193 |
| 6 | Connecting cable NEBU | 193 |


| | | → Page/online |
|----|--------------------------------------|---------------|
| 7 | Slot cover ABP-S | 194 |
| 8 | Profile mounting MUC | 194 |
| 9 | Slot nut HMBN | 194 |
| 10 | Foot mounting HPC | 194 |
| 11 | Centring pin ZBS/centring sleeve ZBH | 192 |

1) Included in the scope of delivery of the axis.

Accessories – Ordering data



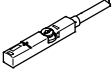
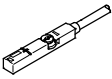
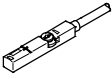
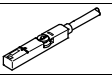




| | For Ø | Description | Part no. | Type |
|---------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------|------------------|------------------|
| 1 Centring pin/sleeve¹⁾ Technical data online: → zbh | | | | |
|  | For DGC-G | | | |
| | 8, 12 | For slide | 150928 | ZBS-5 |
| | 8, 12 | For end cap | 525273 | ZBS-2 |
| | 50, 63 | | 150927 | ZBH-9 |
| | For DGC-GF | | | |
| | 18 | For slide | 150928 | ZBS-5 |
| | 25 ... 63 | | 150927 | ZBH-9 |
| | 50, 63 | For end cap | 150927 | ZBH-9 |
| | For DGC-KF | | | |
| | 8, 12, 18 | For slide | 150928 | ZBS-5 |
| | 25 ... 63 | | 150927 | ZBH-9 |
| | 8, 12 | For end cap | 525273 | ZBS-2 |
| | 18 | | 150928 | ZBS-5 |
| | 25 ... 63 | | 150927 | ZBH-9 |
| | 3 Shock absorber | | | |
|  | For DGC-G | | | |
| | 8 | | 540344 | YSRW-DGC-8 |
| | 12 | | 540345 | YSRW-DGC-12 |
| | For DGC-GF | | | |
| | 18 | | 540346 | YSRW-DGC-18-GF |
| | 25 | | 540348 | YSRW-DGC-25-GF |
| | 32 | | 540350 | YSRW-DGC-32-GF |
| | 40 | | 540352 | YSRW-DGC-40-GF |
| | 50 | | 1232870 | YSRW-DGC-40/50-B |
| | 63 | | 543069 | YSRW-DGC-63 |
| | For DGC-KF | | | |
| | 18 | | 540347 | YSRW-DGC-18-KF |
| | 25 | | 540349 | YSRW-DGC-25-KF |
| | 32 | | 540351 | YSRW-DGC-32-KF |
| | 40 | | 1232870 | YSRW-DGC-40/50-B |
| 50 | | 1232870 | YSRW-DGC-40/50-B | |
| 63 | | 543069 | YSRW-DGC-63 | |

1) Packaging unit 10 pieces.

| | For Ø | Connection | | Part no. | Type |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------|------------|------|----------|--------------------|
| | | Thread | O.D. | | |
| 4 One-way flow control valve with slotted head screw, metal²⁾ Technical data → 758 | | | | | |
|  | 8, 12 | M5 | 3 | ★ 193137 | GRLA-M5-QS-3-D |
| | 18 | | 6 | ★ 193139 | GRLA-M5-QS-6-D |
| | 25, 32 | G1/8 | 8 | 162966 | GRLA-1/8-QS-8-RS-B |
| | 40, 50 | | | 162968 | GRLA-1/4-QS-8-RS-B |
| | 63 | | | 162970 | GRLA-3/8-QS-8-RS-B |

2) The recommended flow control valves are based on a tubing length to the valve of 1 m. For deviations of ±50%, flow control valves with a bigger or smaller flow rate must be selected to guarantee the optimum flow control function and cylinder speed.


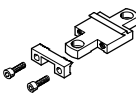


Accessories – Ordering data

| | For \varnothing | Cable length [m] | Part no. | Type |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------|----------|----------------------------|
| 5 Proximity sensor for C-slot for piston \varnothing 8/12, magneto-resistive – N/O contact Technical data → 892 | | | | |
|  | PNP, cable | 2.5 | ★ 551373 | SMT-10M-PS-24V-E-2,5-L-OE |
| | PNP, plug | 0.3 | ★ 551375 | SMT-10M-PS-24V-E-0,3-L-M8D |
| Magnetic reed – N/O contact Technical data → 890 | | | | |
|  | Cable | 2.5 | ★ 551365 | SME-10M-DS-24V-E-2,5-L-OE |
| | Plug | 0.3 | ★ 551367 | SME-10M-DS-24V-E-0,3-L-M8D |
| | Cable | 2.5 | ★ 551369 | SME-10M-ZS-24V-E-2,5-L-OE |
| | Cable | 2.5 | 173210 | SME-10-KL-LED-24 |
| | Plug | 0.3 | 173212 | SME-10-SL-LED-24 |
| 5 Proximity sensor for T-slot for piston \varnothing 18 ... 63, magneto-resistive – N/O contact Technical data → 878 | | | | |
|  | PNP, cable | 2.5 | ★ 574335 | SMT-8M-A-PS-24V-E-2,5-OE |
| | PNP, plug | 0.3 | ★ 574334 | SMT-8M-A-PS-24V-E-0,3-M8D |
| | PNP, plug | 0.3 | ★ 574337 | SMT-8M-A-PS-24V-E-0,3-M12 |
| | NPN, cable | 2.5 | ★ 574338 | SMT-8M-A-NS-24V-E-2,5-OE |
| | NPN, plug | 0.3 | ★ 574339 | SMT-8M-A-NS-24V-E-0,3-M8D |
| Magneto-resistive – N/C contact Technical data → 878 | | | | |
|  | PNP, cable | 7.5 | ★ 574340 | SMT-8M-A-PO-24V-E-7,5-OE |
| Magnetic reed – N/O contact Technical data → 873 | | | | |
|  | Cable | 2.5 | ★ 543862 | SME-8M-DS-24V-K-2,5-OE |
| | Cable | 5.0 | ★ 543863 | SME-8M-DS-24V-K-5,0-OE |
| | Cable | 2.5 | ★ 543872 | SME-8M-ZS-24V-K-2,5-OE |
| | Plug | 0.3 | ★ 543861 | SME-8M-DS-24V-K-0,3-M8D |
| Magnetic reed – N/C contact Technical data → 875 | | | | |
|  | Cable | 7.5 | ★ 546799 | SME-8M-DO-24V-K-7,5-OE |
| 6 Connecting cable, straight socket Technical data → 1161 | | | | |
|  | – | 2.5 | ★ 541333 | NEBU-M8G3-K-2.5-LE3 |
| | – | 5.0 | ★ 541334 | NEBU-M8G3-K-5-LE3 |
|  | – | 2.5 | ★ 541363 | NEBU-M12G5-K-2.5-LE3 |
| | – | 5.0 | ★ 541364 | NEBU-M12G5-K-5-LE3 |
| Angled socket Technical data → 1161 | | | | |
|  | – | 2.5 | ★ 541338 | NEBU-M8W3-K-2.5-LE3 |
| | – | 5.0 | ★ 541341 | NEBU-M8W3-K-5-LE3 |
|  | – | 2.5 | 541367 | NEBU-M12W5-K-2.5-LE3 |
| | – | 5.0 | 541370 | NEBU-M12W5-K-5-LE3 |

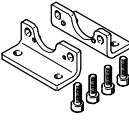
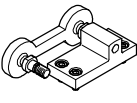
Linear drives DGC

1

Accessories – Ordering data

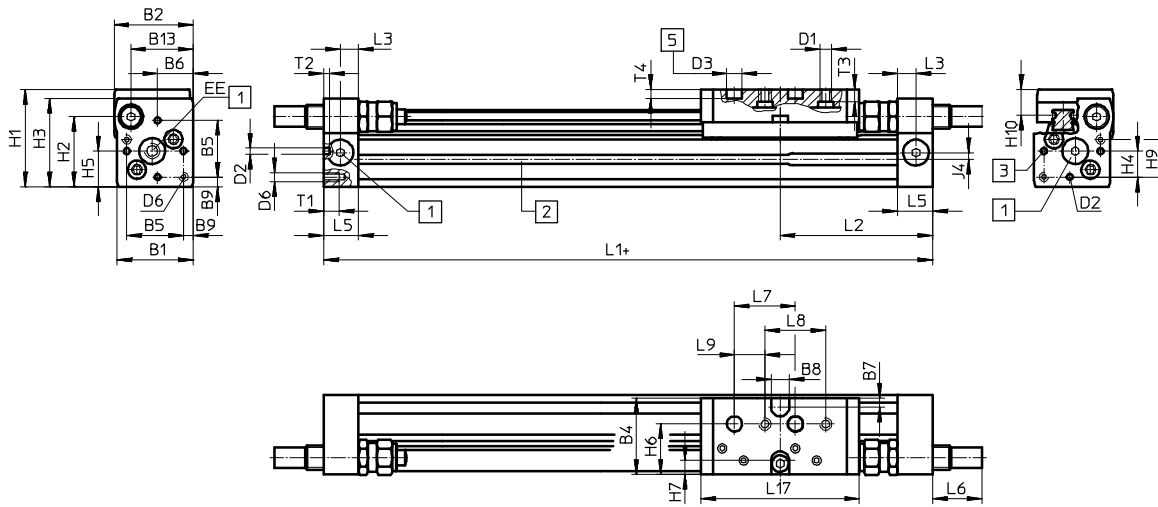
| | For Ø | Part no. | Type |
|------------------------------------------------------------------------------------------------------------|---------------------------|---------------|-------------------|
| 7 Slot cover¹⁾ | | | |
|  | 18, 25, 32, 40, 50, 63 | 151680 | ABP-5-S |
| 8 Profile mounting Dimensions online: → dgc | | | |
|  | 8 | 526384 | MUC-8 |
| | 12 | 526387 | MUC-12 |
| | 18 | 531752 | MUC-18 |
| | 25 | 531753 | MUC-25 |
| | 32 | 531754 | MUC-32 |
| | 40 | 531755 | MUC-40 |
| | 50 | 531756 | MUC-50 |
| | 63 | 531757 | MUC-63 |
| 9 Slot nut²⁾ Dimensions online: → dgc | | | |
|  | 25, 32, 40 | 547264 | HMBN-5-1M5 |
|  | 50, 63 | 186566 | HMBN-5-2M5 |

1) Packaging unit 2x 0.5 m.
2) Packaging unit 10 pieces.

| | For Ø | Part no. | Type |
|----------------------------------------------------------------------------------------------------------|-------|---------------|------------------|
| 10 Foot mounting Dimensions online: → dgc | | | |
|  | 8 | 526385 | HPC-8 |
| | 12 | 526388 | HPC-12 |
| | 18 | 533667 | HPC-18 |
| | 25 | 533668 | HPC-25 |
| | 32 | 533669 | HPC-32 |
| | 40 | 533670 | HPC-40 |
| | 50 | 545236 | HPC-50 |
| | 63 | 545237 | HPC-63 |
| 12 Moment compensator Dimensions online: → dgc | | | |
|  | 8 | 529350 | FKC-8/12 |
| | 12 | 529350 | FKC-8/12 |
| | 18 | 538714 | FKC-18 |
| | 25 | 538715 | FKC-25 |
| | 32 | 538961 | FKC-32 |
| | 40 | 538962 | FKC-40 |
| | 50 | 545240 | FKC-50/63 |
| | 63 | 545240 | FKC-50/63 |

Dimensions

∅ 8 ... 12



- 1 Supply port options on 3 sides
- 2 Slot for proximity sensor
- 3 Mounting hole for foot mounting or centring pin
- 5 Hole for centring pin ZBS
+ = plus stroke length

| ∅ | B1 | B2 | B4 | B5 | B6 | B7 | B8 | B9 | B13 | D1 | D2 | D3 | D6 |
|------|------|----|------|------|------|----|-------|------|------|----|------|------|----|
| [mm] | | | | | | | ±0.05 | ±0.1 | | | ∅ H8 | ∅ H7 | |
| 8 | 25 | 26 | 25.5 | 18.6 | 11.7 | 3 | 6 | 3.2 | 20.5 | M4 | 2 | 5 | M3 |
| 12 | 30.2 | 31 | 30.5 | 20.6 | 13.5 | 3 | 8 | 4.8 | 25 | M4 | 2 | 5 | M4 |

| ∅ | EE | H1 | H2 | H3 | H4 | H5 | H6 | H7 | H9 | H10 | J4 | L1 | L2 |
|------|----|------|------|------|-----|------|------|-----|------|-----|-----|-----|------|
| [mm] | | | | | | | | | | | | | |
| 8 | M5 | 32 | 23 | 29 | 8.5 | 11.7 | 16.5 | 4.5 | 12.3 | 8.7 | 2.2 | 100 | 50.1 |
| 12 | M5 | 37.5 | 28.5 | 34.5 | 8.7 | 13.5 | 20.5 | 5 | 14.7 | 9.8 | 3 | 125 | 62.1 |

| ∅ | L3 | L5 | L6 | | | L7 | L8 | L9 | L17 | T1 | T2 | T3 | T4 | Stroke tolerance |
|------|----|------|----|------|------|-------|------|------|-----|----|----|----|------|------------------|
| | | | P | YSR | YSRW | | | | | | | | | |
| [mm] | | | | | | ±0.03 | ±0.1 | ±0.1 | | | | | +0.2 | |
| 8 | 6 | 11.5 | 0 | 16 | 16.2 | 20 | 20 | 10 | 52 | 5 | 2 | 4 | 3 | 0 ... 1.7 |
| 12 | 8 | 16 | 0 | 11.3 | 12.3 | 20 | 20 | 10 | 65 | 6 | 2 | 5 | 3 | |

Profile

∅ 8

∅ 12



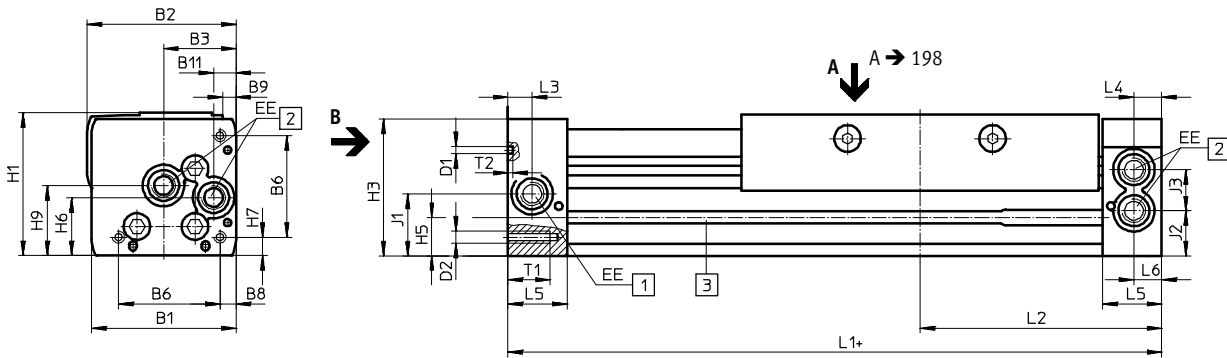
- 1 Slot for proximity sensor

Linear drives DGC-G, basic design

1

Dimensions

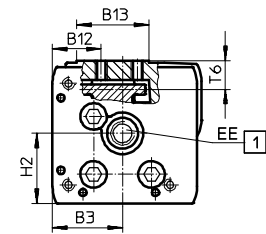
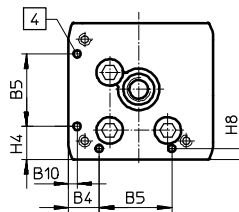
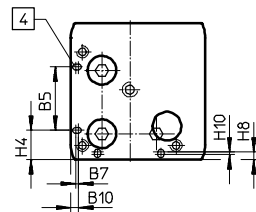
∅ 18 ... 40



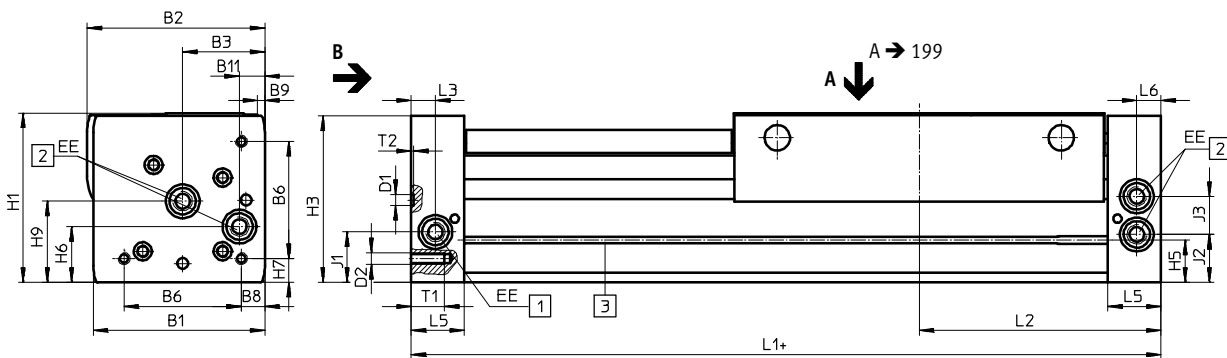
View B
∅ 18

∅ 25 ... 40

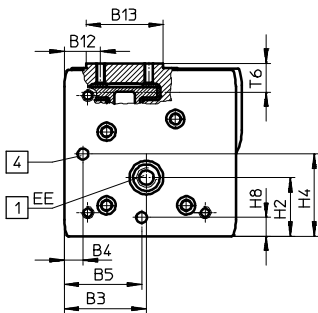
∅ 18 ... 40



∅ 50/63



View B



- + = plus stroke length
- 1 Supply port options on 2 sides
- 2 Supply port options on 2 sides, for supply port at one end
- 3 Slot for proximity sensor
- 4 Mounting hole for foot mounting HPC

Dimensions

Download CAD data → www.festo.com

| ∅ | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 |
|------|------|------|------|-------|-------|------|-----|------|-----|-----|
| [mm] | | | | | ±0.05 | | | | | |
| 18 | 44.5 | 46.3 | 19.5 | 8.8 | 21 | 31 | 0.3 | 3.8 | 3.3 | 2.4 |
| 25 | 59.8 | 61.6 | 30 | 12.65 | 30 | 42 | | 6.65 | 5.6 | 3.5 |
| 32 | 73 | 75.5 | 38.5 | 5.7 | 63.1 | 57.5 | | 8.5 | 5 | 14 |
| 40 | 91 | 94.5 | 45 | 17.2 | 55 | 65 | | 12.2 | 5.3 | 8 |
| 50 | 113 | 122 | 60 | 8 | 52.8 | 81.6 | – | 12 | 0 | – |
| 63 | 142 | 147 | 68 | 15.5 | 68 | 97 | – | 19.5 | 6 | – |

| ∅ | B11 | B12 | B13 | D1 | D2 | EE | H1 | H2 | H3 | H4 |
|------|------|-------|-----|-----------------|-----|-----------------|------|------|-------|------|
| [mm] | | | | ∅ | | | | | | ±0.2 |
| 18 | 5.5 | 19.3 | 20 | 2±0,05 | M4 | M5 | 49.8 | 23.1 | 48.3 | 10.3 |
| 25 | 9.3 | 20.15 | 30 | 3±0,05 | M5 | G $\frac{1}{8}$ | 58.5 | 29 | 56.5 | 13 |
| 32 | 14.9 | 20.5 | 35 | 3±0,05 | M6 | G $\frac{1}{8}$ | 73 | 30 | 71.5 | 5.7 |
| 40 | 16.5 | 19.8 | 45 | 4±0,05 | M6 | G $\frac{1}{4}$ | 88 | 41.5 | 85 | 17.2 |
| 50 | 21 | 24 | 64 | 9 ^{H7} | M8 | G $\frac{1}{4}$ | 120 | 38.5 | 116 | 52.8 |
| 63 | 21 | 30 | 64 | 9 ^{H7} | M10 | G $\frac{3}{8}$ | 140 | 48.5 | 137.5 | 68 |

| ∅ | H5 | H6 | H7 | H8 | H9 | H10 | J1 | J2 | J3 | L1 |
|------|------|------|------|------|------|-----|------|------|------|-----|
| [mm] | | | | | | | | | | |
| 18 | 13.4 | 20 | 5.3 | 2.4 | 25.2 | 0.4 | 20 | 16.5 | 11 | 150 |
| 25 | 15.8 | 24 | 7 | 4.5 | 29 | | 26.1 | 18.6 | 17 | 200 |
| 32 | 17 | 27.7 | 8.5 | 14 | 35.2 | | 30 | 22 | 18.5 | 250 |
| 40 | 25 | 36.5 | 12.2 | 8 | 44 | | 35 | 26 | 26 | 300 |
| 50 | 29.3 | 36 | 12 | 8 | 53 | – | 30.5 | 30.5 | 28 | 350 |
| 63 | 34.8 | 46 | 19.5 | 15.5 | 67 | – | 41.5 | 39.5 | 31.5 | 400 |

| ∅ | L2 | L3 | L4 | L5 | L6 | T1 | T2 | T6 | Stroke tolerance |
|------|-------|------|------|------|------|------|---------------------|-------|------------------|
| [mm] | | | | | | | | | |
| 18 | 74.5 | 5.7 | 5.8 | 15 | 5.5 | 9 | 2 | 10.7 | 0 ... 2.5 |
| 25 | 100 | 10.5 | 10.6 | 24.5 | 10.6 | 17.5 | 2 | 12 | |
| 32 | 124.8 | 14.5 | 14.5 | 30.5 | 14.5 | 15 | 2 | 13.8 | |
| 40 | 150 | 14.6 | 14.6 | 33.5 | 14.6 | 20 | 3 | 16.8 | |
| 50 | 175 | 17 | – | 41 | 17 | 24 | 2.1 ^{+0,2} | 20.75 | |
| 63 | 200 | 20 | – | 44 | 20 | 27.5 | 2.1 ^{+0,2} | 20.75 | |

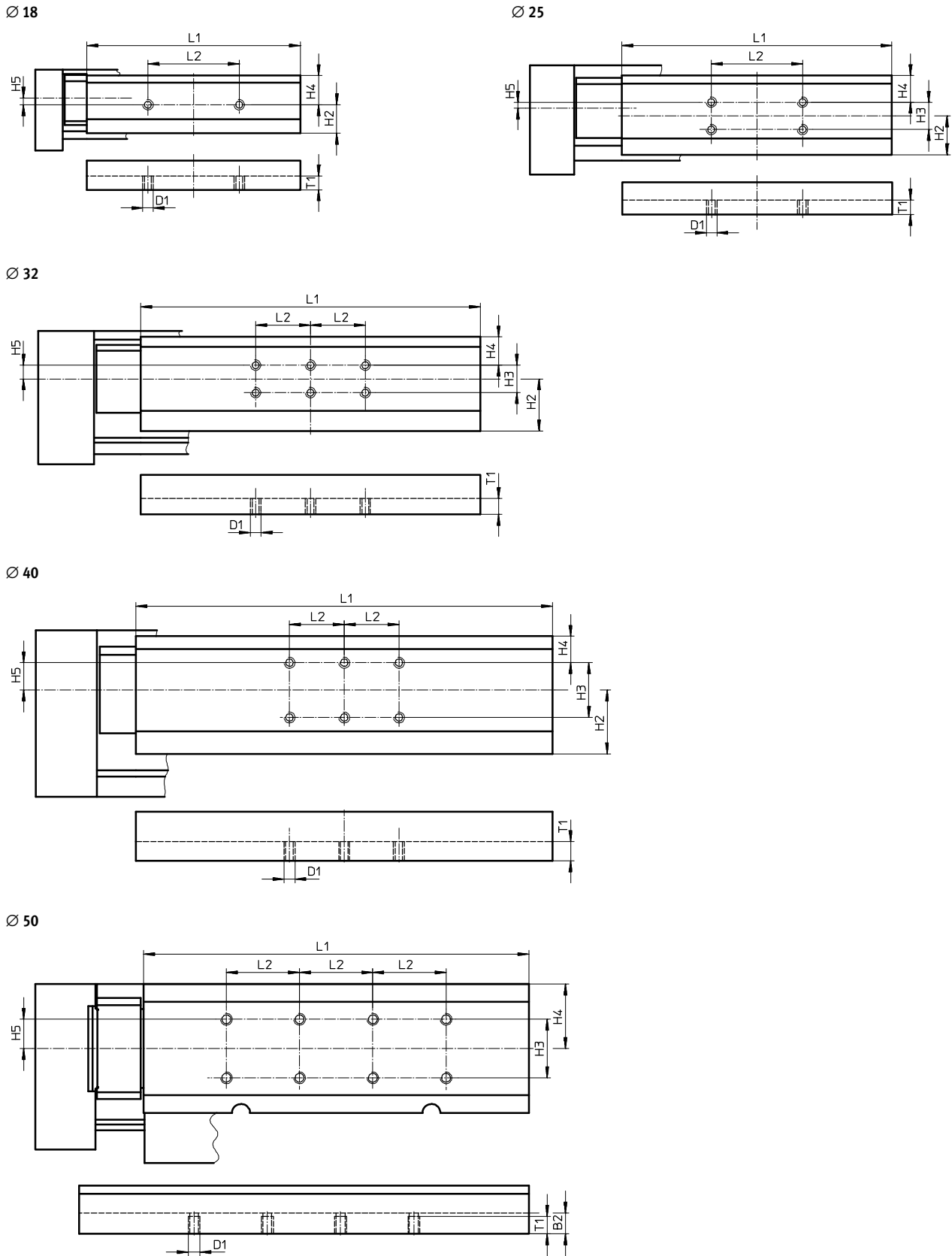
• Note: This product conforms to ISO 1179-1 and ISO 228-1.

Linear drives DGC-G, basic design

1

Dimensions

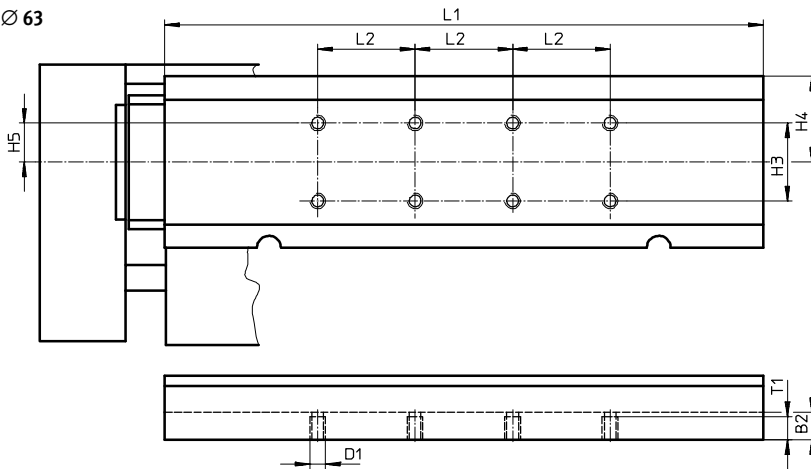
Slide – View A



Dimensions

Slide – View A

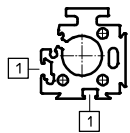
Ø 63



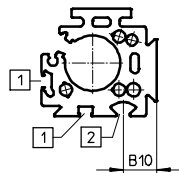
| Ø | B2 | D1 | H2 | H3 | H4 | H5 | L1 | L2 | T1 |
|------|----|-----|-------|------|-------|------|----------|------|------|
| [mm] | | | ±0.1 | ±0.1 | | | | ±0.1 | |
| 18 | - | M5 | 15.6 | - | 16 | 2 | 117±0,05 | 50 | 7 |
| 25 | - | M5 | 21.35 | 15 | 14.55 | 4.85 | 148±0,05 | 50 | 8 |
| 32 | - | M5 | 28.5 | 15 | 15.5 | 7.5 | 186±0,05 | 30 | 8.6 |
| 40 | - | M6 | 35 | 30 | 14.5 | 15 | 228±0,05 | 30 | 10.5 |
| 50 | 14 | M 8 | - | 40 | 44 | 20 | 263±0,1 | 50 | 13 |
| 63 | 14 | M 8 | - | 40 | 44 | 20 | 307±0,1 | 50 | 13 |

Profile barrel

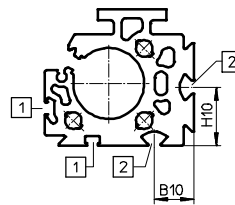
Ø 18



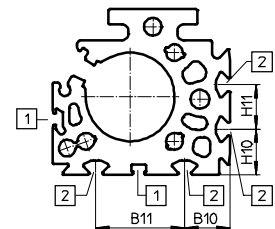
Ø 25



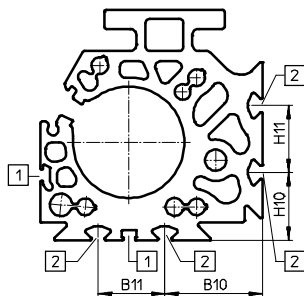
Ø 32



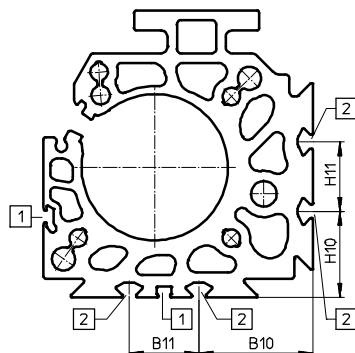
Ø 40



Ø 50



Ø 63



- 1 Slot for proximity sensor
- 2 Mounting slot for slot nut

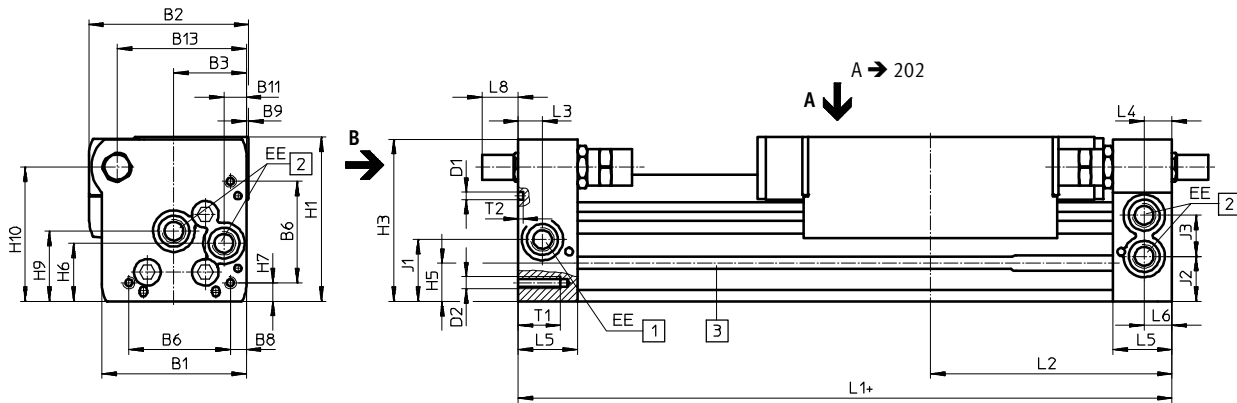
| Ø | B10 | B11 | H10 | H11 |
|------|-------|-----|------|-----|
| [mm] | | | | |
| 25 | 15.23 | - | - | - |
| 32 | 18 | - | 26.5 | - |
| 40 | 20.5 | 40 | 20.5 | 20 |
| 50 | 43.8 | 30 | 30.5 | 30 |
| 63 | 49 | 30 | 37 | 30 |

Linear drives DGC-GF, with plain-bearing guide

1

Dimensions

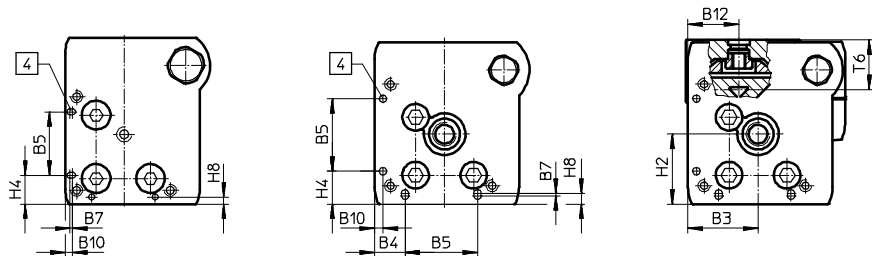
∅ 18 ... 40



View B
∅ 18

∅ 25 ... 40

∅ 18 ... 40



- + = plus stroke length
- 1 Supply port options on 2 sides
- 2 Supply port options on 2 sides, for supply port at one end
- 3 Slot for proximity sensor
- 4 Mounting hole for foot mounting HPC

| ∅ | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 |
|------|------|------|------|-------|-------|------|-----|------|-----|-----|------|
| [mm] | | | | | ±0.05 | | | | | | |
| 18 | 44.5 | 49.9 | 19.5 | 8.8 | 21 | 31 | 0.8 | 3.8 | 1 | 2.4 | 5.5 |
| 25 | 59.8 | 66 | 30 | 12.65 | 30 | 42 | 1 | 6.65 | 1 | 3.5 | 9.3 |
| 32 | 73 | 79 | 38.5 | 5.7 | 63.1 | 57.5 | - | 8.5 | 1.5 | 14 | 14.9 |
| 40 | 91 | 98.5 | 45 | 17.2 | 55 | 65 | - | 12.2 | 2 | 8 | 16.5 |

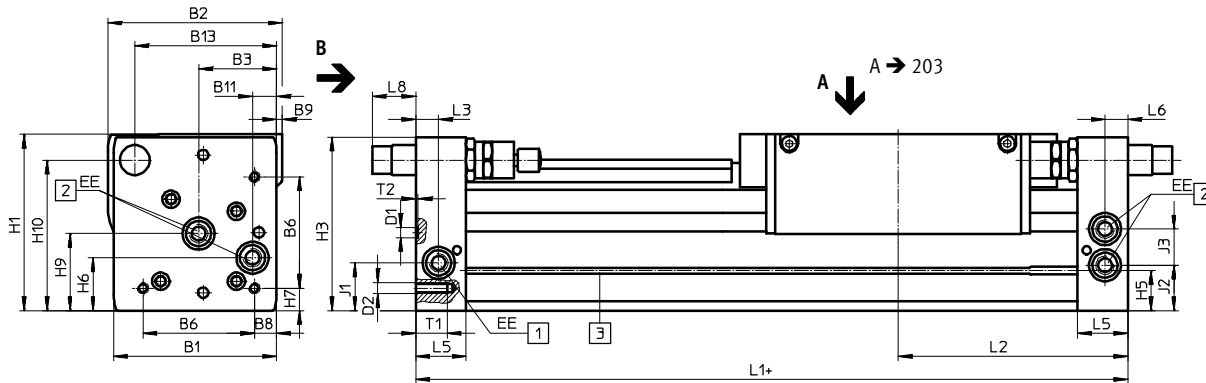
| ∅ | B12 | B13 | D1 | D2 | EE | H1 | H2 | H3 | H4 | H5 | H6 |
|------|------|------|---------|----|------|------|------|------|-------|------|------|
| [mm] | | | ∅ ±0.05 | | | | | | ±0.2 | | |
| 18 | 15.5 | 39 | 2 | M4 | M5 | 56.3 | 23.1 | 55 | 9.6 | 13.4 | 20 |
| 25 | 21 | 53.5 | 3 | M5 | G1/8 | 68 | 29 | 67 | 13.65 | 15.8 | 24 |
| 32 | 18 | 66.5 | 3 | M6 | G1/8 | 78.5 | 30 | 77 | 5.7 | 17 | 27.7 |
| 40 | 24.8 | 80.5 | 4 | M6 | G1/4 | 99.5 | 41.5 | 97.5 | 17.2 | 25 | 36.5 |

| ∅ | H7 | H8 | H9 | H10 | J1 | J2 | J3 | L1 | L2 | L3 | L4 |
|------|------|-----|------|------|------|------|------|-----|-------|------|------|
| [mm] | | | | | | | | | | | |
| 18 | 4.6 | 2.4 | 25.2 | 46 | 20 | 16.5 | 11 | 150 | 74.5 | 5.7 | 5.8 |
| 25 | 7.65 | 4.5 | 29 | 55.5 | 26.1 | 18.6 | 17 | 200 | 100 | 10.5 | 10.6 |
| 32 | 8.5 | 14 | 35.2 | 63.8 | 30 | 22 | 18.5 | 250 | 124.8 | 14.5 | 14.5 |
| 40 | 12.2 | 8 | 44 | 81.5 | 35 | 26 | 26 | 300 | 150 | 14.6 | 14.6 |

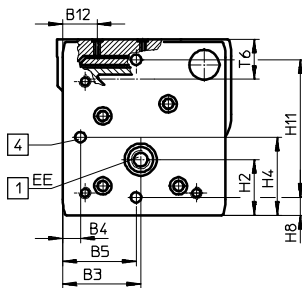
| ∅ | L5 | L6 | L8 | | | T1 | T2 | T6 | Stroke tolerance |
|------|------|------|-----|------|------|------|----|------|------------------|
| | | | PPV | YSR | YSRW | | | | |
| [mm] | | | | | | | | | |
| 18 | 15 | 5.5 | 0 | 15.9 | 19.4 | 9 | 2 | 17.1 | 0 ... 2.5 |
| 25 | 24.5 | 10.6 | 0 | 12.5 | 15 | 17.5 | 2 | 20.5 | |
| 32 | 30.5 | 14.5 | 0 | 8.5 | 15.5 | 15 | 2 | 21.3 | |
| 40 | 33.5 | 14.6 | 0 | 12.8 | 21 | 20 | 3 | 30.7 | |

Dimensions

∅ 50/63



View B



- + = plus stroke length
- 1 Supply port options on 2 sides
- 2 Supply port options on 2 sides, for supply port at one end
- 3 Slot for proximity sensor
- 4 Mounting hole for foot mounting HPC

| ∅ | B1 | B2 | B3 | B4 | B5 | B6 | B8 | B9 | B11 | B12 | B13 | D1 | D2 |
|------|-----|-------|----|------|-------|------|------|----|-----|-----|-------|----|-----|
| [mm] | | | | | ±0.05 | | | | | | | ∅ | |
| 50 | 113 | 126.5 | 60 | 8 | 52.8 | 81.6 | 12 | – | 21 | 24 | 97 | 9 | M 8 |
| 63 | 142 | 149 | 68 | 15.5 | 68 | 97 | 19.5 | 5 | 21 | 30 | 123.5 | 9 | M10 |

| ∅ | EE | H1 | H2 | H3 | H4 | H5 | H6 | H7 | H8 | H9 | H10 | H11 | J1 |
|------|------|-------|------|-------|------|------|----|------|------|----|-------|-------|------|
| [mm] | | | | | | | | | | | | ±0.05 | |
| 50 | G1/4 | 124.5 | 38.5 | 122.5 | 52.8 | 29.3 | 36 | 12 | 8 | 53 | 104.5 | 100 | 30.5 |
| 63 | G3/8 | 153.5 | 48.5 | 151 | 68 | 34.8 | 46 | 19.5 | 15.5 | 67 | 131 | 120 | 41.5 |

| ∅ | J2 | J3 | L1 | L2 | L3 | L5 | L6 | L8 | | | T1 | T2 | T6 | Stroke tolerance |
|------|------|------|-----|-----|----|----|----|-----|------|------|------|------|------|------------------|
| | | | | | | | | PPV | YSR | YSRW | | | | |
| [mm] | | | | | | | | | | | | +0.2 | | |
| 50 | 30.5 | 28 | 350 | 175 | 17 | 41 | 17 | 0 | 31 | 36.3 | 24 | 2.1 | 30.4 | 0 ... 2.5 |
| 63 | 39.5 | 31.5 | 400 | 200 | 20 | 44 | 20 | 0 | 38.3 | 48.3 | 27.5 | 2.1 | 36.2 | |

Note: This product conforms to ISO 1179-1 and ISO 228-1.

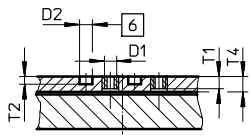
Linear drives DGC-GF, with plain-bearing guide

1

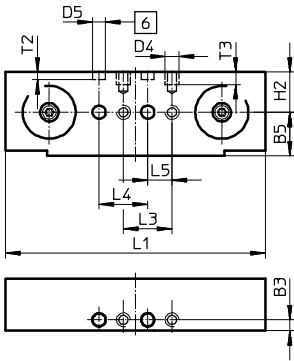
Dimensions

Slide

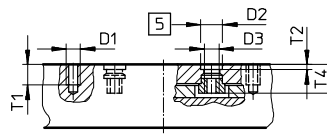
Ø 18



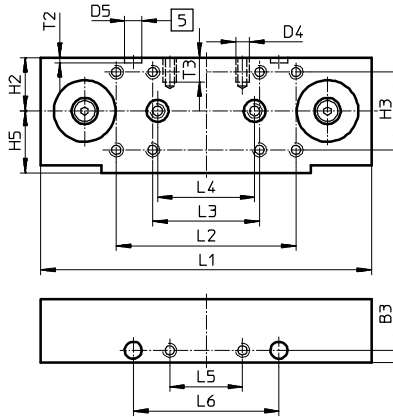
View A



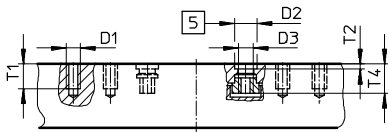
Ø 25



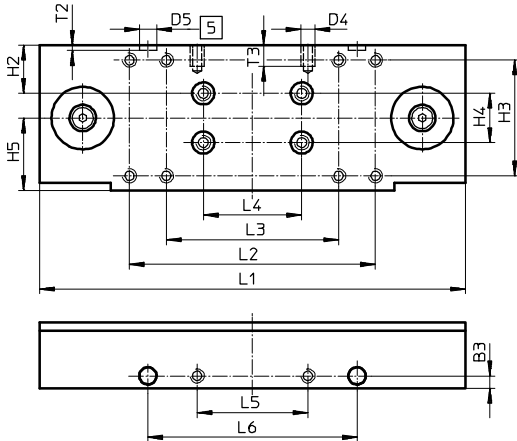
View A



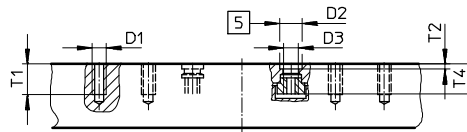
Ø 32



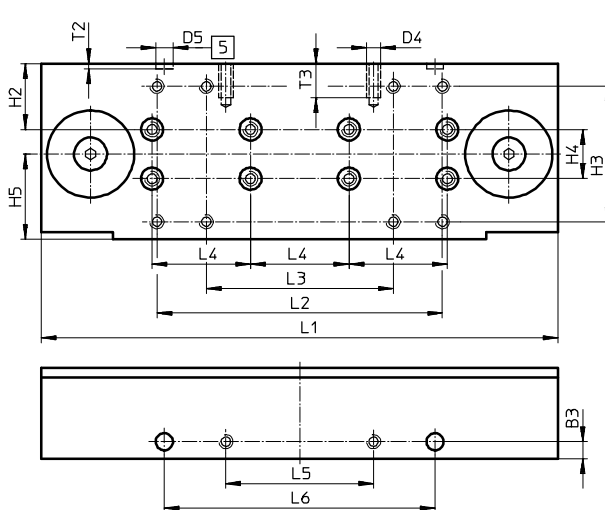
View A



Ø 40



View A

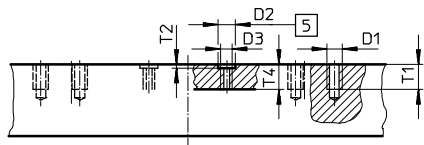


- 5 Hole for centring sleeve ZBH
- 6 Hole for centring pin ZBS

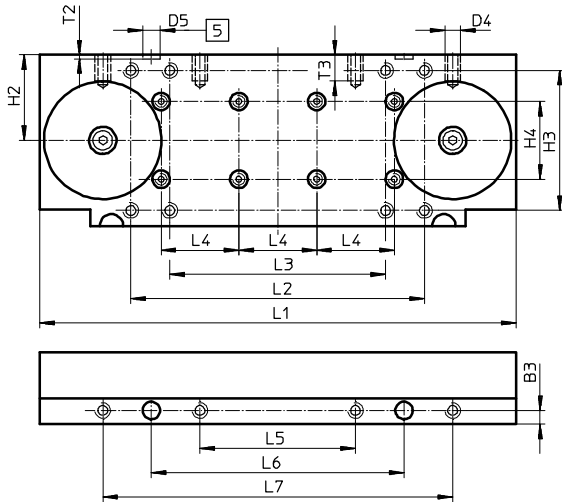
Dimensions

Slide

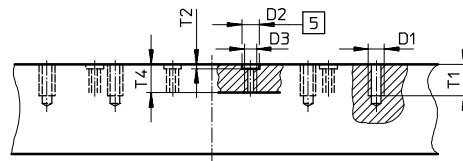
Ø 50



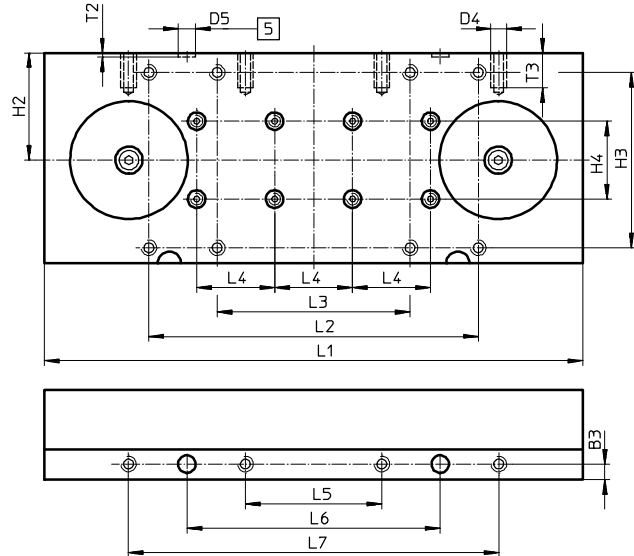
View A



Ø 63



View A



5 Hole for centring sleeve ZBH

| Ø | B3 | D1 | D2 | D3 | D4 | D5 | H2 | H3 | H4 | H5 | L1 |
|------|-------|-----|---------|----|-----|---------|------|--------|-------|------|------|
| [mm] | ±0.05 | | Ø H7 | | | Ø H7 | | | ±0.03 | ±0.1 | ±0.1 |
| 18 | 4.5 | M5 | 5 | - | M5 | 5 | 16.5 | - | - | 18 | 107 |
| 25 | 5 | M5 | 9 | M6 | M5 | 7 | 22 | 32±0,2 | - | 25.5 | 136 |
| 32 | 5 | M5 | 9 | M6 | M5 | 7 | 19.5 | 47±0,2 | 20 | 29.5 | 173 |
| 40 | 7 | M5 | 9 | M6 | M6 | 7 | 26.8 | 55±0,2 | 20 | 34.7 | 210 |
| 50 | 7 | M 8 | 9 | M6 | M 8 | 9 | 44 | 72±0,3 | 40 | - | 245 |
| 63 | 8 | M 8 | 9 | M6 | M 8 | 9 | 55 | 90±0,3 | 40 | - | 276 |

| Ø | L2 | L3 | L4 | L5 | L6 | L7 | T1 | T2 | T3 | T4 |
|------|------|---------|-------|------|-------|------|------|---------|------|------|
| [mm] | ±0.1 | | ±0.03 | ±0.1 | ±0.05 | ±0.1 | | | | |
| 18 | - | 20±0,1 | 20 | 10 | - | - | 5 | 3.1±0,1 | 5 | 6.3 |
| 25 | 74 | 44±0,2 | 40 | 30 | 60 | - | 8.5 | 2.1±0,2 | 10 | 11.8 |
| 32 | 100 | 70±0,2 | 40 | 45 | 85 | - | 10 | 2.1±0,2 | 8.5 | 11.8 |
| 40 | 116 | 76±0,2 | 40 | 60 | 110 | - | 12.5 | 2.1±0,2 | 14 | 12.1 |
| 50 | 151 | 111±0,2 | 40 | 80 | 130 | 180 | 13 | 2.1±0,2 | 13.5 | 13 |
| 63 | 169 | 99±0,2 | 40 | 70 | 130 | 190 | 16 | 2.1±0,2 | 18 | 14.5 |

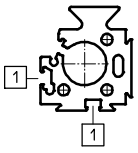
Linear drives DGC-GF, with plain-bearing guide

1

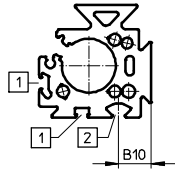
Dimensions

Profile barrel

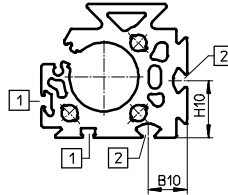
Ø 18



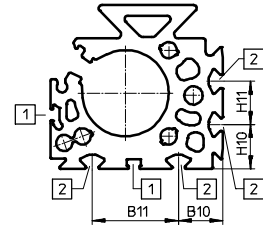
Ø 25



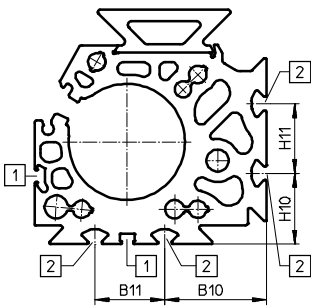
Ø 32



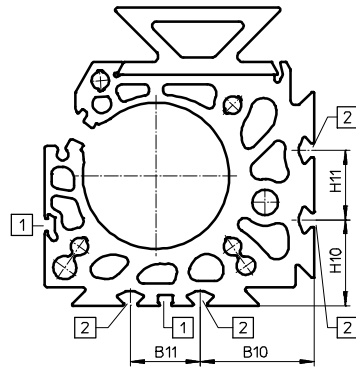
Ø 40



Ø 50



Ø 63



- 1 Slot for proximity sensor
- 2 Mounting slot for slot nut

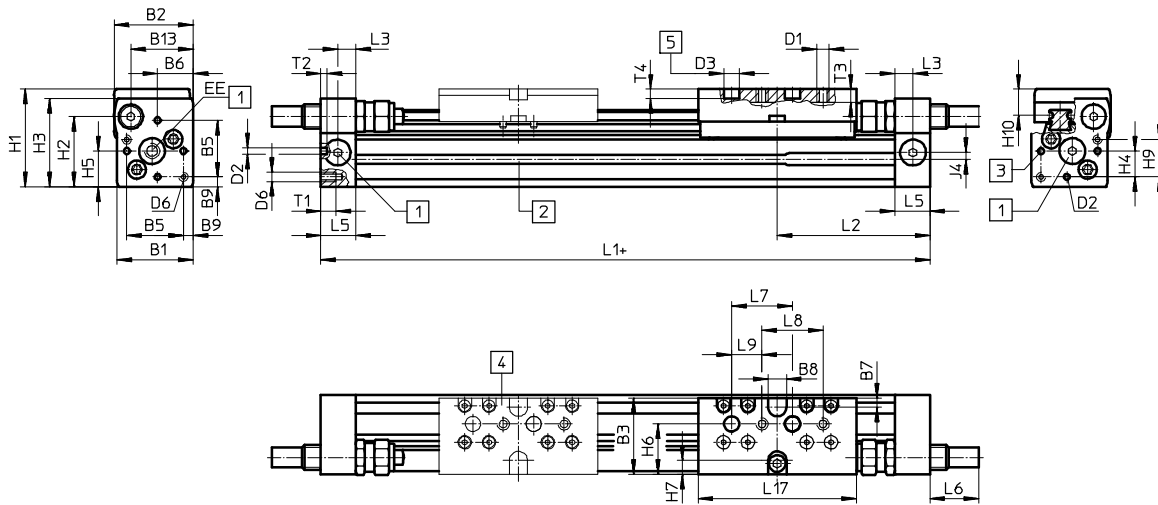
| Ø | B10 | B11 | H10 | H11 |
|------|-------|-----|------|-----|
| [mm] | | | | |
| 25 | 15.23 | - | - | - |
| 32 | 18 | - | 26.5 | - |
| 40 | 20.5 | 40 | 20.5 | 20 |
| 50 | 43.8 | 30 | 30.5 | 30 |
| 63 | 49 | 30 | 37 | 30 |

Linear drives DGC-KF, with recirculating ball bearing guide

Download CAD data → www.festo.com

Dimensions

Ø 8 ... 12



- 1 Supply port options on 3 sides
- 2 Slot for proximity sensor
- 3 Mounting hole for foot mounting or centring pin
- 4 Additional slide KL
- 5 Hole for centring pin ZBS
- + = plus stroke length

| Ø | B1 | B2 | B3 | B5 | B6 | B7 | B8 | B9 | B13 | D1 | D2 | D3 | D6 |
|------|------|----|----|------|------|----|-------|------|------|----|------|------|----|
| [mm] | | | | | | | ±0.05 | ±0.1 | | | Ø H8 | Ø H7 | |
| 8 | 25 | 26 | 25 | 18.6 | 11.7 | 3 | 6 | 3.2 | 20.5 | M4 | 2 | 5 | M3 |
| 12 | 30.2 | 31 | 31 | 20.6 | 13.5 | 3 | 8 | 4.8 | 25 | M4 | 2 | 5 | M4 |

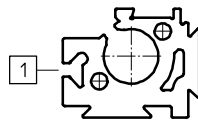
| Ø | EE | H1 | H2 | H3 | H4 | H5 | H6 | H7 | H9 | H10 | J4 | L1 | L2 |
|------|----|------|------|------|-----|------|------|-----|------|-----|-----|-----|------|
| [mm] | | | | | | | | | | | | | |
| 8 | M5 | 32 | 23 | 29 | 8.5 | 11.7 | 16.5 | 4.5 | 12.3 | 8.7 | 2.2 | 100 | 50.1 |
| 12 | M5 | 37.5 | 28.5 | 34.5 | 8.7 | 13.5 | 20.5 | 5 | 14.7 | 9.8 | 3 | 125 | 62.1 |

| Ø | L3 | L5 | L6 | | | L7 | L8 | L9 | L17 | T1 | T2 | T3 | T4 | Stroke tolerance |
|------|----|------|----|------|------|-------|------|------|-----|----|----|-----|------|------------------|
| | | | P | YSR | YSRW | | | | | | | | | |
| [mm] | | | | | | ±0.03 | ±0.1 | ±0.1 | | | | | +0.2 | |
| 8 | 6 | 11.5 | 0 | 16 | 16.2 | 20 | 20 | 10 | 52 | 5 | 2 | 4.3 | 3 | 0 ... 1.7 |
| 12 | 8 | 16 | 0 | 11.3 | 12.3 | 20 | 20 | 10 | 65 | 6 | 2 | 5 | 3 | |

Profile barrel

Ø 8

Ø 12



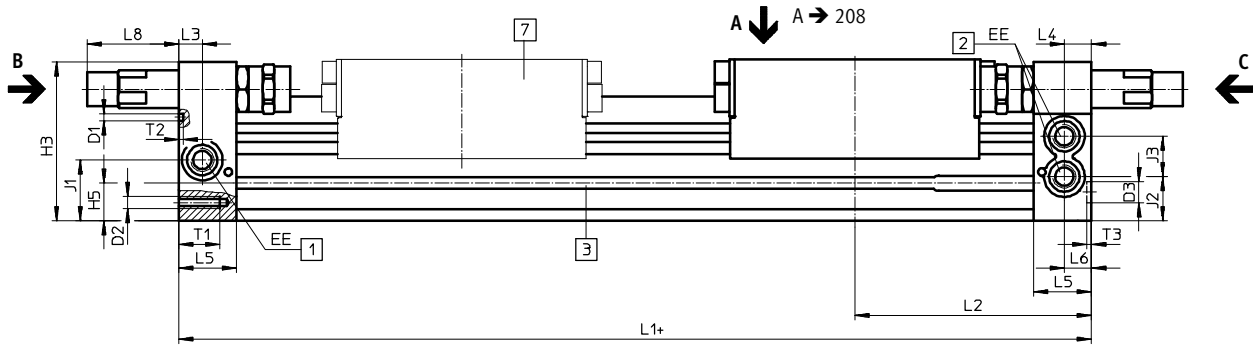
- 1 Slot for proximity sensor

Linear drives DGC-KF, with recirculating ball bearing guide

1

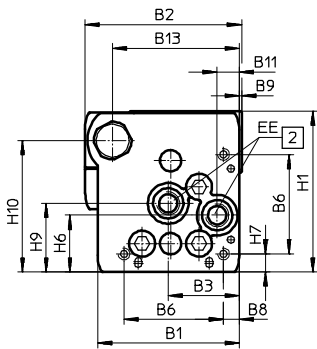
Dimensions

∅ 18 ... 40



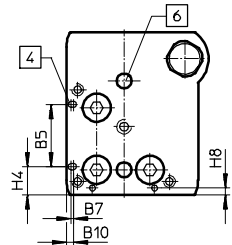
View C

∅ 18 ... 40

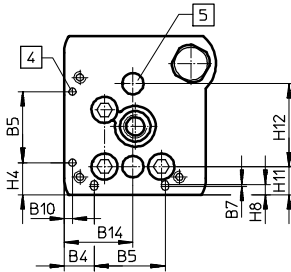


View B

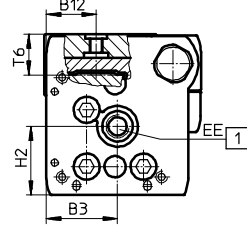
∅ 18



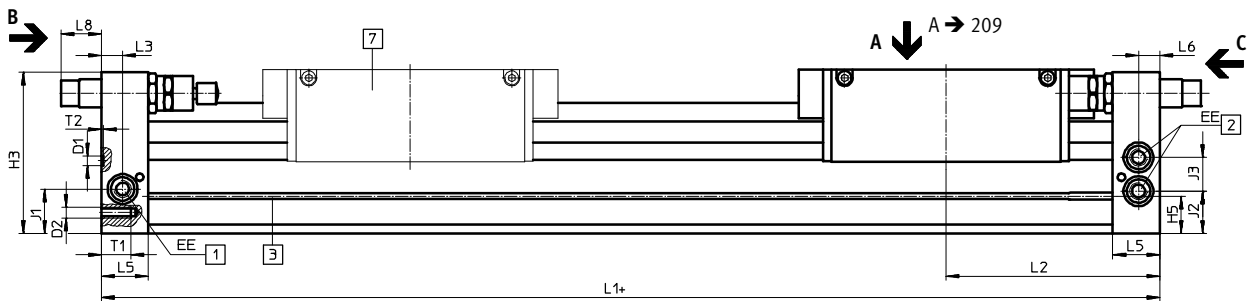
∅ 25 ... 40



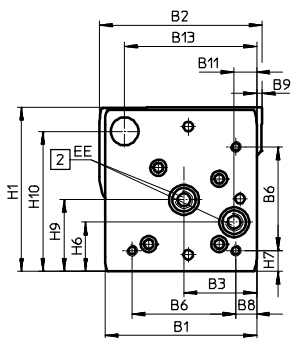
∅ 18 ... 40



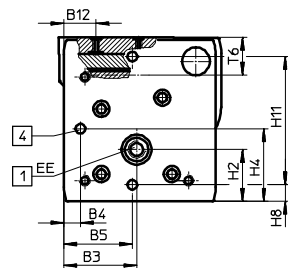
∅ 50/63



View C



View B



+ = plus stroke length

- 1 Supply port options on 2 sides
- 2 Supply port options on 2 sides, for supply port at one end
- 3 Slot for proximity sensor
- 4 Mounting hole for foot mounting HPC
- 5 Hole for centring sleeve ZBH
- 6 Hole for centring pin ZBS
- 7 Additional slide

Linear drives DGC-KF, with recirculating ball bearing guide

FESTO

1

Dimensions

Download CAD data → www.festo.com

| ∅ | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 |
|------|------|-------|------|-------|-------|------|-----|------|-----|-----|------|------|
| [mm] | | | | | ±0.05 | | | | | | | |
| 18 | 44.5 | 49.9 | 19.5 | 8.8 | 21 | 31 | 0.8 | 3.8 | 1 | 2.4 | 5.5 | 15.5 |
| 25 | 59.8 | 66 | 30 | 12.65 | 30 | 42 | 1 | 6.65 | 1 | 3.5 | 9.3 | 21 |
| 32 | 73 | 79 | 38.5 | 5.7 | 63.1 | 57.5 | – | 8.5 | 1.5 | 14 | 14.9 | 18 |
| 40 | 91 | 98.5 | 45 | 17.2 | 55 | 65 | – | 12.2 | 2 | 8 | 16.5 | 24.8 |
| 50 | 113 | 126.5 | 60 | 8 | 52.8 | 81.6 | – | 12 | – | – | 21 | 24 |
| 63 | 142 | 149 | 68 | 15.5 | 68 | 97 | – | 19.5 | 5 | – | 21 | 30 |

| ∅ | B13 | B14 | D1 | D2 | D3 | EE | H1 | H2 | H3 | H4 | H5 | H6 |
|------|-------|------|-----------------|-----|----|------|-------|------|-------|-------|------|------|
| [mm] | | | ∅ | | ∅ | | | | | ±0.2 | | |
| 18 | 39 | 19.5 | 2±0,05 | M4 | 5 | M5 | 56.3 | 23.1 | 55 | 9.6 | 13.4 | 20 |
| 25 | 53 | 29 | 3±0,05 | M5 | 9 | G1/8 | 68 | 29 | 67 | 13.65 | 15.8 | 24 |
| 32 | 65 | 38.5 | 3±0,05 | M6 | 9 | G1/8 | 78.5 | 30 | 77 | 5.7 | 17 | 27.7 |
| 40 | 80.5 | 45 | 4±0,05 | M6 | 9 | G1/4 | 99.5 | 41.5 | 97.5 | 17.2 | 25 | 36.5 |
| 50 | 97 | – | 9 ^{H7} | M8 | – | G1/4 | 124.5 | 38.5 | 122.5 | 52.8 | 29.3 | 36 |
| 63 | 123.5 | – | 9 ^{H7} | M10 | – | G3/8 | 153.5 | 48.5 | 151 | 68 | 34.8 | 46 |

| ∅ | H7 | H8 | H9 | H10 | H11 | H12 | J1 | J2 | J3 | L1 |
|------|------|------|------|-------|------------|-------|------|------|------|-----|
| [mm] | | | | | | ±0.05 | | | | |
| 18 | 4.6 | 2.4 | 25.2 | 46 | 8.5±0,15 | 30 | 20 | 16.5 | 11 | 150 |
| 25 | 7.65 | 4.5 | 29 | 55.5 | 12±0,15 | 35 | 26.1 | 18.6 | 17 | 200 |
| 32 | 8.5 | 14 | 35.2 | 63.8 | 11.45±0,15 | 50 | 30 | 22 | 18.5 | 250 |
| 40 | 12.2 | 8 | 44 | 81.5 | 15±0,15 | 60 | 35 | 26 | 26 | 300 |
| 50 | 12 | 8 | 53 | 104.5 | 100±0,05 | – | 30.5 | 30.5 | 28 | 350 |
| 63 | 19.5 | 15.5 | 67 | 131 | 120±0,05 | – | 41.5 | 39.5 | 31.5 | 400 |

| ∅ | L2 | L3 | L4 | L5 | L6 | L8 | | | T1 | T2 | T3 | T6 | Stroke tolerance |
|------|-------|------|------|------|------|-----|------|------|------|---------------------|------|-------|------------------|
| | | | | | | PPV | YSR | YSRW | | | | | |
| [mm] | | | | | | | | | | | +0.2 | | |
| 18 | 74.5 | 5.7 | 5.8 | 15 | 5.5 | 0 | 29.9 | 32.4 | 9 | 2 | 3.1 | 15 | 0 ... 2.5 |
| 25 | 100 | 10.5 | 10.6 | 24.5 | 10.6 | 0 | 35.6 | 38.6 | 17.5 | 2 | 2.1 | 17.3 | |
| 32 | 124.8 | 14.5 | 14.5 | 30.5 | 14.5 | 0 | 19.5 | 28 | 15 | 2 | 2.1 | 20 | |
| 40 | 150 | 14.6 | 14.6 | 33.5 | 14.6 | 0 | 38.5 | 43.5 | 20 | 3 | 2.1 | 25.7 | |
| 50 | 175 | 17 | – | 41 | 17 | 0 | 31 | 36.3 | 24 | 2.1 ^{+0,2} | – | 28.75 | |
| 63 | 200 | 20 | – | 44 | 20 | 0 | 38.3 | 48.3 | 27.5 | 2.1 ^{+0,2} | – | 36.1 | |

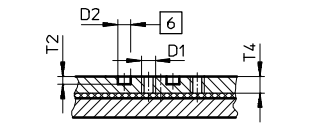
Linear drives DGC-KF, with recirculating ball bearing guide

1

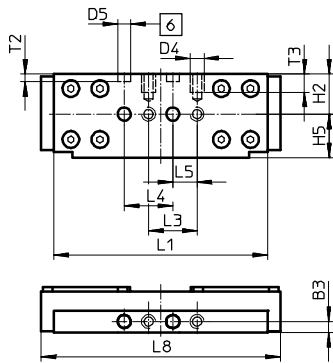
Dimensions

Slide

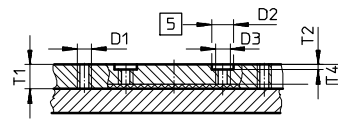
Ø 18



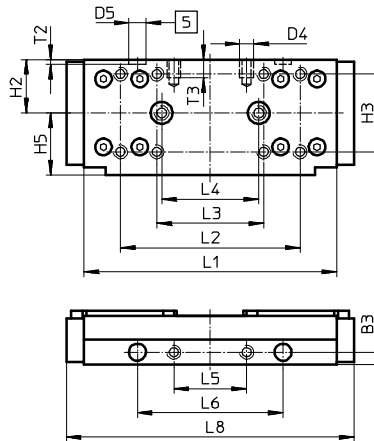
View A



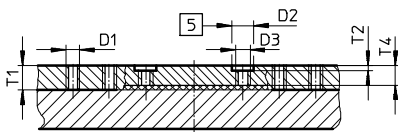
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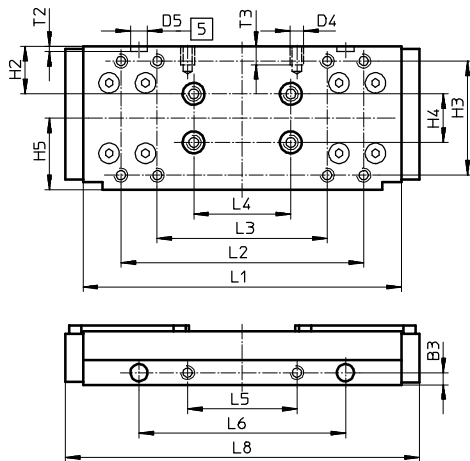
View A



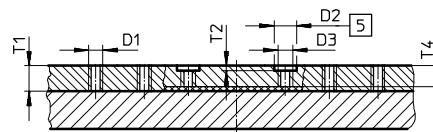
Ø 32



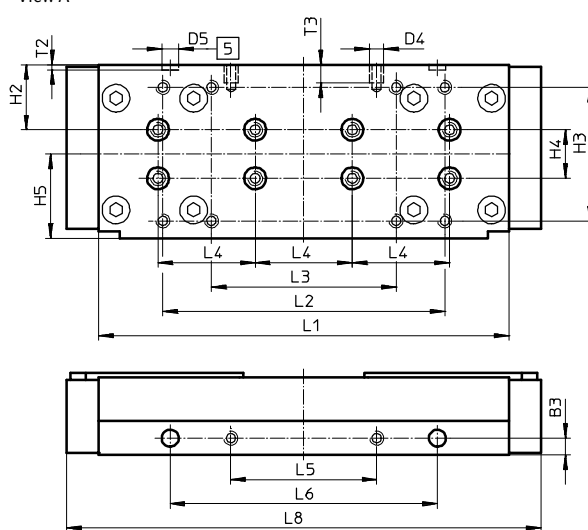
View A



Ø 40



View A



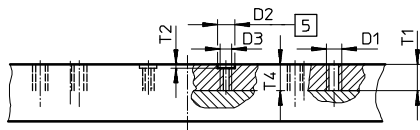
- 5 Hole for centring sleeve ZBH
- 6 Hole for centring pin ZBS

Linear drives DGC-KF, with recirculating ball bearing guide

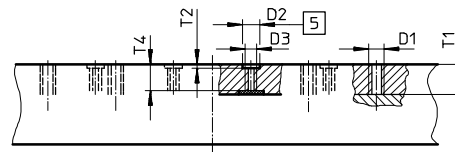
Dimensions

Slide

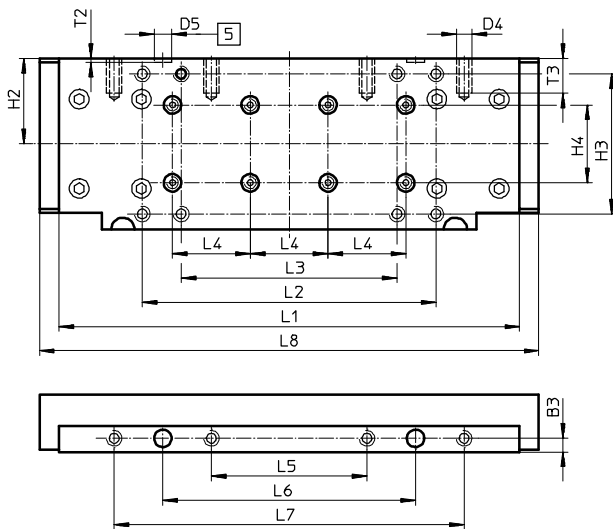
Ø 50



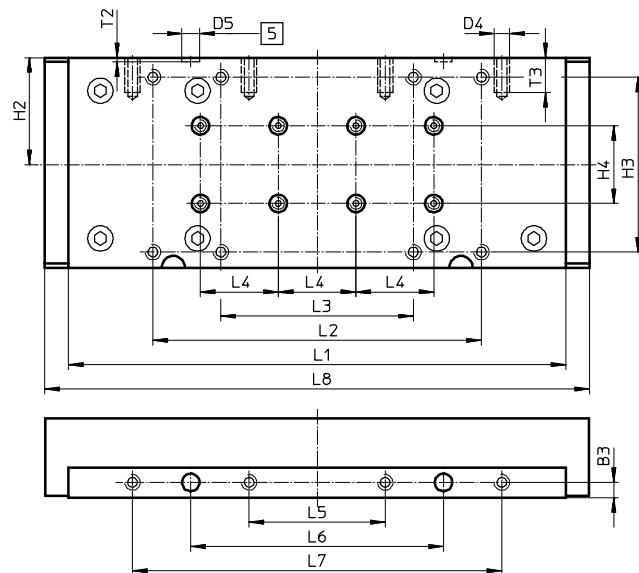
Ø 63



View A



View A



5 Hole for centring sleeve ZBH

| Ø | B3 | D1 | D2 | D3 | D4 | D5 | H2 | H3 | H4 | H5 | L1 |
|------|-------|-----|---------|----|-----|---------|------|--------|-------|------|---------|
| [mm] | ±0.05 | | Ø H7 | | | Ø H7 | | | ±0.03 | ±0.1 | |
| 18 | 4.5 | M5 | 5 | - | M5 | 5 | 16.5 | - | - | 18 | 88±0.1 |
| 25 | 5 | M5 | 9 | M6 | M5 | 7 | 22 | 32±0.2 | - | 25.5 | 104±0.2 |
| 32 | 5 | M5 | 9 | M6 | M5 | 7 | 19.5 | 47±0.2 | 20 | 29.5 | 131±0.2 |
| 40 | 7 | M5 | 9 | M6 | M6 | 7 | 26.8 | 55±0.2 | 20 | 34.7 | 169±0.2 |
| 50 | 7 | M 8 | 9 | M6 | M 8 | 9 | 44 | 72±0.3 | 40 | - | 237±0.1 |
| 63 | 8 | M 8 | 9 | M6 | M 8 | 9 | 55 | 90±0.3 | 40 | - | 256±0.1 |

| Ø | L2 | L3 | L4 | L5 | L6 | L7 | L8 | T1 | T2 | T3 | T4 |
|------|------|---------|-------|------|-------|------|-------|------|---------|-----|------|
| [mm] | ±0.1 | | ±0.03 | ±0.1 | ±0.05 | ±0.1 | | | | | |
| 18 | - | 20±0.1 | 20 | 10 | - | - | 99 | - | 3.1±0.1 | 7.5 | 6.7 |
| 25 | 74 | 44±0.2 | 40 | 30 | 60 | - | 118.5 | 10 | 2.1±0.2 | 7.5 | 8 |
| 32 | 100 | 70±0.2 | 40 | 45 | 85 | - | 145.7 | 10 | 2.1±0.2 | 7.5 | 8 |
| 40 | 116 | 76±0.2 | 40 | 60 | 110 | - | 195.4 | 10.5 | 2.1±0.2 | 7.5 | 8.5 |
| 50 | 151 | 111±0.2 | 40 | 80 | 130 | 180 | 256.8 | 13.5 | 2.1±0.2 | 18 | 13.5 |
| 63 | 169 | 99±0.2 | 40 | 70 | 130 | 190 | 280 | 15.5 | 2.1±0.2 | 18 | 13.6 |

Linear drives DGC-KF, with recirculating ball bearing guide

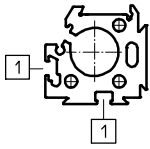
Download CAD data → www.festo.com

1

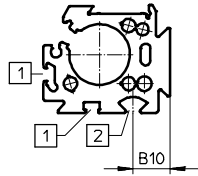
Dimensions

Profile barrel

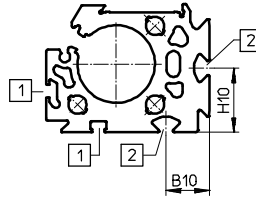
Ø 18



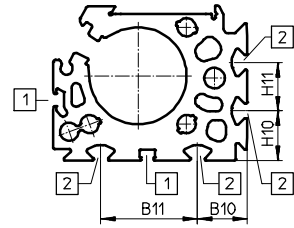
Ø 25



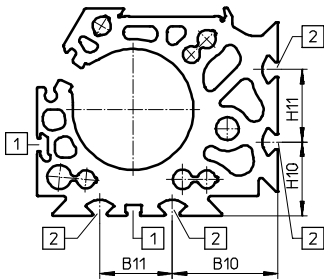
Ø 32



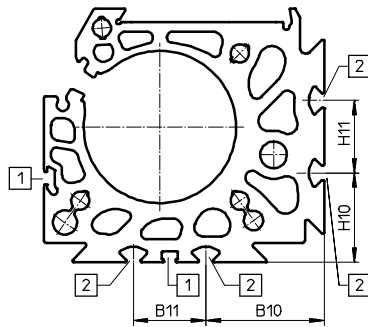
Ø 40



Ø 50



Ø 63



- 1 Slot for proximity sensor
- 2 Mounting slot for slot nut

| Ø | B10 | B11 | H10 | H11 |
|----|-------|-----|------|-----|
| 25 | 15.23 | - | - | - |
| 32 | 18 | - | 26.5 | - |
| 40 | 20.5 | 40 | 20.5 | 20 |
| 50 | 43.8 | 30 | 30.5 | 30 |
| 63 | 49 | 30 | 37 | 30 |



Overview/Configuration/Ordering

→ www.festo.com/catalogue/dgc-hd



Additional information/Support/User documentation

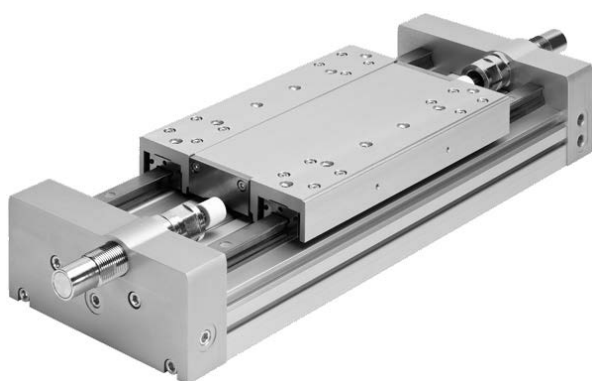
→ www.festo.com/sp/dgc-hd

Rodless cylinders

Mechanically coupled cylinders

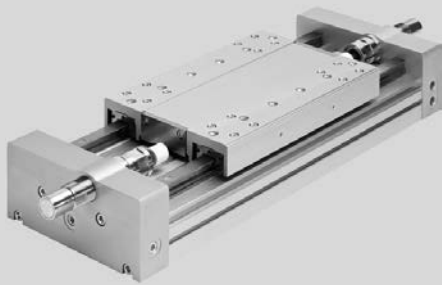
Linear drives with heavy-duty guide

DGC-HD



- + For maximum loads and torques thanks to duo rail guide
- + Very good operating behaviour under torque load
- + Long service life
- + Ideal as a basic axis for linear gantries and cantilever axes
- + Excellent price/performance ratio
- + Wide range of options for mounting on drives

Linear drives DGC-HD, with heavy-duty guide



- Maximum loads and torques
- Long service life
- Ideal as a basic axis for linear gantries and cantilever axes
- Spare parts service

→ www.festo.com/catalogue/dgc-hd

Product range overview

| Type/Function | Piston Ø [mm] | Stroke [mm] | Force [N] | Product options | | → Page/ online |
|---------------|------------------------------------------------------|----------------|--------------|-----------------|------|------------------------|
| | | | | YSR | YSRW | |
| Double-acting | DGC-...-K – Compact design | | | | | |
| | 18, 25, 32, 40, 50, 63, 80 | 1 ... 8500 | 153 ... 3016 | - | - | 171 |
| | DGC-...-G – Basic design | | | | | |
| | 8, 12, 18, 25, 32, 40, 50, 63 | 1 ... 8500 | 30 ... 1870 | ■ | ■ | 183 |
| | DGC-...-GF – Plain-bearing guide | | | | | |
| | 18, 25, 32, 40, 50, 63 | 1 ... 8500 | 153 ... 1870 | ■ | ■ | 186 |
| Double-acting | DGC-...-KF – Recirculating ball bearing guide | | | | | |
| | 8, 12, 18, 25, 32, 40, 50, 63 | 1 ... 8500 | 30 ... 1870 | ■ | ■ | 189 |
| | DGC-...-HD – Heavy-duty design | | | | | |
| | 18, 25, 40 | 10 ... 5000 | 153 ... 754 | ■ | ■ | 213 |
| Without drive | DGC-FA – Passive guide axis | | | | | |
| | 8, 12, 18, 25, 32, 40, 50, 63 | 1 ... 5000 | - | ■ | ■ | dgc-fa |

Product options

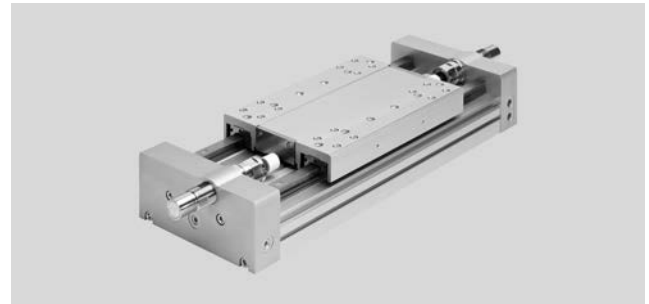
YSR Linear shock absorber, self-adjusting

YSRW Progressive shock absorber, self-adjusting

GP Standard slide, protected
KL Standard slide, left

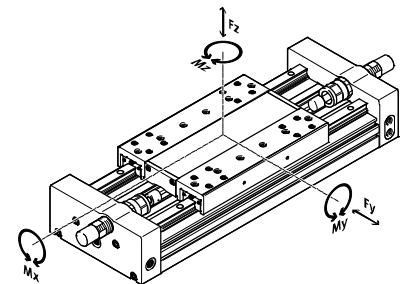
KR Standard slide, right

Data sheet



Technical data

Dimensions → 218



| | | | | |
|-------------------------------|------|--------------------------------------------|-----------------|-----------------|
| Piston Ø | | 18 | 25 | 40 |
| Pneumatic port | | M5 | G $\frac{1}{8}$ | G $\frac{1}{4}$ |
| Stroke | [mm] | 10 ... 3000 | 10 ... 5000 | 10 ... 3500 |
| Cushioning | | Linear shock absorber, self-adjusting | | |
| DGC-...-YSR | | Linear shock absorber, self-adjusting | | |
| DGC-...-YSRW | | Progressive shock absorber, self-adjusting | | |
| Theoretical force at 6 bar | [N] | 153 | 295 | 754 |
| Max. permissible force F_y | [N] | 3650 | 5600 | 13000 |
| Max. permissible force F_z | [N] | 3650 | 5600 | 13000 |
| Max. permissible torque M_x | [Nm] | 140 | 300 | 900 |
| Max. permissible torque M_y | [Nm] | 275 | 500 | 1450 |
| Max. permissible torque M_z | [Nm] | 275 | 500 | 1450 |

| | | | | |
|-----------------------------------|-------|-------------|----|-----------|
| Operating conditions | | | | |
| Piston Ø | | 18 | 25 | 40 |
| Operating pressure | [bar] | 2.5 ... 8 | | 1.5 ... 8 |
| Ambient temperature ¹⁾ | [°C] | -10 ... +60 | | |

1) Note operating range of proximity sensors.

| | |
|---------------------------|--------------------|
| Materials | |
| End cap | Anodised aluminium |
| Slide | Anodised aluminium |
| Cylinder barrel | Anodised aluminium |
| Seals | NBR, TPE-U (PU) |
| Sealing band / Cover band | PU/Steel |

Linear drives DGC-HD, with heavy-duty guide

1

Order code

| | | | | | | | | | | |
|----------------------|--------------------------------------------|-----|---|--|---|--|---|----|---|--|
| | | DGC | - | | - | | - | HP | - | |
| Type | | | | | | | | | | |
| DGC | Linear drive | | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | | |
| | Stroke [mm] | | | | | | | | | |
| 18 | 10 ... 3000 | | | | | | | | | |
| 25 | 10 ... 5000 | | | | | | | | | |
| 40 | 10 ... 3500 | | | | | | | | | |
| Guide | | | | | | | | | | |
| HD | Heavy-duty guide | | | | | | | | | |
| Cushioning | | | | | | | | | | |
| YSR | Linear shock absorber, self-adjusting | | | | | | | | | |
| YSRW | Progressive shock absorber, self-adjusting | | | | | | | | | |

Order example:

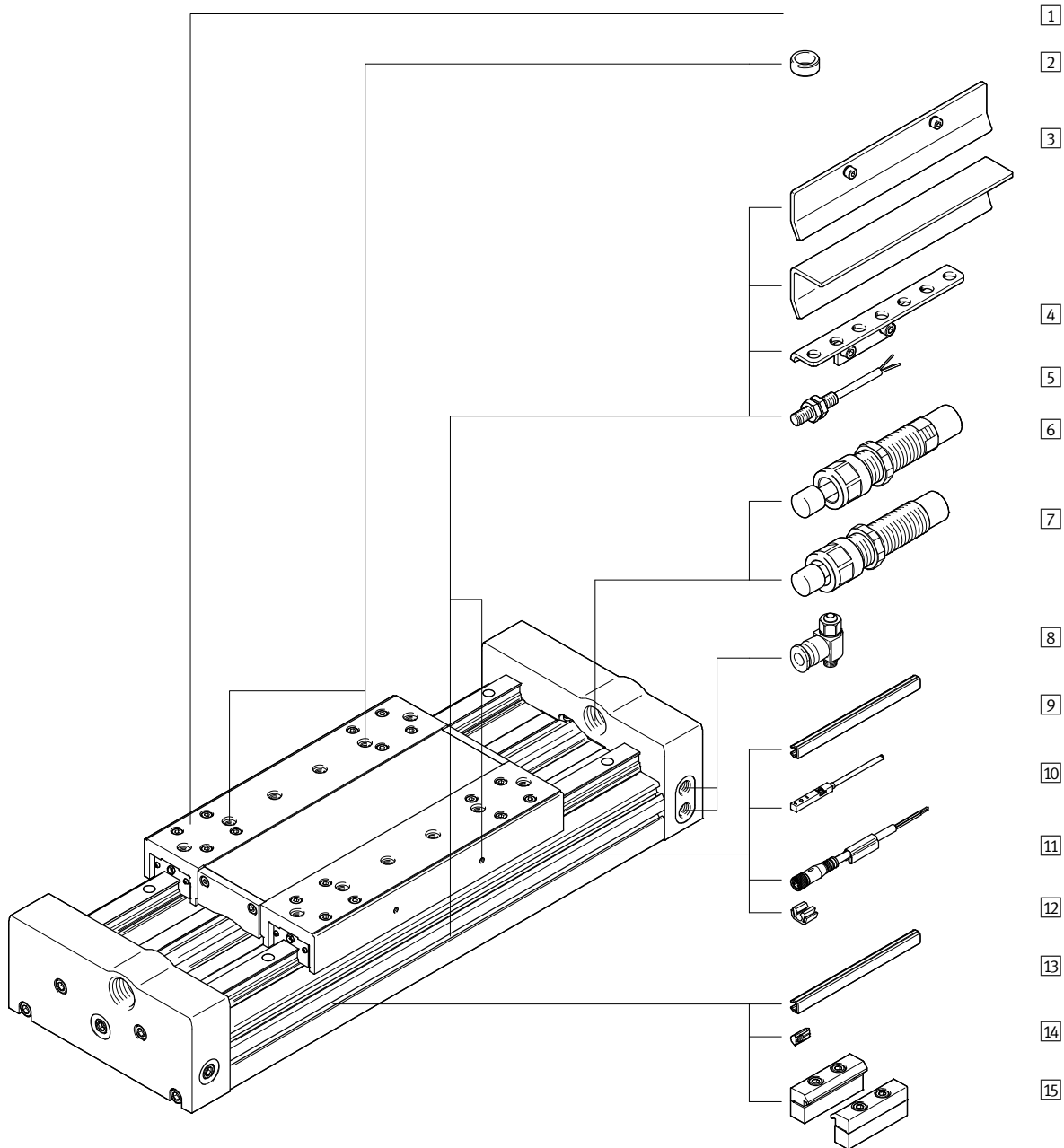
DGC-18-200-HD-YSRW

Linear drive DGC - piston diameter 18 mm - stroke 200 mm - heavy-duty guide - progressive shock absorber, self-adjusting

Ordering – Product options

| | | | | |
|-------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
|  | <p>Configurable product</p> | <p>This product and all its options can be ordered using the configurator.</p> | <p>The configurator can be found under Products on the DVD or → www.festo.com/catalogue/...</p> | <p>Enter the type code in the search field.</p> |
|-------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|

Accessories



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15



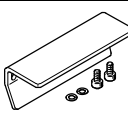
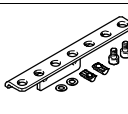
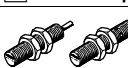
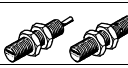
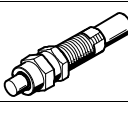
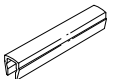
| | | → Page/online |
|---|---------------------------------|---------------|
| 1 | Linear drive DGC-HD | 213 |
| 2 | Centring sleeve ZBH | 216 |
| 3 | Switch lug SF-EGC-HD | 216 |
| 4 | Sensor bracket HWS-EGC | 216 |
| 5 | Proximity sensor, M8 SIEN | 216 |
| 6 | Shock absorber YSR | - |
| 7 | Shock absorber YSRW | 216 |
| 8 | One-way flow control valve GRLA | 216 |

| | | → Page/online |
|----|------------------------------------|---------------|
| 9 | Slot cover ABP-S | 216 |
| 10 | Proximity sensor, T-slot SIES | 217 |
| 10 | Proximity sensor, T-slot SMT/SME-8 | 217 |
| 11 | Connecting cable NEBU | 217 |
| 12 | Clip SMBK | 217 |
| 13 | Slot cover ABP | 217 |
| 14 | Slot nut NST | 217 |
| 15 | Profile mounting MUE | 217 |

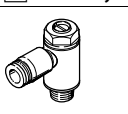
Linear drives DGC-HD, with heavy-duty guide

1

Accessories – Ordering data

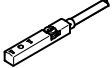
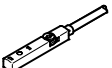
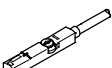
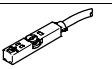
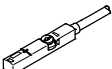
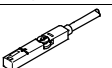




| | For Ø | Cable length [m] | Part no. | Type | |
|------------------------------------------------------------------------------------|------------|------------------|----------|------------------|----------------------------------------------|
| 2 Centring pin/sleeve¹⁾²⁾ | | | | | Technical data online: → zbh |
|  | 18 | – | 150928 | ZBS-5 | |
| | 25, 40 | – | 150927 | ZBH-9 | |
| 3 Switch lug³⁾ | | | | | Dimensions online: → dgc-hd |
|  | 18 | – | 570027 | SF-EGC-HD-1-125 | |
| | 25 | – | 1645872 | SF-EGC-HD-1-160 | |
| | 40 | – | 1645866 | SF-EGC-HD-1-220 | |
| 3 Switch lug⁴⁾ | | | | | Dimensions online: → dgc-hd |
|  | 18 | – | 570030 | SF-EGC-HD-2-125 | |
| | 25 | – | 1645865 | SF-EGC-HD-2-160 | |
| | 40 | – | 1645868 | SF-EGC-HD-2-220 | |
| 4 Sensor bracket⁵⁾ | | | | | Dimensions online: → dgc-hd |
|  | 18 | – | 558057 | HWS-EGC-M5 | |
| | 25 | – | 558057 | HWS-EGC-M5 | |
| | 40 | – | 570365 | HWS-EGC-M8-B | |
| 5 Inductive proximity sensor, N/O contact, M8 | | | | | Technical data → 899 |
|  | PNP, cable | 2.5 | ★ 150386 | SIEN-M8B-PS-K-L | |
| | PNP, plug | – | ★ 150387 | SIEN-M8B-PS-S-L | |
| N/C contact, M8 | | | | | Technical data → 899 |
|  | PNP, cable | 2.5 | 150390 | SIEN-M8B-PO-K-L | |
| | PNP, plug | – | 150391 | SIEN-M8B-PO-S-L | |
| 7 Shock absorber | | | | | |
|  | 18 | – | 540351 | YSRW-DGC-32-KF | |
| | 25 | – | 1232870 | YSRW-DGC-40/50-B | |
| | 40 | – | 543069 | YSRW-DGC-63 | |
| 9 Slot cover⁶⁾ | | | | | |
|  | 18, 25, 40 | – | 563360 | ABP-5-S1 | |



- 1) Packaging unit 10 pieces.
- 2) 2 centring pins/sleeves included in the scope of delivery of the axis.
- 3) For sensing via proximity sensor SIES-8M.
- 4) For sensing via proximity sensor SIEN-M8B or SIES-8M.
- 5) For proximity sensor SIEN-M8B.
- 6) Packaging unit 2x 0.5 m.

| Function | For Ø | Connection | | Part no. | Type |
|------------------------------------------------------------------------------------|--------|------------|------|----------|--------------------|
| | | Thread | O.D. | | |
| 8 One-way flow control valve with slotted head screw, metal⁷⁾ | | | | | |
|  | 8, 12 | M5 | 3 | ★ 193137 | GRLA-M5-QS-3-D |
| | 18 | | 6 | ★ 193139 | GRLA-M5-QS-6-D |
| | 25, 32 | G1/8 | 8 | 162966 | GRLA-1/8-QS-8-RS-B |
| | 40, 50 | G1/4 | | 162968 | GRLA-1/4-QS-8-RS-B |
| | 63 | G3/8 | | 162970 | GRLA-3/8-QS-8-RS-B |


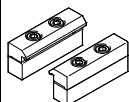
7) The recommended flow control valves are based on a tubing length to the valve of 1 m. For deviations of ±50%, flow control valves with a bigger or smaller flow rate must be selected to guarantee the optimum flow control function and cylinder speed.

Accessories – Ordering data

| | For Ø | Cable length [m] | Part no. | Type | |
|-------------------------------------------------------------------------------------|------------|------------------|----------|---------------------------|-----------------------|
| 10 Proximity sensor for T-slot, inductive, N/O contact | | | | | Technical data → 905 |
|  | PNP, cable | 7.5 | 551386 | SIES-8M-PS-24V-K-7,5-OE | |
| | PNP, plug | 0.3 | 551387 | SIES-8M-PS-24V-K-0,3-M8D | |
| | NPN, cable | 7.5 | 551396 | SIES-8M-NS-24V-K-7,5-OE | |
| | NPN, plug | 0.3 | 551397 | SIES-8M-NS-24V-K-0,3-M8D | |
| Inductive – N/C contact | | | | | Technical data → 905 |
|  | PNP, cable | 7.5 | 551391 | SIES-8M-PO-24V-K-7,5-OE | |
| | PNP, plug | 0.3 | 551392 | SIES-8M-PO-24V-K-0,3-M8D | |
| | NPN, cable | 7.5 | 551401 | SIES-8M-NO-24V-K-7,5-OE | |
| | NPN, plug | 0.3 | 551402 | SIES-8M-NO-24V-K-0,3-M8D | |
| Magneto-resistive – N/O contact | | | | | Technical data → 878 |
|  | PNP, cable | 2.5 | ★ 574335 | SMT-8M-A-PS-24V-E-2,5-OE | |
| | PNP, plug | 0.3 | ★ 574334 | SMT-8M-A-PS-24V-E-0,3-M8D | |
| | PNP, plug | 0.3 | ★ 574337 | SMT-8M-A-PS-24V-E-0,3-M12 | |
| | NPN, cable | 2.5 | ★ 574338 | SMT-8M-A-NS-24V-E-2,5-OE | |
| | NPN, plug | 0.3 | ★ 574339 | SMT-8M-A-NS-24V-E-0,3-M8D | |
| Magneto-resistive – N/C contact | | | | | Technical data → 878 |
|  | PNP, cable | 7.5 | ★ 574340 | SMT-8M-A-PO-24V-E-7,5-OE | |
| Magnetic reed – N/O contact | | | | | Technical data → 873 |
|  | Cable | 2.5 | ★ 543862 | SME-8M-DS-24V-K-2,5-OE | |
| | Cable | 5.0 | ★ 543863 | SME-8M-DS-24V-K-5,0-OE | |
| | Cable | 2.5 | ★ 543872 | SME-8M-ZS-24V-K-2,5-OE | |
| | Plug | 0.3 | ★ 543861 | SME-8M-DS-24V-K-0,3-M8D | |
| Magnetic reed – N/C contact | | | | | Technical data → 875 |
|  | Cable | 7.5 | ★ 546799 | SME-8M-DO-24V-K-7,5-OE | |
| 11 Connecting cable, straight socket | | | | | Technical data → 1161 |
|  | – | 2.5 | ★ 541333 | NEBU-M8G3-K-2.5-LE3 | |
| | – | 5.0 | ★ 541334 | NEBU-M8G3-K-5-LE3 | |
|  | – | 2.5 | ★ 541363 | NEBU-M12G5-K-2.5-LE3 | |
| | – | 5.0 | ★ 541364 | NEBU-M12G5-K-5-LE3 | |
| Angled socket | | | | | Technical data → 1161 |
|  | – | 2.5 | ★ 541338 | NEBU-M8W3-K-2.5-LE3 | |
| | – | 5.0 | ★ 541341 | NEBU-M8W3-K-5-LE3 | |
|  | – | 2.5 | 541367 | NEBU-M12W5-K-2.5-LE3 | |
| | – | 5.0 | 541370 | NEBU-M12W5-K-5-LE3 | |

| | For Ø | Part no. | Type |
|-------------------------------------------------------------------------------------|------------|----------|---------|
| 12 Clip | | | |
|  | 18, 25, 40 | 534254 | SMBK-8 |
| 13 Slot cover¹⁾ | | | |
|  | 18 | 151681 | ABP-5 |
| | 25 | 151680 | ABP-5-S |
| | 40 | 151682 | ABP-8 |

1) Packaging unit 2x 0.5 m.

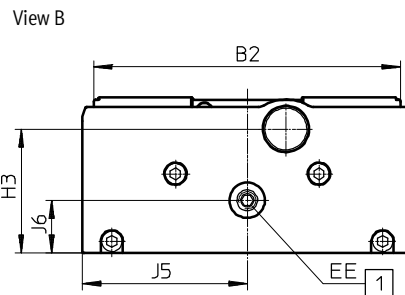
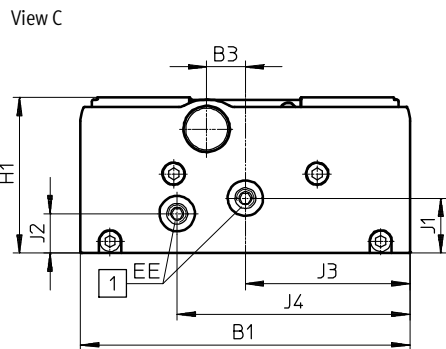
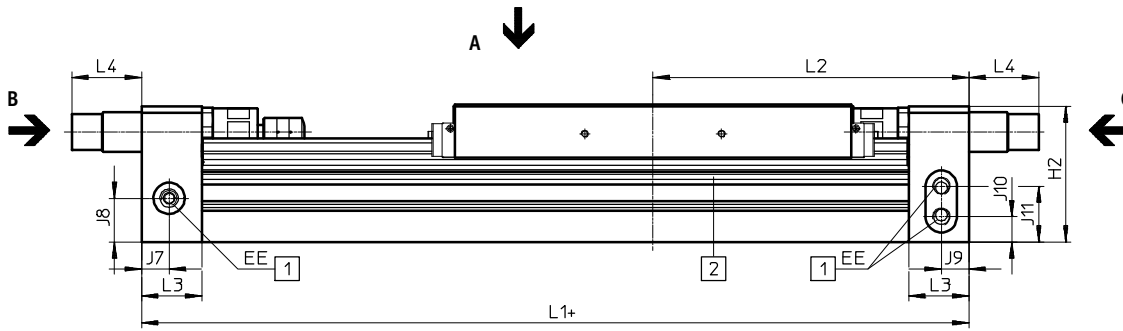
| | For Ø | Part no. | Type |
|-------------------------------------------------------------------------------------|---------------------------------------------|----------|-------------|
| 14 Slot nut | | | |
|  | 18, 25 ²⁾ | 150914 | NST-5-M5 |
| | 25 ³⁾ , 40 | 150915 | NST-8-M6 |
| 15 Profile mounting | | | |
|  | Dimensions online: → dgc-hd | | |
| | 18, 25 | ★ 558043 | MUE-70/80 |
| | 40 | 558044 | MUE-120/185 |

2) For mounting slot at side.
 3) For mounting slot underneath.

Linear drives DGC-HD, with heavy-duty guide

1

Dimensions

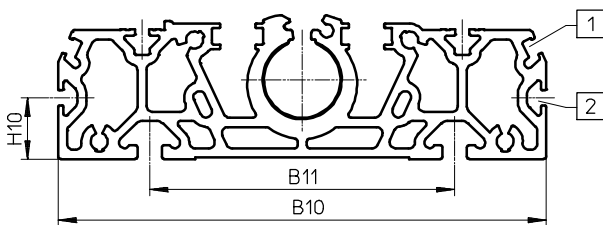


- + plus stroke length
- 1 Supply port
- 2 Sensor slot for proximity sensor

| ∅ | B1 | B2 | B3 | EE | H1 | H2 | H3 | J1 | J2 | J3 | J4 |
|------|-----|-------|----|------|-------|-------|------|------|------|-----|-------|
| [mm] | | | | | | | | | | | |
| 18 | 124 | 120 | 10 | M5 | 64 | 63.1 | 51.7 | 25.5 | 15 | 59 | 88 |
| 25 | 162 | 150.7 | 19 | G1/8 | 76.5 | 75.5 | 61 | 27 | 19.4 | 81 | 114.5 |
| 40 | 222 | 204 | 12 | G1/4 | 111.5 | 109.5 | 91 | 43 | 25 | 105 | 157 |

| ∅ | J5 | J6 | J7 | J8 | J9 | J10 | J11 | L1 | L2 | L3 | L4 | |
|------|-----|------|------|------|------|-----|------|-------|-------|------|------|------|
| [mm] | | | | | | | | | | | YSR | YSRW |
| 18 | 59 | 25.5 | 14.9 | 21.6 | 14.9 | 15 | 25.6 | 306.5 | 153 | 24.5 | 34 | 20.5 |
| 25 | 81 | 26 | 15.4 | 24.3 | 15.4 | 14 | 31 | 351.5 | 175.5 | 33.5 | 43.8 | 38.8 |
| 40 | 111 | 37 | 25.1 | 31 | 25.1 | 23 | 45 | 472.5 | 236 | 44 | 48.3 | 38.3 |

Profile barrel

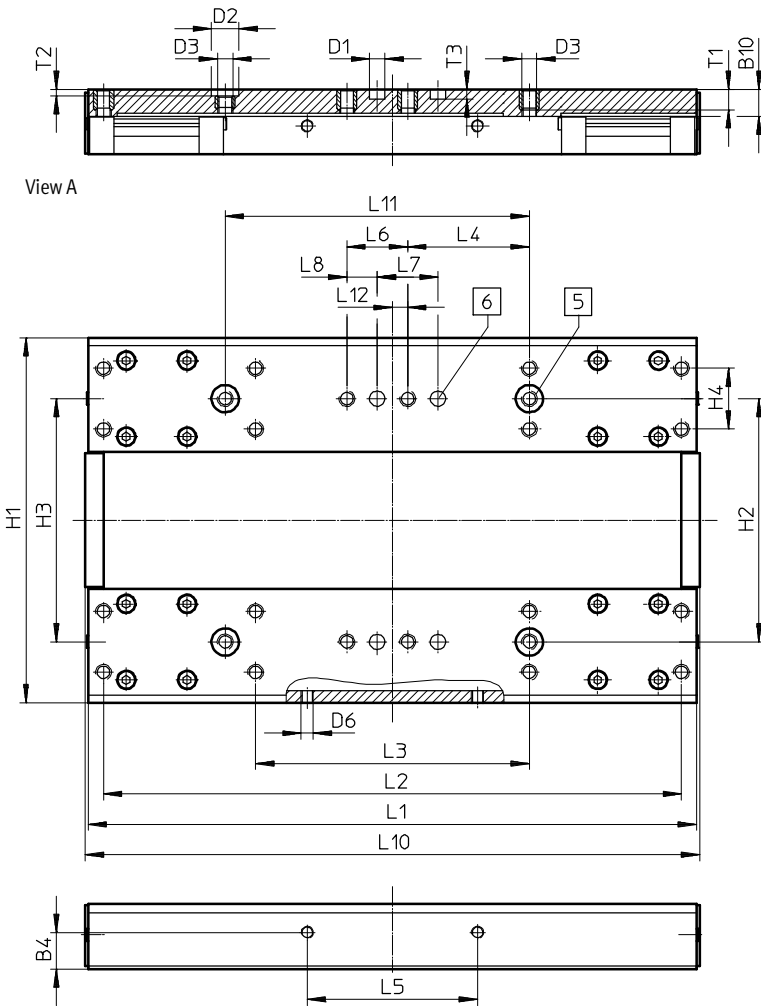


- 1 Sensor slot for proximity sensor
- 2 Mounting slot for slot nut

| ∅ | B10 | B11 | H10 |
|------|-----|-----|-----|
| [mm] | | | |
| 18 | 122 | 80 | 20 |
| 25 | 160 | 100 | 20 |
| 40 | 220 | 140 | 20 |

Dimensions

∅ 18



- 5 Hole for centring sleeve ZBH
- 6 Hole for centring pin ZBS

| ∅ | B4 | B10 | D1 | D2 | D3 | D6 | H1 | H2 | H3 | H4 | L1 | L2 |
|------|------|-----|---------|---------|----|----|------|-------|----|------|------|------|
| [mm] | ±0.1 | | ∅ H7 | ∅ H7 | | | ±0.3 | ±0.05 | | ±0.1 | ±0.1 | ±0.2 |
| 18 | 12 | 8.8 | 5 | 9 | M5 | M4 | 120 | 80 | 80 | 20 | 200 | 190 |

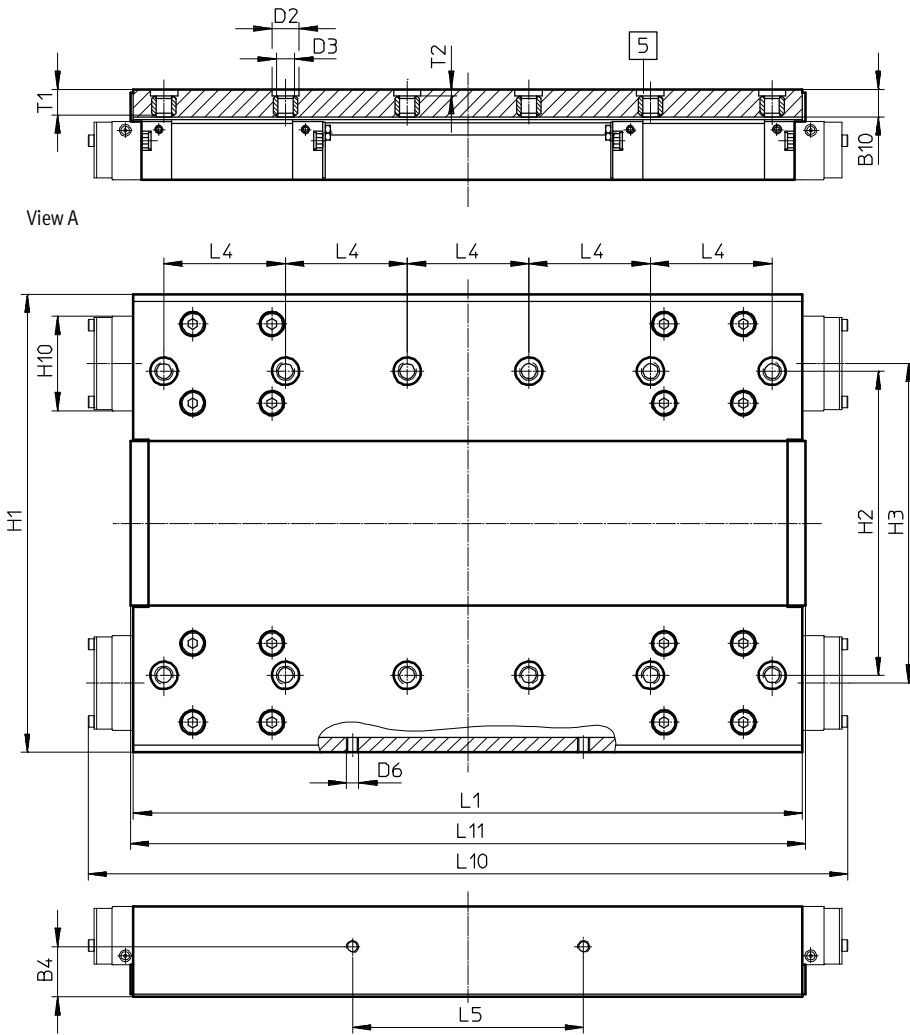
| ∅ | L3 | L4 | L5 | L6 | L7 | L8 | L10 | L11 | L12 | T1 | T2 | T3 |
|------|------|------|------|------|-------|------|-----|-------|-----|-----|------|------|
| [mm] | ±0.2 | ±0.1 | ±0.2 | ±0.1 | ±0.03 | ±0.1 | | ±0.03 | | | +0.1 | +0.1 |
| 18 | 90 | 40 | 56 | 20 | 20 | 10 | 202 | 100 | 5 | 7.8 | 2.1 | 3.1 |

Linear drives DGC-HD, with heavy-duty guide

1

Dimensions

∅ 25



5 Hole for centring sleeve ZBH

| ∅ | B4 | B10* | D2 | D3 | D6 | H1 | H2 | H3 |
|------|------|------|------|----|----|-------|-------|-----|
| [mm] | ±0.1 | | ∅ H7 | | | ±0.3 | ±0.05 | |
| 25 | 16.5 | 10 | 9 | M6 | M4 | 150.7 | 100 | 105 |

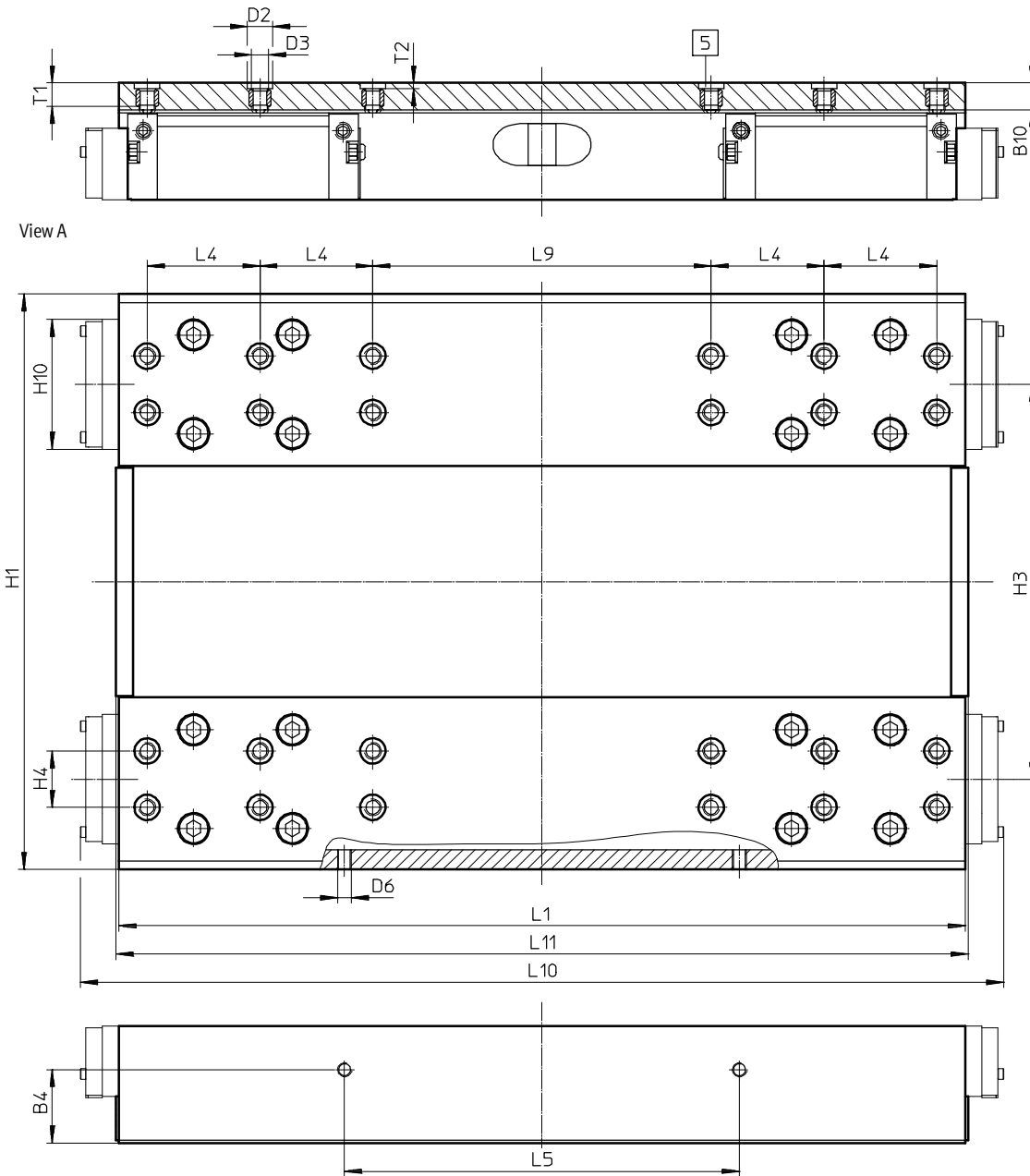
| ∅ | H10* | L1 | L4 | L5 | L10* | L11 | T1 | T2 |
|------|------|------|-------|------|-------|-----|----|------|
| [mm] | | ±0.1 | ±0.03 | ±0.1 | | | | +0.1 |
| 25 | 31 | 220 | 40 | 76 | 249.8 | 222 | 9 | 2.1 |

* Protected version

Dimensions

Download CAD data → www.festo.com

∅ 40



5 Hole for centring sleeve ZBH

| ∅ | B4 | B10* | D2 | D3 | D6 | H1 | H3 | H4 |
|------|------|------|---------|----|----|------|-----|-------|
| [mm] | ±0.1 | | ∅ H7 | | | ±0.3 | | ±0.05 |
| 40 | 26 | 10.5 | 9 | M6 | M5 | 204 | 140 | 20 |

| ∅ | H10* | L1 | L4 | L5 | L9 | L10* | L11 | T1 | T2 |
|------|------|------|-------|------|-------|-------|-----|-----|------|
| [mm] | | ±0.1 | ±0.05 | ±0.1 | ±0.05 | | | | +0.1 |
| 40 | 46 | 300 | 40 | 140 | 120 | 327.3 | 302 | 9.5 | 2.1 |

* Protected version



Overview/Configuration/Ordering
→ www.festo.com/catalogue/drvs



Additional information/Support/User documentation
→ www.festo.com/sp/drvs

Semi-rotary drives
Semi-rotary drives with rotary vane
Semi-rotary drive

DRVS



- + Lighter than other semi-rotary drives
- + Housing protected against splash water and dust



- Double-acting semi-rotary drive with rotary vane
- Elastic cushioning at both ends
- Lighter than other semi-rotary drives
- Modern and compact design
- Housing protected against splash water and dust
- Selected types in accordance with the ATEX Directive for explosive atmospheres → www.festo.com/catalogue/ex

→ www.festo.com/catalogue/drvs

Product range overview

| Type/function | Version | Size | Swivel angle [°] | Torque [Nm] | Product options |
|---------------|---------------------------------------|--------------------|------------------|---------------|-----------------|
| DRVS | | | | | |
| Double-acting | With fixed swivel angle ¹⁾ | 6, 8 | 90, 180 | 0.15 ... 0.35 | ■ |
| | | 12, 16, 25, 32, 40 | 90, 180, 270 | 1 ... 20 | ■ |

1) Swivel angle can be adjusted with the help of accessories.

Product options

P Elastic cushioning at both ends
EX4 EU certification (II 2GD)

Semi-rotary drives DRVS

1

Technical data



| Technical data | | Dimensions → 230 | | | | | | |
|-------------------------------------------------|---------------------------------------|---------------------------------|------|--------------|-----|-----|------|-----|
| Size | | 6 | 8 | 12 | 16 | 25 | 32 | 40 |
| Pneumatic connection | | M3 | | M5 | | | G1/8 | |
| Cushioning | | Elastic cushioning at both ends | | | | | | |
| Swivel angle | [°] | 90, 180 | | 90, 180, 270 | | | | |
| Torque at 6 bar | [Nm] | 0.15 | 0.35 | 1 | 2 | 5 | 10 | 20 |
| Swivel frequency at 6 bar | [Hz] | 3 | | 2 | | | | |
| Max. perm. radial force ¹⁾ | [N] | 15 | 20 | 25 | 30 | 60 | 200 | 350 |
| Max. perm. axial force ¹⁾ | [N] | 10 | | 20 | 25 | 40 | 75 | 120 |
| Cushioning angle | [°] | 0.5 | | | | | | |
| Max. perm. mass moment of inertia ²⁾ | [kgm ² x10 ⁻⁴] | 6.5 | 13 | 50 | 100 | 120 | 200 | 350 |

1) On the drive shaft.
 2) → See also graphs.

| Operating conditions | | | | | | | | |
|---------------------------------|-------|-----------|---|-----------|----|---------|----|----|
| Size | | 6 | 8 | 12 | 16 | 25 | 32 | 40 |
| Operating pressure | [bar] | 3.5 ... 8 | | 2.5 ... 8 | | 2 ... 8 | | |
| Temperature range ³⁾ | [°C] | 0 ... +60 | | | | | | |

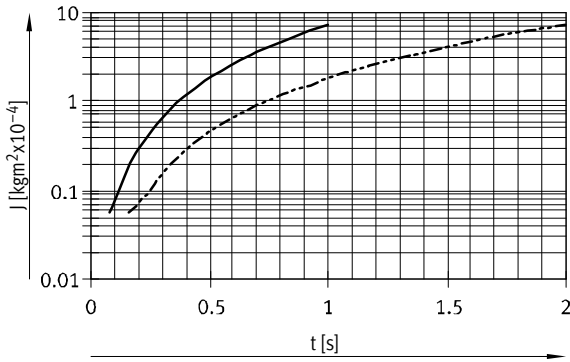
3) Note operating range of proximity sensors.

| Materials | | | | | | | | | |
|-------------|--|----------------------------------|---|----|----------------------------|---------------------|----|----|-----|
| Size | | 6 | 8 | 12 | 16 | 25 | 32 | 40 | |
| Drive shaft | | High-alloy stainless steel | | | | Nickel-plated steel | | | |
| Housing | | Anodised wrought aluminium alloy | | | Painted die-cast aluminium | | | | |
| Rotary vane | | Reinforced PET | | | | | | | |
| Screws | | Galvanised steel | | | | | | | |
| Shaft seal | | - | | | PU | | | | NBR |
| Seals | | TPE-U (PU) | | | | | | | |

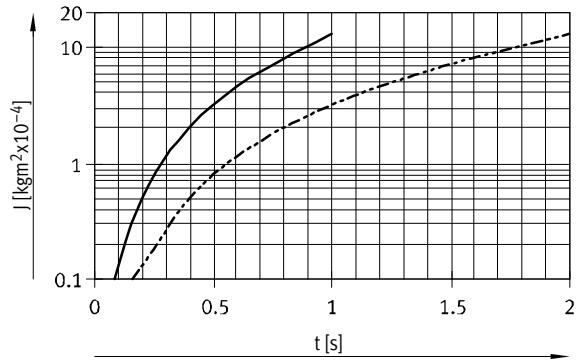
Technical data

Mass moment of inertia J as a function of swivel time t

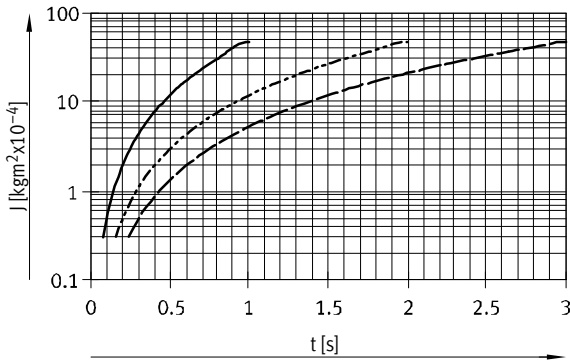
DRVS-6



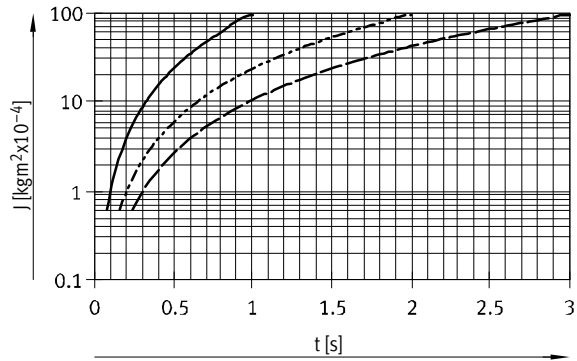
DRVS-8



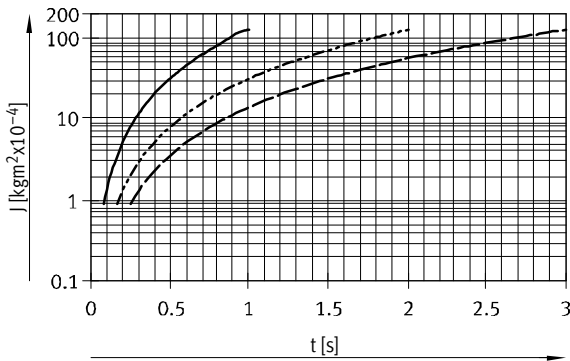
DRVS-12



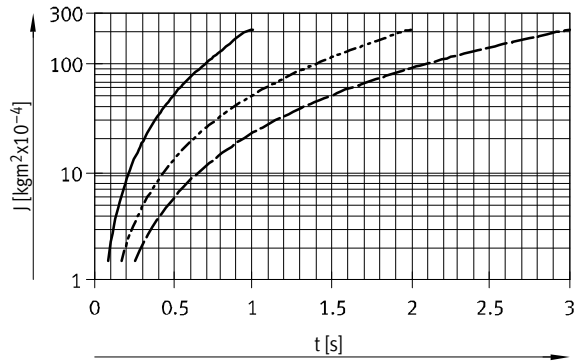
DRVS-16



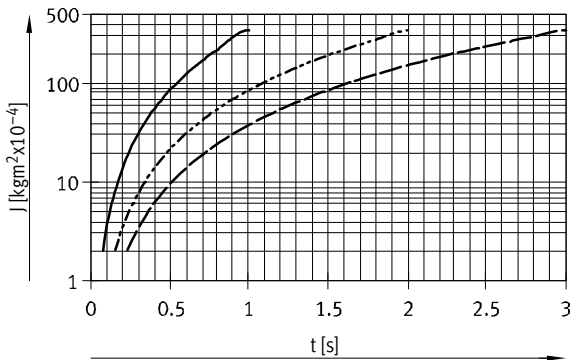
DRVS-25



DRVS-32



DRVS-40

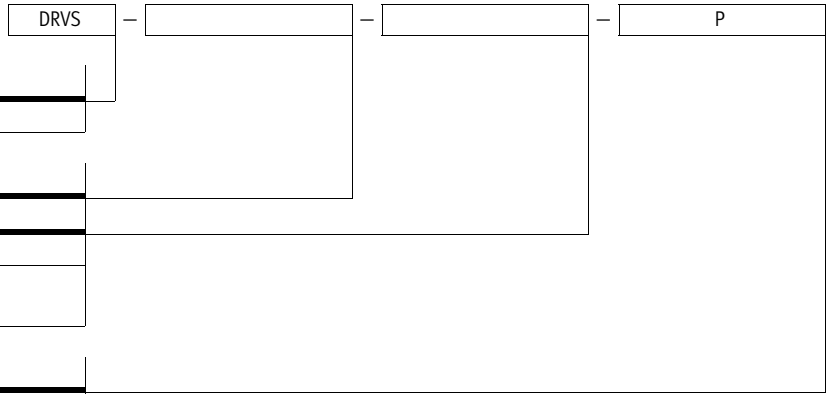


— 90°
 - - - 180°
 - · - 270°

Semi-rotary drives DRVS

1

Order code



| Type | |
|------|-------------------|
| DRVS | Semi-rotary drive |

| Size | |
|--------------------|-----------------------|
| | Max. swivel angle [°] |
| 6, 8 | 90, 180 |
| 12, 16, 25, 32, 40 | 90, 180, 270 |

| Cushioning | |
|------------|---------------------------------|
| P | Elastic cushioning at both ends |

Order example:

DRVS-16-270-P

Semi-rotary drive DRVS - size 16 - max. swivel angle 270° - elastic cushioning at both ends

Ordering – Product options



Configurable product

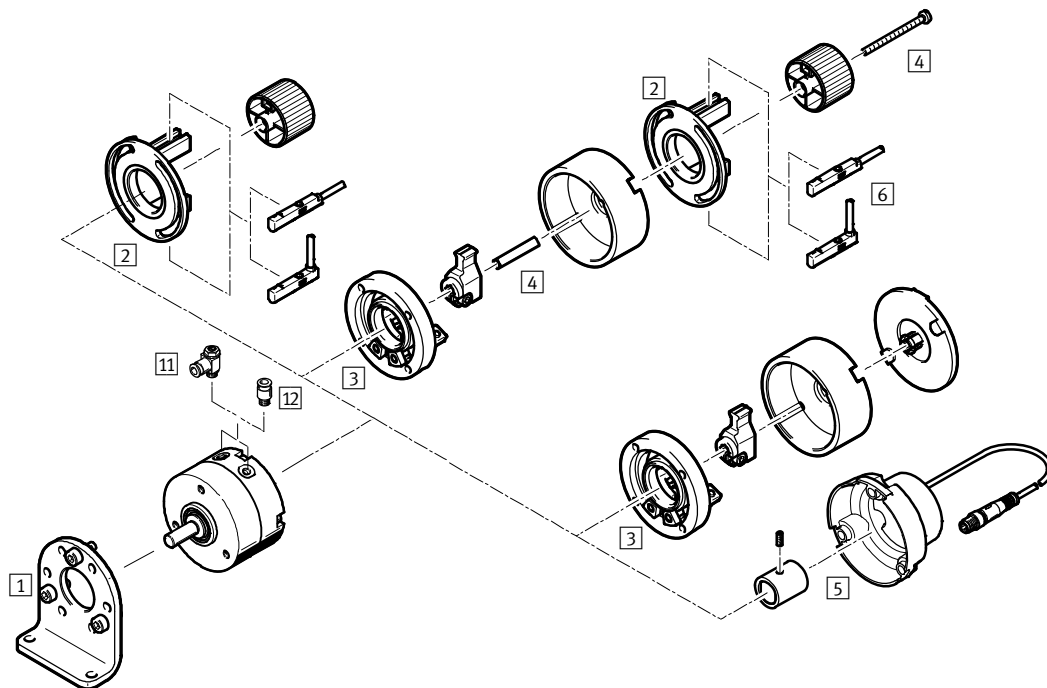
This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
 → www.festo.com/catalogue/...

Enter the type code in the search field.

Accessories

Size 6, 8

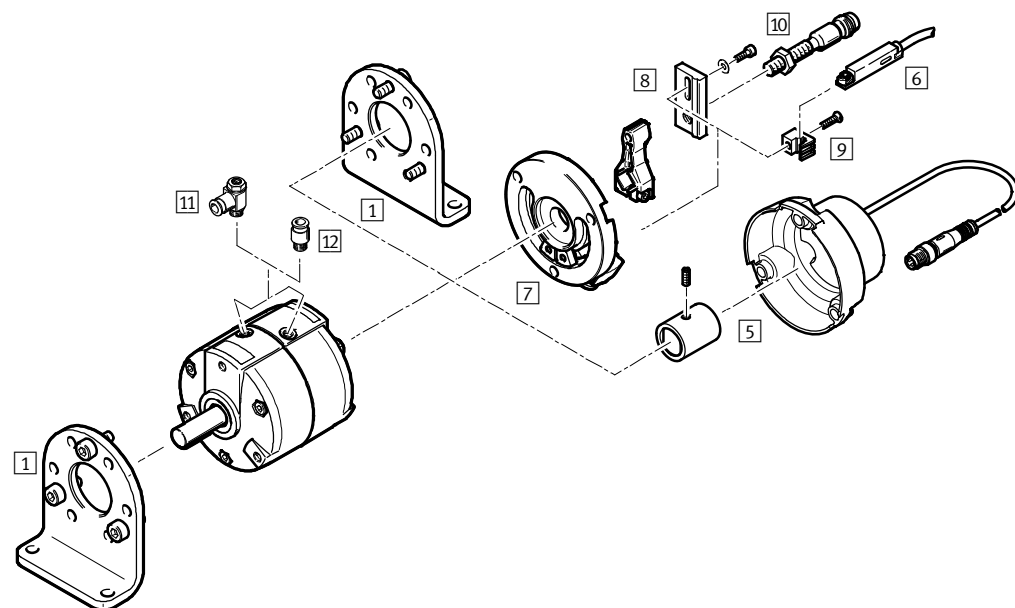


| | | → Page/online |
|---|----------------------------------|---------------|
| 1 | Foot mounting DAMH ¹⁾ | 228 |
| 2 | Mounting kit WSM-...-SME-10 | 228 |
| 3 | Stop kit KSM | 228 |
| 4 | Adapter kit DADP-AK | 228 |
| 5 | Position sensor SRBS | 228 |

| | | → Page/online |
|----|-----------------------------|---------------|
| 6 | Proximity sensor SME/SMT-10 | 228 |
| 12 | Push-in fitting QS | 1098 |
| - | Connecting cable NEBU | 229 |

1) The foot mounting can only be mounted at the front.

Size 12 ... 40



| | | → Page/online |
|---|------------------------------|---------------|
| 1 | Foot mounting DAMH | 228 |
| 5 | Position sensor SRBS | 228 |
| 6 | Proximity sensor SME-/SMT-10 | 228 |
| 7 | Adapter kit DADP-ES | 228 |
| 8 | Sensor bracket SL-DSM-S | 228 |

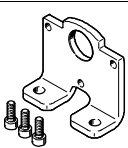

| | | → Page/online |
|----|---------------------------------|---------------|
| 10 | Proximity sensor SIEN | 228 |
| 11 | One-way flow control valve GRLA | 228 |
| 12 | Push-in fitting QS | 1098 |
| - | Connecting cable NEBU | 229 |

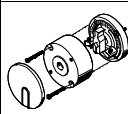
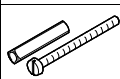
Semi-rotary drives DRVS

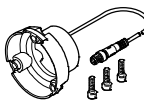



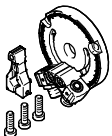


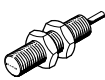
FESTO

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Accessories – Ordering data



| | For size | Part No. | Type |
|---------------------------------------------------------------------------------------------------|----------|----------|--------------|
| 1 Foot mounting Dimensions online: → drvs | | | |
|  | 6 | 3371840 | DAMH-Q12-6 |
| | 8 | 3371841 | DAMH-Q12-8 |
| | 12 | 3371842 | DAMH-Q12-12 |
| | 16 | 3371843 | DAMH-Q12-16 |
| | 25 | 3371844 | DAMH-Q12-25 |
| | 32 | 3371845 | DAMH-Q12-32 |
| | 40 | 3371846 | DAMH-Q12-40 |
| 2 Mounting kit for proximity sensor SME/SMT-10 | | | |
|  | 6 | 173205 | WSM-6-SME-10 |
| | 8 | 173206 | WSM-8-SME-10 |



| | For size | Part No. | Type |
|-------------------------------------------------------------------------------------------------|----------|----------|--------------|
| 3 Stop kit | | | |
|  | 6 | 175833 | KSM-6 |
| | 8 | 175834 | KSM-8 |
| 4 Adapter kit Dimensions online: → drvs | | | |
|  | 6 | 3617044 | DADP-AK-Q1-6 |
| | 8 | 3617045 | DADP-AK-Q1-8 |

| | For size | Cable length [m] | Description | Part No. | Type |
|-----------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------|-------------------------------------------------------------------|---------------|----------------------------|
| 5 Position sensor Dimensions online: → srbs | | | | | |
|  | 6 | 0.3 | For sensing the end positions, only one connecting cable required | 2619969 | SRBS-Q12-6-E270-EP-1-S-M8 |
| | 8 | 0.3 | | 2619972 | SRBS-Q12-8-E270-EP-1-S-M8 |
| | 12 | 0.3 | | 2393546 | SRBS-Q12-12-E270-EP-1-S-M8 |
| | 16 | 0.3 | | 2393547 | SRBS-Q12-16-E270-EP-1-S-M8 |
| | 25 | 0.3 | | 2393548 | SRBS-Q12-25-E270-EP-1-S-M8 |
| | 32 | 0.3 | | 2393549 | SRBS-Q12-32-E270-EP-1-S-M8 |
| | 40 | 0.3 | | 2393550 | SRBS-Q12-40-E270-EP-1-S-M8 |
| 6 Proximity sensor for C-slot, magneto-resistive – N/O contact Technical data → 892 | | | | | |
|  | 6, 8, 12 | 2.5 | PNP, cable | ★ 551373 | SMT-10M-PS-24V-E-2,5-L-OE |
| | | 0.3 | PNP, plug connector | ★ 551375 | SMT-10M-PS-24V-E-0,3-L-M8D |
| Magnetic reed – N/O contact Technical data → 890 | | | | | |
|  | 6 ... 40 | 2.5 | Cable | 173210 | SME-10-KL-LED-24 |
| | | 0.3 | Plug connector | 173212 | SME-10-SL-LED-24 |
| Magnetic reed – N/O contact Technical data → 888 | | | | | |
|  | 12 ... 40 | 2.5 | Cable | ★ 551365 | SME-10M-DS-24V-E-2,5-L-OE |
| | | 0.3 | Plug connector | ★ 551367 | SME-10M-DS-24V-E-0,3-L-M8D |
| 7 Stop kit Dimensions online: → drvs | | | | | |
|  | 12 | – | – | 2536502 | DADP-ES-Q12-12 |
| | 16 | – | – | 2536503 | DADP-ES-Q12-16 |
| | 25 | – | – | 2536504 | DADP-ES-Q12-25 |
| | 32 | – | – | 2536505 | DADP-ES-Q12-32 |
| | 40 | – | – | 2536506 | DADP-ES-Q12-40 |
| 8 / 9 Sensor bracket¹⁾ | | | | | |
|  | 12 ... 40 | For mounting the proximity sensor SIEN-M5 | ★ 1130882 | SL-DSM-S-M5-B | |
| | | For mounting the proximity sensor SIEN-M8 | ★ 1132360 | SL-DSM-S-M8-B | |
|  | 12 ... 40 | For mounting the proximity sensor SME/SMT-10 | ★ 550661 | SL-DSM-B | |
| 10 Proximity sensor, inductive – N/O contact Technical data → 899 | | | | | |
|  | 12 ... 40 | 2.5 | M5, cable | ★ 150370 | SIEN-M5B-PS-K-L |
| | | – | M5, plug connector | ★ 150371 | SIEN-M5B-PS-S-L |
| | | 2.5 | M8, cable | ★ 150386 | SIEN-M8B-PS-K-L |
| | | – | M8, plug connector | ★ 150387 | SIEN-M8B-PS-S-L |

1) Packaging unit 2 piece.

Accessories – Ordering data

| | Cable length [m] | | Part No. | Type | |
|-----------------------------------------------------------------------------------|---------------------|---|----------|---------------------|------------------------------|
| Connecting cables, straight socket | | | | | Technical data → 1161 |
|  | 2.5 | ★ | 541333 | NEBU-M8G3-K-2.5-LE3 | |
| | 5.0 | ★ | 541334 | NEBU-M8G3-K-5-LE3 | |
| Angled socket | | | | | Technical data → 1161 |
|  | 2.5 | ★ | 541338 | NEBU-M8W3-K-2.5-LE3 | |
| | 5.0 | ★ | 541341 | NEBU-M8W3-K-5-LE3 | |

| | For size | Connection | | Part No. | Type | | |
|---------------------------------------------------------------------------------------------------------------|------------|-----------------|------|----------|----------------|-----------------------------|--|
| | | Thread | O.D. | | | | |
| 11 One-way flow control valve with slotted head screw, metal¹⁾ for exhaust air flow control | | | | | | | |
|  | 6, 8 | M3 | 3 | 175041 | GRLA-M3-QS-3 | | |
| | 12, 16, 25 | M5 | 3 | ★ | 193137 | GRLA-M5-QS-3-D | |
| 4 | | | ★ | 193138 | GRLA-M5-QS-4-D | | |
|  | 32, 40 | G $\frac{1}{8}$ | 3 | ★ | 193142 | GRLA- $\frac{1}{8}$ -QS-3-D | |
| | | | 4 | ★ | 193143 | GRLA- $\frac{1}{8}$ -QS-4-D | |
| | | | 6 | ★ | 193144 | GRLA- $\frac{1}{8}$ -QS-6-D | |
| | | | 8 | ★ | 193145 | GRLA- $\frac{1}{8}$ -QS-8-D | |

1) The recommended flow control valves are based on a tubing length to the valve of 1 m. For deviations of $\pm 50\%$, flow control valves with a bigger or smaller flow rate must be selected to guarantee the optimum flow control function and cylinder speed.

Semi-rotary drives DRVS

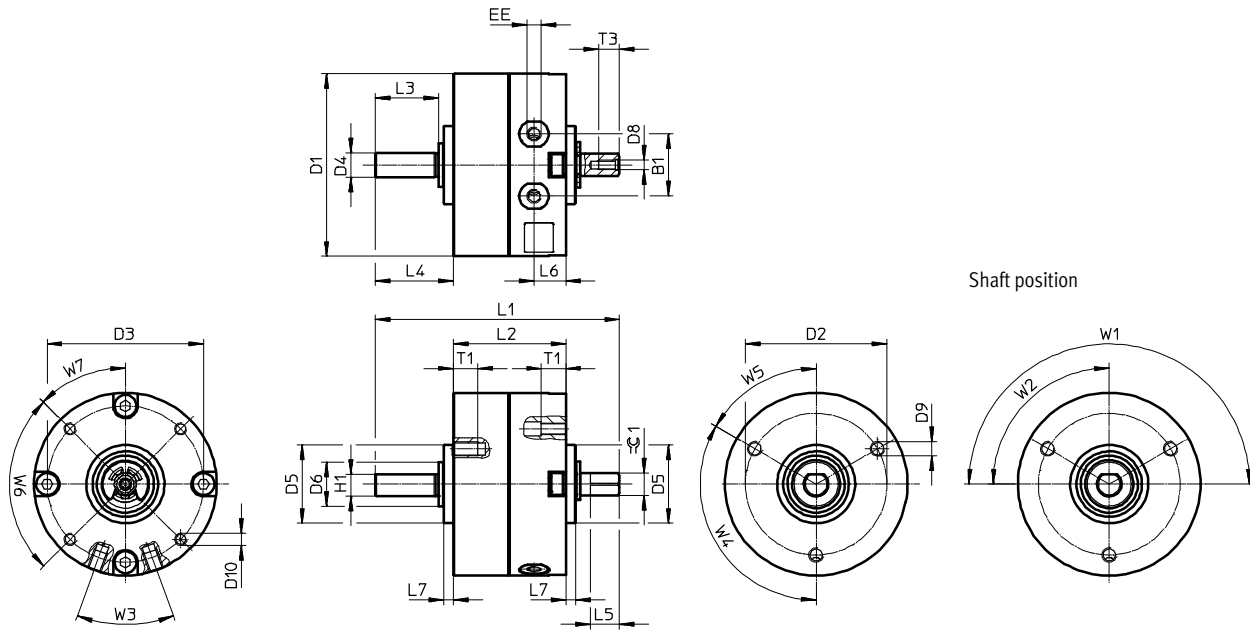
FESTO

Download CAD data → www.festo.com

1

Dimensions

Size 6, 8



| Size | B1 | D1 ∅ ±0.2 | D2 ∅ ±0.1 | D3 ∅ ±0.1 | D4 ∅ g7 | D5 ∅ f8 | D6 ∅ | D8 | D9 |
|------|------|-----------------|-----------------|-----------------|---------------|---------------|---------|----|----|
| 6 | 10 | 29.4 | 24 | 25 | 4 | 14 | 8 | M2 | M3 |
| 8 | 12.8 | 37.4 | 29 | 32 | 5 | 16 | 9 | M2 | M3 |

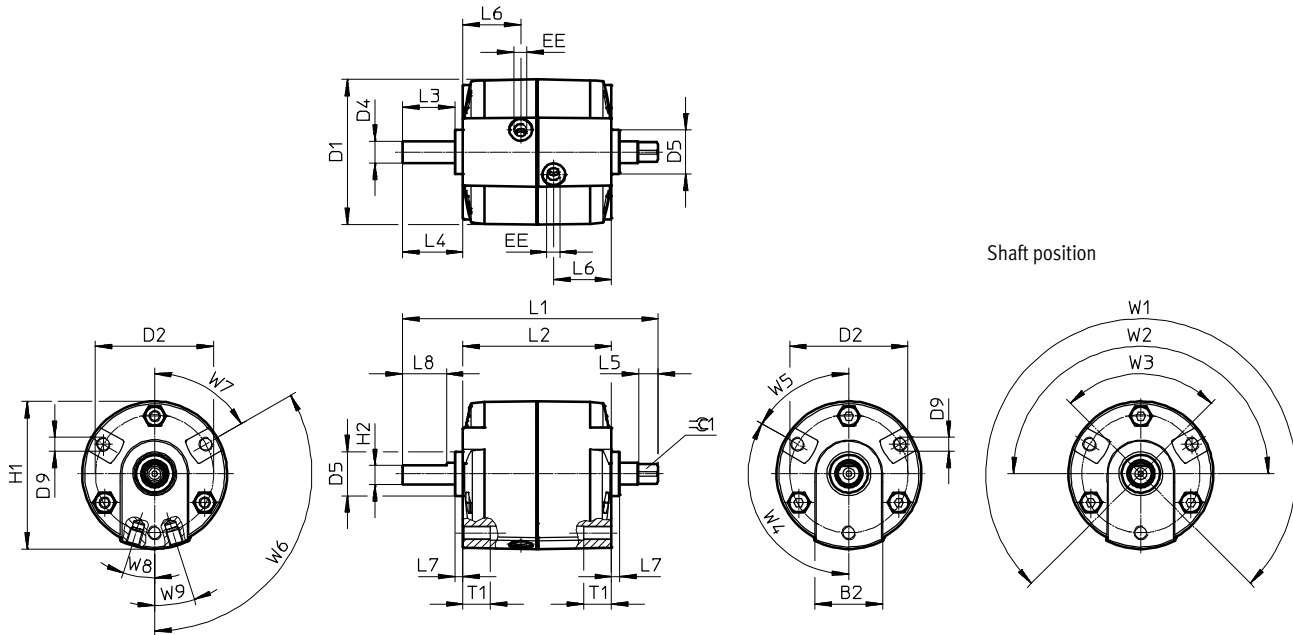
| Size | D10 | EE | H1 -0.2 | L1 | L2 | L3 | L4 | L5 -0.2 | L6 | L7 |
|------|------|----|------------|----|----|----|----|------------|-----|----|
| 6 | M2 | M3 | 3.5 | 43 | 21 | 10 | 13 | 5 | 6 | 2 |
| 8 | M2.5 | M3 | 4.5 | 50 | 23 | 13 | 16 | 6 | 6.5 | 2 |

| Size | T1 +0.5 | T3 +0.5 | W1 +5° | W2 +5° | W3 | W4 | W5 | W6 | W7 | ∅ 1 |
|------|------------|------------|-----------|-----------|-----|------|-----|-----|-----|-----|
| 6 | 5 | 3.5 | 180° | 90° | 40° | 120° | 60° | 90° | 45° | 3 |
| 8 | 5 | 4.3 | | | | | | | | 3.5 |

Dimensions

Download CAD data → www.festo.com

Size 12, 16



| Size | B2 | D1 ∅ | D2 ∅ ±0.2 | D4 ∅ g7 | D5 ∅ -0.1 | D9 | EE | H1 |
|------|------|---------|-----------------|---------------|-----------------|----|----|------|
| 12 | 24 | 45.5 | 36 | 6 | 14 | M4 | M5 | 46.3 |
| 16 | 24.5 | 52.7 | 43 | 8 | 16 | M5 | M5 | 53.7 |

| Size | H2 ±0.1 | L1 | L2 +0.6/-0.2 | L3 | L4 | L5 | L6 | L7 +0.1/-0.1 | L8 +0.4 | T1 |
|------|------------|-------------|-----------------|----|-------------|---------|------|-----------------|------------|----|
| 12 | 5 | 73+0.2/-0.1 | 40.5 | 17 | 20+0.4/-0.6 | 9±0.1 | 14.8 | 3 | 14 | 8 |
| 16 | 7 | 93+0.2/-0.2 | 54 | 19 | 22+0.4/-0.7 | 7.2+0.1 | 21 | 3 | 16 | 10 |

| Size | W1 +7° | W2 +7° | W3 +7° | W4 | W5 | W6 | W7 | W8 | W9 | ≈ 1 |
|-------|-----------|-----------|-----------|------|-----|------|-----|-------|-------------------|--------------------|
| 12 | 270° | 180° | 90° | 120° | 60° | 120° | 60° | 19.5° | 19.5° | 4.5 _{H11} |
| 17.5° | | | | | | | | 17.5° | 6 _{-0.1} | |
| 16 | | | | | | | | | | |

Semi-rotary drives DRVS

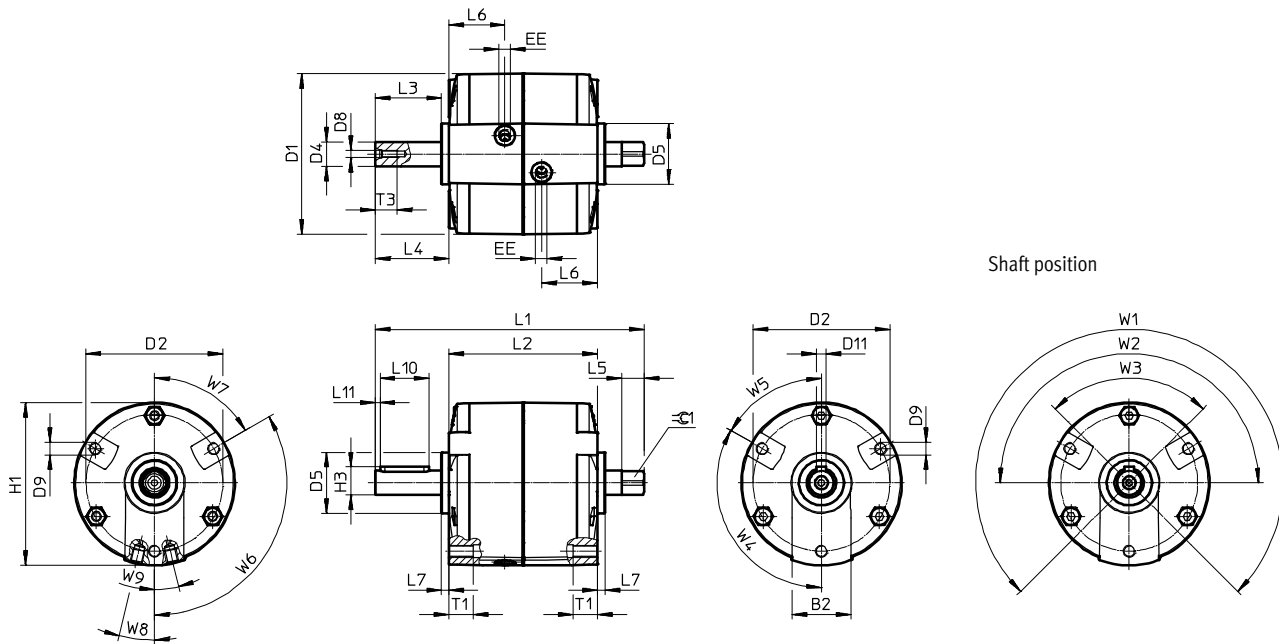
FESTO

Download CAD data → www.festo.com

1

Dimensions

Size 25



Shaft position

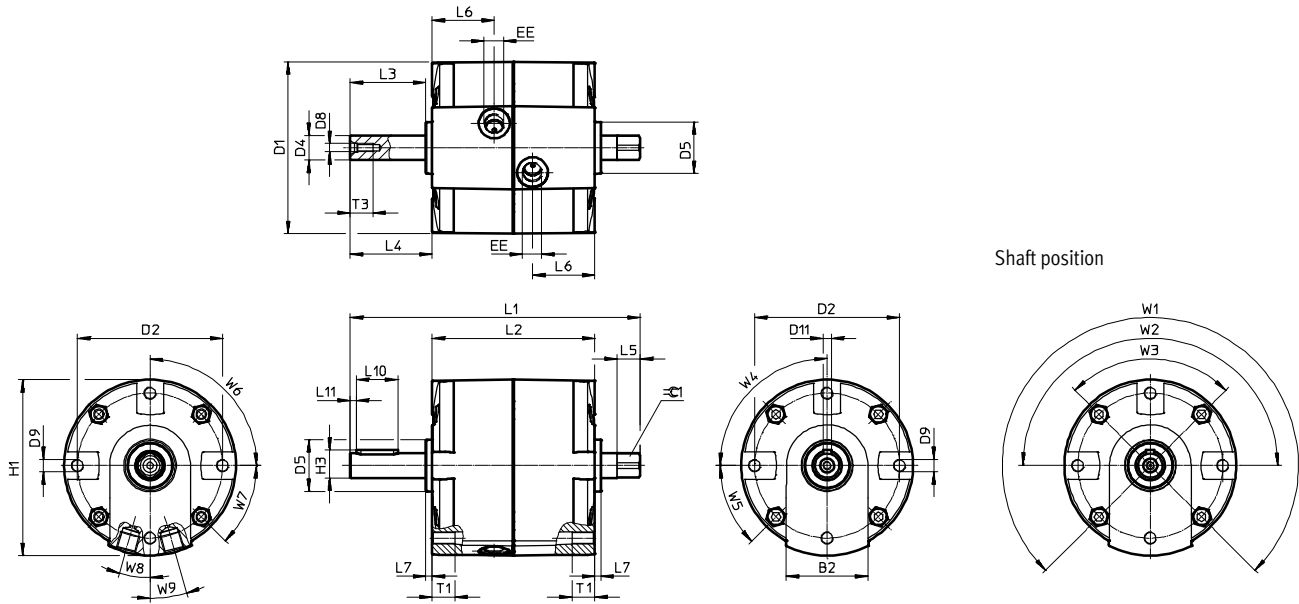
| | | | | | | | | | |
|------|-----|-----------|-----------|-----------|-----------|------|-----------|------|------------------------------------------|
| Size | B2 | D1 | D2 | D4 | D5 | D8 | D9 | D11 | |
| | | ∅ | ∅ ±0.2 | ∅ g7 | ∅ -0.1 | | | N9 | |
| 25 | 24 | 65.7 | 56 | 10 | 25 | M3 | M5 | 4 | |
| Size | EE | H1 | H3 | L1 | L2 | L3 | L4 | L5 | |
| | | | -0.2 | +0.2/-0.3 | +0.3/-0.2 | | +0.3/-0.4 | | |
| 25 | M5 | 66.7 | 11.5 | 110.2 | 61 | 27.1 | 30.1 | 9.2 | |
| Size | L6 | L7 | L10 | L11 | T1 | T3 | W1 | W2 | |
| | | +0.1/-0.1 | +0.1 | | | +3 | +7° | +7° | |
| 25 | 23 | 3 | 20 | 2 | 10 | 9 | 270° | 180° | |
| Size | W3 | W4 | W5 | W6 | W7 | W8 | W9 | ≈ 1 | Feather key to DIN 6885 ¹⁾ |
| | +7° | | | | | | | -0.1 | |
| 25 | 90° | 120° | 60° | 120° | 60° | 13° | 13° | 8 | A4x4x20 |

1) Included in the scope of delivery.

Dimensions

Download CAD data → www.festo.com

Size 32, 40



| Size | B2 | D1 | D2 | D4 | D5 | D8 | D9 | D11 |
|------|----|-------|-----------|---------|-----------|----|----|-----|
| | | ∅ | ∅ ±0.2 | ∅ g7 | ∅ -0.1 | | | N9 |
| 32 | 39 | 83 | 70 | 12 | 25 | M4 | M6 | 4 |
| 40 | 42 | 100.1 | 87 | 17 | 30 | M5 | M8 | 5 |

| Size | EE | H1 | H3 | L1 | L2 | L3 | L4 | L5 |
|------|------|-------|------|-----------|---------------|------|-----------|--------|
| | | | -0.2 | +0.2/-0.3 | | | +0.3/-0.6 | |
| 32 | G1/8 | 85 | 13.5 | 140 | 78.5+0.5/-0.1 | 36.5 | 39.5 | 11.2 |
| 40 | G1/8 | 102.6 | 19 | 170 | 93+0.4 | 50.5 | 53.5 | 16+0.3 |

| Size | L6 | L7 | L10 | L11 | T1 | T3 | W1 | W2 |
|------|----|------------|----------|-----|--------|----|------|------|
| | | | +0.1 | | | +3 | +7° | +7° |
| 32 | 30 | 3+0.1/-0.2 | 20+0.1 | 3 | 11 | 11 | 270° | 180° |
| 40 | 37 | 3+0.2 | 36.1+0.3 | 5 | 13+0.3 | 13 | | |

| Size | W3 | W4 | W5 | W6 | W7 | W8 | W9 | ⊖ 1 | Feather key to DIN 6885 ¹⁾ |
|------|-----|-----|-----|-----|-----|-------|-------|-----|------------------------------------------|
| | +7° | | | | | | | | |
| 32 | 90° | 90° | 45° | 90° | 45° | 16° | 16° | 10 | A4x4x20 |
| 40 | | | | | | 14.5° | 14.5° | 13 | A5x5x36 |

1) Included in the scope of delivery.



Overview/Configuration/Ordering
→ www.festo.com/catalogue/dsm

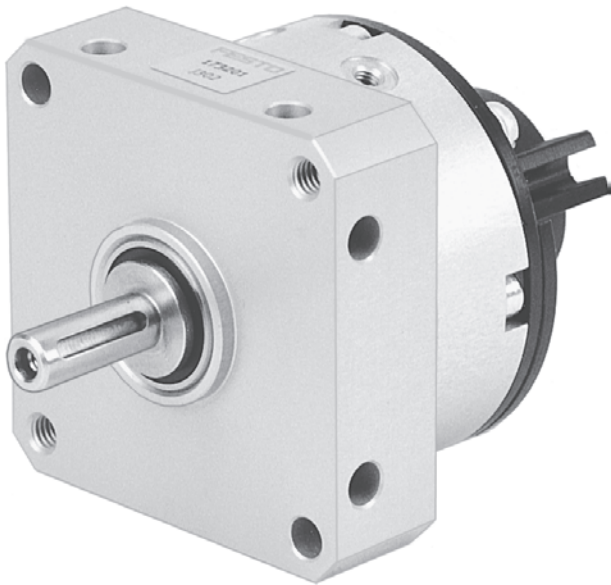


Additional information/Support/User documentation
→ www.festo.com/sp/dsm

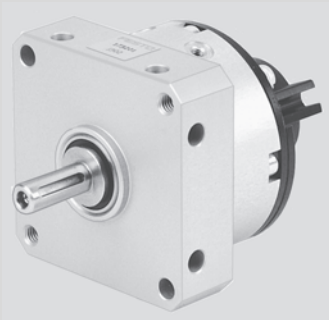
Swivel modules
Swivel modules with rotary vane

Swivel modules

DSM



- + Force transmitted directly to the drive shaft via a rotary vane
- + With spigot shaft, hollow flanged shaft



- Compact semi-rotary drives with adjustable swivel angles up to 240°
- Flexible cushioning rings in the end positions
- With mounting flange
- Spare parts service
- Selected types in accordance with the ATEX Directive for explosive atmospheres → www.festo.com/catalogue/ex

→ www.festo.com/catalogue/dsm

Product range overview – Size 6 ... 10

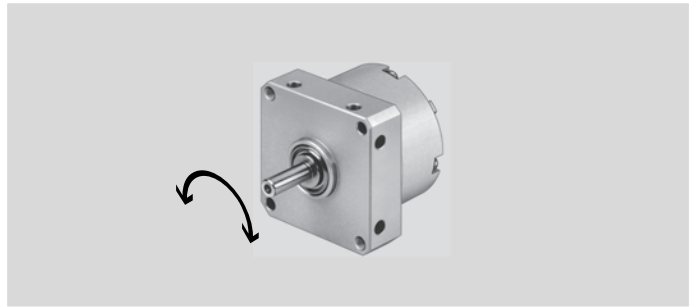
| Type/Function | Version | Size | Swivel angle [°] | Torque [Nm] | Product options | | | |
|---------------|------------------------------|--------------|------------------|---------------|-----------------|---|----|----|
| | | | | | P | A | FF | FW |
| Double-acting | DSM | | | | | | | |
| | With fixed swivel angle | 6, 8 | 90, 180 | 0.15 ... 0.35 | ■ | ■ | – | ■ |
| | | 10 | 90, 180, 240 | 0.85 | ■ | ■ | – | ■ |
| | DSM-...-FF | | | | | | | |
| | With adjustable swivel angle | 6, 8 | 180 | 0.15 ... 0.35 | ■ | ■ | ■ | ■ |
| | | 10 | 200 | 0.85 | ■ | ■ | ■ | ■ |
| | DSM-T... | | | | | | | |
| | With tandem rotary vanes | 6, 8 | 90, 180 | 0.3 ... 0.7 | ■ | ■ | ■ | ■ |
| 10 | | 90, 180, 240 | 1.7 | ■ | ■ | ■ | ■ | |

Product options – Size 6 ... 10

P Elastic cushioning components at both ends A Position sensing FF Adjustable swivel angle FW Flanged shaft

Semi-rotary drives DSM

Data sheet – Size 6 ... 10



| Technical data | | Dimensions → 241 | | |
|-------------------------------------------------|---------------------|----------------------------------------------|-----------|-------------------|
| Size | | 6 | 8 | 10 |
| Pneumatic connection | | M3 | | |
| Cushioning | | Elastic cushioning rings/plates at both ends | | |
| Swivel angle | | | | |
| Fixed | [°] | 90 or 180 | 90 or 180 | 90, 180 or 240 |
| Adjustable | [°] | 0 ... 180 | | 0 ... 200 |
| Torque at 6 bar | [Nm] | 0.15 | 0.35 | 0.85 |
| Max. perm. swivel frequency | [Hz] | 3 | | 3 (at 240°: 2 Hz) |
| Max. perm. radial force ¹⁾ | [N] | 15 | 20 | 30 |
| Max. perm. axial force ¹⁾ | [N] | 10 | | |
| Max. cushioning angle | [°] | 0.5 | | |
| Max. perm. mass moment of inertia ²⁾ | [kgm ²] | 0.00065 | 0.0013 | 0.0026 |

1) On the drive shaft.

2) Maximum value → Graphs.

| Operating conditions | | | | |
|---------------------------------|-------|-----------|---|-----------|
| Size | | 6 | 8 | 10 |
| Operating pressure | [bar] | 3.5 ... 8 | | 2.5 ... 8 |
| Temperature range ³⁾ | [°C] | 0 ... +60 | | |

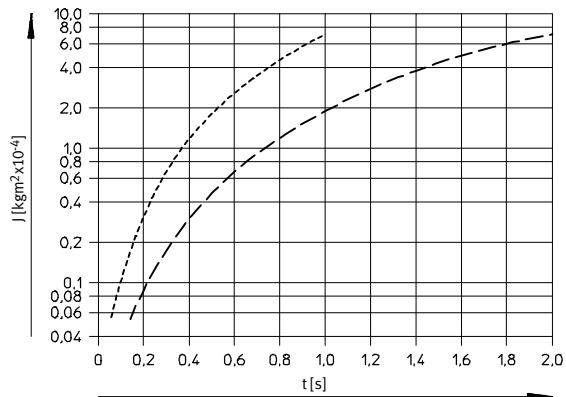
3) Note operating range of proximity sensors.

| Materials | | | | |
|-------------|--|--------------------------------|--|--|
| Drive shaft | | High-alloy stainless steel | | |
| End cap | | Aluminium | | |
| Housing | | Anodised aluminium | | |
| Rotary vane | | Glass fibre-reinforced plastic | | |
| Screws | | Galvanized steel | | |
| Seals | | NBR, TPE-U (PUR) | | |

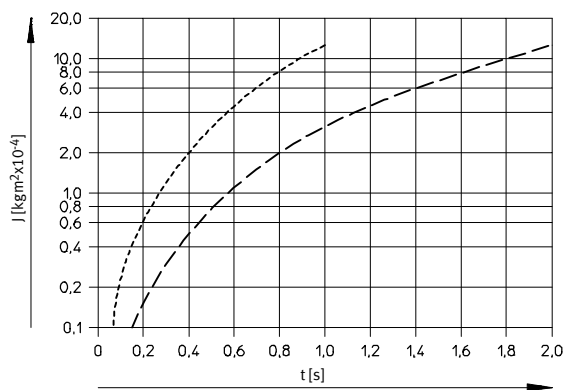
Data sheet – Size 6 ... 10

Mass moment of inertia J on the drive shaft as a function of swivel time t

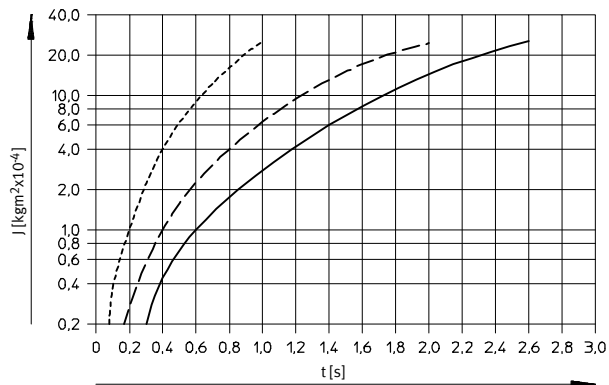
DSM-6



DSM-8



DSM-10

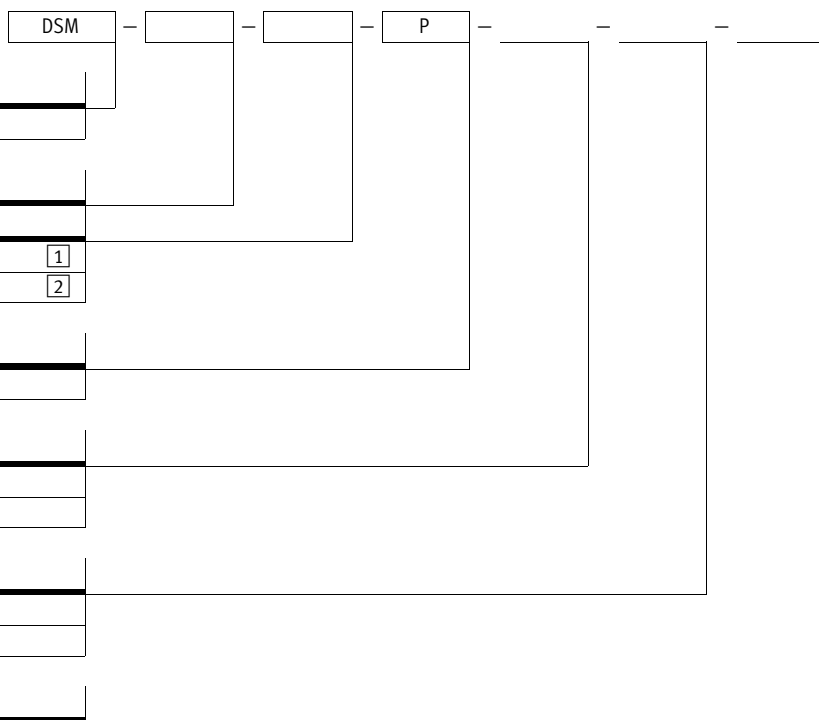


- - - 90°
- - - 180°
- 240°

Semi-rotary drives DSM

1

Order code – Size 6 ... 10



| Type | |
|------|-------------------|
| DSM | Semi-rotary drive |

| Size | |
|------|---------------------------------------------------|
| | Max. swivel angle [°] |
| 6, 8 | 90, 180 1 |
| 10 | 90, 180, 240 2 |

| Cushioning | |
|------------|--------------------------------------------|
| P | Elastic cushioning rings/pads at both ends |

| Position sensing | |
|------------------|-----------------------|
| - | without |
| A | Via proximity sensors |

| Swivel angle | |
|--------------|------------|
| - | Fixed |
| FF | Adjustable |

| Shaft | |
|-------|---------------|
| - | Spigot shaft |
| FW | Flanged shaft |

1 With adjustable swivel angle only 180°

2 With adjustable swivel angle only 200°

Order example:

DSM-8-180-P-A-FF

Swivel angle DSM - size 8 - max. swivel angle 180° - elastic cushioning at both ends - position sensing via proximity sensor - swivel angle adjustable - spigot shaft

Ordering – Product options

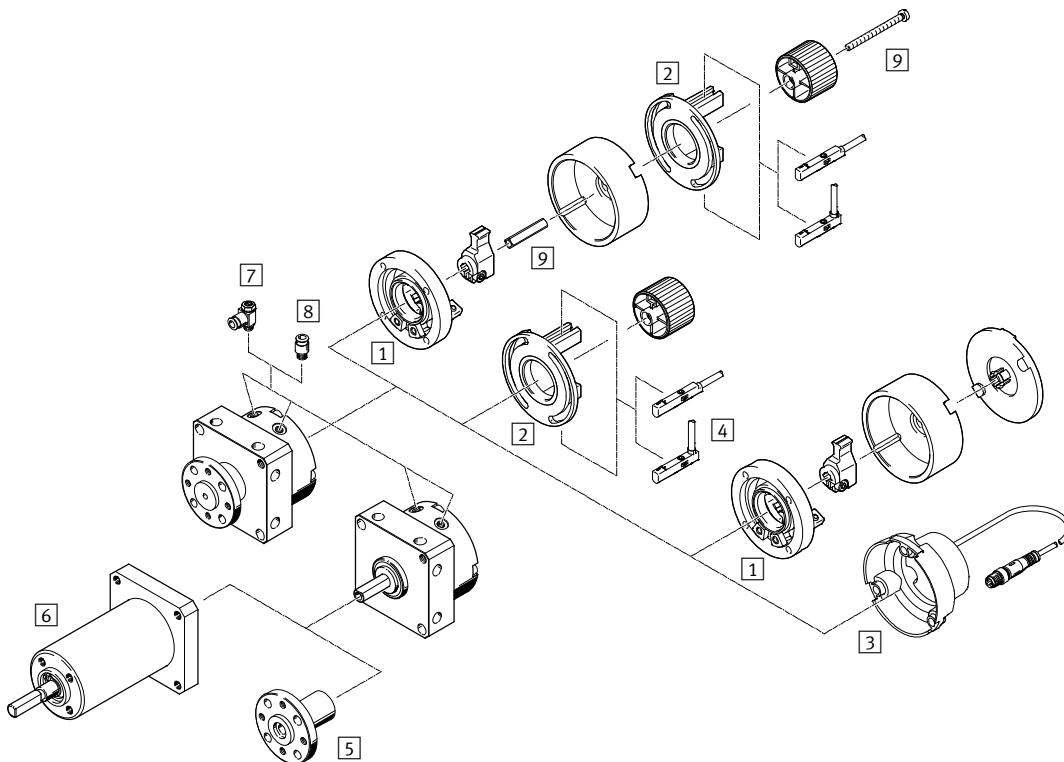
Configurable product

This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
[→ www.festo.com/catalogue/...](http://www.festo.com/catalogue/...)

Enter the type code in the search field.

Accessories – Size 6 ... 10



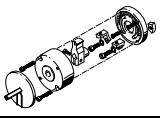
| | | → Page/online |
|---|------------------------------|---------------|
| 1 | Stop kit KSM | 240 |
| 2 | Mounting kit WSM-...-SME-10 | 240 |
| 3 | Position transmitter SRBS | 240 |
| 4 | Proximity sensor SME-/SMT-10 | 240 |
| 5 | Push-on flange FWSR | 240 |

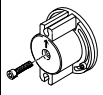
| | | → Page/online |
|---|---------------------------|---------------------|
| 6 | Freewheel unit FLSM | 172 |
| 8 | Push-in fitting QSM | qs |
| 9 | Adapter kit DADP-AK | 240 |
| - | Drive/gripper connections | dsm |


Semi-rotary drives DSM


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
Accessories – Ordering data – Size 6 ... 10


| | For size | Part no. | Type |
|----------------------------------------------------------------------------------|----------|----------|--------|
| 1 Stop kit | | | |
|  | 6 | 175833 | KSM-6 |
| | 8 | 175834 | KSM-8 |
| | 10 | 175835 | KSM-10 |

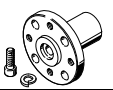
| | For size | Part no. | Type |
|-----------------------------------------------------------------------------------|----------|----------|---------------|
| 2 Mounting kit for proximity sensor | | | |
|  | 6 | 173205 | WSM-6-SME-10 |
| | 8 | 173206 | WSM-8-SME-10 |
| | 10 | 173207 | WSM-10-SME-10 |

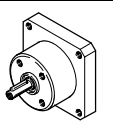
| | For size | Cable length [m] | Part no. | Type | |
|----------------------------------------------------------------------------------|----------|------------------|----------|---------------------------|-------------------------------------------|
| 3 Position sensor | | | | | Dimensions online: → srbs |
|  | 6 | 0.3 | 2619969 | SRBS-Q12-6-E270-EP-1-S-M8 | |
| | 8 | 0.3 | 2619972 | SRBS-Q12-8-E270-EP-1-S-M8 | |
| | 10 | 0.3 | 2412001 | SRBS-Q1-10-E270-EP-1-S-M8 | |

| | For size | Cable length [m] | Part no. | Type | |
|----------------------------------------------------------------------------------|------------|------------------|----------|----------------------------|----------------------|
| 4 Proximity sensor for C-slot, magneto-resistive – N/O contact | | | | | Technical data → 892 |
|  | PNP, cable | 2.5 | ★ 551373 | SMT-10M-PS-24V-E-2,5-L-OE | |
| | PNP, plug | 0.3 | ★ 551375 | SMT-10M-PS-24V-E-0,3-L-M8D | |


| | For size | Cable length [m] | Part no. | Type | |
|----------------------------------------------------------------------------------|----------|------------------|----------|----------------------------|----------------------|
| Magnetic reed – N/O contact | | | | | Technical data → 888 |
|  | Cable | 2.5 | ★ 551365 | SME-10M-DS-24V-E-2,5-L-OE | |
| | Plug | 0.3 | ★ 551367 | SME-10M-DS-24V-E-0,3-L-M8D | |

| | For size | Cable length [m] | Part no. | Type | |
|-----------------------------------------------------------------------------------|----------|------------------|----------|------------------|----------------------|
| | | | | | Technical data → 890 |
|  | Cable | 2.5 | 173210 | SME-10-KL-LED-24 | |
| | Plug | 0.3 | 173212 | SME-10-SL-LED-24 | |

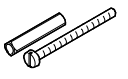
| | For size | Direction of rotation ¹⁾ | Part no. | Type | |
|------------------------------------------------------------------------------------|----------|-------------------------------------|----------|---------|------------------------------------------|
| 5 Push-on flange | | | | | Dimensions online: → dsm |
|  | 6 | – | 185948 | FWSR-6 | |
| | 8 | – | 185949 | FWSR-6 | |
| | 10 | – | 32798 | FWSR-10 | |

| | For size | Direction of rotation ¹⁾ | Part no. | Type | |
|------------------------------------------------------------------------------------|----------|-------------------------------------|----------|-----------|------------------------------------------|
| 6 Freewheel unit | | | | | Dimensions online: → dsm |
|  | 6 | Anticlockwise | 188253 | FLSM-6-L | |
| | | Clockwise | 188522 | FLSM-6-R | |
| | 8 | Anticlockwise | 188525 | FLSM-8-L | |
| | | Clockwise | 188524 | FLSM-8-R | |
| | 10 | Anticlockwise | 188527 | FLSM-10-L | |
| | | Clockwise | 188526 | FLSM-10-R | |

1) View of the drive shaft side.

| Function | For size | Connection | | Part no. | Type |
|--------------------------------------------------------------------------------------------------------------|----------|------------|------|----------|----------------------|
| | | Thread | O.D. | | |
| 7 One-way flow control valve with slotted head screw, metal²⁾ for exhaust air flow control | | | | | Technical data → 758 |
|  | 6, 8, 10 | M3 | 3 | 175041 | GRLA-M3-QS-3 |

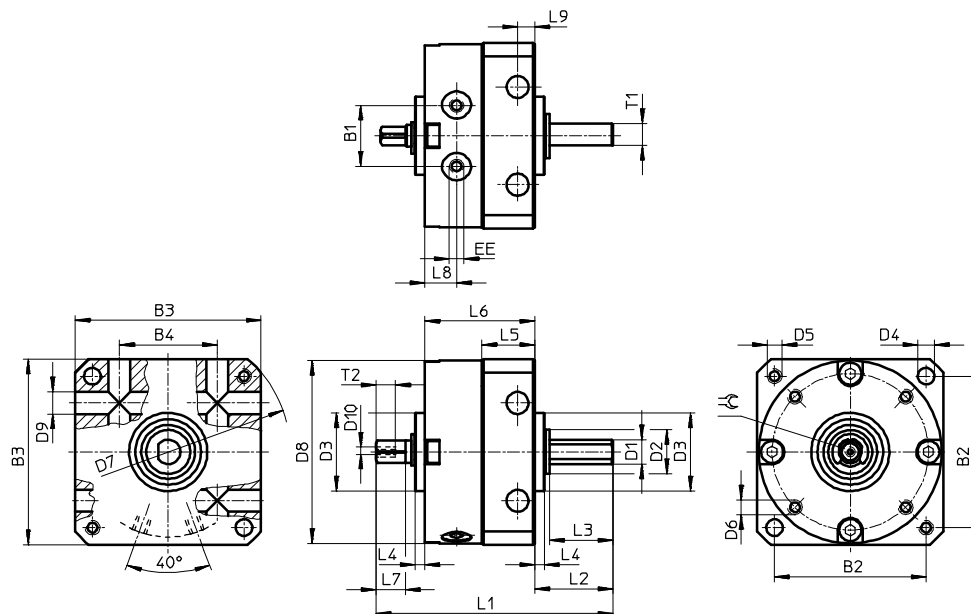
2) The recommended flow control valves are based on a tubing length to the valve of 1 m. For deviations of ±50%, flow control valves with a bigger or smaller flow rate must be selected to guarantee the optimum flow control function and cylinder speed.

| | For size | Part no. | Type | |
|------------------------------------------------------------------------------------|----------|----------|---------------|-------------------------------------------|
| 9 Adapter kit | | | | Dimensions online: → dadp |
|  | 6 | 3617044 | DADP-AK-Q1-6 | |
| | 8 | 3617045 | DADP-AK-Q1-8 | |
| | 10 | 3617046 | DADP-AK-Q1-10 | |

Dimensions – Size 6 ... 10

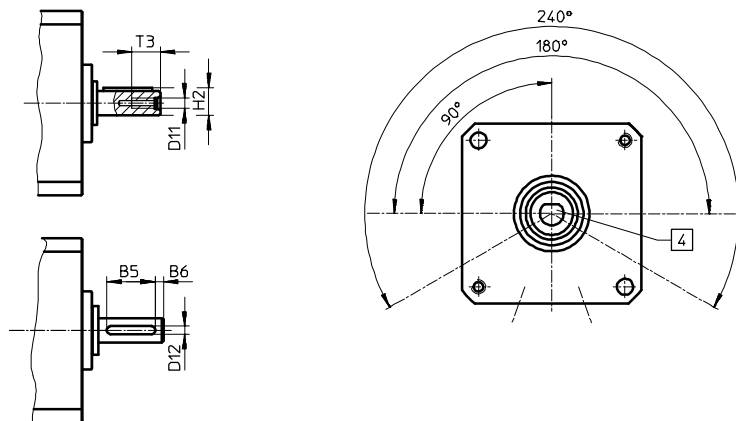
With spigot shaft and fixed stop

Download CAD data → www.festo.com



Size 10

Shaft position



Note

For swivel angle tolerance → table below. The supply ports are at the bottom in this drawing.

| Size | B1 | B2 | B3 | B4 | B5 | B6 | D1 ∅ g7 | D2 ∅ | D3 ∅ f8 | D4 ∅ H12 | D5 | D6 | D7 ∅ H12 | D8 ∅ | D9 ∅ H12 | D10 | D11 | D12 H9 |
|------|------|----|----|----|----|----|---------------|---------|---------------|----------------|----|------|----------------|---------|----------------|------|------|-----------|
| 6 | 10 | 25 | 30 | 17 | - | - | 4 | 8 | 14 | 3.2 | M3 | M2 | 40 | 29.4 | 3.5 | M2 | - | - |
| 8 | 12.8 | 31 | 38 | 20 | - | - | 5 | 9 | 16 | 3.2 | M3 | M2.5 | 50 | 37.4 | 3.5 | M2 | - | - |
| 10 | 15.9 | 38 | 47 | 26 | 12 | 2 | 6 | 12 | 19 | 4.3 | M4 | M3 | 62 | 46.4 | 4.5 | M2.5 | M2.5 | 2 |

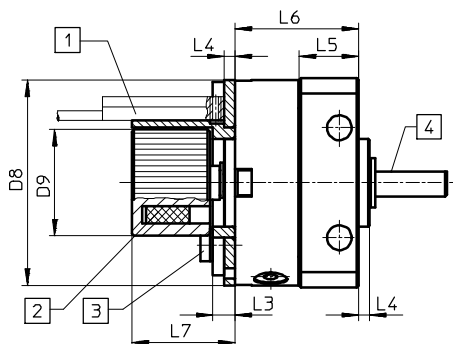
| Size | EE | H2 max. | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | T1 | T2 H12 | T3 | ∠ | Swivel angle tolerance |
|------|----|------------|----|------|----|----|------|------|----|-----|----|-----|-----------|----|-----|------------------------|
| 6 | M3 | - | 43 | 13 | 10 | 2 | 9.8 | 21 | 5 | 6 | 3 | 3.5 | 4 | - | 3 | 0/+5° |
| 8 | M3 | - | 50 | 16 | 13 | 2 | 11.3 | 23 | 6 | 6.5 | 3 | 4.5 | 4.3 | - | 3.5 | 0/+5° |
| 10 | M3 | 6.8 | 61 | 19.6 | 16 | 2 | 14.3 | 28.4 | 8 | 7.5 | 4 | - | 5 | 7 | 4.5 | 0/+5° |

Semi-rotary drives DSM

1

Dimensions – Size 6 ... 10

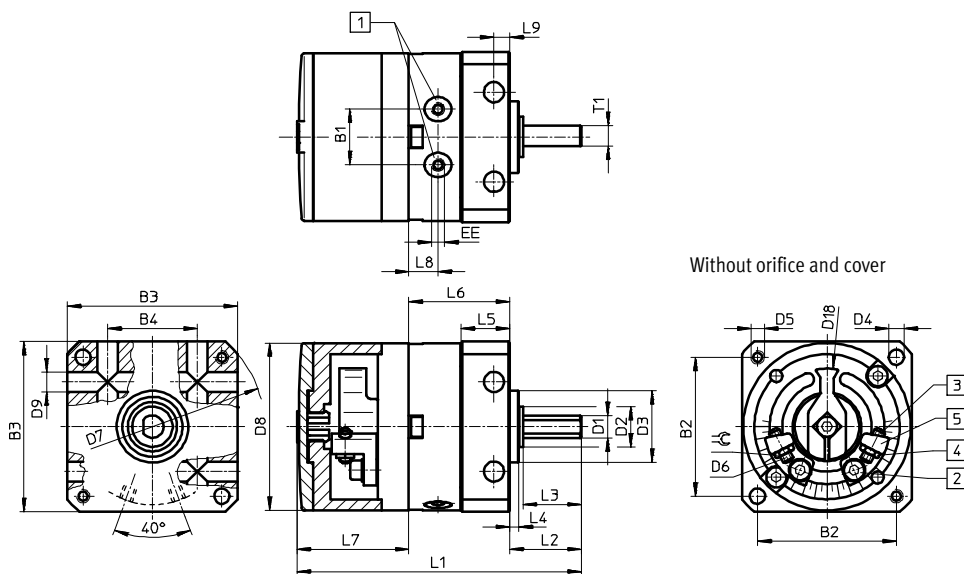
With spigot shaft, fixed stop and position sensing



- 1 Proximity sensor not included in the scope of delivery. Observe fitting space for proximity sensor and cable
- 2 Magnet position
- 3 Max. tightening torque for sensor bracket screws → table below
- 4 The flat or the feather key on the shaft indicates the position of the rotary vane

| Size | D8 ∅ | D9 ∅ | L3 | L4 | L5 | L6 | L7 | Tightening torque [Nm] |
|------|---------|---------|----|----|------|----|------|---------------------------|
| 6 | 29.4 | 17.3 | 4 | 2 | 9.8 | 21 | 19.5 | 0.19 |
| 8 | 37.4 | 19.3 | 4 | 2 | 11.3 | 23 | 19.5 | 0.32 |
| 10 | 46.4 | 22.3 | 4 | 2 | 14.3 | 28 | 19.5 | 0.44 |

With spigot shaft, fixed stop and adjustable swivel angle



Note
The swivel angle is infinitely adjustable over the entire swivel range.
Size 6 can only be adjusted symmetrically around the centre position.

- 1 Supply ports
- 2 Locking screw for clamping the stop
- 3 End-position adjustment
- 4 Lock nut for end-position adjustment
- 5 Infinitely adjustable stops

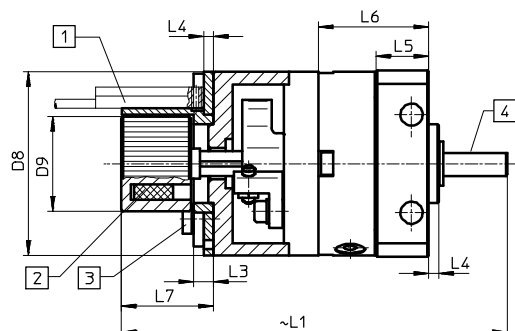
| Size | B1 | B2 | B3 | B4 | D1 ∅ g7 | D2 ∅ | D3 ∅ f8 | D4 ∅ H12 | D5 | D6 | D7 ∅ H12 | D8 ∅ | D9 ∅ H12 | D18 ∅ | EE |
|------|------|----|----|----|---------------|---------|---------------|----------------|----|------|----------------|---------|----------------|----------|----|
| 6 | 10 | 25 | 30 | 17 | 4 | 8 | 14 | 3.2 | M3 | M2 | 40 | 29.4 | 3.5 | 22 | M3 |
| 8 | 12.8 | 31 | 38 | 20 | 5 | 9 | 16 | 3.2 | M3 | M2.5 | 50 | 37.4 | 3.5 | 26 | M3 |
| 10 | 15.9 | 38 | 47 | 26 | 6 | 12 | 19 | 4.3 | M4 | M3 | 62 | 46.4 | 4.5 | 35.8 | M3 |

| Size | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | T1 | ∠ | Max. swivel angle | Precision adjustment per side |
|------|----|------|----|----|------|------|------|-----|----|-----|-----|-------------------|-------------------------------|
| 6 | 52 | 13 | 10 | 2 | 9.8 | 21 | 17.8 | 6 | 3 | 3.5 | 4 | 180°+5° | +1°/-5° |
| 8 | 64 | 16 | 13 | 2 | 11.3 | 23 | 24.9 | 6.5 | 3 | 4.5 | 5 | 180°+5° | +1°/-5° |
| 10 | 76 | 19.6 | 16 | 2 | 14.3 | 28.4 | 28.2 | 7.5 | 4 | - | 5.5 | 200°+5° | +1°/-5° |

Dimensions – Size 6 ... 10

Download CAD data → www.festo.com

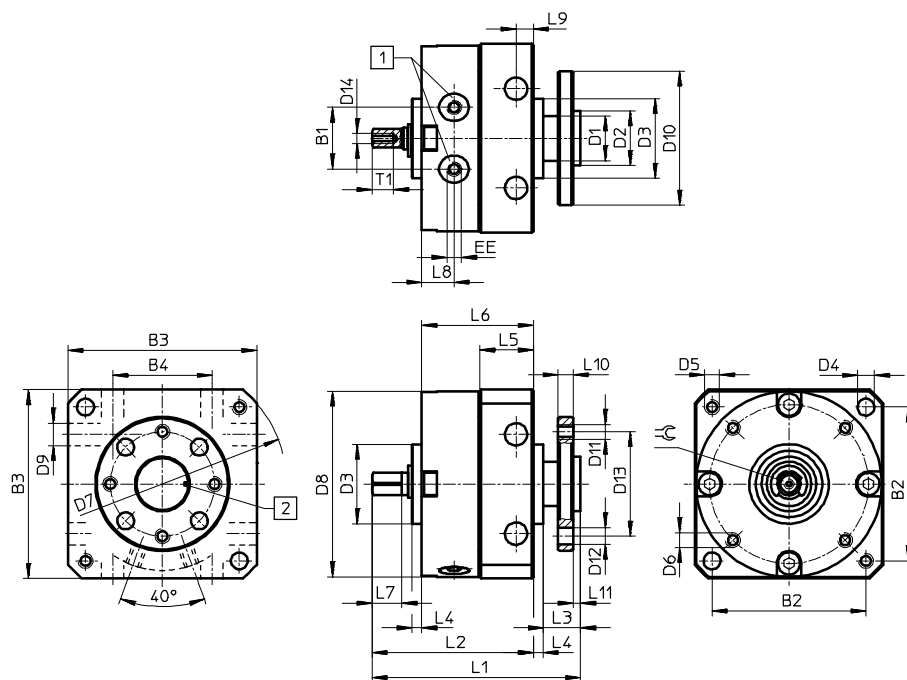
With spigot shaft, fixed stop, adjustable swivel angle and position sensing



- 1 Sensor not included in the scope of delivery. Observe fitting space for proximity sensor and cable
- 2 Magnet position
- 3 Max. tightening torque for sensor bracket screw → table below
- 4 The flat or the feather key on the shaft indicates the position of the rotary vane

| Size | D8 ∅ | D9 | L1 | L3 | L4 | L5 | L6 | L7 | Tightening torque [Nm] |
|------|---------|------|------|----|----|------|------|------|---------------------------|
| 6 | 29.4 | 17.3 | 68.5 | 4 | 2 | 9.8 | 21 | 19.5 | 0.19 |
| 8 | 37.4 | 19.3 | 80 | 4 | 2 | 11.3 | 23 | 19.5 | 0.32 |
| 10 | 46.4 | 22.3 | 91.5 | 4 | 2 | 14.3 | 28.4 | 19.5 | 0.44 |

With flanged shaft and fixed stop



- 1 Supply ports
- 2 Mark indicating rotary vane position

| Size | B1 | B2 | B3 | B4 | D1 ∅ | D2 ∅ g7 | D3 ∅ f8 | D4 ∅ | D5 | D6 | D7 ∅ H12 | D8 ∅ | D9 ∅ H12 | D10 ∅ | D11 | D12 ∅ H13 | D13 ∅ |
|------|------|----|----|----|---------|---------------|---------------|---------|----|------|----------------|---------|----------------|----------|-----|-----------------|----------|
| 6 | 10 | 25 | 30 | 17 | 8 | 8 | 14 | 3.2 | M3 | M2 | 40 | 29.4 | 3.5 | 23 | M3 | 3.4 | 16 |
| 8 | 12.8 | 31 | 38 | 20 | 9 | 11 | 16 | 3.2 | M3 | M2.5 | 50 | 37.4 | 3.5 | 27 | M3 | 3.4 | 21 |
| 10 | 15.9 | 38 | 47 | 26 | 10 | 11 | 19 | 4.3 | M4 | M3 | 62 | 46.4 | 4.5 | 30 | M3 | 3.4 | 21 |

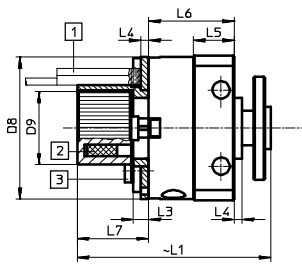
| Size | D14 | EE | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10 | L11 | T1 | ⊖ | Swivel angle tolerance |
|------|------|----|------|------|-----|----|------|------|----|-----|----|-----|-----|-----|-----|------------------------|
| 6 | M2 | M3 | 39.5 | 30 | 7.5 | 2 | 9.8 | 21 | 5 | 6 | 3 | 3 | 1.5 | 4 | 3 | 0/+5° |
| 8 | M2 | M3 | 43.5 | 34 | 7.5 | 2 | 11.3 | 23 | 6 | 6.5 | 3 | 3 | 1.5 | 4.3 | 3.5 | 0/+5° |
| 10 | M2.5 | M3 | 53 | 41.4 | 9.6 | 2 | 14.3 | 28.4 | 8 | 7.5 | 4 | 3 | 1.6 | 5 | 4.5 | 0/+5° |

Semi-rotary drives DSM

1

Dimensions – Size 6 ... 10

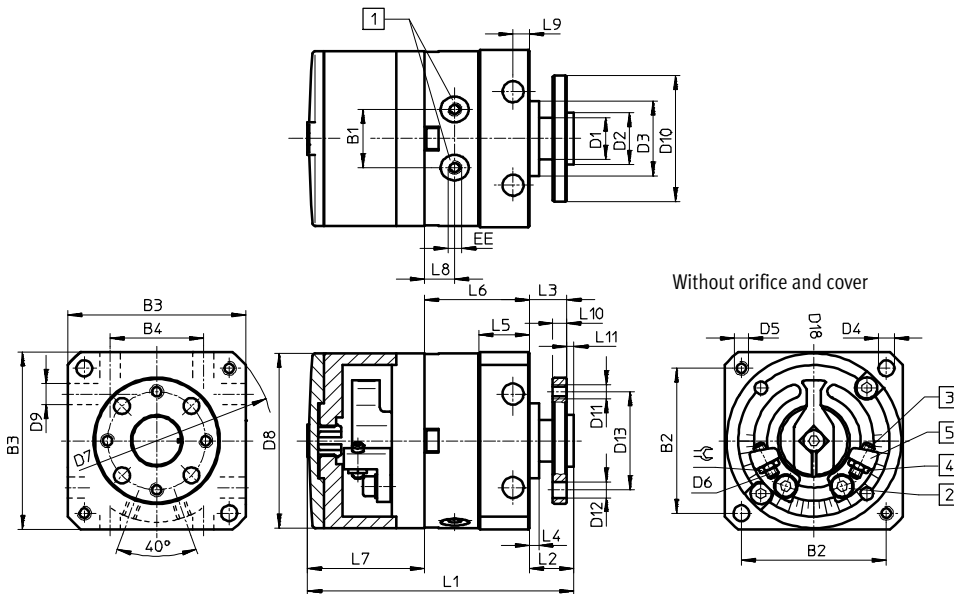
With flanged shaft, fixed stop and position sensing



- 1 Proximity sensor not included in the scope of delivery. Observe fitting space for proximity sensor and cable
- 2 Magnet position
- 3 Max. tightening torque for sensor bracket screw → table below

| Size | D8 | D9 | L1 | L3 | L4 | L5 | L6 | L7 | Tightening torque |
|------|------|------|------|----|----|------|------|------|-------------------|
| | ∅ | ∅ | | | | | | | [Nm] |
| 6 | 29.4 | 17.3 | 50 | 4 | 2 | 9.8 | 21 | 19.5 | 0.19 |
| 8 | 37.4 | 19.3 | 52 | 4 | 2 | 11.3 | 23 | 19.5 | 0.32 |
| 10 | 46.4 | 22.3 | 59.5 | 4 | 2 | 14.3 | 28.4 | 19.5 | 0.44 |

With flanged shaft, fixed stop and adjustable swivel angle



Note
The swivel angle is infinitely adjustable over the entire swivel range.
Size 6 can only be adjusted symmetrically around the centre position.

- 1 Supply ports
- 2 Locking screw for clamping the stop
- 3 End-position adjustment
- 4 Lock nut for end-position adjustment
- 5 Infinitely adjustable stops

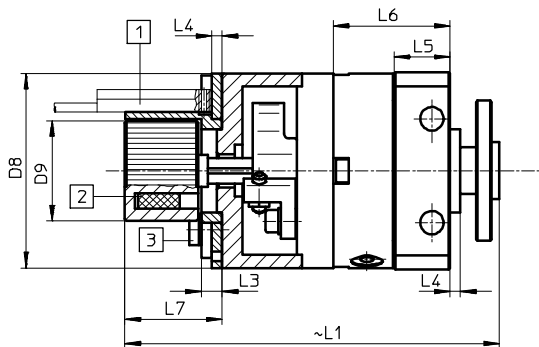
| Size | B1 | B2 | B3 | B4 | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 |
|------|------|----|----|----|----|---------|---------|----------|----|------|----------|------|
| | | | | | ∅ | ∅ g7 | ∅ f8 | ∅ H12 | | | ∅ H12 | ∅ |
| 6 | 10 | 25 | 30 | 17 | 8 | 8 | 14 | 3.2 | M3 | M2 | 40 | 29.4 |
| 8 | 12.8 | 31 | 38 | 20 | 9 | 11 | 16 | 3.2 | M3 | M2.5 | 50 | 37.4 |
| 10 | 15.9 | 38 | 47 | 26 | 10 | 11 | 19 | 4.3 | M4 | M3 | 62 | 46.4 |

| Size | D9 | D10 | D11 | D12 | D13 | D18 | EE | L1 | L2 | L3 | L4 |
|------|----------|-----|-----|----------|-----|------|----|----|------|----|----|
| | ∅ H12 | ∅ | | ∅ H13 | ∅ | ∅ | | | | | |
| 6 | 3.5 | 23 | M3 | 3.4 | 16 | 22 | M3 | 48 | 9.5 | 8 | 2 |
| 8 | 3.5 | 27 | M3 | 3.4 | 21 | 26 | M3 | 58 | 9.5 | 8 | 2 |
| 10 | 4.5 | 30 | M3 | 3.4 | 21 | 35.8 | M3 | 68 | 11.6 | 10 | 2 |

| Size | L5 | L6 | L7 | L8 | L9 | L10 | L11 | ⊕ | Max. Swivel angle | Precision adjustment per side |
|------|------|------|------|-----|----|-----|-----|-----|-------------------|-------------------------------|
| 6 | 9.8 | 21 | 17.8 | 6 | 3 | 3 | 1.5 | 4 | 180° +5° | +1°/-5° |
| 8 | 11.3 | 23 | 24.9 | 6.5 | 3 | 3 | 1.5 | 5 | 180° +5° | +1°/-5° |
| 10 | 14.3 | 28.4 | 28.2 | 7.5 | 4 | 3 | 1.6 | 5.5 | 200° +5° | +1°/-5° |

Dimensions – Size 6 ... 10

With flanged shaft, fixed stop, adjustable swivel angle and position sensing

**Note**

The swivel angle is infinitely adjustable over the entire swivel range. Size 6 can only be adjusted symmetrically around the centre position.

1 Proximity sensor not included in the scope of delivery. Observe fitting space for proximity sensor and cable

2 Magnet position

3 Max. tightening torque for sensor bracket screws
→ table below

| Size | D8 Ø | D9 Ø | L1 | L3 | L4 | L5 | L6 | L7 | Tightening torque [Nm] |
|------|---------|---------|------|----|----|------|------|------|---------------------------|
| 6 | 29.4 | 17.3 | 65 | 4 | 2 | 9.8 | 21 | 19.5 | 0.19 |
| 8 | 37.4 | 19.3 | 73.5 | 4 | 2 | 11.3 | 23 | 19.5 | 0.32 |
| 10 | 46.4 | 22.3 | 83 | 4 | 2 | 14.3 | 28.4 | 19.5 | 0.44 |



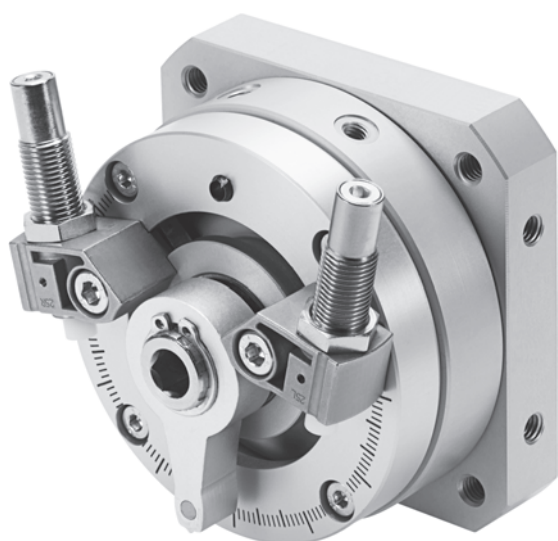
Overview/Configuration/Ordering
→ www.festo.com/catalogue/dsm



Additional information/Support/User documentation
→ www.festo.com/sp/dsm

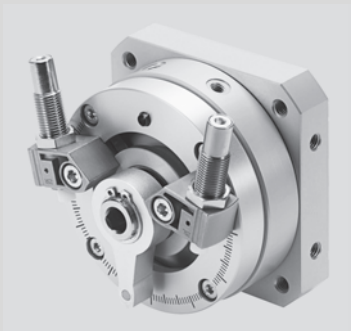
Swivel modules
Swivel modules with rotary vane
Swivel modules

DSM-B



- + Force transmitted directly to the drive shaft via a rotary vane
- + With spigot shaft, hollow flanged shaft, tandem rotary vane and spigot shaft, tandem rotary vane and flanged shaft or heavy-duty bearing (HD)

Semi-rotary drives DSM-B



- Semi-rotary drives with minimum space requirement
- Semi-rotary drives with tandem rotary vanes
- Simple basic and precision adjustment of the swivel angle
- High-performance cushioning
- Compact, low-cost sensing
- ★ Quick ordering of basic designs → 254

→ www.festo.com/catalogue/dsm

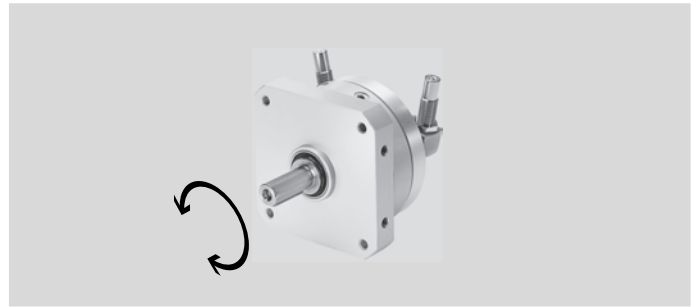
Product range overview – Size 12 ... 63-B

| Type/function | Version | Size | Swivel angle [°] | Torque [Nm] | Product options | | | | | |
|---------------|-----------------------------|------------------------|------------------|-------------|-----------------|----|----|---|----|---|
| | | | | | P | P1 | CC | – | FW | A |
| Double-acting | DSM- ... -B | | | | | | | | | |
| | Basic design | 12, 16, 25, 32, 40, 63 | 270 | 1.25 ... 40 | ■ | – | – | ■ | ■ | ■ |
| | | 12, 16, 25, 32 | 246 | 1.25 ... 10 | – | ■ | ■ | ■ | ■ | ■ |
| | | 40, 63 | 240 | 20 ... 40 | – | ■ | ■ | ■ | ■ | ■ |
| | DSM-T- ... -B | | | | | | | | | |
| | Tandem rotary vanes | 12, 16, 25, 32, 40, 63 | 270 | 2.5 ... 80 | ■ | – | – | ■ | ■ | ■ |
| | | 12, 16, 25, 32 | 246 | 2.5 ... 20 | – | – | ■ | ■ | ■ | ■ |
| | | 40, 63 | 240 | 40 ... 80 | – | – | ■ | ■ | ■ | ■ |
| | DSM- ... -HD- ... -B | | | | | | | | | |
| | Heavy-duty bearing | 12, 16, 25, 32, 40, 63 | 270 | 1.25 ... 40 | – | – | – | – | – | ■ |
| | | 12, 16, 25, 32 | 246 | 1.25 ... 10 | – | ■ | ■ | – | – | ■ |
| | | 40, 63 | 240 | 20 ... 40 | – | ■ | ■ | – | – | ■ |

Product options – Size 12 ... 63-B

| | | | | | | | |
|---|-------------------------------------------------------------|----|------------------------------------------------------------------------|----|-------------------------------------------------------------|----|--------------------|
| P | Elastic cushioning components at both ends, with fixed stop | P1 | Adjustable elastic cushioning components at both ends, with fixed stop | CC | Self-adjusting shock absorber at both ends, with fixed stop | FW | Flanged shaft |
| | | | | – | Shaft with feather key | HD | Heavy-duty bearing |
| | | | | | | A | Position sensing |
| | | | | | | B | B series |

Data sheet – Size 12 ... 63-B



| Technical data | | | | | | | Dimensions → 258 |
|-----------------------------------------|---------------------|--------------------------------------------------------|-----|-----|------|-----|------------------|
| Size | | 12 | 16 | 25 | 32 | 40 | 63 |
| Pneumatic port | | M5 | | | G1/8 | | G1/4 |
| Cushioning | | | | | | | |
| DSM-...-P | | Elastic cushioning components at both ends | | | | | |
| DSM-...-P1 | | Elastic cushioning components, adjustable at both ends | | | | | |
| DSM-...-CC | | Self-adjusting shock absorber at both ends | | | | | |
| Torque at 6 bar | | | | | | | |
| DSM-... | [Nm] | 1.25 | 2.5 | 5 | 10 | 20 | 40 |
| DSM-...-T | [Nm] | 2.5 | 5 | 10 | 20 | 40 | 80 |
| Swivel angle | | | | | | | |
| DSM-...-P | [°] | 270/262 ¹⁾ | | 270 | | | |
| DSM-...-P1 | [°] | 246 | | | | 240 | |
| DSM-...-CC | [°] | 246 | | | | 240 | |
| Swivel frequency (at max. swivel angle) | | | | | | | |
| DSM-...-P | [Hz] | 2 | | | | | 1.6 |
| DSM-...-P1 | [Hz] | 2 | | | | | 1.6 |
| DSM-...-CC | [Hz] | 1.5 | 1 | | 0.7 | 0.6 | |
| Max. perm. radial force ²⁾ | [N] | 45 | 75 | 120 | 200 | 350 | 500 |
| Max. perm. axial force ²⁾ | [N] | 18 | 30 | 50 | 75 | 120 | 500 |
| Max. cushioning angle | | | | | | | |
| DSM-...-P1 | [°] | 10 | 9 | 7.5 | 6.5 | 6.5 | 6 |
| DSM-...-CC | [°] | 15 | 12 | 10 | 12 | 16 | 17.5 |
| Max. perm. mass moment of inertia | [kgm ²] | → 250 | | | | | |

1) Restricted swivel angle in combination with sensor bracket SL-DSM-S-...

2) On the drive shaft.

| Operating conditions | | | | | | | |
|-----------------------------------|-------|-------------|------------|----|------------|----|----|
| Size | | 12 | 16 | 25 | 32 | 40 | 63 |
| Operating pressure | | | | | | | |
| DSM-... | [bar] | 2 ... 10 | 1.8 ... 10 | | 1.5 ... 10 | | |
| DSM-...-T | [bar] | 2.5 ... 10 | | | 2 ... 10 | | |
| Ambient temperature ³⁾ | [°C] | -10 ... +60 | | | | | |

3) Note operating range of proximity sensors.

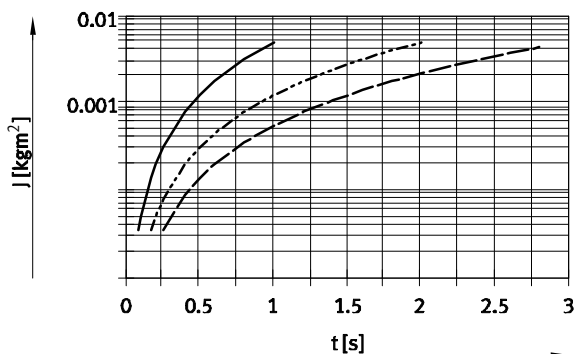
| Materials | |
|-------------|--------------------------------|
| Drive shaft | Nickel-plated steel |
| Housing | Anodised aluminium |
| Flange | Anodised aluminium |
| Stop lever | Anodised aluminium |
| Rotary vane | Glass fibre-reinforced plastic |
| Fixed stops | Galvanized steel |
| Seals | TPE-U (PUR) |

Semi-rotary drives DSM-B

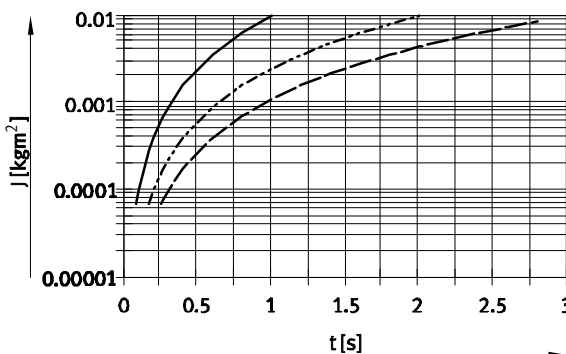
Data sheet – Size 12 ... 63-B

Mass moment of inertia J on the drive shaft as a function of swivel time t
 With elastic cushioning components (P)

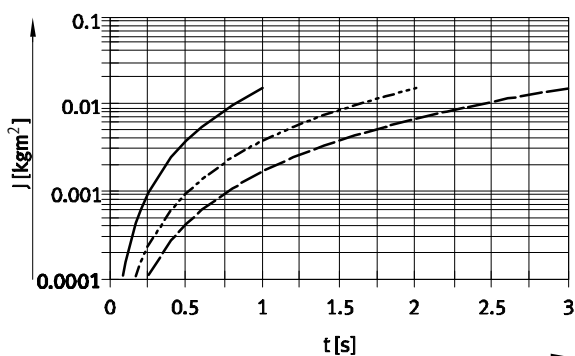
DSM-12-270-P-...



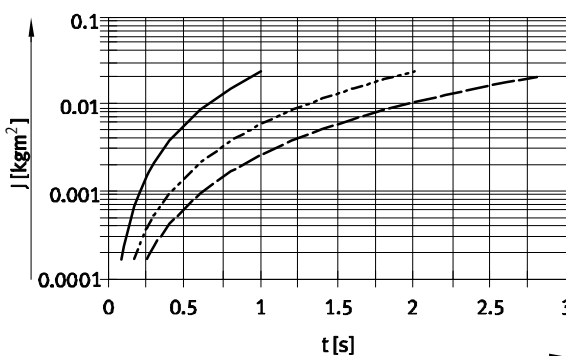
DSM-16-270-P-...



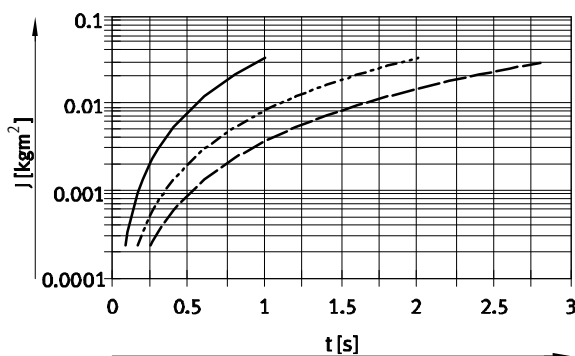
DSM-25-270-P-...



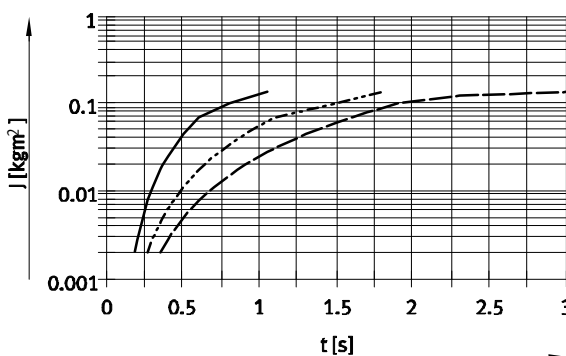
DSM-32-270-P-...



DSM-40-270-P-...



DSM-63-270-P-...



- 90°
- - - 180°
- 270°

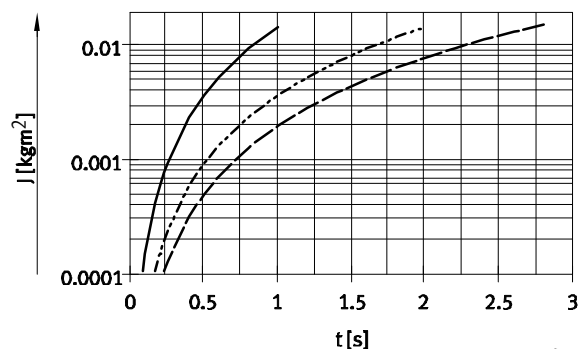
Note

Configuration software for calculating the mass moment of inertia
 → www.festo.com

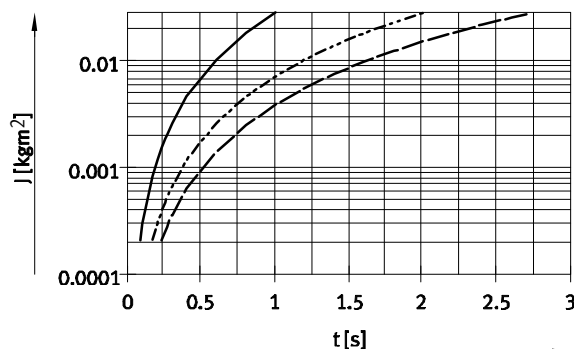
Data sheet – Size 12 ... 63-B

Mass moment of inertia J on the drive shaft as a function of swivel time t
 With adjustable, flexible cushioning components (P1)

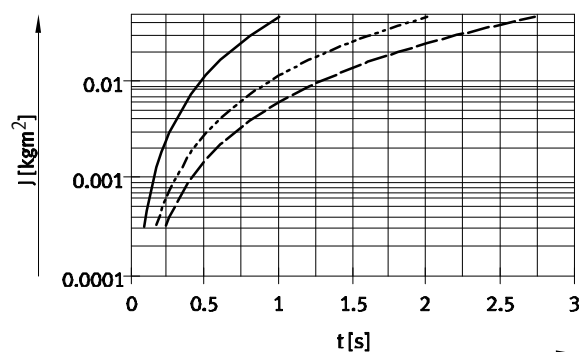
DSM-12-270-P1-...



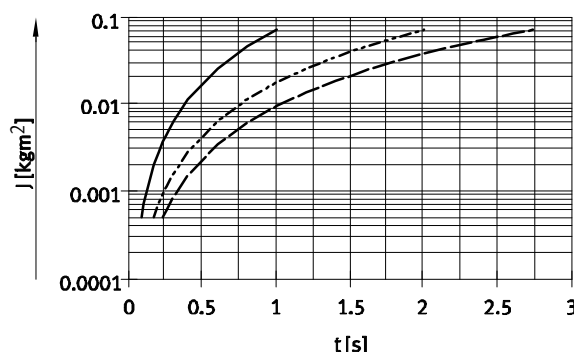
DSM-16-270-P1-...



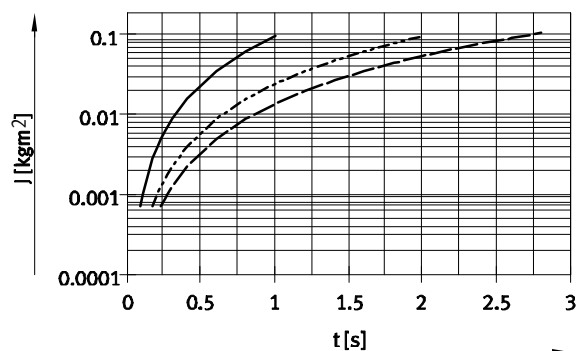
DSM-25-270-P1-...



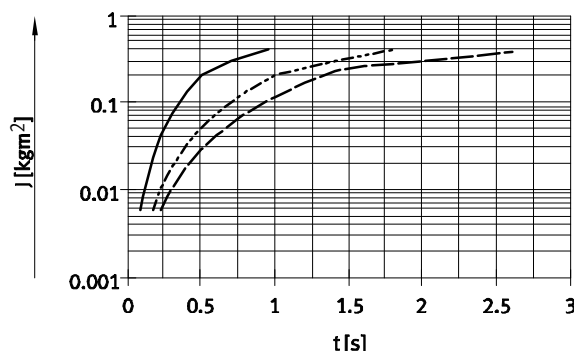
DSM-32-270-P1-...



DSM-40-270-P1-...



DSM-63-270-P1-...



- 90°
- - - 180°
- · - 240°

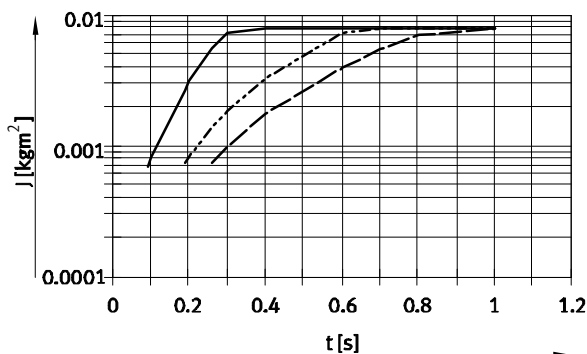
Semi-rotary drives DSM-B

Data sheet – Size 12 ... 63-B

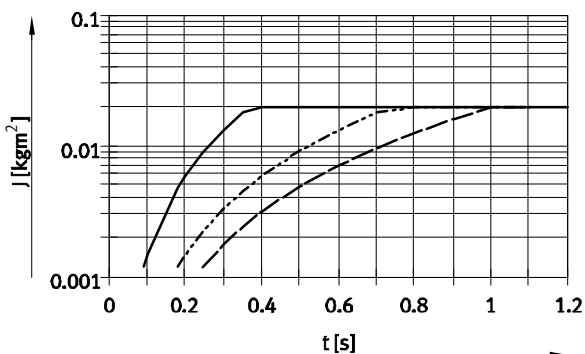
Mass moment of inertia J on the drive shaft as a function of swivel time t

With shock absorbers (CC)

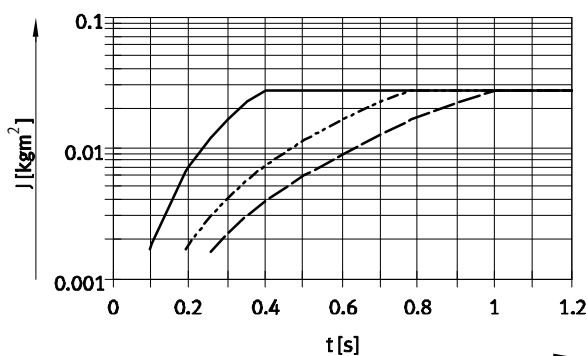
DSM-12-270-CC-...



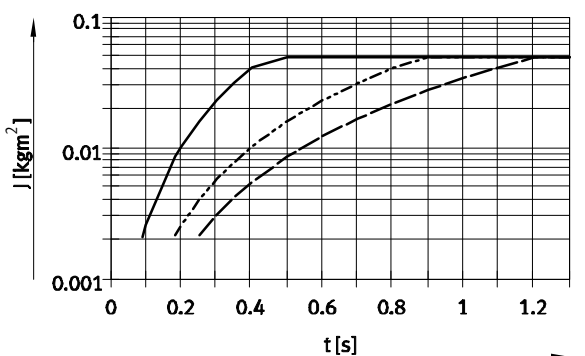
DSM-16-270-CC-...



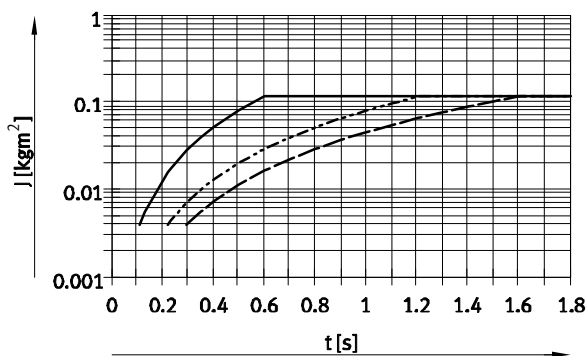
DSM-25-270-CC-...



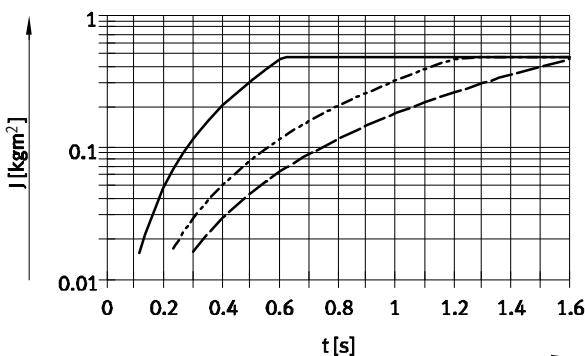
DSM-32-270-CC-...



DSM-40-270-CC-...



DSM-63-270-CC-...



- 90°
- - - 180°
- · - 240°

The graphs for the DSM-...-CC show the swivel time up to the point where the stop lever meets the shock absorber. The cushioning time of the shock absorber must be added in order to obtain the total swivel time.

Cushioning time of the shock absorber

| Size | 12/16/25 | 32 | 40 | 63 |
|---------------------|----------|------|-----|-----|
| Cushioning time [s] | 0.1 | 0.25 | 0.3 | 0.4 |

Order code – Size 12 ... 63-B

| | | | | | | | | | | | | |
|-------------------------|---------------------------------------------------------------------------------------------------------|-----|---|---|---|-----|---|---|---|---|---|---|
| | | DSM | - | - | - | 270 | - | - | - | A | - | B |
| Type | | | | | | | | | | | | |
| DSM | Semi-rotary drive | | | | | | | | | | | |
| Design | | | | | | | | | | | | |
| T | Tandem rotary vanes | | | | | | | | | | | |
| Size | | | | | | | | | | | | |
| | Max. swivel angle [°] | | | | | | | | | | | |
| 12, 16, 25, 32, 40, 63 | 270 | | | | | | | | | | | |
| Cushioning | | | | | | | | | | | | |
| - | Without cushioning components | | | | | | | | | | | |
| P | Elastic cushioning components at both ends | | | | | | | | | | | |
| P1 | Adjustable elastic cushioning components at both ends <input type="checkbox"/> <input type="checkbox"/> | | | | | | | | | | | |
| CC | Shock absorber at both ends <input type="checkbox"/> | | | | | | | | | | | |
| Shaft | | | | | | | | | | | | |
| - | Spigot shaft | | | | | | | | | | | |
| FW | Flanged shaft | | | | | | | | | | | |
| Position sensing | | | | | | | | | | | | |
| A | Via proximity sensor | | | | | | | | | | | |
| Variant | | | | | | | | | | | | |
| B | B series | | | | | | | | | | | |

Max. swivel angle 246° with size 12 ... 32.
Max. swivel angle 240° with size 40, 63.

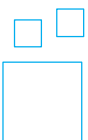
Not with tandem rotary vanes T

Order example:

DSM-12-270-CC-A-B

Semi-rotary drive DSM - without tandem rotary vanes - size 12 - swivel angle 270° - shock absorber at both ends - spigot shaft - position sensing via proximity sensor - B series

Ordering – Product options



Configurable product

This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
→ www.festo.com/catalogue/...

Enter the type code in the search field.

Semi-rotary drives DSM-B

1

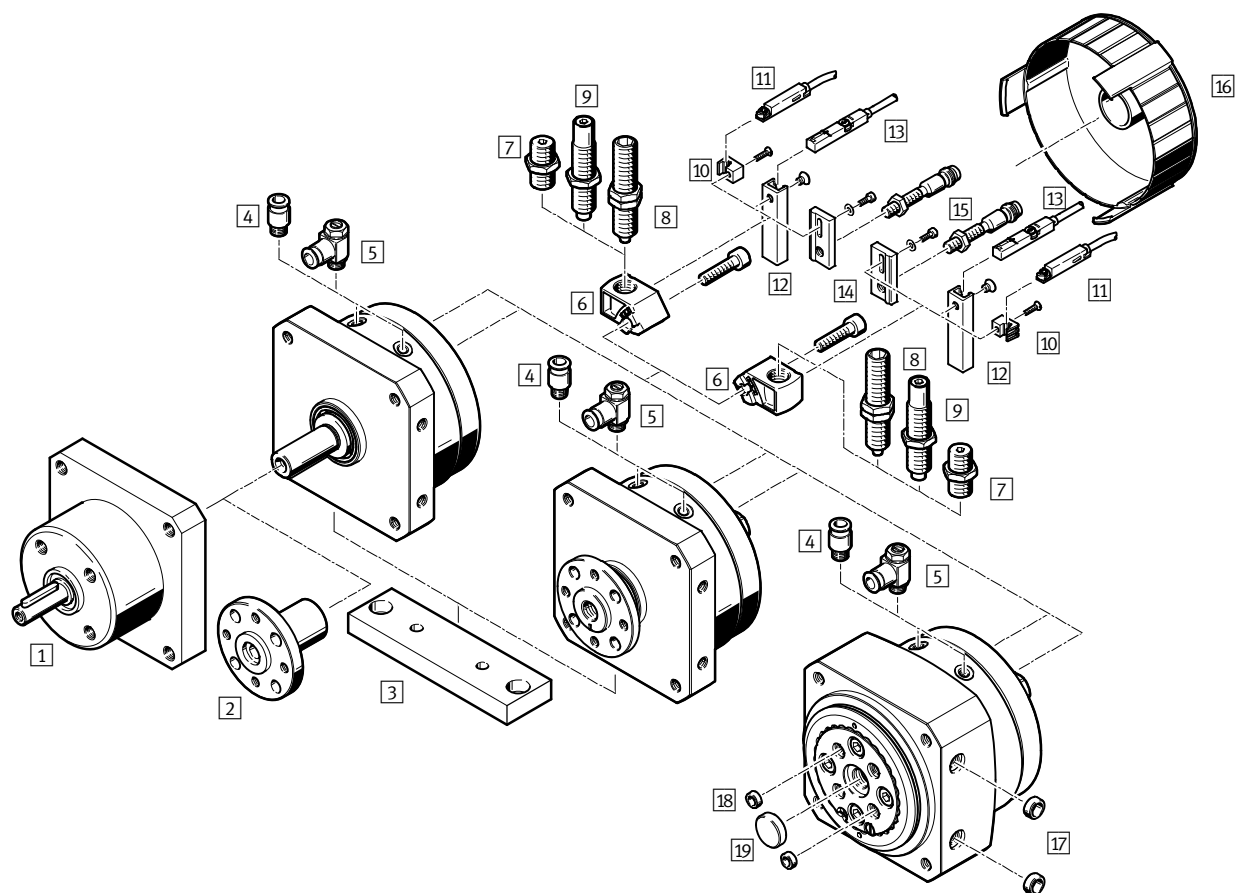
★ Quick ordering – Size 12 ... 63-B¹⁾

| Spigot shaft | | | |
|-------------------------------------------------------------------|--------------|----------|-------------------|
| Piston Ø | Swivel angle | Part no. | Type |
| Without cushioning components | | | |
| 12 | 270° | 547591 | DSM-12-270-A-B |
| 16 | | 547592 | DSM-16-270-A-B |
| 25 | | 547593 | DSM-25-270-A-B |
| 32 | | 547594 | DSM-32-270-A-B |
| 40 | | 547595 | DSM-40-270-A-B |
| P – Elastic cushioning components at both ends | | | |
| 12 | 270° | 547570 | DSM-12-270-P-A-B |
| 16 | | 547574 | DSM-16-270-P-A-B |
| 25 | | 547578 | DSM-25-270-P-A-B |
| 32 | | 547582 | DSM-32-270-P-A-B |
| 40 | | 547586 | DSM-40-270-P-A-B |
| P1 – Adjustable elastic cushioning components at both ends | | | |
| 12 | 246° | 566203 | DSM-12-270-P1-A-B |
| 16 | | 566205 | DSM-16-270-P1-A-B |
| 25 | | 566207 | DSM-25-270-P1-A-B |
| 32 | | 566209 | DSM-32-270-P1-A-B |
| 40 | 240° | 566211 | DSM-40-270-P1-A-B |
| CC – Shock absorber at both ends | | | |
| 12 | 246° | 547572 | DSM-12-270-CC-A-B |
| 16 | | 547576 | DSM-16-270-CC-A-B |
| 25 | | 547580 | DSM-25-270-CC-A-B |
| 32 | | 547584 | DSM-32-270-CC-A-B |
| 40 | 240° | 547588 | DSM-40-270-CC-A-B |

| Flanged shaft | | | |
|----------------------------------------------------------------------|--------------|----------|----------------------|
| Piston Ø | Swivel angle | Part no. | Type |
| Without cushioning components | | | |
| 12 | 270° | 547596 | DSM-12-270-FW-A-B |
| 16 | | 547597 | DSM-16-270-FW-A-B |
| 25 | | 545598 | DSM-25-270-FW-A-B |
| 32 | | 545599 | DSM-32-270-FW-A-B |
| 40 | | 545600 | DSM-40-270-FW-A-B |
| P-FW – Elastic cushioning components at both ends | | | |
| 12 | 270° | 547571 | DSM-12-270-P-FW-A-B |
| 16 | | 547575 | DSM-16-270-P-FW-A-B |
| 25 | | 547579 | DSM-25-270-P-FW-A-B |
| 32 | | 547583 | DSM-32-270-P-FW-A-B |
| 40 | | 547587 | DSM-40-270-P-FW-A-B |
| P1-FW – Adjustable elastic cushioning components at both ends | | | |
| 12 | 246° | 566204 | DSM-12-270-P1-FW-A-B |
| 16 | | 566206 | DSM-16-270-P1-FW-A-B |
| 25 | | 566208 | DSM-25-270-P1-FW-A-B |
| 32 | | 556210 | DSM-32-270-P1-FW-A-B |
| 40 | 240° | 556212 | DSM-40-270-P1-FW-A-B |
| CC-FW – Shock absorber at both ends | | | |
| 12 | 246° | 547573 | DSM-12-270-CC-FW-A-B |
| 16 | | 547577 | DSM-16-270-CC-FW-A-B |
| 25 | | 547581 | DSM-25-270-CC-FW-A-B |
| 32 | | 547585 | DSM-32-270-CC-FW-A-B |
| 40 | 240° | 547589 | DSM-40-270-CC-FW-A-B |

1) All products in this table are easy to select and quick to order.

Accessories – Size 12 ... 63-B



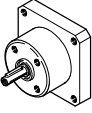
| | | → Page/ online |
|----|-------------------------------------------------|-------------------|
| 1 | Freewheel unit FLSM | 256 |
| 2 | Push-on flange FWSR | 256 |
| 3 | Mounting plate HSM | 256 |
| 4 | Push-in fitting QS | 1098 |
| 5 | One-way flow control valve GRLA | 256 |
| 6 | Cushioning mount DSM-...-B | 256 |
| 7 | Cushioning kit DSM-...-P-B (P cushioning) | 256 |
| 8 | Shock absorber DYEF (P1 cushioning) | 256 |
| 9 | Shock absorber DYSC (CC cushioning) | 256 |
| 10 | Sensor bracket SL-DSM-B | 256 |
| 11 | Proximity sensor SME-/SMT-10 for size 12 ... 40 | 257 |


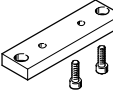
| | | → Page/ online |
|----|------------------------------------------------|---------------------|
| 12 | Sensor bracket SL-DSM-63-B | 256 |
| 13 | Proximity sensor SME-/SMT-8 for size 63 | 257 |
| 14 | Sensor bracket SL-DSM-S | 256 |
| 15 | Inductive proximity sensor SIEN | 257 |
| 16 | Cover cap AKM | 257 |
| 17 | Centring sleeve ZBH (for centring drive) | – |
| 18 | Centring sleeve ZBH (for centring attachments) | – |
| 19 | Centring sleeve ZBH/disc SLZZ | – |
| – | Connecting cable NEBU | 257 |
| – | Drive/gripper connections | dsm |

Semi-rotary drives DSM-B


1

Accessories – Ordering data – Size 12 ... 63-B

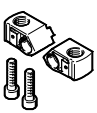


| | For size | Direction of rotation ¹⁾ | Part no. | Type |
|----------------------------------------------------------------------------------|----------|-------------------------------------|----------|-----------|
| 1 Freewheel unit Dimensions online: → dsm | | | | |
|  | 12 | Anti-clockwise rotation | 164229 | FLSM-12-L |
| | | Clockwise rotation | 164234 | FLSM-12-R |
| | 16 | Anti-clockwise rotation | 164230 | FLSM-16-L |
| | | Clockwise rotation | 164235 | FLSM-16-R |
| | 25 | Anti-clockwise rotation | 164231 | FLSM-25-L |
| | | Clockwise rotation | 164236 | FLSM-25-R |
| | 32 | Anti-clockwise rotation | 164232 | FLSM-32-L |
| | | Clockwise rotation | 164237 | FLSM-32-R |
| | 40 | Anti-clockwise rotation | 164233 | FLSM-40-L |
| | | Clockwise rotation | 164238 | FLSM-40-R |




| | For size | Part no. | Type |
|-----------------------------------------------------------------------------------|----------|----------|---------|
| 2 Push-on flange Dimensions online: → dsm | | | |
|  | 12 | 14659 | FWSR-12 |
| | 16 | 13239 | FWSR-16 |
| | 25 | 13240 | FWSR-25 |
| | 32 | 13241 | FWSR-32 |
| | 40 | 14656 | FWSR-40 |
| 3 Mounting plate Dimensions online: → dsm | | | |
|  | 12 | 165571 | HSM-12 |
| | 16 | 165572 | HSM-16 |
| | 25 | 165573 | HSM-25 |
| | 32 | 165574 | HSM-32 |
| | 40 | 165575 | HSM-40 |

1) View of the drive shaft side.

| Function | For size | Connection | | Part no. | Type |
|---------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|------|----------|-------------------------------------|
| | | Thread | O.D. | | |
| 5 One-way flow control valve with slotted head screw, metal²⁾ for exhaust air flow control Technical data → 758 | | | | | |
|  | 12, 16 | M5 | 3 | ★ | 193137 GRLA-M5-QS-3-D |
| | 25 | | 4 | ★ | 193138 GRLA-M5-QS-4-D |
| | 32, 40 | G $\frac{1}{8}$ | 6 | ★ | 193144 GRLA- $\frac{1}{8}$ -QS-6-D |
| | 63 | | 8 | ★ | 193147 GRLA- $\frac{1}{4}$ -QS-8-D |
| | 63 | G $\frac{1}{4}$ | 10 | ★ | 193148 GRLA- $\frac{1}{4}$ -QS-10-D |
| | | | | | |

2) The recommended flow control valves are based on a tubing length to the valve of 1 m. For deviations of ±50%, flow control valves with a bigger or smaller flow rate must be selected to guarantee the optimum flow control function and cylinder speed.

| | For size | Part no. | Type |
|--------------------------------------------------------------------------------------------------|----------|----------|---------------|
| 6 Cushioning mount³⁾ | | | |
|  | 12 | 547900 | DSM-12-B |
| | 16 | 547901 | DSM-16-B |
| | 25 | 547902 | DSM-25-B |
| | 32 | 547903 | DSM-32-B |
| | 40 | 547904 | DSM-40-B |
| | 63 | 552085 | DSM-63-B |
| 7 Cushioning kit³⁾, P cushioning | | | |
|  | 12 | 550657 | DSM-12-P-B |
| | 16, 25 | 550658 | DSM-16/25-P-B |
| | 32 | 550659 | DSM-32-P-B |
| | 40 | 550060 | DSM-40-P-B |
| | 63 | 552086 | DSM-63-P-B |
| 8 Shock absorber⁴⁾, P1 cushioning Technical data online: → dye | | | |
|  | 12 | 548373 | DYEF-M8-Y1F |
| | 16, 25 | 548374 | DYEF-M10-Y1F |
| | 32 | 548375 | DYEF-M12-Y1F |
| | 40 | 548377 | DYEF-M16-Y1F |
| | 63 | 1113706 | DYEF-M22-Y1F |

| | For size | Part no. | Type |
|---------------------------------------------------------------------------------------------------|--------------------|----------|-------------------------------------|
| 9 Shock absorber⁴⁾, CC cushioning Technical data online: → dysc | | | |
|  | 12 | 548011 | DYSC-5-5-Y1F |
| | 16/25 | 548012 | DYSC-7-5-Y1F |
| | 32 | 548013 | DYSC-8-8-Y1F |
| | 40 | 548014 | DYSC-12-12-Y1F |
| | 63 | 553593 | DYSC-16-18-Y1F |
| 10/12/14 Sensor bracket | | | |
|  | 12, 16, 25, 32, 40 | ★ | 550661 SL-DSM-B ³⁾ |
| | 63 | | 552088 SL-DSM-63-B ³⁾ |
|  | 12, 16, 25, 32, 40 | ★ | 1130882 SL-DSM-S-M5-B ³⁾ |
| | | ★ | 1132360 SL-DSM-S-M8-B ³⁾ |

3) Packaging unit 2 pieces.

4) Packaging unit 1 piece.










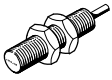

5) For proximity sensor SME-/SMT-10.

6) For proximity sensor SME-/SMT-8.

7) For inductive proximity sensor SIEN-M5.

8) For inductive proximity sensor SIEN-M8.

Accessories – Ordering data – Size 12 ... 63-B

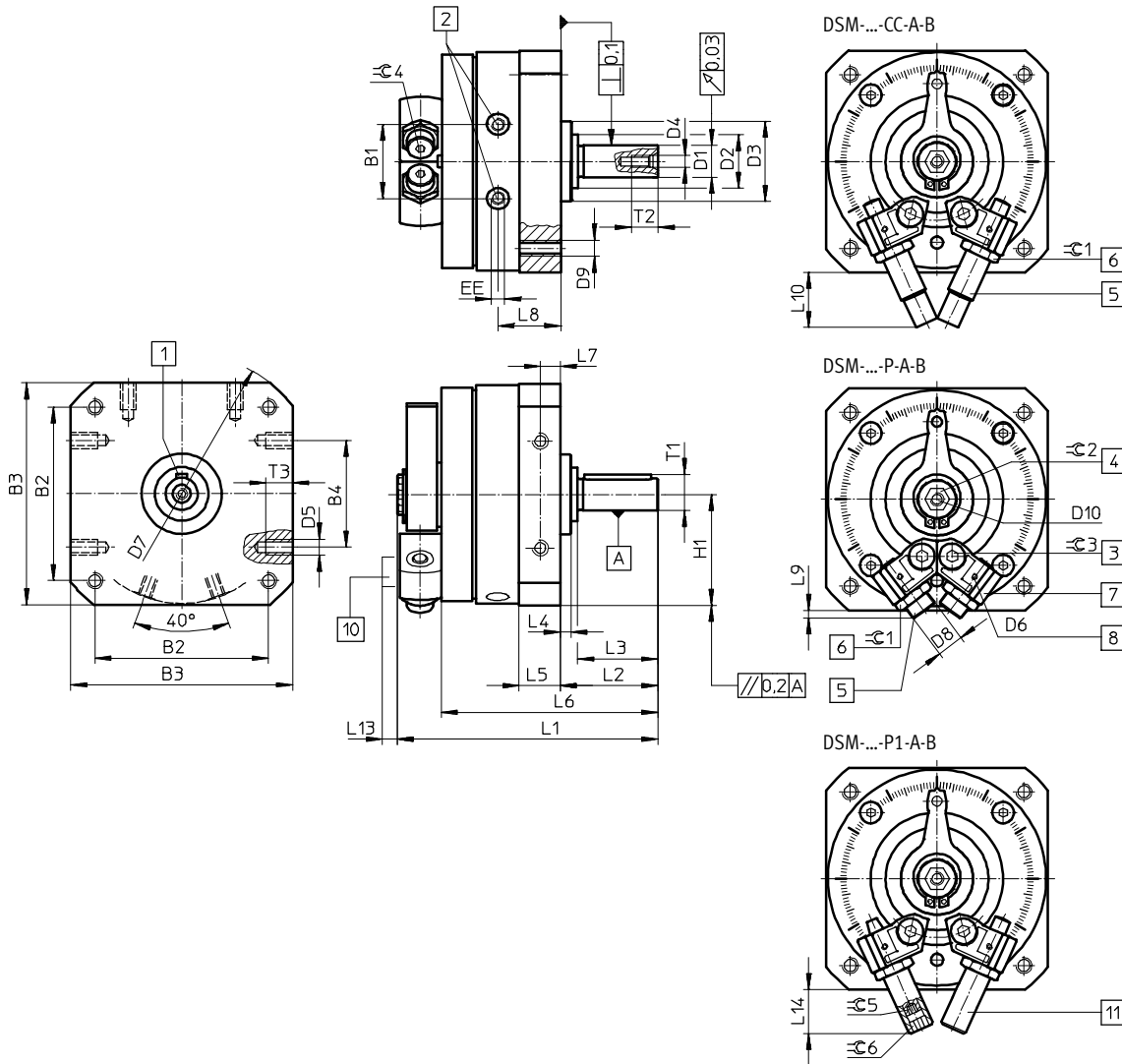
| | For size | Cable length [m] | | Part no. | Type | |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------|---|----------|----------------------------|---------------------------------|
| 11 | Proximity sensor for C-slot, for size 12 ... 40, magneto-resistive – N/O contact | | | | | Technical data → 892 |
|  | PNP, cable | 2.5 | ★ | 551373 | SMT-10M-PS-24V-E-2,5-L-OE | |
| | PNP, plug | 0.3 | ★ | 551375 | SMT-10M-PS-24V-E-0,3-L-M8D | |
| Magnetic reed – N/O contact | | | | | | Technical data → 888 |
|  | Cable | 2.5 | ★ | 551365 | SME-10M-DS-24V-E-2,5-L-OE | |
| | Plug | 0.3 | ★ | 551367 | SME-10M-DS-24V-E-0,3-L-M8D | |
| | | | | | | Technical data → 890 |
|  | Cable | 2.5 | | 173210 | SME-10-KL-LED-24 | |
| | Plug | 0.3 | | 173212 | SME-10-SL-LED-24 | |
| 13 | Proximity sensor for T-slot, for size 63, magneto-resistive – N/O contact | | | | | Technical data → 878 |
|  | PNP, cable | 2.5 | ★ | 574335 | SMT-8M-A-PS-24V-E-2,5-OE | |
| | PNP, plug | 0.3 | ★ | 574334 | SMT-8M-A-PS-24V-E-0,3-M8D | |
| | PNP, plug | 0.3 | ★ | 574337 | SMT-8M-A-PS-24V-E-0,3-M12 | |
| | NPN, cable | 2.5 | ★ | 574338 | SMT-8M-A-NS-24V-E-2,5-OE | |
| | NPN, plug | 0.3 | ★ | 574339 | SMT-8M-A-NS-24V-E-0,3-M8D | |
| Magneto-resistive – N/C contact | | | | | | Technical data → 878 |
|  | PNP, cable | 7.5 | ★ | 574340 | SMT-8M-A-PO-24V-E-7,5-OE | |
| Magnetic reed – N/O contact | | | | | | Technical data → 873 |
|  | Cable | 2.5 | ★ | 543862 | SME-8M-DS-24V-K-2,5-OE | |
| | Cable | 5.0 | ★ | 543863 | SME-8M-DS-24V-K-5,0-OE | |
| | Cable | 2.5 | ★ | 543872 | SME-8M-ZS-24V-K-2,5-OE | |
| | Plug | 0.3 | ★ | 543861 | SME-8M-DS-24V-K-0,3-M8D | |
| | | | | | | Technical data → 875 |
|  | Cable | 2.5 | | 150855 | SME-8-K-LED-24 | |
| | Plug | 0.3 | | 150857 | SME-8-S-LED-24 | |
| 11/13/15 | Connecting cable, straight socket | | | | | Technical data → 1161 |
|  | – | 2.5 | ★ | 541333 | NEBU-M8G3-K-2.5-LE3 | |
| | – | 5.0 | ★ | 541334 | NEBU-M8G3-K-5-LE3 | |
| Angled socket | | | | | | Technical data → 1161 |
|  | – | 2.5 | ★ | 541338 | NEBU-M8W3-K-2.5-LE3 | |
| | – | 5.0 | ★ | 541341 | NEBU-M8W3-K-5-LE3 | |
| 15 | Inductive proximity sensor, for size 12 ... 40 | | | | | Technical data → 899 |
|  | M5, cable | 2.5 | ★ | 150370 | SIEN-M5B-PS-K-L | |
| | M5, plug | – | ★ | 150371 | SIEN-M5B-PS-S-L | |
| | M8, cable | 2.5 | ★ | 150386 | SIEN-M8B-PS-K-L | |
| | M8, plug | – | ★ | 150387 | SIEN-M8B-PS-S-L | |
| 16 | Cover cap | | | | | Dimensions online: → dsm |
|  | 12 | – | ★ | 549194 | AKM-12 | |
| | 16 | – | ★ | 549195 | AKM-16 | |
| | 25 | – | ★ | 549196 | AKM-25 | |
| | 32 | – | ★ | 549197 | AKM-32 | |
| | 40 | – | ★ | 549198 | AKM-40 | |

Semi-rotary drives DSM-B

Dimensions – Size 12 ... 63-B

Download CAD data → www.festo.com

DSM- ... -B – With spigot shaft



- 1 Feather key position at 0°
- 2 Supply ports
- 3 Locking screw for clamping the stop

- 4 Manual override (internal hex).
The position of the internal hex is not defined

- 5 End-position adjustment
- 6 Lock nut for end-position adjustment
- 7 Infinitely adjustable stops

- 8 Mounting thread for sensor bracket
- 10 Sensor bracket
- 11 End-position adjustment

Dimensions – Size 12 ... 63-B

Download CAD data → www.festo.com

| Size | B1 ±0.5 | B2 | B3 | B4 | D1 ∅ g7 | D2 ∅ | D3 ∅ f8 | D4 |
|------|------------|---------|---------------------|--------|---------------|--------------------|---------------|-----|
| 12 | 19.8 | 48±0.3 | 59±0.3 | 30±0.2 | 8 | 15±0.2 | 24 | M3 |
| 16 | 23.5 | 57±0.3 | 70±0.3 | 40±0.2 | 10 | 18 _{-0,3} | 28 | M3 |
| 25 | 28 | 65±0.3 | 83±0.3 | 40±0.2 | 12 | 20 _{-0,3} | 30 | M4 |
| 32 | 35.5 | 85±0.3 | 105±0.3 | 60±0.3 | 16 | 27 _{-0,4} | 42 | M5 |
| 40 | 43.8 | 105±0.3 | 130±0.5 | 80±0.3 | 20 | 36 _{-0,4} | 52 | M6 |
| 63 | 50.3 | 125±0.5 | 152 ^{+0.2} | 80±0.3 | 25 | 40±0.3 | 70 | M10 |

| Size | D5 | D6 | D7 ∅ | D8 | D9 | D10 | EE |
|------|-----|----|---------|---------|-----|-----|------|
| 12 | M4 | M2 | 78±0.3 | M8x1 | M4 | M4 | M5 |
| 16 | M5 | M2 | 91±0.3 | M10x1 | M5 | M5 | M5 |
| 25 | M6 | M2 | 106±0.3 | M10x1 | M6 | M5 | M5 |
| 32 | M 8 | M2 | 135±0.3 | M12x1 | M8 | M5 | G1/8 |
| 40 | M10 | M2 | 168±0.5 | M16x1 | M10 | M6 | G1/8 |
| 63 | M10 | M3 | 200±0.5 | M22x1.5 | M12 | M6 | G1/4 |

| Size | H1 ±0.2 | L1 | L2 +0.6 -0.7 | L3 | L4 ±0.4 | L5 | L6 | L7 |
|------|------------|---------------------------|--------------------|--------|------------|---------------------------|-----------|---------|
| 12 | 29.5 | 68.3±0.3 | 24.5 | 20±0.2 | 3 | 10.3 _{+0,2/-0,3} | 55.5±0.8 | 5±0.1 |
| 16 | 35 | 82.7±1 | 28 | 23±0.2 | 2.6 | 13 _{+0,2/-0,4} | 67.1±0.9 | 6.5±0.2 |
| 25 | 41.5 | 97.5±0.5 | 36.5 | 30±0.2 | 4 | 15.2 _{+0,2/-0,4} | 81±1 | 7.5±0.2 |
| 32 | 52.5 | 127.1±0.5 | 51 | 40±0.2 | 8 | 19.2 _{+0,2/-0,4} | 107±1.1 | 9.5±0.2 |
| 40 | 65 | 155.5±0.6 | 62 | 50±0.3 | 8 | 23.7 _{+0,2/-0,4} | 131±1.2 | 12±0.2 |
| 63 | 76 | 197 _{+0,4/-0,55} | 75.5 | 60±0.3 | 10.5 | 28.5 _{+0,3/-0,5} | 159.5±1.2 | 14±0.2 |

| Size | L8 | L9 | L10 | L13 | L14 max. | T1 max. | T2 +2 | T3 +0.2 |
|------|------|-----|------|-----|-------------|------------|----------|------------|
| 12 | 16.5 | 3 | 22.7 | 6.5 | 21.2 | 8.8 | 9 | 8 |
| 16 | 20.2 | 7.2 | 26.1 | 6.5 | 22 | 11.2 | 9 | 8 |
| 25 | 23.5 | 2.9 | 20.7 | 6.5 | 17 | 13.5 | 10 | 10 |
| 32 | 30.5 | 3.8 | 29.1 | 6.5 | 23 | 18 | 12.5 | 12 |
| 40 | 36 | 3.4 | 43.5 | 6.5 | 36.5 | 22.5 | 16 | 15 |
| 63 | 45 | 10 | 72.5 | 4.5 | – | 28 | 22 | 16 |

| Size | ≈ 1 | ≈ 2 | ≈ 3 | ≈ 4 | ≈ 5 | ≈ 6 | Feather key to DIN 6885 ¹⁾ |
|------|-----|-----|-----|-----|-----|-----|---------------------------------------|
| 12 | 10 | 6 | 2.5 | 2.5 | 2.5 | 2.5 | A2x2x16 |
| 16 | 13 | 8 | 3 | 3 | 3 | 5 | A3x3x18 |
| 25 | 13 | 8 | 4 | 3 | 3 | 6 | A4x4x25 |
| 32 | 15 | 10 | 5 | 4 | 4 | 8 | A5x5x36 |
| 40 | 19 | 10 | 6 | 5 | 5 | 10 | A6x6x45 |
| 63 | 27 | 10 | 8 | 5 | – | – | A8x7x50 |

1) Included in the scope of delivery.

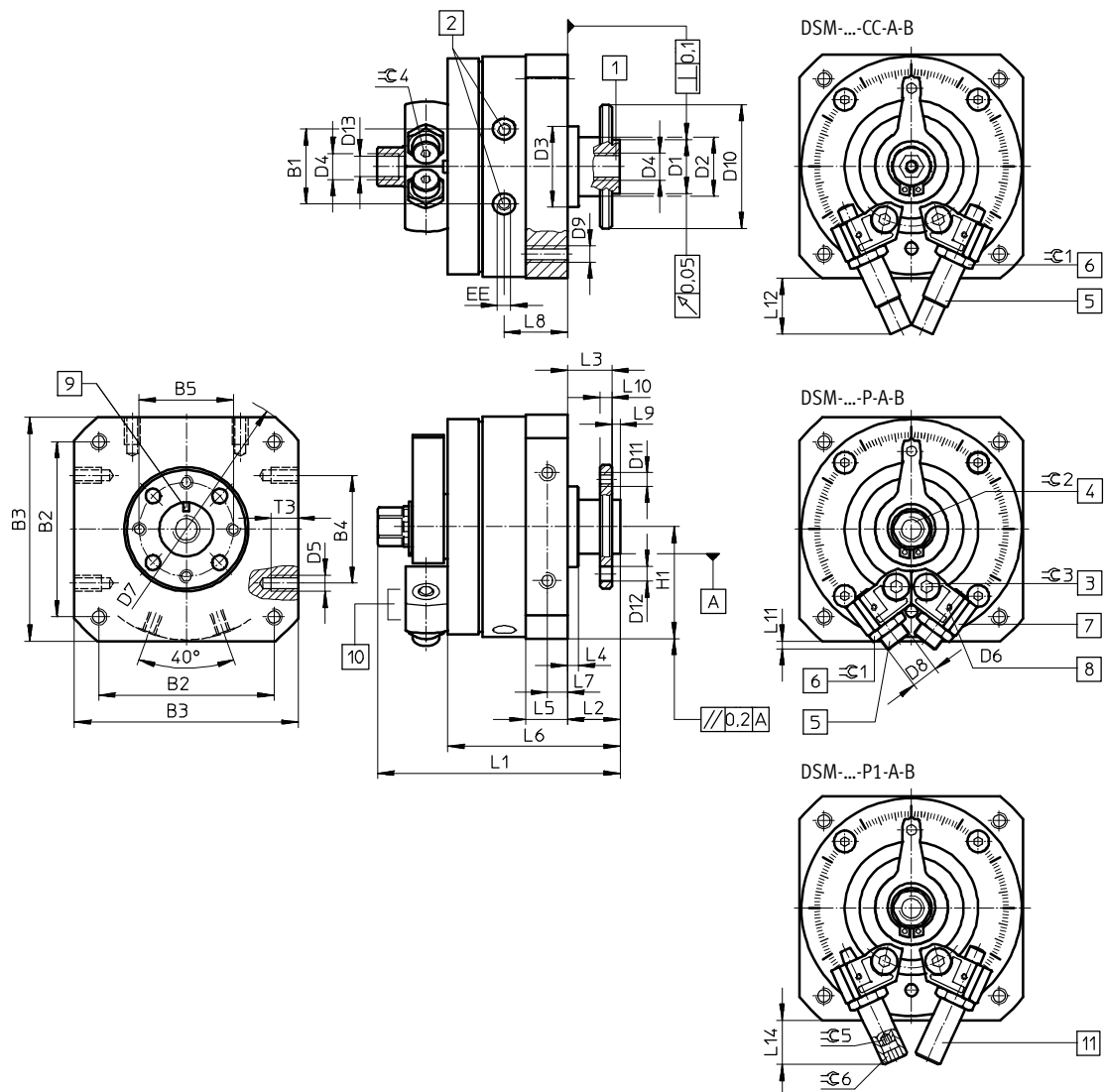
Note: This product conforms to ISO 1179-1 and ISO 228-1.

Semi-rotary drives DSM-B

Dimensions – Size 12 ... 63-B

Download CAD data → www.festo.com

DSM- ... -B – With flanged shaft



- 1 Flanged shaft with through-hole
- 2 Supply ports
- 3 Locking screw for clamping the stop
- 4 Manual override (internal hex). The position of the internal hex is not defined
- 5 End-position adjustment
- 6 Lock nut for end-position adjustment
- 7 Infinitely adjustable stops
- 8 Mounting thread for sensor bracket
- 9 The position of the marking corresponds to the position of the stop
- 10 Sensor bracket
- 11 End-position adjustment

Dimensions – Size 12 ... 63-B

Download CAD data → www.festo.com

| Size | B1 ±0.5 | B2 | B3 | B4 | B5 | D1 ∅ f8 | D2 ∅ | D3 ∅ f8 | D4 | D5 |
|------|------------|---------|---------|--------|----|---------------|--------------------|---------------|-------------------------------|-----|
| 12 | 19.8 | 48±0.3 | 59±0.3 | 30±0.2 | 25 | 14 | 15±0.2 | 24 | M5 | M4 |
| 16 | 23.5 | 57±0.3 | 70±0.3 | 40±0.2 | 28 | 16 | 18 ^{-0.3} | 28 | M5 | M5 |
| 25 | 28 | 65±0.3 | 83±0.3 | 40±0.2 | 35 | 20 | 20 ^{-0.3} | 30 | G ¹ / ₈ | M6 |
| 32 | 35.5 | 85±0.3 | 105±0.3 | 60±0.3 | 45 | 28 | 27 ^{-0.4} | 42 | G ¹ / ₈ | M8 |
| 40 | 43.8 | 105±0.3 | 130±0.5 | 80±0.3 | 54 | 36 | 36 ^{-0.4} | 52 | G ¹ / ₄ | M10 |
| 63 | 50.3 | 125±0.5 | 152±0.2 | 80±0.3 | 64 | 38 | 40±0.3 | 70 | G ¹ / ₄ | M10 |

| Size | D6 | D7 ∅ | D8 | D9 | D10 ∅ | D11 | D12 H13 | D13 | EE | H1 ±0.2 |
|------|----|---------|---------|-----|----------|-----|------------|------|-------------------------------|------------|
| 12 | M2 | 78±0.3 | M8x1 | M4 | 33 | M3 | 3.4 | 4.2 | M5 | 29.5 |
| 16 | M2 | 91±0.3 | M10x1 | M5 | 38 | M4 | 4.5 | 4.2 | M5 | 35 |
| 25 | M2 | 106±0.3 | M10x1 | M6 | 46 | M5 | 5.5 | 8.6 | M5 | 41.5 |
| 32 | M2 | 135±0.3 | M12x1 | M 8 | 60 | M6 | 6.5 | 8.6 | G ¹ / ₈ | 52.5 |
| 40 | M2 | 168±0.5 | M16x1 | M10 | 70 | M 8 | 9 | 11.5 | G ¹ / ₈ | 65 |
| 63 | M3 | 200±0.5 | M22x1.5 | M12 | 88 | M 8 | 12 | 11.5 | G ¹ / ₄ | 76 |

| Size | L1 | L2 +0.5 -0.85 | L3 +0.5 -0.62 | L4 ±0.4 | L5 | L6 ±1 | L7 | L8 | L9 -0.2 | L10 |
|------|-----------------------------|---------------------|---------------------|------------|---------------------------|----------|---------|------|------------|---------|
| 12 | 67.3 ^{+0.4/-0.65} | 13 | 11 | 3 | 10.3 ^{+0.2/-0.3} | 44 | 5±0.1 | 16.5 | 2 | 3±0.1 |
| 16 | 79 ^{+0.4/-0.65} | 15 | 13 | 2.6 | 13 ^{+0.2/-0.4} | 54.1 | 6.5±0.2 | 20.2 | 2 | 4±0.1 |
| 25 | 90 ^{+0.4/-0.65} | 19.5 | 16.5 | 4 | 15.2 ^{+0.2/-0.4} | 64 | 7.5±0.2 | 23.5 | 3 | 4.5±0.1 |
| 32 | 115.8 ^{+0.4/-0.65} | 27 | 23 | 8 | 19.2 ^{+0.2/-0.4} | 83 | 9.5±0.2 | 30.5 | 4 | 6±0.1 |
| 40 | 143.8 ^{+0.4/-0.7} | 33 | 28 | 8 | 23.7 ^{+0.2/-0.4} | 102 | 12±0.2 | 36 | 5 | 7.5±0.1 |
| 63 | 177.4 ^{+0.2/-0.55} | 37.5 | 31.5 | 10.5 | 28.5 ^{+0.3/-0.5} | 121.5 | 14±0.2 | 45 | 6 | 9±0.2 |

| Size | L11 | L12 | L14 max. | T3 +0.2 | ⊖ 1 | ⊖ 2 | ⊖ 3 | ⊖ 4 | ⊖ 5 | ⊖ 6 |
|------|-----|------|-------------|------------|-----|-----|-----|-----|-----|-----|
| 12 | 3 | 22.7 | 21.2 | 8 | 10 | 8 | 2.5 | 2.5 | 2.5 | 2.5 |
| 16 | 7.2 | 26.1 | 22 | 8 | 13 | 11 | 3 | 3 | 3 | 5 |
| 25 | 2.9 | 20.7 | 17 | 10 | 13 | 13 | 4 | 3 | 3 | 6 |
| 32 | 3.8 | 29.1 | 23 | 12 | 15 | 13 | 5 | 4 | 4 | 8 |
| 40 | 3.4 | 43.5 | 36.5 | 15 | 19 | 19 | 6 | 5 | 5 | 10 |
| 63 | 10 | 72.5 | - | 16 | 27 | 22 | 8 | 5 | - | - |

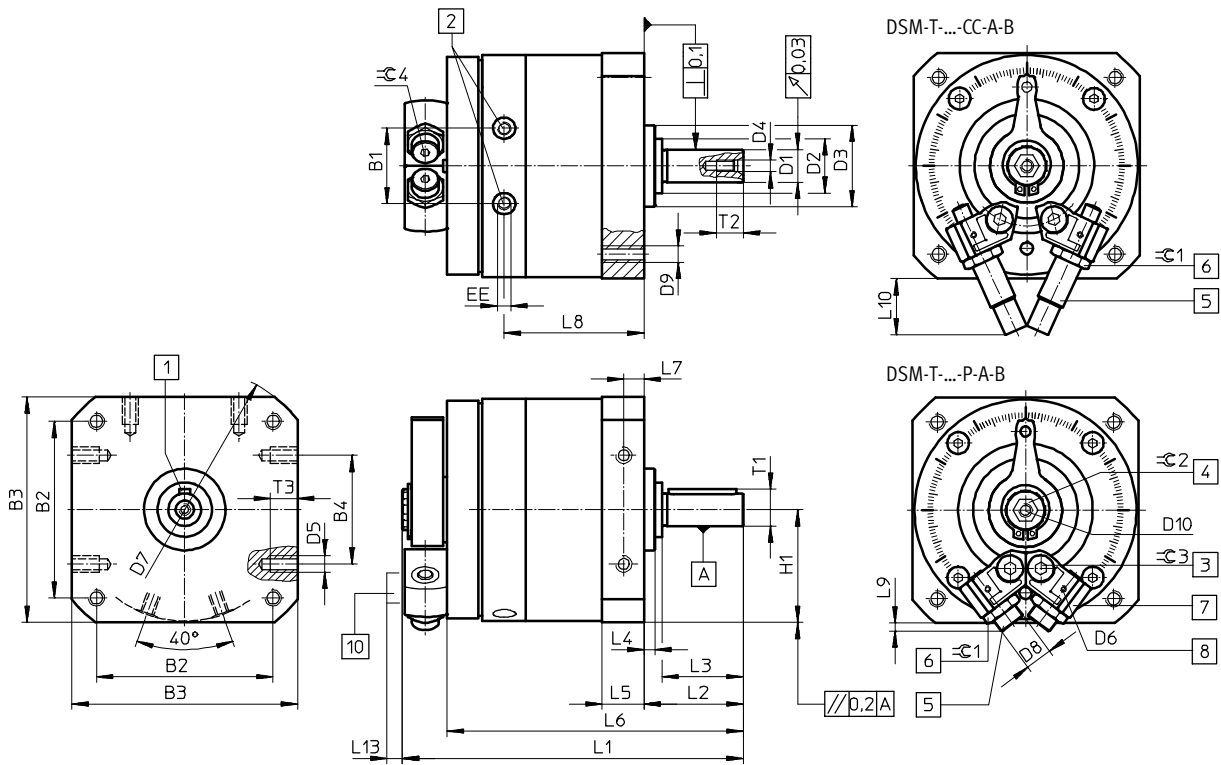
Note: This product conforms to ISO 1179-1 and ISO 228-1.

Semi-rotary drives DSM-B

1

Dimensions – Size 12 ... 63-B

DSM-T- ... -B – With tandem rotary vanes and spigot shaft



- | | | | |
|---------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------|
| 1 Feather key position at 0° | 4 Manual override (internal hex). The position of the internal hex is not defined | 5 End-position adjustment | 8 Mounting thread for sensor bracket |
| 2 Supply ports | | 6 Lock nut for end-position adjustment | 10 Sensor bracket |
| 3 Locking screw for clamping the stop | | 7 Infinitely adjustable stops | |

Dimensions – Size 12 ... 63-B

Download CAD data → www.festo.com

| Size | B1 ±0.5 | B2 | B3 | B4 | D1 ∅ g7 | D2 ∅ | D3 ∅ f8 |
|------|------------|---------|---------------------|--------|---------------|--------------------|---------------|
| 12 | 19.8 | 48±0.3 | 59±0.3 | 30±0.2 | 8 | 15±0.2 | 24 |
| 16 | 23.5 | 57±0.3 | 70±0.3 | 40±0.2 | 10 | 18 _{-0,3} | 28 |
| 25 | 28 | 65±0.3 | 83±0.3 | 40±0.2 | 12 | 20 _{-0,3} | 30 |
| 32 | 35.5 | 85±0.3 | 105±0.3 | 60±0.3 | 16 | 27 _{-0,4} | 42 |
| 40 | 43.8 | 105±0.3 | 130±0.5 | 80±0.3 | 20 | 36 _{-0,4} | 52 |
| 63 | 50.3 | 125±0.5 | 152 ^{+0,2} | 80±0.3 | 25 | 40±0.3 | 70 |

| Size | D4 | D5 | D6 | D7 ∅ | D8 | D9 | D10 |
|------|-----|-----|----|---------|---------|-----|-----|
| 12 | M3 | M4 | M2 | 78±0.3 | M8x1 | M4 | M4 |
| 16 | M3 | M5 | M2 | 91±0.3 | M10x1 | M5 | M5 |
| 25 | M4 | M6 | M2 | 106±0.3 | M10x1 | M6 | M5 |
| 32 | M5 | M8 | M2 | 135±0.3 | M12x1 | M8 | M5 |
| 40 | M6 | M10 | M2 | 168±0.5 | M16x1 | M10 | M6 |
| 63 | M10 | M10 | M3 | 200±0.5 | M22x1.5 | M12 | M6 |

| Size | EE | H1 ±0.2 | L1 | L2 +0.6 -0.7 | L3 | L4 ±0.4 | L5 |
|------|------|------------|-----------------------------|--------------------|--------|------------|---------------------------|
| 12 | M5 | 29.5 | 87.3±0.3 | 24.5 | 20±0.2 | 3 | 10.3 _{+0,2/-0,3} |
| 16 | M5 | 35 | 106.6±1 | 28 | 23±0.2 | 2.6 | 13 _{+0,2/-0,4} |
| 25 | M5 | 41.5 | 125.5±0.5 | 36.5 | 30±0.2 | 4 | 15.2 _{+0,2/-0,4} |
| 32 | G1/8 | 52.5 | 164±0.5 | 51 | 40±0.2 | 8 | 19.2 _{+0,2/-0,4} |
| 40 | G1/8 | 65 | 200.5±0.6 | 62 | 50±0.3 | 8 | 23.7 _{+0,2/-0,4} |
| 63 | G1/4 | 76 | 254.4 _{+0,4/-0,55} | 75.5 | 60±0.3 | 10.5 | 28.5 _{+0,3/-0,5} |

| Size | L6 | L7 | L8 | L9 | L10 | L13 | T1 max. |
|------|-----------|---------|------|-----|------|-----|------------|
| 12 | 74.5±0.8 | 5±0.1 | 35.5 | 3 | 22.7 | 6.5 | 8.8 |
| 16 | 91±0.9 | 6.5±0.2 | 44.1 | 7.2 | 26.1 | 6.5 | 11.2 |
| 25 | 109±1 | 7.5±0.2 | 51.5 | 2.9 | 20.7 | 6.5 | 13.5 |
| 32 | 144±1.1 | 9.5±0.2 | 67.4 | 3.8 | 29.1 | 6.5 | 18 |
| 40 | 176±1.2 | 12±0.2 | 81 | 3.4 | 43.5 | 6.5 | 22.5 |
| 63 | 216.5±1.2 | 14±0.2 | 99 | 10 | 72.5 | 4.5 | 28 |

| Size | T2 +2 | T3 +0.2 | ≈C 1 | ≈C 2 | ≈C 3 | ≈C 4 | Feather key to DIN 6885 ¹⁾ |
|------|----------|------------|------|------|------|------|------------------------------------------|
| 12 | 9 | 8 | 10 | 6 | 2.5 | 2.5 | A2x2x16 |
| 16 | 9 | 8 | 13 | 8 | 3 | 3 | A3x3x18 |
| 25 | 10 | 10 | 13 | 8 | 4 | 3 | A4x4x25 |
| 32 | 12.5 | 12 | 15 | 10 | 5 | 4 | A5x5x36 |
| 40 | 16 | 15 | 19 | 10 | 6 | 5 | A6x6x45 |
| 63 | 22 | 16 | 27 | 10 | 8 | 5 | A8x7x50 |

1) Included in the scope of delivery.

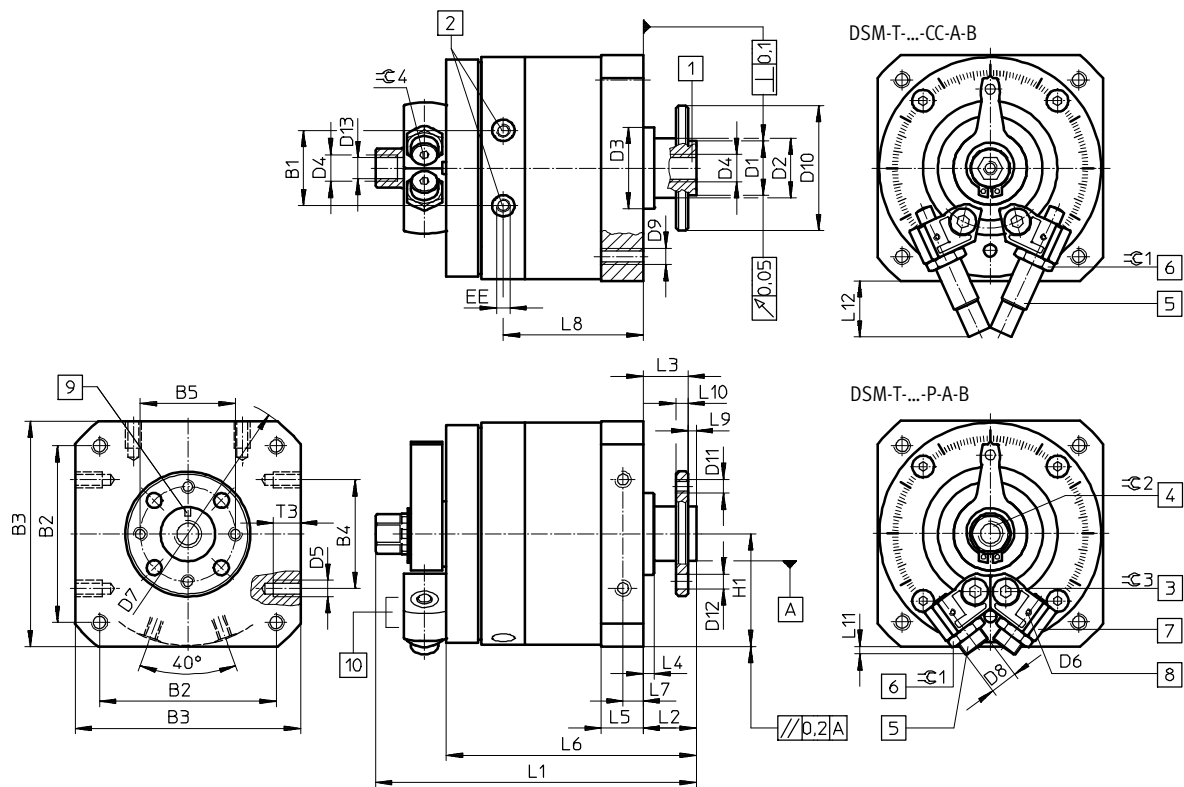
Note: This product conforms to ISO 1179-1 and ISO 228-1.

Semi-rotary drives DSM-B

Dimensions – Size 12 ... 63-B

Download CAD data → www.festo.com

DSM-T-...-B – With tandem rotary vanes and flanged shaft



- 1 Flanged shaft with through-hole
- 2 Supply ports
- 3 Locking screw for clamping the stop
- 4 Manual override (internal hex). The position of the internal hex is not defined
- 5 End-position adjustment
- 6 Lock nut for end-position adjustment
- 7 Infinitely adjustable stops
- 8 Mounting thread for sensor bracket
- 9 The position of the marking corresponds to the position of the stop
- 10 Sensor bracket

Dimensions – Size 12 ... 63-B

Download CAD data → www.festo.com

| Size | B1 ±0.5 | B2 | B3 | B4 | B5 | D1 ∅ f8 | D2 ∅ | D3 ∅ f8 | D4 |
|------|------------|---------------------|---------------------|--------------------|----|---------------|--------------------|---------------|-------------------------------|
| 12 | 19.8 | 48 ^{+0.3} | 59 ^{+0.3} | 30 ^{+0.2} | 25 | 14 | 15 ^{+0.2} | 24 | M5 |
| 16 | 23.5 | 57 ^{+0.3} | 70 ^{+0.3} | 40 ^{+0.2} | 28 | 16 | 18 ^{-0.3} | 28 | M5 |
| 25 | 28 | 65 ^{+0.3} | 83 ^{+0.3} | 40 ^{+0.2} | 35 | 20 | 20 ^{-0.3} | 30 | G ¹ / ₈ |
| 32 | 35.5 | 85 ^{+0.3} | 105 ^{+0.3} | 60 ^{+0.3} | 45 | 28 | 27 ^{-0.4} | 42 | G ¹ / ₈ |
| 40 | 43.8 | 105 ^{+0.3} | 130 ^{+0.5} | 80 ^{+0.3} | 54 | 36 | 36 ^{-0.4} | 52 | G ¹ / ₄ |
| 63 | 50.3 | 125 ^{+0.5} | 152 ^{+0.2} | 80 ^{+0.3} | 64 | 38 | 40 ^{+0.3} | 70 | G ¹ / ₄ |

| Size | D5 | D6 | D7 ∅ | D8 | D9 | D10 ∅ | D11 | D12 H13 | D13 |
|------|-----|----|---------------------|---------|-----|----------|-----|------------|------|
| 12 | M4 | M2 | 78 ^{+0.3} | M8x1 | M4 | 33 | M3 | 3.4 | 4.2 |
| 16 | M5 | M2 | 91 ^{+0.3} | M10x1 | M5 | 38 | M4 | 4.5 | 4.2 |
| 25 | M6 | M2 | 106 ^{+0.3} | M10x1 | M6 | 46 | M5 | 5.5 | 8.6 |
| 32 | M 8 | M2 | 135 ^{+0.3} | M12x1 | M 8 | 60 | M6 | 6.5 | 8.6 |
| 40 | M10 | M2 | 168 ^{+0.5} | M16x1 | M10 | 70 | M 8 | 9 | 11.5 |
| 63 | M10 | M3 | 200 ^{+0.5} | M22x1.5 | M12 | 88 | M 8 | 12 | 11.5 |

| Size | EE | H1 ±0.2 | L1 | L2 +0.5 -0.85 | L3 +0.5 -0.62 | L4 ±0.4 | L5 | L6 ±1 | L7 |
|------|-------------------------------|------------|-----------------------------|---------------------|---------------------|------------|---------------------------|----------|---------------------|
| 12 | M5 | 29.5 | 86.3 ^{+0.4/-0.65} | 13 | 11 | 3 | 10.3 ^{+0.2/-0.3} | 63 | 5 ^{+0.1} |
| 16 | M5 | 35 | 103 ^{+0.4/-0.65} | 15 | 13 | 2.6 | 13 ^{+0.2/-0.4} | 78 | 6.5 ^{+0.2} |
| 25 | M5 | 41.5 | 118 ^{+0.4/-0.65} | 19.5 | 16.5 | 4 | 15.2 ^{+0.2/-0.4} | 92 | 7.5 ^{+0.2} |
| 32 | G ¹ / ₈ | 52.5 | 152.8 ^{+0.4/-0.65} | 27 | 23 | 8 | 19.2 ^{+0.2/-0.4} | 120 | 9.5 ^{+0.2} |
| 40 | G ¹ / ₈ | 65 | 188.8 ^{+0.4/-0.7} | 33 | 28 | 8 | 23.7 ^{+0.2/-0.4} | 147 | 12 ^{+0.2} |
| 63 | G ¹ / ₄ | 76 | 234.4 ^{+0.2/-0.55} | 37.5 | 31.5 | 10.5 | 28.5 ^{+0.3/-0.5} | 178.5 | 14 ^{+0.2} |

| Size | L8 | L9 -0.2 | L10 | L11 | L12 | T3 +0.2 | ≈C 1 | ≈C 2 | ≈C 3 | ≈C 4 |
|------|------|------------|---------------------|-----|------|------------|------|------|------|------|
| 12 | 35.5 | 2 | 3 ^{+0.1} | 3 | 22.7 | 8 | 10 | 8 | 2.5 | 2.5 |
| 16 | 44.1 | 2 | 4 ^{+0.1} | 7.2 | 26.1 | 8 | 13 | 11 | 3 | 3 |
| 25 | 51.5 | 3 | 4.5 ^{+0.1} | 2.9 | 20.7 | 10 | 13 | 13 | 4 | 3 |
| 32 | 67.4 | 4 | 6 ^{+0.1} | 3.8 | 29.1 | 12 | 15 | 13 | 5 | 4 |
| 40 | 81 | 5 | 7.5 ^{+0.1} | 3.4 | 43.5 | 15 | 19 | 19 | 6 | 5 |
| 63 | 99 | 6 | 9 ^{+0.2} | 10 | 72.5 | 16 | 27 | 22 | 8 | 5 |

⌋ Note: This product conforms to ISO 1179-1 and ISO 228-1.



Overview/Configuration/Order
→ www.festo.com/catalogue/drrd



Additional information/Support/User documentation
→ www.festo.com/sp/drrd

Semi-rotary drives

Semi-rotary drives with rotary vane

Semi-rotary drives with twin pistons

DRRD



- + With twin pistons based on the rack and pinion principle
- + Very high accuracy in the end positions
- + Very high bearing load capacity
- + Very good axial run-out at the flanged shaft

Twin piston semi-rotary drives DRRD



- Very high accuracy in the end positions
- Very high bearing load capacity
- Very good axial run-out at the flanged shaft
- High mass moments of inertia
- Low backlash and dynamic
- Spare parts service
- Repair service
- ★ Quick ordering of basic designs → 279

→ www.festo.com/catalogue/drrd

Product range overview

| Type/function | Version | Size | Max. nominal swivel angle [°] | Torque [Nm] | Product options | | | | | | | | | | → Page/online |
|---------------|--------------|--------|-------------------------------|---------------|-----------------|---|----|-----|-----|---|----|---|----|----|---------------|
| | | | | | FH | P | Y9 | Y10 | Y12 | A | E1 | R | SG | DN | |
| DRRD | | | | | | | | | | | | | | | |
| Double-acting | Basic design | 8, 10 | 200 | 0.2 ... 0.4 | ■ | ■ | - | - | - | ■ | - | - | - | ■ | 269 |
| | | 12 | 200 | 0.8 | ■ | ■ | ■ | - | ■ | ■ | - | - | - | ■ | |
| | | 16, 20 | 200 | 1.6 ... 2.4 | ■ | ■ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | 273 |
| | | 25 | 200 | 5.1 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | | 32 | 200 | 10.1 | ■ | ■ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | |
| | | 35, 40 | 200 | 15.8 ... 24.1 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| | | 50 | 200 | 53 | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | |
| 63 | 200 | 112 | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | |

Product options

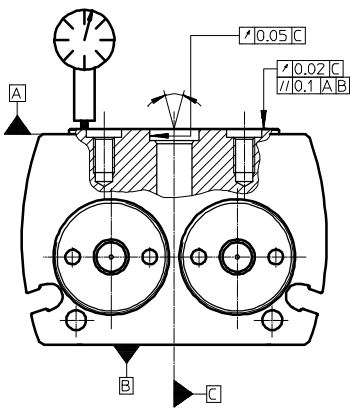
| | | | |
|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------|
| FH Hollow flanged shaft | P8 Pneumatic energy throughfeed, 8 channels | Y10 Linear shock absorber, self-adjusting at both ends, hard | E1 End-position locking at both ends |
| P2 Pneumatic energy throughfeed, 2 channels | P8E8 Pneumatic energy throughfeed, 8 channels and electrical, 8 signals | Y12 Linear shock absorber, self-adjusting at both ends, external | R Sensor mounting, external |
| P2E2 Pneumatic energy throughfeed, 2 channels and electrical, 2 signals | P Elastic cushioning rings/plates at both ends | A Position sensing | SG Splash-proof |
| P4 Pneumatic energy throughfeed, 4 channels | Y9 Linear shock absorber, self-adjusting at both ends | EX4 EU certification (II 2 GD) | DN Without operating instructions |
| P4E6 Pneumatic energy throughfeed, 4 channels and electrical, 6 signals | | PS1 Intermediate position | |

Data sheet – Size 8 ... 12



| Technical Data | | Dimensions → 282 | | |
|-----------------------------------------|----------------------|----------------------------------------------|------|--------------------------------------------------------------|
| Size | | 8 | 10 | 12 |
| Pneumatic connection | | M3 | M3 | M5 |
| Type of mounting | | With through-hole Via internal thread | | |
| Max. nominal swivel angle | [°] | 180 | | |
| Cushioning with fixed stop | | Elastic cushioning rings/plates at both ends | | |
| DRRD-...-P | | Elastic cushioning rings/plates at both ends | | |
| DRRD-...-Y9 | | - | | Linear shock absorber, self-adjusting at both ends |
| DRRD-...-Y12 | | - | | Linear shock absorber, self-adjusting at both ends, external |
| Theoretical torque at 6 bar | [Nm] | 0.2 | 0.4 | 0.8 |
| Max. permissible mass moment of inertia | | - | | |
| DRRD-...-P | [kgcm ²] | 15 | 20 | 80 |
| DRRD-...-Y9 | [kgcm ²] | - | - | 300 |
| DRRD-...-Y12 | [kgcm ²] | - | - | 300 |
| Max. axial load (static) | | - | | |
| Tension | [N] | 260 | 260 | 330 |
| Pressure | [N] | 700 | 1100 | 1400 |

Axial run-out in new condition ≤ 0.02 mm



Note

If, in the end positions, a torque which exceeds 50% of the theoretical torque acts against the direction of rotation, no exact end position is

guaranteed. This can be avoided by using external shock absorbers (Y12) or a semi-rotary drive with double the torque.

Operating conditions

| | | | |
|----------------------------------------|-------|-------------|--|
| Operating pressure | | | |
| DRRD-...-P | [bar] | 3 ... 8 | |
| DRRD-...-Y9/-Y12 | [bar] | 2 ... 10 | |
| Ambient temperature | [°C] | -10 ... +60 | |
| Storage temperature | [°C] | -20 ... +60 | |
| Degree of protection based on EN 60529 | | | |
| DRRD-...-SG | | IP65 | |

Twin piston semi-rotary drives DRRD

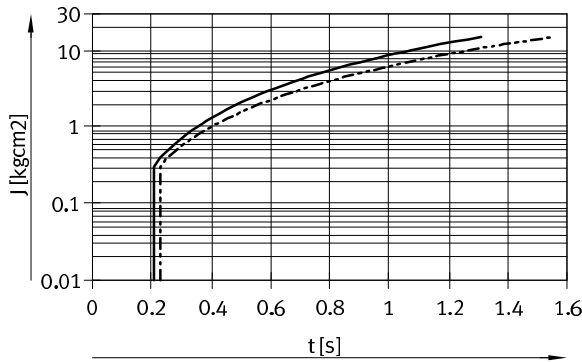
Data sheet – Size 8 ... 12

| Materials | |
|-------------|-----------------------------------------|
| Drive shaft | High-alloy stainless steel |
| Housing | Smooth anodised wrought aluminium alloy |
| Piston | Copper base alloy |
| Seals | TPE-U (PU), NBR |

Max. permissible mass moment of inertia J at the flanged shaft as a function of swivel time s
(at room temperature and operating pressure of 6 bar)

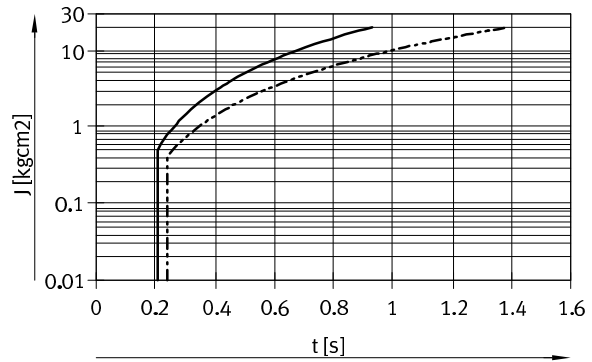
Cushioning P

Size 8



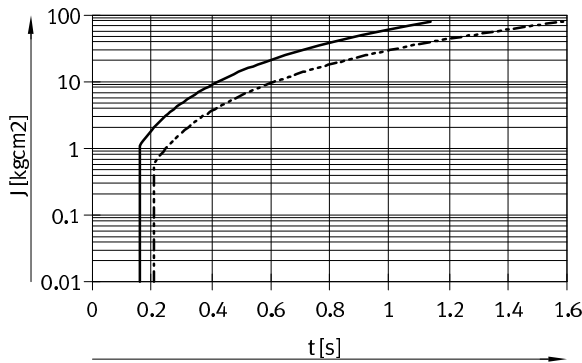
- Ranges
- DRRD-8-...-P (90°) → 0 ... 15 kgcm²
 - - - DRRD-8-...-P (180°) → 0 ... 15 kgcm²

Size 10



- Ranges
- DRRD-10-...-P (90°) → 0 ... 20 kgcm²
 - - - DRRD-10-...-P (180°) → 0 ... 20 kgcm²

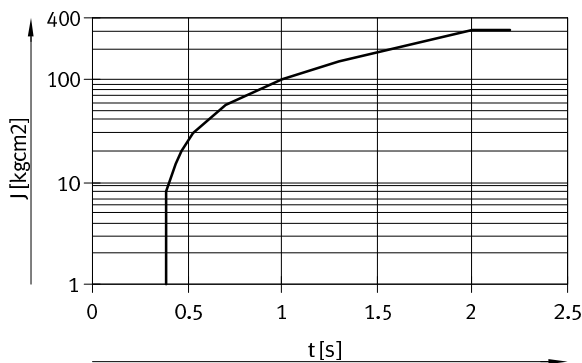
Size 12



- Ranges
- DRRD-12-...-P (90°) → 0 ... 80 kgcm²
 - - - DRRD-12-...-P (180°) → 0 ... 80 kgcm²

Cushioning Y9

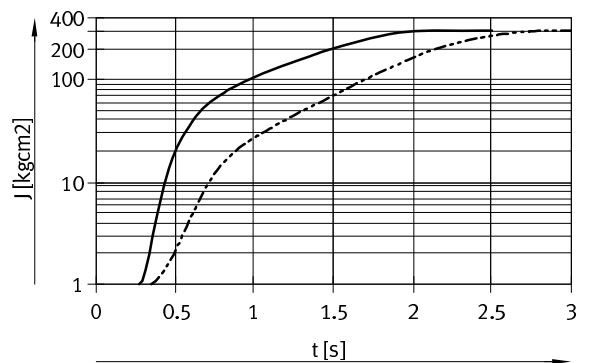
Size 12



- Ranges
- DRRD-12-180-...-Y9 (180°) → 1 ... 300 kgcm²

Cushioning Y12

Size 12



- Ranges
- DRRD-12-...-Y12 (90°) → 1 ... 300 kgcm²
 - - - DRRD-12-...-Y12 (180°) → 1 ... 300 kgcm²

Order code – Size 8 ... 12

| | | | | | | | | | | | | | |
|-------------------------------|---------------------------------------------------------------------------------------------------|------|---|--|---|-----|---|----|---|--|---|---|---|
| | | DRRD | - | | - | 180 | - | FH | - | | - | A | - |
| Product type | | | | | | | | | | | | | |
| DRRD | Double-acting semi-rotary drive | | | | | | | | | | | | |
| Size | | | | | | | | | | | | | |
| | Nominal swivel angle [°] | | | | | | | | | | | | |
| 8, 10, 12 | 180 | | | | | | | | | | | | |
| Output shaft | | | | | | | | | | | | | |
| FH | Flanged shaft, hollow | | | | | | | | | | | | |
| Cushioning | | | | | | | | | | | | | |
| P | Elastic cushioning rings/plates at both ends | | | | | | | | | | | | |
| Y9 | Linear shock absorber, self-adjusting at both ends 1 | | | | | | | | | | | | |
| Y12 | Linear shock absorber, self-adjusting at both ends, external 1 | | | | | | | | | | | | |
| Position sensing | | | | | | | | | | | | | |
| A | Via proximity sensor | | | | | | | | | | | | |
| Operating instructions | | | | | | | | | | | | | |
| - | With operating instructions | | | | | | | | | | | | |
| DN | Without operating instructions 1 | | | | | | | | | | | | |

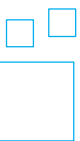
1 Not with size 8, 10

Order example:

DRRD-12-180-FH-Y9A-DN

Semi-rotary drive DRRD - size 12 mm - swivel angle 180° - hollow flanged shaft - linear shock absorber, at both ends, self-adjusting - position sensing via proximity sensor - without operating instructions

Ordering – Product options



Configurable product

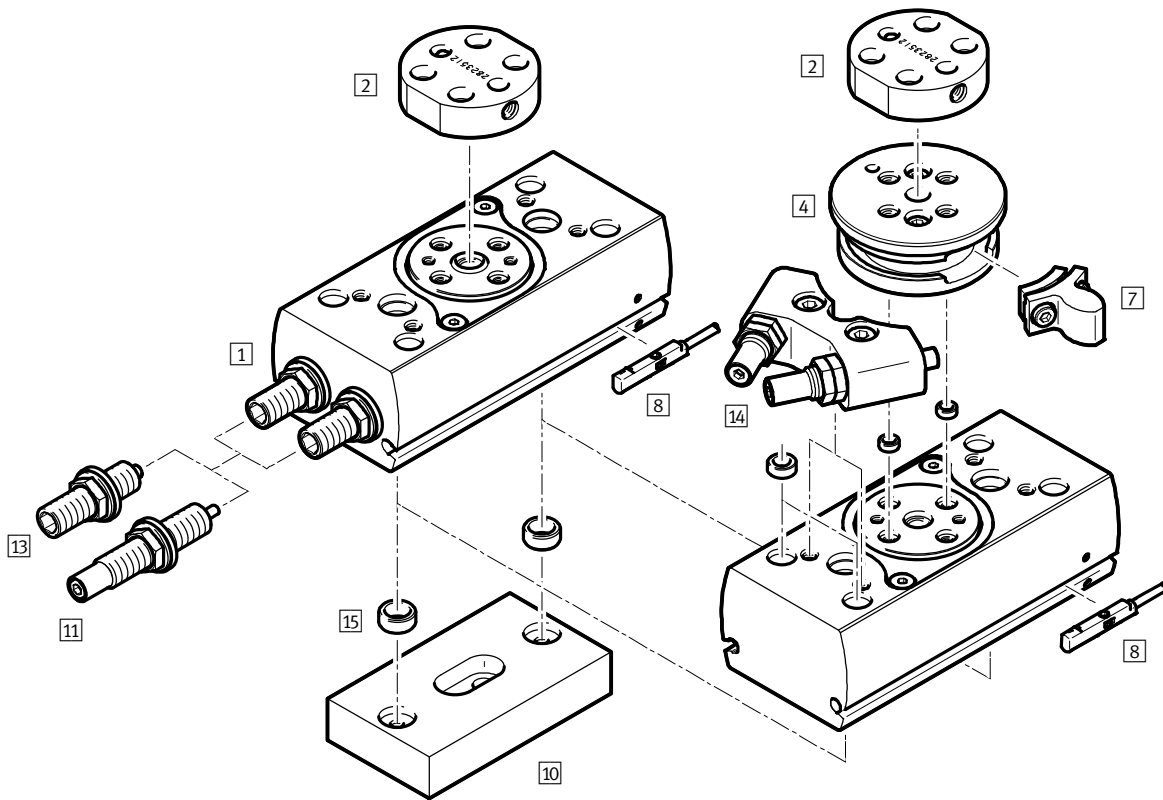
This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
 → www.festo.com/catalogue/...

Enter the type code in the search field.

Twin piston semi-rotary drives DRRD

Accessories – Size 8 ... 12



| | → Page/on-line |
|----------------------------|----------------------|
| 1 Semi-rotary drive DRRD | 280 |
| 2 Adapter kit DHAA | drrd |
| 4 Flange assembly | 280 |
| 7 Stop element | 280 |
| 8 Proximity sensor SMT/SME | 281 |

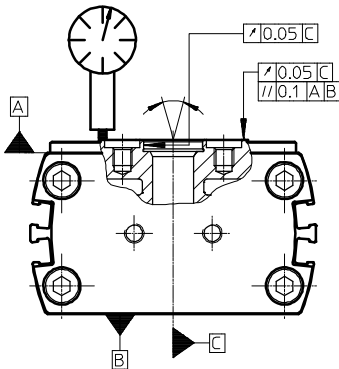
| | → Page/on-line |
|---------------------------------|----------------------|
| 10 Adapter kit DHAA | drrd |
| 11 Shock absorber Y9 | 271 |
| 13 Shock absorber P | 271 |
| 14 Shock absorber, external Y12 | 271 |
| 15 Centring sleeve ZBH | 280 |

Data sheet – Size 16 ... 63



| Technical Data | | Dimensions → 282 | | | | | | | |
|-----------------------------------------|----------------------|--------------------------------------------------------------|----------------------------------------------------------|------|-----------------|----------------------------------------------------------|-----------------|-----------------|--------|
| Size | | 16 | 20 | 25 | 32 | 35 | 40 | 50 | 63 |
| Pneumatic connection | | | | | | | | | |
| Semi-rotary drive | | M5 | | | G $\frac{1}{8}$ | | G $\frac{1}{4}$ | G $\frac{3}{8}$ | |
| Clamping unit DADL-EL | | M5 | | | | | | G $\frac{1}{8}$ | |
| Type of mounting | | With through-hole | | | | | | | |
| | | Via internal thread | | | | | | | |
| Swivel angle | | | | | | | | | |
| Nominal swivel angle | [°] | 180 | | | | | | | |
| Max. swivel angle | [°] | 200 | | | | | | | |
| With clamping unit DADL-EL | [°] | 60 ... 200 | | | 55 ... 200 | 57 ... 200 | 62 ... 200 | 55 ... 200 | |
| Cushioning with fixed stop | | | | | | | | | |
| DRRD-...-P | | Elastic cushioning rings/plates at both ends | | | | | | - | |
| DRRD-...-Y9 | | Linear shock absorber, self-adjusting at both ends | | | | | | | |
| DRRD-...-Y10 | | - | Linear shock absorber, self-adjusting at both ends, hard | | - | Linear shock absorber, self-adjusting at both ends, hard | | | |
| DRRD-...-Y12 | | Linear shock absorber, self-adjusting at both ends, external | | | | | | | |
| Theoretical torque at 6 bar | [Nm] | 1.6 | 2.4 | 5.1 | 10.1 | 15.8 | 24.1 | 53 | 112 |
| Max. permissible mass moment of inertia | | | | | | | | | |
| DRRD-...-P | [kgcm ²] | 175 | 400 | 900 | 1500 | 2500 | 6700 | - | - |
| DRRD-...-Y9 | [kgcm ²] | 700 | 1250 | 1500 | 26000 | 15000 | 23000 | 40000 | 40000 |
| DRRD-...-Y10 | [kgcm ²] | - | - | 5500 | - | 45000 | 67000 | 200000 | 420000 |
| DRRD-...-Y12 | [kgcm ²] | 900 | 1500 | 5500 | 26000 | 45000 | 67000 | 200000 | 420000 |
| Max. axial load (static) | [N] | 1500 | 2400 | 2400 | 3750 | 6100 | 6100 | 9000 | 11000 |

Axial run-out in new condition < 0.05 mm



Twin piston semi-rotary drives DRRD

Data sheet – Size 16 ... 63

Operating conditions

Operating pressure

| | | |
|----------------------------------------|-------|-------------|
| DRRD-...-P | [bar] | 3 ... 8 |
| DRRD-...-Y9/-Y10/-Y12 | [bar] | 2 ... 10 |
| DRRD-... E1 DADL-EL | [bar] | 5 ... 8 |
| Ambient temperature | [°C] | -10 ... +60 |
| Degree of protection based on EN 60529 | | |
| DRRD-...-SG | | IP65 |

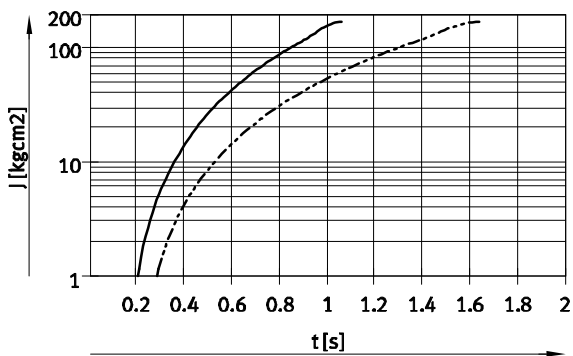
Materials

| | |
|-------------|-----------------------------------------|
| Drive shaft | Tempered steel |
| End cap | Anodised wrought aluminium alloy |
| Housing | Smooth anodised wrought aluminium alloy |
| Piston | Stainless steel |
| Seals | TPE-U (PU), NBR |

Max. permissible mass moment of inertia J at the flanged shaft as a function of swivel time s (at room temperature and operating pressure of 6 bar)

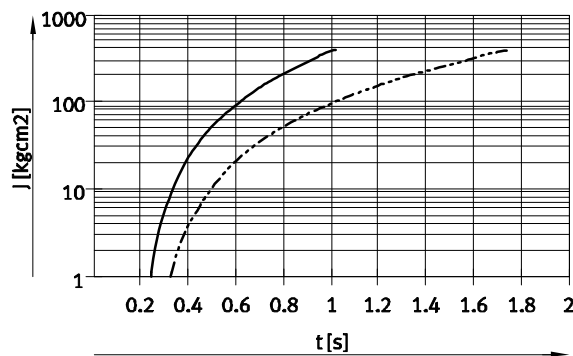
Cushioning P

Size 16



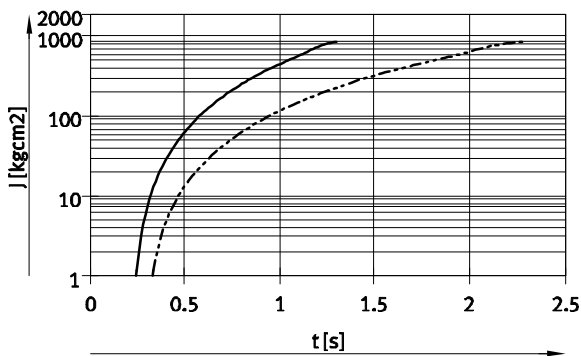
- Ranges
- DRRD-16-...-P (90°) → 1 ... 175 kgcm²
 - - - DRRD-16-...-P (180°) → 1 ... 175 kgcm²

Size 20



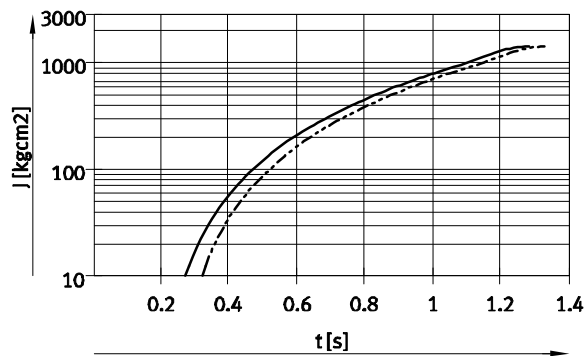
- Ranges
- DRRD-20-...-P (90°) → 1 ... 400 kgcm²
 - - - DRRD-20-...-P (180°) → 1 ... 400 kgcm²

Size 25



- Ranges
- DRRD-25-...-P (90°) → 1 ... 900 kgcm²
 - - - DRRD-25-...-P (180°) → 1 ... 900 kgcm²

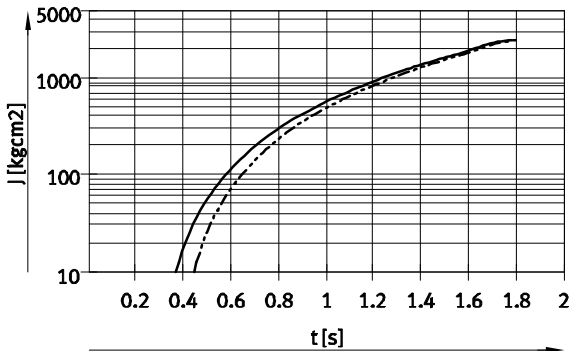
Size 32



- Ranges
- DRRD-32-...-P (90°) → 10 ... 1500 kgcm²
 - - - DRRD-32-...-P (180°) → 10 ... 1500 kgcm²

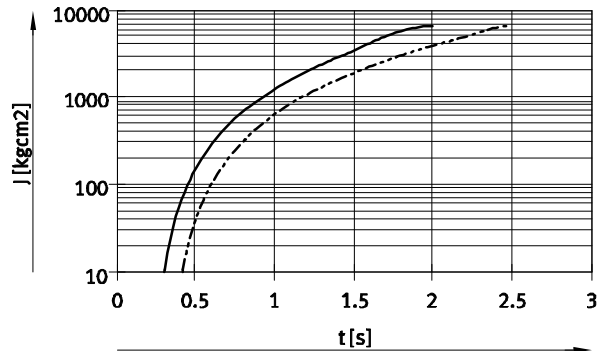
Data sheet – Size 16 ... 63

Size 35



- | | | | |
|-------|----------------------|--------|---------------------------------|
| — | DRRD-35-...-P (90°) | Ranges | → 10 ... 2500 kgcm ² |
| - - - | DRRD-35-...-P (180°) | | → 10 ... 2500 kgcm ² |

Size 40

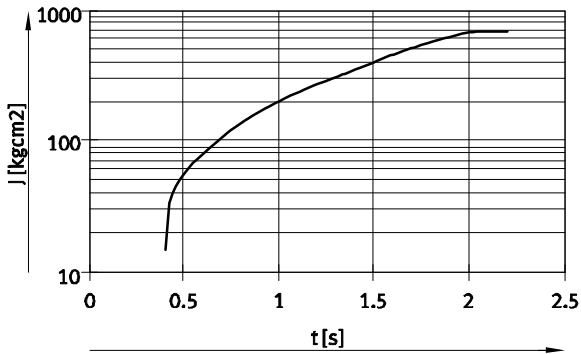


- | | | | |
|-------|----------------------|--------|---------------------------------|
| — | DRRD-40-...-P (90°) | Ranges | → 10 ... 6700 kgcm ² |
| - - - | DRRD-40-...-P (180°) | | → 10 ... 6700 kgcm ² |

Max. permissible mass moment of inertia J at the flanged shaft as a function of swivel time s
(at room temperature and operating pressure of 6 bar)

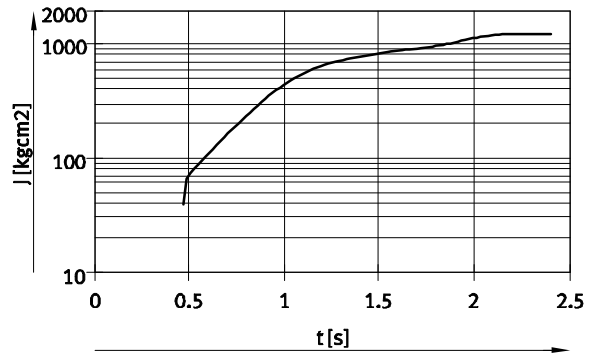
Cushioning Y9/Y10

Size 16



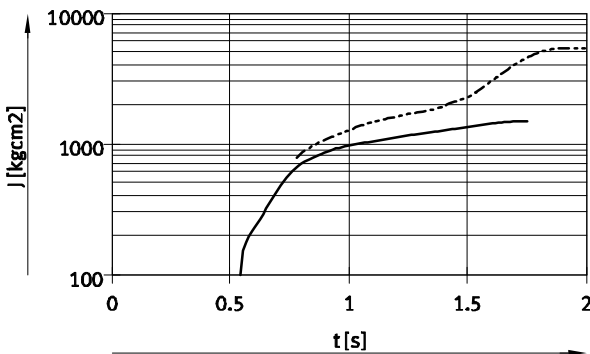
- | | | | |
|---|---------------------------|--------|--------------------------------|
| — | DRRD-16-180-...-Y9 (180°) | Ranges | → 15 ... 700 kgcm ² |
|---|---------------------------|--------|--------------------------------|

Size 20



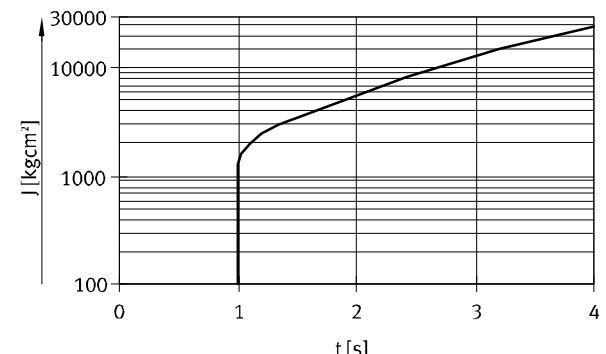
- | | | | |
|---|---------------------------|--------|---------------------------------|
| — | DRRD-20-180-...-Y9 (180°) | Ranges | → 40 ... 1250 kgcm ² |
|---|---------------------------|--------|---------------------------------|

Size 25



- | | | | |
|-------|----------------------------|--------|----------------------------------|
| — | DRRD-25-180-...-Y9 (180°) | Ranges | → 100 ... 1500 kgcm ² |
| - - - | DRRD-25-180-...-Y10 (180°) | | → 800 ... 5500 kgcm ² |

Size 32

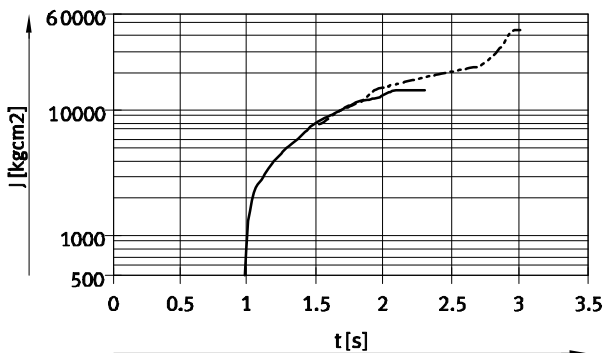


- | | | | |
|---|---------------------------|--------|-----------------------------------|
| — | DRRD-32-180-...-Y9 (180°) | Ranges | → 100 ... 26000 kgcm ² |
|---|---------------------------|--------|-----------------------------------|

Twin piston semi-rotary drives DRRD

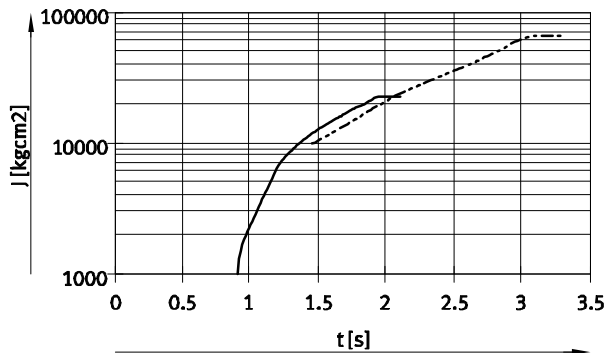
Data sheet – Size 16 ... 63

Size 35



- | | | |
|-------|----------------------------|------------------------------------|
| — | DRRD-35-180-...-Y9 (180°) | → 500 ... 15000 kgcm ² |
| - - - | DRRD-35-180-...-Y10 (180°) | → 8000 ... 45000 kgcm ² |

Size 40



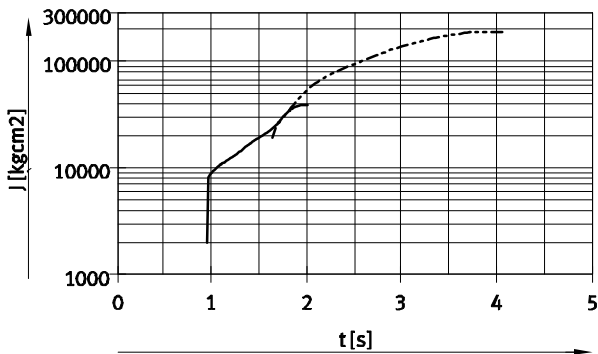
- | | | |
|-------|----------------------------|-------------------------------------|
| — | DRRD-40-180-...-Y9 (180°) | → 1000 ... 23000 kgcm ² |
| - - - | DRRD-40-180-...-Y10 (180°) | → 10000 ... 67000 kgcm ² |

Max. permissible mass moment of inertia J at the flanged shaft as a function of swivel time s

(at room temperature and operating pressure of 6 bar)

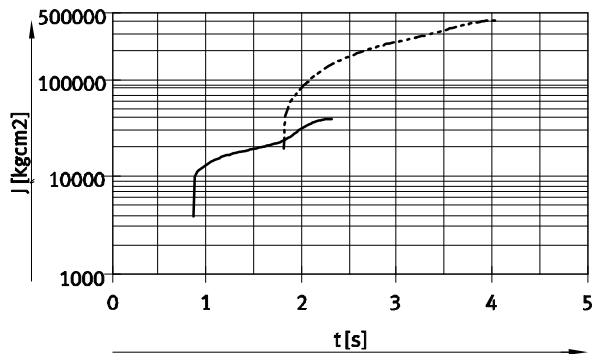
Cushioning Y9/Y10

Size 50



- | | | |
|-------|----------------------------|--------------------------------------|
| — | DRRD-50-180-...-Y9 (180°) | → 2000 ... 40000 kgcm ² |
| - - - | DRRD-50-180-...-Y10 (180°) | → 20000 ... 200000 kgcm ² |

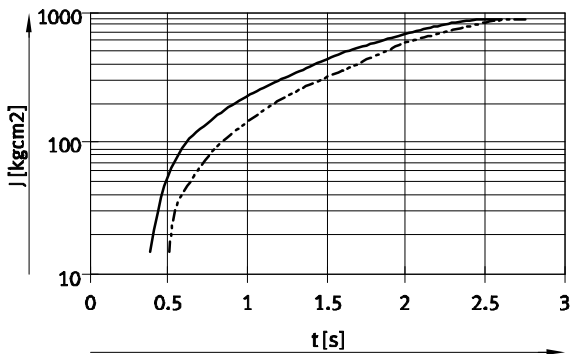
Size 63



- | | | |
|-------|----------------------------|--------------------------------------|
| — | DRRD-63-180-...-Y9 (180°) | → 4000 ... 40000 kgcm ² |
| - - - | DRRD-63-180-...-Y10 (180°) | → 20000 ... 420000 kgcm ² |

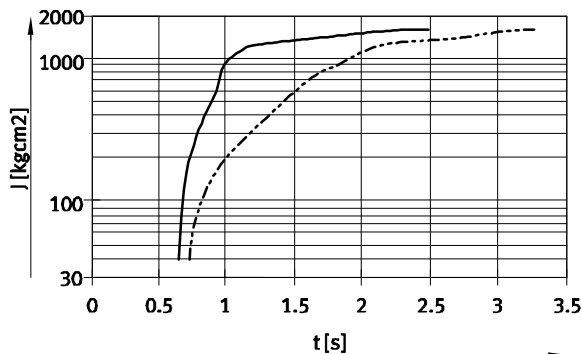
Cushioning Y12

Size 16



- | | | |
|-------|------------------------|--------------------------------|
| — | DRRD-16-...-Y12 (90°) | → 15 ... 900 kgcm ² |
| - - - | DRRD-16-...-Y12 (180°) | → 15 ... 900 kgcm ² |

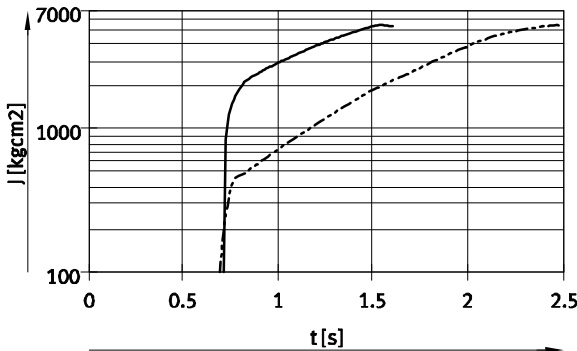
Size 20



- | | | |
|-------|------------------------|---------------------------------|
| — | DRRD-20-...-Y12 (90°) | → 40 ... 1500 kgcm ² |
| - - - | DRRD-20-...-Y12 (180°) | → 40 ... 1500 kgcm ² |

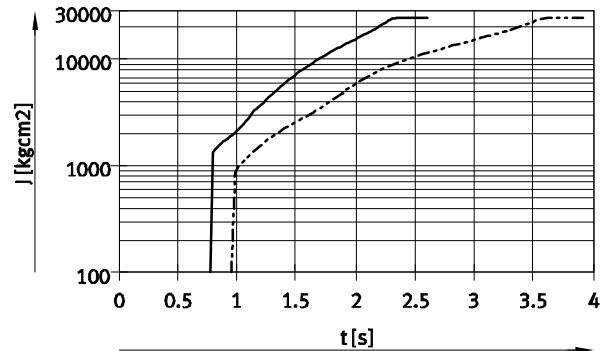
Data sheet – Size 16 ... 63

Size 25



| | | | |
|-------|------------------------|--------|----------------------------------|
| — | DRRD-25-...-Y12 (90°) | Ranges | → 100 ... 5500 kgcm ² |
| - - - | DRRD-25-...-Y12 (180°) | | → 100 ... 5500 kgcm ² |

Size 32



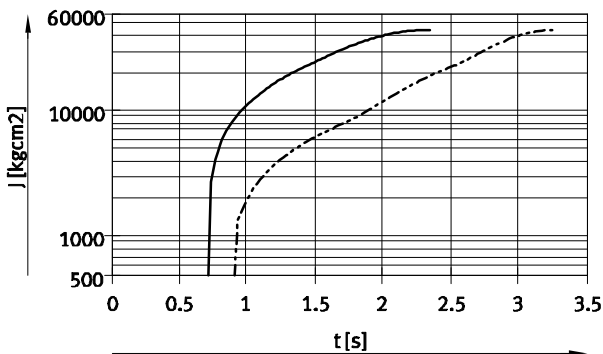
| | | | |
|-------|------------------------|--------|-----------------------------------|
| — | DRRD-32-...-Y12 (90°) | Ranges | → 100 ... 26000 kgcm ² |
| - - - | DRRD-32-...-Y12 (180°) | | → 100 ... 26000 kgcm ² |

Max. permissible mass moment of inertia J at the flanged shaft as a function of swivel time s

(at room temperature and operating pressure of 6 bar)

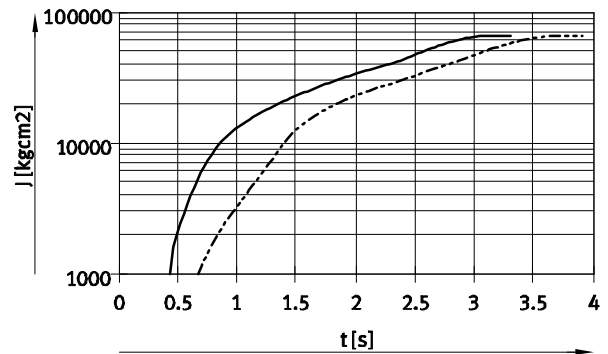
Cushioning Y12

Size 35



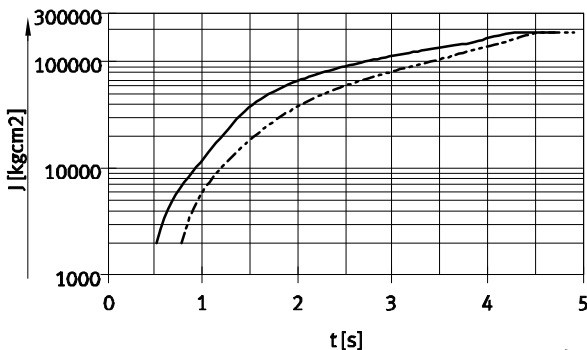
| | | | |
|-------|------------------------|--------|-----------------------------------|
| — | DRRD-35-...-Y12 (90°) | Ranges | → 500 ... 45000 kgcm ² |
| - - - | DRRD-35-...-Y12 (180°) | | → 500 ... 45000 kgcm ² |

Size 40



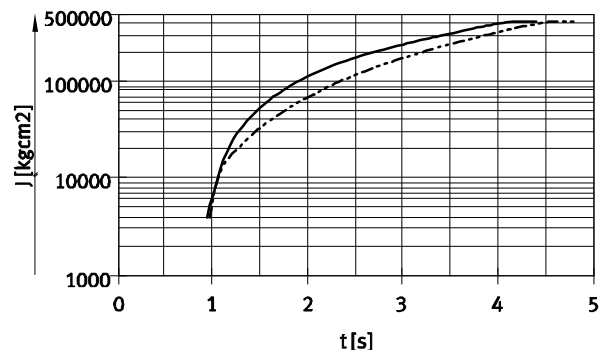
| | | | |
|-------|------------------------|--------|------------------------------------|
| — | DRRD-40-...-Y12 (90°) | Ranges | → 1000 ... 67000 kgcm ² |
| - - - | DRRD-40-...-Y12 (180°) | | → 1000 ... 67000 kgcm ² |

Size 50



| | | | |
|-------|------------------------|--------|-------------------------------------|
| — | DRRD-50-...-Y12 (90°) | Ranges | → 2000 ... 200000 kgcm ² |
| - - - | DRRD-50-...-Y12 (180°) | | → 2000 ... 200000 kgcm ² |

Size 63



| | | | |
|-------|------------------------|--------|-------------------------------------|
| — | DRRD-63-...-Y12 (90°) | Ranges | → 4000 ... 420000 kgcm ² |
| - - - | DRRD-63-...-Y12 (180°) | | → 4000 ... 420000 kgcm ² |

Twin piston semi-rotary drives DRRD

1

Order code – Size 16 ... 63

DRRD - - 180 - FH - - A - - - - -

| | |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Product type | |
| Double-acting | |
| DRRD | Semi-rotary drive |
| Size | |
| | Nominal swivel angle [°] |
| 16, 20, 25, 32, 35, 40, 50, 63 | 180 |
| Output shaft | |
| FH | Flanged shaft, hollow |
| Cushioning | |
| P | Elastic cushioning rings/plates at both ends |
| Y9 | Linear shock absorber, self-adjusting at both ends |
| Y10 | Linear shock absorber, self-adjusting at both ends, hard 1 |
| Y12 | Linear shock absorber, self-adjusting at both ends, external 2 |
| Position sensing | |
| A | Via proximity sensor |
| End-position locking | |
| - | Without |
| E1 | At both ends 3 |
| Sensor mounting, external | |
| - | Without |
| R | Mounting rail for proximity sensor |
| Version | |
| - | Standard |
| SG | Splash-proof design |
| Operating instructions | |
| - | With operating instructions |
| DN | Without operating instructions |

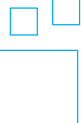
- 1 Not with size 16, 20, 32
- 2 Not with end-position locking E1 and splash-proof design SG
- 3 Not with sensor mounting R and splash-proof design SG

Order example:

DRRD-32-180-FH-Y9A-E1-DN

Semi-rotary drive DRRD - size 32 mm - swivel angle 180° - hollow flanged shaft - linear shock absorber, self-adjusting at both ends - position sensing via proximity sensor - end-position locking at both ends - not splash-proof - without operating instructions

Ordering – Product options



Configurable product

This product and all its options can be ordered using the configurator.

The configurator can be found under Products on the DVD or
[→ www.festo.com/catalogue/...](http://www.festo.com/catalogue/...)

Enter the type code in the search field.

★ Quick ordering¹⁾ – Size 16 ... 63

P – Elastic cushioning rings/plates at both ends

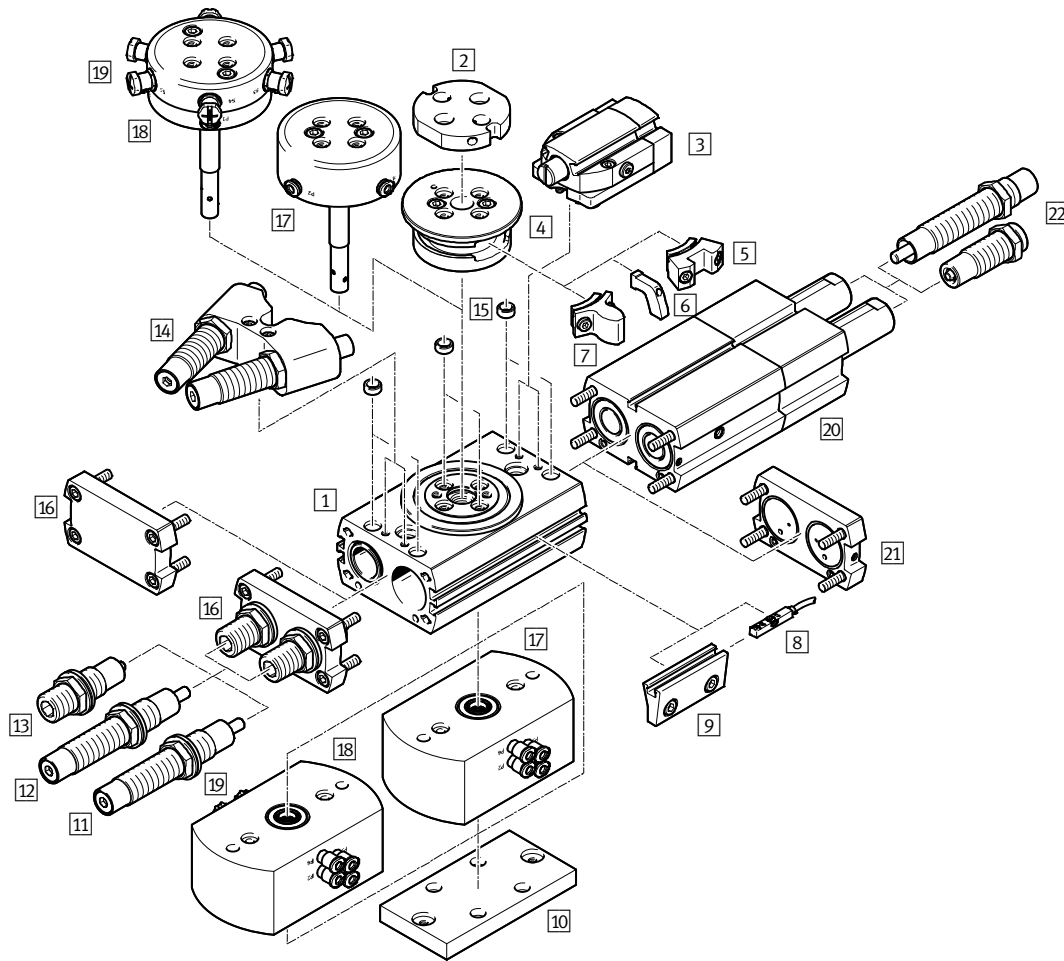
| Piston Ø | Nominal swivel angle | Part no. | Type |
|----------|----------------------|----------|-------------------|
| 16 | 180° | 1577238 | DRRD-16-180-FH-PA |
| 20 | | 1395606 | DRRD-20-180-FH-PA |
| 25 | | 1359980 | DRRD-25-180-FH-PA |
| 32 | | 1578512 | DRRD-32-180-FH-PA |
| 35 | | 1526825 | DRRD-35-180-FH-PA |
| 40 | | 1503269 | DRRD-40-180-FH-PA |

Y9 – Linear shock absorber, self-adjusting at both ends

| Piston Ø | Nominal swivel angle | Part no. | Type |
|----------|----------------------|----------|--------------------|
| 16 | 180° | 1644389 | DRRD-16-180-FH-Y9A |
| 20 | | 1427379 | DRRD-20-180-FH-Y9A |
| 25 | | 1360248 | DRRD-25-180-FH-Y9A |
| 32 | | 1578518 | DRRD-32-180-FH-Y9A |
| 35 | | 1547102 | DRRD-35-180-FH-Y9A |
| 40 | | 1526986 | DRRD-40-180-FH-Y9A |

1) All products in this table are easy to select and quick to order.

Accessories – Size 16 ... 63

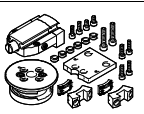
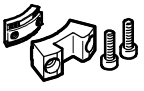

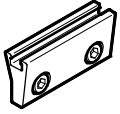


| | → Page/on-line |
|-----------------------------------------------------------------------|----------------------|
| 1 Semi-rotary drive DRRD | 269 |
| 2 Adapter kit DHAA | drrd |
| 3 End-position locking E1 (clamping unit DADL-...-EL as an accessory) | 280 |
| 4 Flange assembly | 280 |
| 5 Clamping component (type: DADL-EC) | 280 |
| 6 Switch lug DASI-Q11-...-SL | 280 |
| 7 Stop element | – |
| 8 Proximity sensor SMT-/SME-8 | 281 |
| 9 Sensor mounting R (sensing kit DASI-...-KT as an accessory) | 280 |
| 10 Adapter kit DHAA | drrd |
| 11 Shock absorber Y9 | 271 |
| 12 Shock absorber, hard Y10 | 271 |

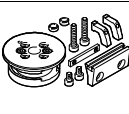



| | → Page/on-line |
|------------------------------------------|----------------------|
| 13 Shock absorber P | 271 |
| 14 Shock absorber, external Y12 | 271 |
| 15 Centring sleeve ZBH | 280 |
| 16 End cap | – |
| 17 Pneumatic energy throughfeed | drrd |
| 18 Pneumatic/electric energy throughfeed | drrd |
| 19 Connecting cable NEBU | drrd |
| 20 Intermediate position | drrd |
| 21 Connection cap | drrd |
| 22 Shock absorber | drrd |
| – Non-return valves GRLA | 280 |

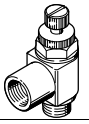
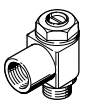
Twin piston semi-rotary drives DRRD

Accessories – Ordering data

| | For Ø | Part no. | Type |
|---------------------------------------------------------------------------------------------------------------------------------|---------|------------------|---------------------|
| 3 Clamping unit DADL-EL Technical data online: → drrd | | | |
|  | 16 | 1692770 | DADL-EL-Q11-16 |
| | 20 | 1579786 | DADL-EL-Q11-20 |
| | 25 | 1568183 | DADL-EL-Q11-25 |
| | 32 | 1631139 | DADL-EL-Q11-32 |
| | 35 | 1544900 | DADL-EL-Q11-35/40 |
| | 40 | 1544900 | DADL-EL-Q11-35/40 |
| | 50 | 1796637 | DADL-EL-Q11-50 |
| | 63 | 1941568 | DADL-EL-Q11-63 |
| 5 Clamping component DADL-EC Technical data online: → drrd | | | |
|  | 16 | 1692496 | DADL-EC-Q11-16 |
| | 20, 25 | 1435411 | DADL-EC-Q11-20/25 |
| | 32 | 1631170 | DADL-EC-Q11-32 |
| | 35, 40 | 1535091 | DADL-EC-Q11-35/40 |
| | 50 | 1796626 | DADL-EC-Q11-50 |
| | 63 | 1941355 | DADL-EC-Q11-63 |
| 6 Switch lug DASI-...-SL Technical data online: → drrd | | | |
|  | 16 | 1692969 | DASI-Q11-16-A-SL |
| | 20, 25 | 1568436 | DASI-Q11-20/25-A-SL |
| | 32 | 1631824 | DASI-Q11-32-A-SL |
| | 35, 40 | 1548155 | DASI-Q11-35/40-A-SL |
| | 50 | 1797021 | DASI-Q11-50-A-SL |
| 63 | 1971550 | DASI-Q11-63-A-SL | |
| 9 Sensor bracket DASI-...-SR¹⁾ Technical data online: → drrd | | | |
|  | 16 | 1692983 | DASI-Q11-16-A-SR |
| | 20 | 1581420 | DASI-Q11-20-A-SR |
| | 25 | 1568451 | DASI-Q11-25-A-SR |
| | 32 | 1631997 | DASI-Q11-32-A-SR |
| | 35 | 1550870 | DASI-Q11-35-A-SR |
| | 40 | 1548054 | DASI-Q11-40-A-SR |
| | 50 | 1797071 | DASI-Q11-50-A-SR |
| | 63 | 1971563 | DASI-Q11-63-A-SR |

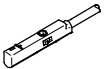

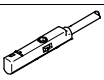
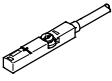
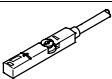
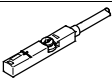

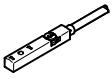
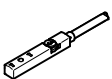


- 1) Packaging unit 2 pieces.
- 2) Packaging unit 10 pieces.
2 included in the scope of delivery of the semi-rotary drive or attachments.

| | For Ø | Part no. | Type |
|----------------------------------------------------------------------------------------------------------------------|------------|----------|------------------|
| 9 Sensing kit DASI-...-KT Technical data online: → drrd | | | |
|  | 16 | 1693008 | DASI-Q11-16-A-KT |
| | 20 | 1580899 | DASI-Q11-20-A-KT |
| | 25 | 1568461 | DASI-Q11-25-A-KT |
| | 32 | 1632097 | DASI-Q11-32-A-KT |
| | 35 | 1551144 | DASI-Q11-35-A-KT |
| | 40 | 1550027 | DASI-Q11-40-A-KT |
| | 50 | 1797135 | DASI-Q11-50-A-KT |
| | 63 | 1946877 | DASI-Q11-63-A-KT |
| 14 Shock absorber DYSC Technical data online: → drrd | | | |
|  | 12 | 548011 | DYSC-5-5-Y1F |
| | 16 | 548012 | DYSC-7-5-Y1F |
| | 20 | 548013 | DYSC-8-8-Y1F |
| | 25 | 548014 | DYSC-12-12-Y1F |
| | 32, 35, 40 | 553593 | DYSC-16-18-Y1F |
| | 50 | 2479149 | DYSC-20-18-Y1F |
| | 63 | 2480234 | DYSC-25-25-Y1F |
| 15 Centring sleeve²⁾ Technical data online: → zbh | | | |
| For housing | | | |
|  | 8, 10 | 186717 | ZBH-7 |
| | 12, 16, 20 | 150927 | ZBH-9 |
| | 25 | 189653 | ZBH-12 |
| | 32 ... 50 | 191409 | ZBH-15 |
| | 63 | 8023856 | ZBH-25 |
| For flanged shaft | | | |
|  | 8, 10, 12 | 189652 | ZBH-5 |
| | 16, 20 | 186717 | ZBH-7 |
| | 25 ... 40 | 150927 | ZBH-9 |
| | 50 | 189653 | ZBH-12 |
| | 63 | 191409 | ZBH-15 |

| | For Ø | Part no. | Type |
|------------------------------------------------------------------------------------|---------------------------|----------|-------------------|
| One-way flow control valve GRLA¹⁾ | | | |
|  | 16 ²⁾ , 20, 25 | ★ 197576 | GRLA-M5-QS-3-RS-D |
| | | ★ 197577 | GRLA-M5-QS-4-RS-D |
| | 32, 35, 40 | 151169 | GRLA-1/8-RS-B |
| | 50 | 151175 | GRLA-1/4-RS-B |
|  | 63 | 151178 | GRLA-3/8-B |

- 1) Packaging unit 1 piece.
- 2) Strongly recommended for this size.

Accessories – Ordering data

| | For Ø | Cable length [m] | | Part no. | Type |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|---|----------|----------------------------|
| 8 Proximity sensor for C-slot for piston Ø 8 ... 12, magneto-resistive – N/O contact Technical data → 878 | | | | | |
|  | PNP | 2.5 | ★ | 551373 | SMT-10M-PS-24V-E-2,5-L-OE |
| | | 0.3 | ★ | 551375 | SMT-10M-PS-24V-E-0,3-L-M8D |
| | | 0.3 | ★ | 551376 | SMT-10M-PS-24V-E-0,3-Q-M8D |
|  | PNP | 2.5 | | 547862 | SMT-10G-PS-24V-E-2,5Q-OE |
| | | 0.3 | | 547863 | SMT-10G-PS-24V-E-0,3Q-M8D |
| Magnetic reed – N/O contact Technical data → 878 | | | | | |
|  | Contacting | 0.3 | ★ | 551367 | SME-10M-DS-24V-E-0,3-L-M8D |
| | | 2.5 | ★ | 551365 | SME-10M-DS-24V-E-2,5-L-OE |
| | | 2.5 | ★ | 551369 | SME-10M-ZS-24V-E-2,5-L-OE |
| 8 Proximity sensor for T-slot, for piston Ø 16 ... 63, magneto-resistive – N/O contact Technical data → 878 | | | | | |
|  | PNP, cable | 2.5 | ★ | 574335 | SMT-8M-A-PS-24V-K-2,5-OE |
| | PNP, plug | 0.3 | ★ | 574334 | SMT-8M-A-PS-24V-K-0,3-M8D |
| | PNP, plug | 0.3 | ★ | 574337 | SMT-8M-A-PS-24V-K-0,3-M12 |
| | NPN, cable | 2.5 | ★ | 574338 | SMT-8M-A-NS-24V-K-2,5-OE |
| | NPN, plug | 0.3 | ★ | 574339 | SMT-8M-A-NS-24V-K-0,3-M8D |
| Magneto-resistive – N/C contact Technical data → 878 | | | | | |
|  | PNP, cable | 7.5 | ★ | 574340 | SMT-8M-A-PO-24V-E-7,5-OE |
| Magnetic reed – N/O contact Technical data → 873 | | | | | |
|  | Cable | 2.5 | ★ | 543862 | SME-8M-DS-24V-K-2,5-OE |
| | Cable | 5.0 | ★ | 543863 | SME-8M-DS-24V-K-5,0-OE |
| | Cable | 2.5 | ★ | 543872 | SME-8M-ZS-24V-K-2,5-OE |
| | Plug | 0.3 | ★ | 543861 | SME-8M-DS-24V-K-0,3-M8D |
| Technical data → 875 | | | | | |
|  | Cable | 2.5 | | 150855 | SME-8-K-LED-24 |
| | Plug | 0.3 | | 150857 | SME-8-S-LED-24 |
| Proximity sensor, for T-slot, inductive – N/O contact Technical data → 905 | | | | | |
|  | PNP, M8, cable | 7.5 | | 551386 | SIES-8M-PS-24V-K-7,5-OE |
| | PNP, M8, plug | 0.3 | | 551387 | SIES-8M-PS-24V-K-0,3-M8D |
| | NPN, M8, cable | 7.5 | | 551396 | SIES-8M-NS-24V-K-7,5-OE |
| | NPN, M8, plug | 0.3 | | 551397 | SIES-8M-NS-24V-K-0,3-M8D |
| Inductive – N/C contact Technical data → 905 | | | | | |
|  | PNP, M8, cable | 7.5 | | 551391 | SIES-8M-PO-24V-K-7,5-OE |
| | PNP, M8, plug | 0.3 | | 551392 | SIES-8M-PO-24V-K-0,3-M8D |
| | NPN, M8, cable | 7.5 | | 551401 | SIES-8M-NO-24V-K-7,5-OE |
| | NPN, M8, plug | 0.3 | | 551402 | SIES-8M-NO-24V-K-0,3-M8D |
| Connecting cable, straight socket Technical data → 1161 | | | | | |
|  | – | 2.5 | ★ | 541333 | NEBU-M8G3-K-2.5-LE3 |
| | – | 5.0 | ★ | 541334 | NEBU-M8G3-K-5-LE3 |
| Angled socket Technical data → 1161 | | | | | |
|  | – | 2.5 | ★ | 541338 | NEBU-M8W3-K-2.5-LE3 |
| | – | 5.0 | ★ | 541341 | NEBU-M8W3-K-5-LE3 |

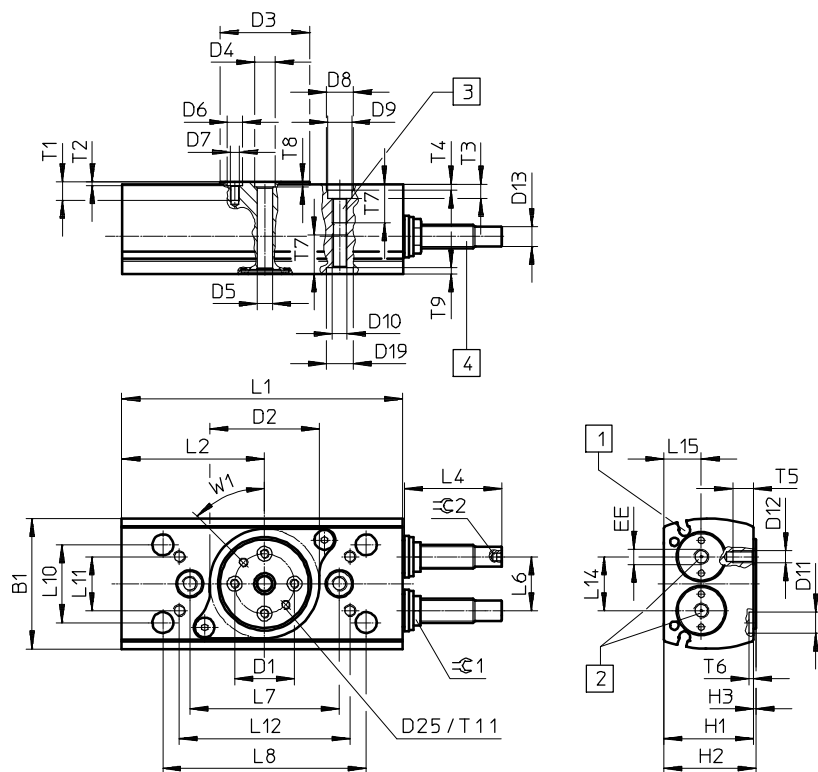
Note

The inductive proximity sensors SIES can only be used in combination with the sensing kit **DASI**-...-KT.

Twin piston semi-rotary drives DRRD

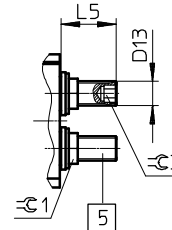
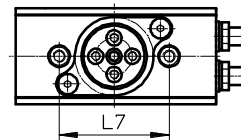
Dimensions – Size 8 ... 12

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DRRD-8/10

DRRD-...-P



Note

Illustrated position of the flanged shaft corresponds to the mid-position (swivel angle 90°).
Dimension D25, T11 and W1 only for size 12.

- 1 Sensor slot for proximity sensor
- 2 Supply ports
- 3 Mounting thread
- 4 Shock absorber (DRRD-...-Y9)
- 5 Cushioning component (DRRD-...-P)

| Size | B1 | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 | D9 | D10 |
|------|-------|----------|--------|------|------|----|------|----|------|----|-----|
| | ±0.25 | ∅ ±0.025 | ∅ +0.1 | ∅ | ∅ H7 | ∅ | ∅ H7 | | ∅ H7 | ∅ | |
| 8 | 31.5 | 12 | 26 | 20.4 | 5 | 3 | 5 | M3 | 7 | 6 | M4 |
| 10 | 38 | 15 | 32 | 24 | 5 | 3 | 5 | M3 | 7 | 6 | M4 |
| 12 | 43.5 | 20 | 37 | 30 | 7 | 5 | 5 | M3 | 9 | 8 | M5 |

| Size | D11 | D12 | D13 | D19 | D25 | H1 | H2 | H3 | L1 | L2 | L6 |
|------|------|-----|--------|------|-----|------|------|-----|------|------|----------------------|
| | ∅ H7 | | | ∅ H7 | | +0.4 | | | ±0.1 | +0.1 | |
| 8 | - | - | M6x0.5 | 7 | - | 24.5 | 25.3 | 0.8 | 65.6 | 32.2 | 13 _{-0.1} |
| 10 | - | - | M6x0.5 | 7 | - | 27.5 | 28.3 | 0.8 | 74 | 38.3 | 15.2 _{-0.1} |
| 12 | 7 | M4 | M8x1 | 9 | M3 | 30 | 30.8 | 0.8 | 93.9 | 47.7 | 18 ^{+0.1} |

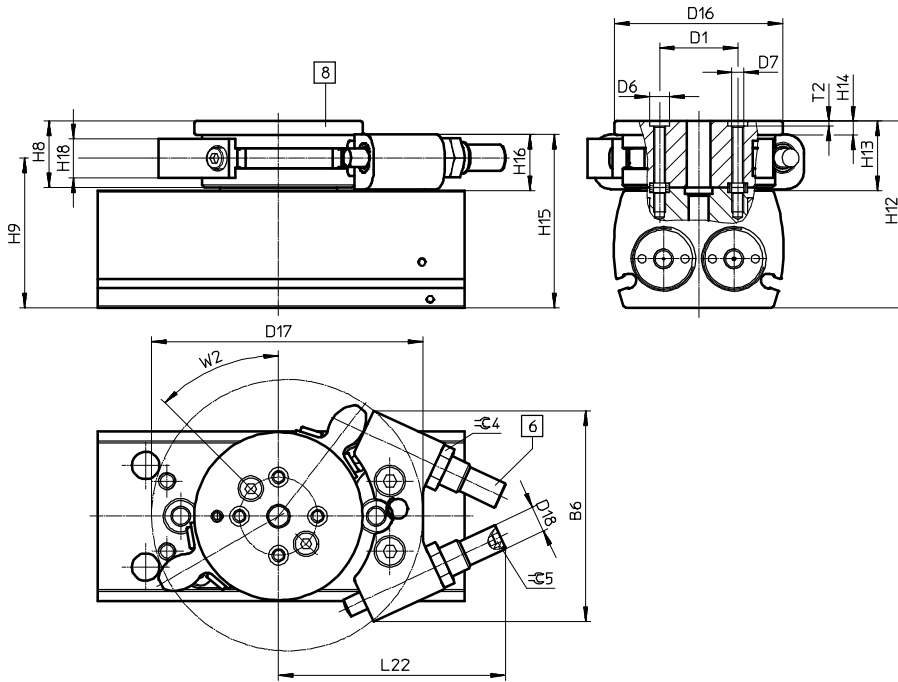
| Size | L7 | L8 | L10 | L11 | L12 | L14 | L15 | T1 | T2 | T3 | T4 |
|------|-------|------|-------|-------|------|------|------|-----|------|-----|-----------|
| | ±0.02 | ±0.2 | ±0.02 | ±0.15 | ±0.2 | | -0.1 | | +0.1 | | +0.4/-0.1 |
| 8 | 36 | - | - | - | - | 13 | 11.1 | 4.8 | 1.2 | 3.4 | 1.5 |
| 10 | 44 | - | - | - | - | 15.2 | 11.1 | 6.2 | 1.2 | 3.4 | 1.5 |
| 12 | 50 | 68 | 26 | 18 | 57 | 18 | 12.5 | 5.4 | 1.2 | 4.7 | 2.1 |

| Size | T5 | T6 | T7 | T8 | T9 | T11 | EE | W1 | ∅ 1 | ∅ 2 | ∅ 3 |
|------|----|-----------|------|------|------|-----|----|-----|-----|-----|-----|
| | | +0.4/-0.1 | | +0.1 | +0.1 | | | | | | |
| 8 | - | - | 10.5 | 1.2 | 1.6 | - | M3 | 45° | 10 | - | 3 |
| 10 | - | - | 10 | 1.2 | 1.6 | - | M3 | 45° | 10 | - | 3 |
| 12 | 7 | 1.6 | 13 | 1.6 | 2.1 | 5.5 | M5 | 45° | 10 | 2.5 | 5 |

| Size | Dimension with 180° swivel angle | | Swivel angle adjustment range | | |
|------|----------------------------------|------|-------------------------------|--------------|-------------|
| | L4 | L5 | L4 min./max. | L5 min./max. | 1 mm = ...° |
| 8 | - | 11.1 | - | -6.1/+0.8 | 16.4 |
| 10 | - | 12.6 | - | -7.6/+1.2 | 13.64 |
| 12 | 28 | 17 | -1.9/+1.9 | -11/+1.8 | 9.6 |

Dimensions – Size 8 ... 12

Y12 – With external shock absorber



- 6 Shock absorber
- 8 Flange assembly

| Size | B6 | D1 | D6 | D7 | D16 | D17 | D18 | H8 | H9 | H12 |
|------|------|----------|------|----|-----|------|------|------|------|------|
| | ±0.2 | ∅ ±0.025 | ∅ H7 | | ∅ | | | ±0.1 | | |
| 12 | 54 | 20 | 5 | M3 | 43 | 69.4 | M8x1 | 17 | 38.3 | 47.8 |

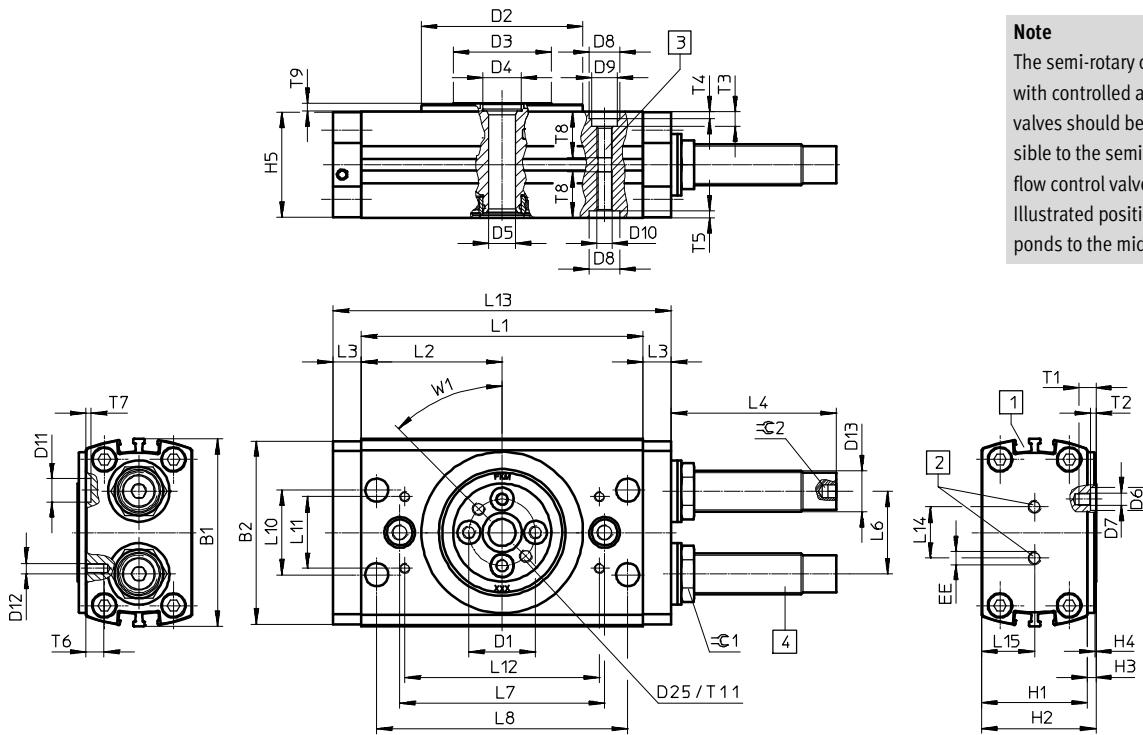
| Size | H13 | H14 | H15 | H16 | H18 | L22 | T2 | W2 | ∠ 4 | ∠ 5 |
|------|------|-----|-----|-----|-----|------|------|-----|-----|-----|
| | | | | | | max. | +0.1 | | | |
| 12 | 17.8 | 3.5 | 44 | 14 | 10 | 58.2 | 1.2 | 45° | 10 | 2.5 |

Twin piston semi-rotary drives DRRD

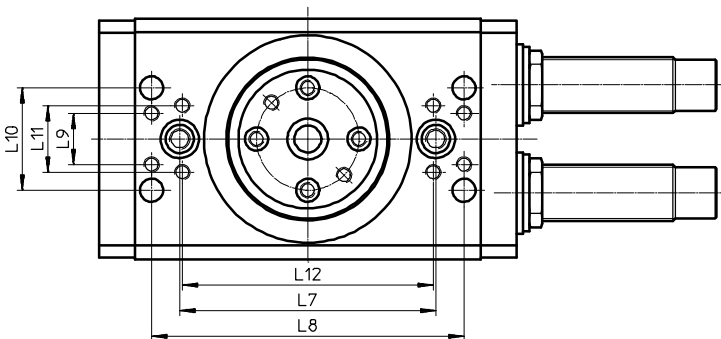
Dimensions – Size 16 ... 63

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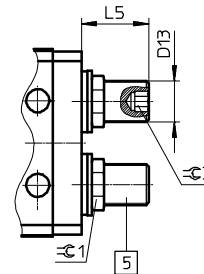
Note
 The semi-rotary drive may only be operated with controlled air flow. The flow control valves should be connected as close as possible to the semi-rotary drive (e.g. one-way flow control valve GRLA...).
 Illustrated position of the flanged shaft corresponds to the mid-position (swivel angle 90°).



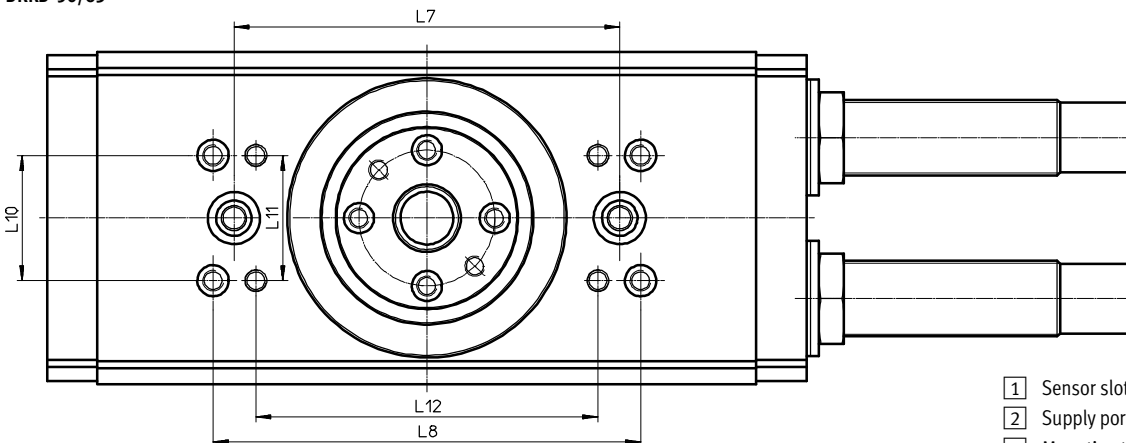
DRRD-32 ... 40



DRRD-...-P



DRRD-50/63



- 1 Sensor slot for proximity sensor
- 2 Supply ports
- 3 Mounting thread
- 4 Shock absorber (DRRD-...-Y9/-Y10)
- 5 Cushioning component (DRRD-...-P)

Dimensions – Size 16 ... 63

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| Size | B1 ±0.25 | B2 | D1 ∅ ±0.025 | D2 ∅ H7 | D3 ∅ | D4 ∅ H7 | D5 ∅ +0.15/-0.05 | D6 ∅ H7 | D7 | D8 ∅ H7 | D9 ∅ | D10 |
|------|-------------|-------|-------------------|---------------|---------|---------------|------------------------|---------------|-----|---------------|---------|-----|
| 16 | 58 | 56.2 | 21 | 50 | 32 | 12 | 8 | 7 | M4 | 9 | 8 | M5 |
| 20 | 65 | 63.4 | 24 | 56 | 34.9 | 12 | 8 | 7 | M4 | 9 | 8 | M5 |
| 25 | 73.2 | 71.5 | 26 | 63 | 38.3 | 15 | 10.5 | 9 | M5 | 12 | 10 | M6 |
| 32 | 94 | 92.6 | 40 | 81 | 54.2 | 15 | 10.5 | 9 | M6 | 15 | 11 | M8 |
| 35 | 106 | 104 | 45 | 91 | 59.9 | 25 | 10.5 | 9 | M6 | 15 | 11 | M8 |
| 40 | 113 | 111 | 45 | 91 | 59.9 | 25 | 21 | 9 | M6 | 15 | 14 | M10 |
| 50 | 132 | 139.7 | 54 | 110 | 73 | 25 | 21 | 12 | M8 | 15 | 14 | M10 |
| 63 | 159 | 157 | 63 | 135 | 82.8 | 25 | 21 | 15 | M10 | 25 | 17 | M12 |

| Size | D11 ∅ H7 | D12 | D13 | D25 | H1 ±0.1 | H2 +0.2/-0.1 | H3 +0.3/-0.2 | H4 | H5 | L1 ±0.1 | L2 | L3 ±0.1 |
|------|----------------|-----|---------|-----|------------|-----------------|-----------------|-----|------|------------|-------|------------|
| 16 | 7 | M3 | M10x1 | M4 | 33 | 35.6 | 2.6 | 0.5 | 32.6 | 84 | 42 | 10.5 |
| 20 | 9 | M4 | M12x1 | M5 | 36 | 39.6 | 3.6 | 0.5 | 35.6 | 86 | 43 | 11 |
| 25 | 9 | M4 | M16x1 | M5 | 41.4 | 44.7 | 3.3 | 0.5 | 41 | 110 | 55 | 11 |
| 32 | 9 | M6 | M22x1.5 | M6 | 50 | 55.5 | 5.5 | 1 | 49.6 | 135 | 67.5 | 14 |
| 35 | 9 | M6 | M26x1.5 | M6 | 63 | 67 | 4 | 1 | 62.2 | 148 | 74 | 15 |
| 40 | 9 | M6 | M26x1.5 | M6 | 68 | 72 | 4 | 1 | 67.2 | 199 | 99.5 | 15 |
| 50 | 15 | M8 | M30x1.5 | M8 | 78 | 83 | 5 | 1 | 77.2 | 262 | 131 | 20 |
| 63 | 15 | M10 | M37x1.5 | M10 | 100 | 107 | 7 | 2 | 99.2 | 335 | 167.5 | 25 |

| Size | L6 | L7 ±0.02 | L8 ±0.2 | L9 ±0.15 | L10 ±0.02 | L11 ±0.15 | L12 ±0.2 | L13 | L14 | L15 -0.1 | T1 | T2 +0.1 |
|------|------|-------------|------------|-------------|--------------|--------------|-------------|-----|-----|-------------|------|------------|
| 16 | 23.2 | 64 | 74 | - | 26 | 22 | 61 | 105 | 20 | 16.3 | 5.6 | 1.6 |
| 20 | 26 | 70 | 74 | - | 33 | 14 | 80 | 108 | 20 | 17.8 | 6 | 1.6 |
| 25 | 32.4 | 80 | 98 | - | 33 | 14 | 98 | 132 | 20 | 20.5 | 6.6 | 2.1 |
| 32 | 42.2 | 100 | 122 | 20 | 40 | 26 | 98 | 163 | 30 | 24.8 | 8 | 2.1 |
| 35 | 49.6 | 120 | 130 | 44 | 26 | 44 | 105 | 178 | 42 | 31.1 | 8 | 2.1 |
| 40 | 56 | 120 | 130 | 44 | 26 | 44 | 105 | 229 | 42 | 33.6 | 8 | 2.1 |
| 50 | 64 | 160 | 160 | 34 | 34 | 54 | 132 | 302 | 50 | 39 | 10.6 | 2.6 |
| 63 | 78 | 170 | 190 | 60 | 60 | 60 | 149 | 385 | 50 | 49.6 | 14 | 3.1 |

| Size | T3 | T4 +0.1 | T5 +0.3/-0.2 | T6 | T7 +0.1 | T8 | T9 | T11 | EE | W1 | ∠1 | ∠2 | ∠3 |
|------|-----|------------|-----------------|------|------------|------|-----|-----|-----------------|-----|----|----|----|
| 16 | 4.7 | 2.1 | 2.1 | 6.3 | 1.6 | 15 | 2.6 | 5.6 | M5 | 45° | 13 | 3 | 5 |
| 20 | 4.7 | 2.1 | 2.1 | 6.3 | 2.1 | 15 | 2.6 | 5.6 | M5 | 45° | 15 | 4 | 6 |
| 25 | 5.7 | 2.6 | 2.6 | 7 | 2.1 | 18 | 3.1 | 5.5 | M5 | 45° | 19 | 5 | 8 |
| 32 | 6.5 | 3.1 | 3.1 | 7.8 | 2.1 | 23.1 | 3.1 | 8 | G $\frac{1}{8}$ | 45° | 27 | 5 | 10 |
| 35 | 6.5 | 3.1 | 3.1 | 8.5 | 2.1 | 22.6 | 3.5 | 8 | G $\frac{1}{8}$ | 45° | 32 | 6 | 10 |
| 40 | 8.6 | 3.1 | 3.1 | 9 | 2.1 | 32 | 3.5 | 8 | G $\frac{1}{8}$ | 45° | 32 | 6 | 10 |
| 50 | 8.6 | 3.1 | 3.1 | 10.5 | 3.1 | 30 | 3.5 | 10 | G $\frac{1}{4}$ | 45° | 36 | 8 | - |
| 63 | 11 | 3.5 | 3.5 | 14 | 3.1 | 40 | 3.5 | 10 | G $\frac{3}{8}$ | 45° | 46 | 8 | - |

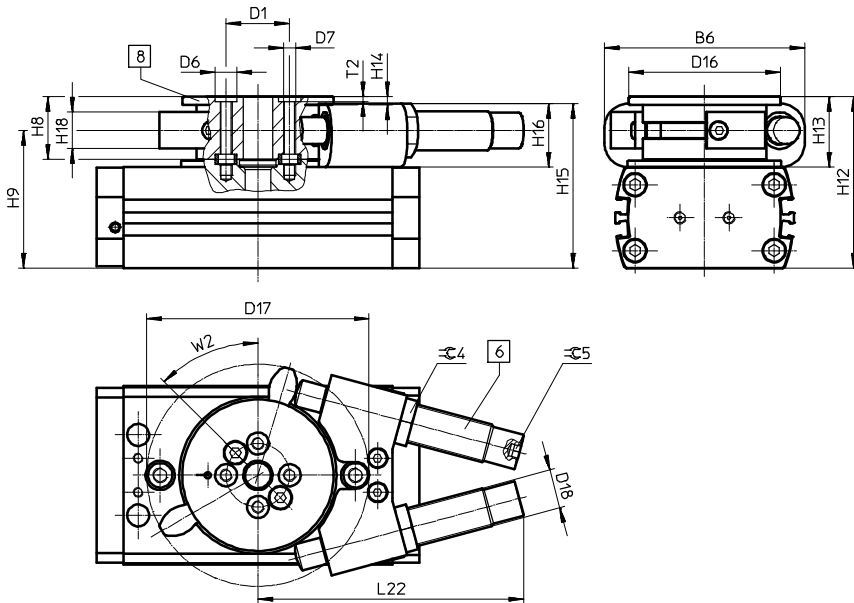
| Size | Dimension with 180° swivel angle | | Swivel angle adjustment range | | |
|------|----------------------------------|------|-------------------------------|-----------------|-------------|
| | L4 | L5 | L4 min./max. | L5 min./max. | 1 mm = ...° |
| 16 | 37 | 17.6 | -20/+1.5 | -12/+1.4 | 8.7 |
| 20 | 41.8 | 18 | -21.1/+1.5 | -11/+1.4 | 9 |
| 25 | 63 | 24.3 | -28.9/+1.9 | -15/+1.8 | 6.6 |
| 32 | 78.3 | 29.5 | -34.7/+2.4 | -19/+2.3 | 5.6 |
| 35 | 97.5 | 40.9 | -34.7/+2.4 | -27/+2.3 | 5.6 |
| 40 | 98.2 | 41.6 | -53/+3.2 | -28/+3.1 | 3.6 |
| 50 | 126 | - | -74.5/+4.4 | - | 2.6 |
| 63 | 120 | - | -71.7/+7.1 | - | 1.9 |

Twin piston semi-rotary drives DRRD

1

Dimensions – Size 16 ... 63

Y12 – With external shock absorber



- 6 Shock absorber
- 8 Flange assembly

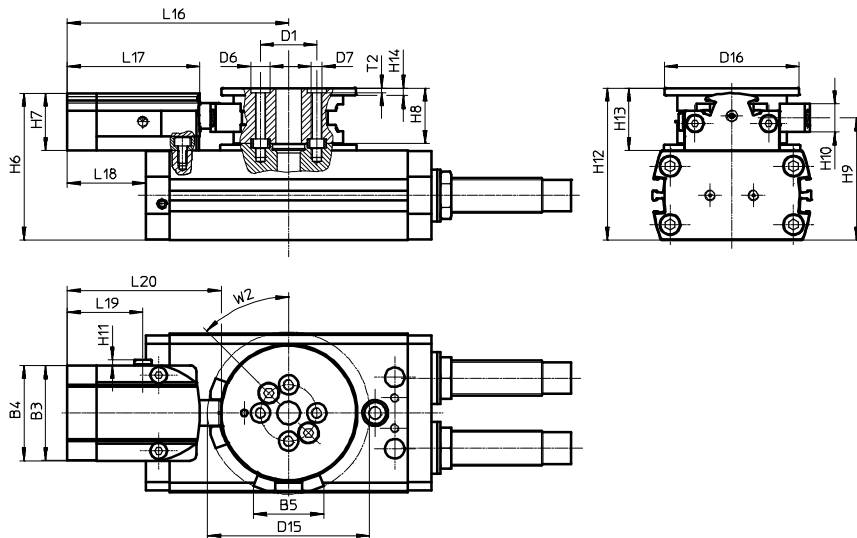
| Size | B6 | D1 ∅ | D6 ∅ | D16 ∅ | D17 | D18 | H8 | H9 | H12 |
|------|------|---------|---------|----------|-------|---------|------|-------|------|
| | ±0.2 | ±0.025 | H7 | | | | ±0.1 | | |
| 16 | 58 | 21 | 7 | 49 | 69.4 | M10x1 | 17 | 43.1 | 52.6 |
| 20 | 75 | 24 | 7 | 62 | 91 | M12x1 | 25.6 | 51.2 | 65.2 |
| 25 | 82 | 26 | 9 | 62 | 91 | M16x1 | 25.6 | 56.5 | 70.3 |
| 32 | 120 | 40 | 9 | 79 | 126.2 | M22x1.5 | 31.5 | 68.5 | 87 |
| 35 | 133 | 45 | 9 | 89 | 146.7 | M22x1.5 | 34 | 83 | 101 |
| 40 | 133 | 45 | 9 | 89 | 146.7 | M22x1.5 | 34 | 88 | 106 |
| 50 | 152 | 54 | 12 | 110 | 165.2 | M26x1.5 | 42 | 101.5 | 125 |
| 63 | 186 | 63 | 15 | 130 | 212.2 | M30x1.5 | 52 | 129.5 | 159 |

| Size | H13 | H14 | H15 | H16 | H18 | L22 | T2 | W2 | ∠ 4 | ∠ 5 |
|------|------|-----|-------|------|-----|-------|------|-----|-----|-----|
| | | | | | | max. | +0.1 | | | |
| 16 | 19.6 | 3.5 | 51 | 18 | 10 | 65.2 | 1.6 | 45° | 13 | 3 |
| 20 | 29.2 | 3.5 | 59.5 | 23.5 | 15 | 85.3 | 1.6 | 45° | 15 | 4 |
| 25 | 28.9 | 3.5 | 67.4 | 26 | 15 | 108.9 | 2.1 | 45° | 19 | 5 |
| 32 | 37 | 4 | 85 | 35 | 22 | 149.7 | 2.1 | 45° | 27 | 5 |
| 35 | 38 | 5 | 99 | 36 | 21 | 155.5 | 2.1 | 45° | 27 | 5 |
| 40 | 38 | 5 | 104 | 36 | 21 | 155.5 | 2.1 | 45° | 27 | 5 |
| 50 | 47 | 6 | 123 | 45 | 30 | 171.6 | 2.6 | 45° | 32 | 6 |
| 63 | 59 | 6 | 155.5 | 55.5 | 36 | 228 | 3.1 | 45° | 36 | 8 |

Dimensions – Size 16 ... 63

Download CAD data → www.festo.com

Clamping unit



Note
The cylinder can be mounted on both sides.

| For size | B3 | B4 | B5 | D1 ∅ | D6 ∅ | D7 | D15 ∅ | D16 ∅ | H6 | H7 | H8 | H9 |
|----------|------|------|------|---------|---------|-----|----------|----------|------|-------|------|-------|
| | ±0.2 | ±0.2 | | ±0.025 | H7 | | | | | ±0.15 | ±0.1 | |
| 16 | 37.6 | 38 | 26.9 | 21 | 7 | M4 | 61.9 | 49 | 51 | 18 | 17 | 43.1 |
| 20 | 43.6 | 44 | 32.4 | 24 | 7 | M4 | 74.9 | 62 | 62.5 | 26.5 | 25.6 | 51.2 |
| 25 | 43.6 | 44 | 32.4 | 26 | 9 | M5 | 74.9 | 62 | 67.9 | 26.5 | 25.6 | 56.5 |
| 32 | 43.6 | 44 | 39.4 | 40 | 9 | M6 | 95.4 | 79 | 79 | 26.7 | 31.5 | 68.5 |
| 35 | 57.6 | 58 | 50.2 | 45 | 9 | M6 | 110.9 | 89 | 98 | 35 | 34 | 83 |
| 40 | 57.6 | 58 | 50.2 | 45 | 9 | M6 | 110.9 | 89 | 103 | 35 | 34 | 88 |
| 50 | 71.4 | 72 | 59.6 | 54 | 12 | M 8 | 124.3 | 110 | 123 | 45 | 42 | 101.5 |
| 63 | 71.4 | 72 | 65.8 | 63 | 15 | M10 | 148.5 | 130 | 149 | 49 | 52 | 129.5 |

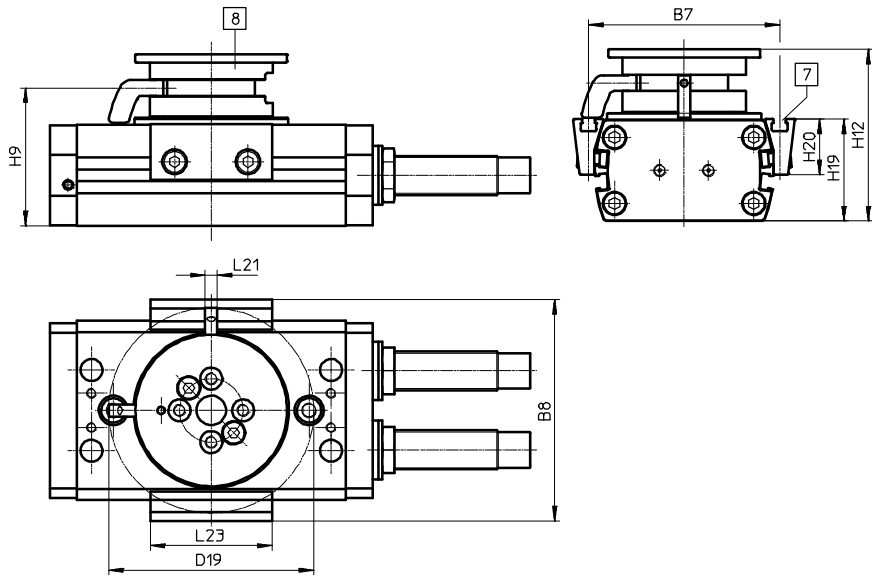
| For size | H10 | H11 | H12 | H13 | H14 | L16 | L17 | L18 | L19 | L20 | T2 | W2 |
|----------|------|-----|------|------|-----|-------|------|-------|------|------|------|-----|
| | | | | | | | | | | | +0.1 | |
| 16 | 9 | 2.5 | 52.6 | 19.6 | 3.5 | 83 | 50 | 30.5 | 34 | 58.3 | 1.6 | 45° |
| 20 | 13 | 2.5 | 65.2 | 29.2 | 3.5 | 102.2 | 61.2 | 48.2 | 34.8 | 71.1 | 1.6 | 45° |
| 25 | 13 | 2.5 | 70.3 | 28.9 | 3.5 | 102.2 | 61.2 | 36.2 | 34.8 | 71.1 | 2.1 | 45° |
| 32 | 17 | 2.5 | 87 | 37 | 4 | 112.2 | 61.2 | 30.7 | 34.8 | 71.1 | 2.1 | 45° |
| 35 | 14.8 | 2.5 | 101 | 38 | 5 | 132.5 | 70.6 | 43.5 | 42.6 | 85.4 | 2.1 | 45° |
| 40 | 14.8 | 2.5 | 106 | 38 | 5 | 132.5 | 70.6 | 18 | 42.6 | 85.4 | 2.1 | 45° |
| 50 | 19 | 4.6 | 125 | 47 | 6 | 151 | 81 | 0 | 46 | 98 | 2.6 | 45° |
| 63 | 22 | 4.6 | 159 | 59 | 6 | 163 | 81 | -29.5 | 46 | 99.5 | 3.1 | 45° |

Twin piston semi-rotary drives DRRD

Dimensions – Size 16 ... 63

Download CAD data → www.festo.com

Sensing kit



- 7 Slot for proximity sensor
- 8 Flange assembly

| For size | B7 | B8 | D19 ∅ | H9 | H12 |
|----------|------|-------|----------|-------|------|
| 16 | 64.4 | 76.1 | 70.9 | 43.1 | 52.6 |
| 20 | 74 | 85.7 | 84 | 51.2 | 65.2 |
| 25 | 78.2 | 90.7 | 84 | 56.5 | 70.3 |
| 32 | 100 | 113.5 | 107.5 | 68.5 | 87 |
| 35 | 116 | 132.9 | 125.2 | 83 | 101 |
| 40 | 118 | 135.8 | 125.2 | 88 | 106 |
| 50 | 136 | 155.3 | 146.6 | 101.5 | 125 |
| 63 | 163 | 185.3 | 173.9 | 129.5 | 159 |

| For size | H19 | H20 ±0.1 | L21 | L23 |
|----------|------|-------------|-----|-----|
| 16 | 33.5 | 18.5 | 5 | 50 |
| 20 | 36.4 | 20.2 | 5 | 50 |
| 25 | 41.8 | 22.8 | 5 | 50 |
| 32 | 50.5 | 26.5 | 7 | 50 |
| 35 | 63.5 | 33.1 | 7 | 50 |
| 40 | 68.5 | 35.5 | 7 | 50 |
| 50 | 79.1 | 43 | 7 | 50 |
| 63 | 101 | 55 | 7 | 50 |



Overview/Configuration/Ordering
→ www.festo.com/catalogue/dgsl



Additional information/Support/User documentation
→ www.festo.com/sp/dgsl

Drives with guides
Drives with slides
Mini slides

DGSL



- + High load capacity and positioning accuracy
- + Maximum movement precision thanks to ground-in ball bearing cage guide
- + Maximum flexibility thanks to eight sizes
- + Reliable in the event of pressure drop thanks to clamping cartridge or end-position locking
- + Versatile mounting options thanks to piggy-back
- + Compact



- High load capacity and positioning accuracy
- Maximum flexibility thanks to 8 sizes
- Guide unit with very precise linearity and parallelism
- Simple basic setting plus precision final adjustment of the end positions
- ★ Quick ordering of basic designs → 294

→ www.festo.com/catalogue/dgsl

Product range overview

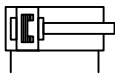
| Type/Function | Size | Stroke [mm] | Force [N] | Product options | | | | | | | | | |
|---------------|--------------------------------|----------------|--------------|-----------------|----|---|----|----|---|-----|---|---|---|
| | | | | C | E3 | P | P1 | Y3 | E | Y11 | N | A | |
| DGSL | | | | | | | | | | | | | |
| Double-acting | 4, 6, 8, 10, 12, 16, 20, 25 | 10 ... 200 | 17 ... 483 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |

Product options

| | | | | | | | |
|----|---------------|----|-----------------------------------------------------------|----|-------------------------------------------------------------------------|-----|---------------------------------------------------------------|
| N | NPT thread | P | Elastic cushioning without metal end position, adjustable | Y3 | Progressive shock absorber, at both ends | Y11 | Progressive shock absorber with reducing sleeve, at both ends |
| C | Clamping unit | P1 | Elastic cushioning with metal end position, adjustable | E | Elastic cushioning without metal end position, adjustable, short design | N | No cushioning |
| E3 | Interlock | | | | | A | Position sensing design |

Mini slides DGSL

Data sheet

**Note**

Operation without cushioning components is not permitted.



| Technical data | | Dimensions → 300 | | | | | | | |
|----------------------------------------|------|-------------------------------------------------------------------------|--------------------|------------------------|---------------------------------------------------------------|----------------------------------|---------------------------------------|-----|-----|
| Size | | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
| Pneumatic port | | M3 | | | M5 | | G $\frac{1}{8}$ | | |
| Stroke | [mm] | 10, 20, 30 | 10, 20, 30, 40, 50 | 10, 20, 30, 40, 50, 80 | 10, 20, 30, 40, 50, 80, 100 | 10, 20, 30, 40, 50, 80, 100, 150 | 10, 20, 30, 40, 50, 80, 100, 150, 200 | | |
| Cushioning | | | | | | | | | |
| DGSL...-PP | | Elastic cushioning without metal end position, adjustable | | | | | | | |
| DGSL...-E | | Elastic cushioning without metal end position, adjustable, short design | | | | | | | |
| DGSL...-P1 | | Elastic cushioning with metal end position, adjustable | | | | | | | |
| DGSL...-Y3 | | - | | | Progressive shock absorber, at both ends | | | | |
| DGSL...-Y11 | | - | | | Progressive shock absorber with reducing sleeve, at both ends | | | | |
| DGSL...-N | | No cushioning | | | | | | | |
| Theoretical force at 6 bar, advancing | [N] | 17 | 30 | 47 | 68 | 121 | 188 | 295 | 483 |
| Theoretical force at 6 bar, retracting | [N] | 13 | 23 | 40 | 51 | 104 | 158 | 247 | 415 |

| Technical data – Clamping unit | | Dimensions → 300 | | | | | | |
|----------------------------------------|-----|-------------------------------------------|----|-----|-----|-----|-----|-----|
| Size | | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
| Clamping type with effective direction | | At both ends | | | | | | |
| | | Clamping via spring force, air to release | | | | | | |
| Static holding force | [N] | 80 | 80 | 180 | 180 | 350 | 350 | 600 |

| Technical data – End-position locking | | Dimensions → 300 | | | | | | |
|----------------------------------------|-----|------------------------------------------|----|-----|-----|-----|-----|-----|
| Size | | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
| Clamping type with effective direction | | At both ends | | | | | | |
| | | Clamping via spring force, air to unlock | | | | | | |
| Static holding force | [N] | 60 | 60 | 160 | 160 | 250 | 380 | 640 |

| Operating conditions | | Dimensions → 300 | | | | | | | |
|-----------------------------------|-------|------------------|-----|---|----|----|----|----|----|
| Size | | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
| Mini slide | | | | | | | | | |
| Min. operating pressure | [bar] | 2.5 | 1.5 | | | | 1 | | |
| Max. operating pressure | [bar] | 8 | | | | | | | |
| Clamping unit | | | | | | | | | |
| Min. release pressure | [bar] | 3 | | | | | | | |
| Max. operating pressure | [bar] | ≤ 10 | | | | | | | |
| End-position locking | | | | | | | | | |
| Operating pressure | [bar] | 3 ... 8 | | | | | | | |
| Ambient temperature ¹⁾ | [°] | 0 ... +60 | | | | | | | |

1) Note operating range of proximity sensors.

| Materials | |
|------------|----------------------------|
| Housing | Wrought aluminium alloy |
| End cap | Wrought aluminium alloy |
| Guide rail | Tempered steel |
| Piston rod | High-alloy stainless steel |
| Seals | HNBR |

Order code

| | | | | | | | | | | | | | |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---|--|---|--|---|--|---|--|---|--|---|
| | | DGSL | - | | - | | - | | - | | - | | A |
| Type | | | | | | | | | | | | | |
| DGSL | Mini slide | | | | | | | | | | | | |
| Size | | | | | | | | | | | | | |
| | Stroke [mm] | | | | | | | | | | | | |
| 4 | 10, 20, 30 | | | | | | | | | | | | |
| 6 | 10, 20, 30, 40, 50 | | | | | | | | | | | | |
| 8 | 10, 20, 30, 40, 50, 80 | | | | | | | | | | | | |
| 10 | 10, 20, 30, 40, 50, 80, 100 | | | | | | | | | | | | |
| 12 | 10, 20, 30, 40, 50, 80, 100, 150 | | | | | | | | | | | | |
| 16 | 10, 20, 30, 40, 50, 80, 100, 150 | | | | | | | | | | | | |
| 20 | 10, 20, 30, 40, 50, 80, 100, 150, 200 | | | | | | | | | | | | |
| 25 | 10, 20, 30, 40, 50, 80, 100, 150, 200 | | | | | | | | | | | | |
| Clamping unit | | | | | | | | | | | | | |
| C | Attached 1 | | | | | | | | | | | | |
| End-position locking | | | | | | | | | | | | | |
| E3 | With piston rod in retracted position 1 / 2 | | | | | | | | | | | | |
| Cushioning | | | | | | | | | | | | | |
| P | Elastic cushioning without metal end position, adjustable | | | | | | | | | | | | |
| P1 | Elastic cushioning with metal end position, adjustable | | | | | | | | | | | | |
| Y3 | Progressive shock absorber, at both ends 3 | | | | | | | | | | | | |
| E | Elastic cushioning without metal end position, adjustable, short design | | | | | | | | | | | | |
| Y11 | Progressive shock absorber with reducing sleeve, at both ends 4 | | | | | | | | | | | | |
| N | No cushioning 3 | | | | | | | | | | | | |
| Position sensing | | | | | | | | | | | | | |
| A | Via proximity sensors | | | | | | | | | | | | |

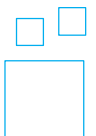
- 1 Not with size 4
- 2 Not with clamping unit C
- 3 Not with size 4 and 6, minimum stroke 30 mm
- 4 Not with size 4 ... 8, minimum stroke 30 mm

Order example:

DGSL-12-100-C-Y3A

Mini slide DGSL - size 12 - stroke 100 mm - clamping unit attached - without end-position locking - progressive shock absorber at both ends - position sensing via proximity sensor

Ordering – Product options

| | | | | |
|-------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
|  | <p>Configurable product</p> | <p>This product and all its options can be ordered using the configurator.</p> | <p>The configurator can be found under Products on the DVD or</p> <p>→ www.festo.com/catalogue/...</p> | <p>Enter the type code in the search field.</p> |
|-------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|

Mini slides DGSL

1

★ Quick ordering¹⁾

PA – Elastic cushioning without metal end position, adjustable

| Part no. | Type |
|-----------------------|----------------|
| Piston Ø 8 mm | |
| 543926 | DGSL-8-10-PA |
| 543927 | DGSL-8-20-PA |
| 543928 | DGSL-8-30-PA |
| 543929 | DGSL-8-40-PA |
| 543930 | DGSL-8-50-PA |
| 543931 | DGSL-8-80-PA |
| Piston Ø 10 mm | |
| 543942 | DGSL-10-10-PA |
| 543943 | DGSL-10-20-PA |
| 543944 | DGSL-10-30-PA |
| 543945 | DGSL-10-40-PA |
| 543946 | DGSL-10-50-PA |
| 543947 | DGSL-10-80-PA |
| 543948 | DGSL-10-100-PA |

| Part no. | Type |
|-----------------------|----------------|
| Piston Ø 12 mm | |
| 543961 | DGSL-12-10-PA |
| 543962 | DGSL-12-20-PA |
| 543963 | DGSL-12-30-PA |
| 543964 | DGSL-12-40-PA |
| 543965 | DGSL-12-50-PA |
| 543966 | DGSL-12-80-PA |
| 543967 | DGSL-12-100-PA |
| 543968 | DGSL-12-150-PA |
| Piston Ø 16 mm | |
| 543983 | DGSL-16-10-PA |
| 543984 | DGSL-16-20-PA |
| 543985 | DGSL-16-30-PA |
| 543986 | DGSL-16-40-PA |
| 543987 | DGSL-16-50-PA |
| 543988 | DGSL-16-80-PA |
| 543989 | DGSL-16-100-PA |
| 543990 | DGSL-16-150-PA |

| Part no. | Type |
|-----------------------|----------------|
| Piston Ø 20 mm | |
| 544005 | DGSL-20-10-PA |
| 544006 | DGSL-20-20-PA |
| 544007 | DGSL-20-30-PA |
| 544008 | DGSL-20-40-PA |
| 544009 | DGSL-20-50-PA |
| 544010 | DGSL-20-80-PA |
| 544011 | DGSL-20-100-PA |
| 544012 | DGSL-20-150-PA |
| 544013 | DGSL-20-200-PA |
| Piston Ø 25 mm | |
| 544030 | DGSL-25-10-PA |
| 544031 | DGSL-25-20-PA |
| 544032 | DGSL-25-30-PA |
| 544033 | DGSL-25-40-PA |
| 544034 | DGSL-25-50-PA |
| 544035 | DGSL-25-80-PA |
| 544036 | DGSL-25-100-PA |
| 544037 | DGSL-25-150-PA |
| 544038 | DGSL-25-200-PA |

1) All products in this table are easy to select and quick to order.

P1A – Elastic cushioning with metal end position, adjustable

| Part no. | Type |
|-----------------------|-----------------|
| Piston Ø 8 mm | |
| 543932 | DGSL-8-10-P1A |
| 543933 | DGSL-8-20-P1A |
| 543934 | DGSL-8-30-P1A |
| 543935 | DGSL-8-40-P1A |
| 543936 | DGSL-8-50-P1A |
| 543937 | DGSL-8-80-P1A |
| Piston Ø 10 mm | |
| 543949 | DGSL-10-10-P1A |
| 543950 | DGSL-10-20-P1A |
| 543951 | DGSL-10-30-P1A |
| 543952 | DGSL-10-40-P1A |
| 543953 | DGSL-10-50-P1A |
| 543954 | DGSL-10-80-P1A |
| 543955 | DGSL-10-100-P1A |

| Part no. | Type |
|-----------------------|-----------------|
| Piston Ø 12 mm | |
| 543969 | DGSL-12-10-P1A |
| 543970 | DGSL-12-20-P1A |
| 543971 | DGSL-12-30-P1A |
| 543972 | DGSL-12-40-P1A |
| 543973 | DGSL-12-50-P1A |
| 543974 | DGSL-12-80-P1A |
| 543975 | DGSL-12-100-P1A |
| 543976 | DGSL-12-150-P1A |
| Piston Ø 16 mm | |
| 543991 | DGSL-16-10-P1A |
| 543992 | DGSL-16-20-P1A |
| 543993 | DGSL-16-30-P1A |
| 543994 | DGSL-16-40-P1A |
| 543995 | DGSL-16-50-P1A |
| 543996 | DGSL-16-80-P1A |
| 543997 | DGSL-16-100-P1A |
| 543998 | DGSL-16-150-P1A |

| Part no. | Type |
|-----------------------|-----------------|
| Piston Ø 20 mm | |
| 544014 | DGSL-20-10-P1A |
| 544015 | DGSL-20-20-P1A |
| 544016 | DGSL-20-30-P1A |
| 544017 | DGSL-20-40-P1A |
| 544018 | DGSL-20-50-P1A |
| 544019 | DGSL-20-80-P1A |
| 544020 | DGSL-20-100-P1A |
| 544021 | DGSL-20-150-P1A |
| 544022 | DGSL-20-200-P1A |
| Piston Ø 25 mm | |
| 544039 | DGSL-25-10-P1A |
| 544040 | DGSL-25-20-P1A |
| 544041 | DGSL-25-30-P1A |
| 544042 | DGSL-25-40-P1A |
| 544043 | DGSL-25-50-P1A |
| 544044 | DGSL-25-80-P1A |
| 544045 | DGSL-25-100-P1A |
| 544046 | DGSL-25-150-P1A |
| 544047 | DGSL-25-200-P1A |

1) All products in this table are easy to select and quick to order.

★ Quick ordering¹⁾

Y3A – Progressive shock absorber, at both ends

| Part no. | Type |
|-----------------------|-----------------|
| Piston Ø 8 mm | |
| 543938 | DGSL-8-30-Y3A |
| 543939 | DGSL-8-40-Y3A |
| 543940 | DGSL-8-50-Y3A |
| 543941 | DGSL-8-80-Y3A |
| Piston Ø 10 mm | |
| 543956 | DGSL-10-30-Y3A |
| 543957 | DGSL-10-40-Y3A |
| 543958 | DGSL-10-50-Y3A |
| 543959 | DGSL-10-80-Y3A |
| 543960 | DGSL-10-100-Y3A |

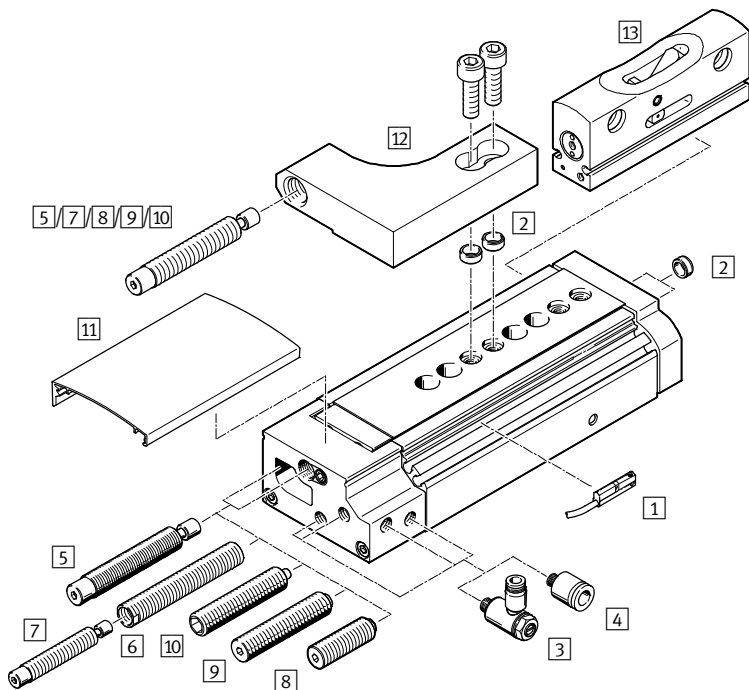
| Part no. | Type |
|-----------------------|-----------------|
| Piston Ø 12 mm | |
| 543977 | DGSL-12-30-Y3A |
| 543978 | DGSL-12-40-Y3A |
| 543979 | DGSL-12-50-Y3A |
| 543980 | DGSL-12-80-Y3A |
| 543981 | DGSL-12-100-Y3A |
| 543982 | DGSL-12-150-Y3A |
| Piston Ø 16 mm | |
| 543999 | DGSL-16-30-Y3A |
| 544000 | DGSL-16-40-Y3A |
| 544001 | DGSL-16-50-Y3A |
| 544002 | DGSL-16-80-Y3A |
| 544003 | DGSL-16-100-Y3A |
| 544004 | DGSL-16-150-Y3A |

| Part no. | Type |
|-----------------------|-----------------|
| Piston Ø 20 mm | |
| 544023 | DGSL-20-30-Y3A |
| 544024 | DGSL-20-40-Y3A |
| 544025 | DGSL-20-50-Y3A |
| 544026 | DGSL-20-80-Y3A |
| 544027 | DGSL-20-100-Y3A |
| 544028 | DGSL-20-150-Y3A |
| 544029 | DGSL-20-200-Y3A |
| Piston Ø 25 mm | |
| 544048 | DGSL-25-30-Y3A |
| 544049 | DGSL-25-40-Y3A |
| 544050 | DGSL-25-50-Y3A |
| 544051 | DGSL-25-80-Y3A |
| 544052 | DGSL-25-100-Y3A |
| 544053 | DGSL-25-150-Y3A |
| 544054 | DGSL-25-200-Y3A |

1) All products in this table are easy to select and quick to order.

Mini slides DGSL

Accessories



Note
End stops must not be removed.

| | | → Page/online |
|----|---------------------------------|---------------|
| 1 | Proximity sensor SME-/SMT-10 | 297 |
| 2 | Centring sleeve ZBH | 297 |
| 3 | One-way flow control valve GRLA | 297 |
| 4 | Push-in fitting QSM | 1098 |
| 5 | Cushioning Y3 | 298 |
| 6 | Reducing sleeve DAYH | 298 |
| 7 | Shock absorber DYSW | 298 |
| 8 | Cushioning E | 298 |
| 9 | Cushioning P | 298 |
| 10 | Cushioning P1 | 298 |

| | | → Page/online |
|----|-----------------------------------|----------------------|
| 11 | Cover DADS | 298 |
| 12 | Shock absorber retainer DADP | dgsl |
| 13 | Intermediate position module DADM | dgsl |
| - | Connector sleeve ZBV | 299 |
| - | Connecting cable NEBU | 299 |
| - | Drive/Drive connections | dgsl |
| - | Drive/Gripper connections | dgsl |

Shock absorber selection

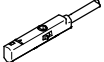
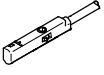

With the mini slide DGSL, shock absorbers can be replaced and the cushioning behaviour can thus be influenced (depending on the payload).

This is done by removing existing shock absorbers on the DGSL and replacing them with a smaller shock absorber as appropriate to the application.

With smaller loads, the next smaller shock absorber DYSW can be installed with the help of the reducing sleeve DAYH.

With very small loads, the shock absorber DYEF can be installed.


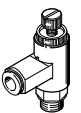
Accessories – Ordering data

| | For size | Cable length [m] | | Part no. | Type |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------|---|----------|----------------------------|
| 1 | Proximity sensor for C-slot, magneto-resistive – N/O contact | | | | |
|  | PNP, cable | 2.5 | ★ | 551373 | SMT-10M-PS-24V-E-2,5-L-OE |
| | PNP, plug | 0.3 | ★ | 551375 | SMT-10M-PS-24V-E-0,3-L-M8D |
| | Magnetic reed – N/O contact | | | | |
|  | Plug | 0.3 | ★ | 551367 | SME-10M-DS-24V-E-0,3-L-M8D |
| | Cable | 2.5 | ★ | 551365 | SME-10M-DS-24V-E-2,5-L-OE |
| | Cable | 2.5 | ★ | 551369 | SME-10M-ZS-24V-E-2,5-L-OE |
| 2 | Centring sleeve¹⁾ | | | | |
|  | 4, 6 | – | | 189652 | ZBH-5 |
| | 8, 10, 12, 16 | – | | 186717 | ZBH-7 |
| | 20, 25 | – | | 150927 | ZBH-9 |

1) Packaging unit 10 pieces.

Note

Proximity sensors SME are not permitted with size 4.

| Function | For size | Connection | | Part no. | Type |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------|------|----------|--------------------------------|
| | | Thread | O.D. | | |
| 3 | One-way flow control valve with slotted head screw, metal²⁾ for exhaust air flow control | | | | |
|  | 4, 6, 8 | M3 | 3 | 175041 | GRLA-M3-QS-3 ³⁾ |
| | | | – | 175038 | GRLA-M3 |
| | 10, 12, 16 | M5 | 4 | ★ 193138 | GRLA-M5-QS-4-D |
| | 20, 25 | G $\frac{1}{8}$ | 6 | ★ 193144 | GRLA- $\frac{1}{8}$ -QS-6-D |
|  | 20, 25 | G $\frac{1}{8}$ | 6 | 162965 | GRLA- $\frac{1}{8}$ -QS-6-RS-B |
| | | | 8 | 162966 | GRLA- $\frac{1}{8}$ -QS-8-RS-B |

2) The recommended flow control valves are based on a tubing length to the valve of 1 m. For deviations of $\pm 50\%$, flow control valves with a bigger or smaller flow rate need to be selected to guarantee the optimal flow control function and cylinder speed.

3) Only one GRLA-M3-QS-3 can be mounted on the front side with size 4.

Accessories – Ordering data




| | For size | Part no. | Type |
|-------------------------------|----------|----------|----------------|
| 5/7 Shock absorber Y3 | | | |
| | 8 | 548070 | DYSW-4-6-Y1F |
| | 10 | 548071 | DYSW-5-8-Y1F |
| | 12 | 548072 | DYSW-7-10-Y1F |
| | 16 | 548073 | DYSW-8-14-Y1F |
| | 20 | 548074 | DYSW-10-17-Y1F |
| | 25 | 548075 | DYSW-12-20-Y1F |
| 6 Reducing sleeve DAYH | | | |
| | 10 | 1165476 | DAYH-4 |
| | 12 | 1165480 | DAYH-5 |
| | 16 | 1165484 | DAYH-7 |
| | 20 | 1165488 | DAYH-8 |
| | 25 | 1165491 | DAYH-10 |
| 8 Shock absorber P1 | | | |
| | 4 | 548370 | DYEF-M4-Y1F |
| | 6 | 548371 | DYEF-M5-Y1F |
| | 8 | 548372 | DYEF-M6-Y1F |
| | 10 | 548373 | DYEF-M8-Y1F |
| | 12 | 548374 | DYEF-M10-Y1F |
| | 16 | 548375 | DYEF-M12-Y1F |
| | 20 | 548376 | DYEF-M14-Y1F |
| | 25 | 548377 | DYEF-M16-Y1F |

| | For size | Part no. | Type | |
|---------------------------|----------------------------|----------|---------------|--------------|
| 9 Shock absorber P | | | | |
| | 4 | 1179810 | DYEF-M4-Y1 | |
| | 6 | 1179818 | DYEF-M5-Y1 | |
| | 8 | 1179831 | DYEF-M6-Y1 | |
| | 10 | 1179834 | DYEF-M8-Y1 | |
| | 12 | 1179837 | DYEF-M10-Y1 | |
| | 16 | 1179840 | DYEF-M12-Y1 | |
| | 20 | 1179863 | DYEF-M14-Y1 | |
| | 25 | 1179879 | DYEF-M16-Y1 | |
| | 10 Shock absorber E | | | |
| | | 4 | 1152500 | DYEF-S-M4-Y1 |
| 6 | | 1152507 | DYEF-S-M5-Y1 | |
| 8 | | 1152524 | DYEF-S-M6-Y1 | |
| 10 | | 1152536 | DYEF-S-M8-Y1 | |
| 12 | | 1152959 | DYEF-S-M10-Y1 | |
| 16 | | 1153004 | DYEF-S-M12-Y1 | |
| 20 | | 1153017 | DYEF-S-M14-Y1 | |
| 25 | | 1153023 | DYEF-S-M16-Y1 | |

| | For size | Length [mm] | Part no. | Type |
|-----------------|----------|-------------|-------------------|-------------------|
| 11 Cover | | | | |
| | 4 | 30 | 1086663 | DADS-AB-G6-4-30 |
| | | 500 | 1212468 | DADS-AB-G6-4-500 |
| | 6 | 50 | 1066625 | DADS-AB-G6-6-50 |
| | | 500 | 1212476 | DADS-AB-G6-6-500 |
| | 8 | 80 | 1087413 | DADS-AB-G6-8-80 |
| | | 500 | 1212478 | DADS-AB-G6-8-500 |
| | 10 | 50 | 1162400 | DADS-AB-G6-10-50 |
| | | 100 | 1090689 | DADS-AB-G6-10-100 |
| | | 500 | 1212479 | DADS-AB-G6-10-500 |
| | 12 | 50 | 1162406 | DADS-AB-G6-12-50 |
| | | 150 | 1090732 | DADS-AB-G6-12-150 |
| | | 500 | 1212480 | DADS-AB-G6-12-500 |
| | 16 | 50 | 1162410 | DADS-AB-G6-16-50 |
| | | 150 | 1066591 | DADS-AB-G6-16-150 |
| | | 500 | 1212503 | DADS-AB-G6-16-500 |
| | 20 | 50 | 1162412 | DADS-AB-G6-20-50 |
| | | 100 | 1162415 | DADS-AB-G6-20-100 |
| | | 200 | 1090823 | DADS-AB-G6-20-200 |
| | | 500 | 1212521 | DADS-AB-G6-20-500 |
| | | 25 | 50 | 1162417 |
| 100 | 1162419 | | DADS-AB-G6-25-100 | |
| 200 | 1090895 | | DADS-AB-G6-25-200 | |
| 500 | 1212523 | | DADS-AB-G6-25-500 | |

Dimensions online: → [dgs1](http://dgs1.festo.com)

Accessories – Ordering data

| | For size | Cable length [m] | | Part no. | Type |
|---------------------------------------------------------------------------------------------------|----------|------------------|---|----------|---------------------|
| Connector sleeve¹⁾ | | | | | |
|  | 8, 10 | – | | 548802 | ZBV-M4-7 |
| | 12, 16 | – | | 548803 | ZBV-M5-7 |
| | 20, 25 | – | | 548804 | ZBV-M6-9 |
| Connecting cable, straight socket Technical data → 1161 | | | | | |
|  | – | 2.5 | ★ | 541333 | NEBU-M8G3-K-2.5-LE3 |
| | – | 5.0 | ★ | 541334 | NEBU-M8G3-K-5-LE3 |
| Angled socket Technical data → 1161 | | | | | |
|  | – | 2.5 | ★ | 541338 | NEBU-M8W3-K-2.5-LE3 |
| | – | 5.0 | ★ | 541341 | NEBU-M8W3-K-5-LE3 |

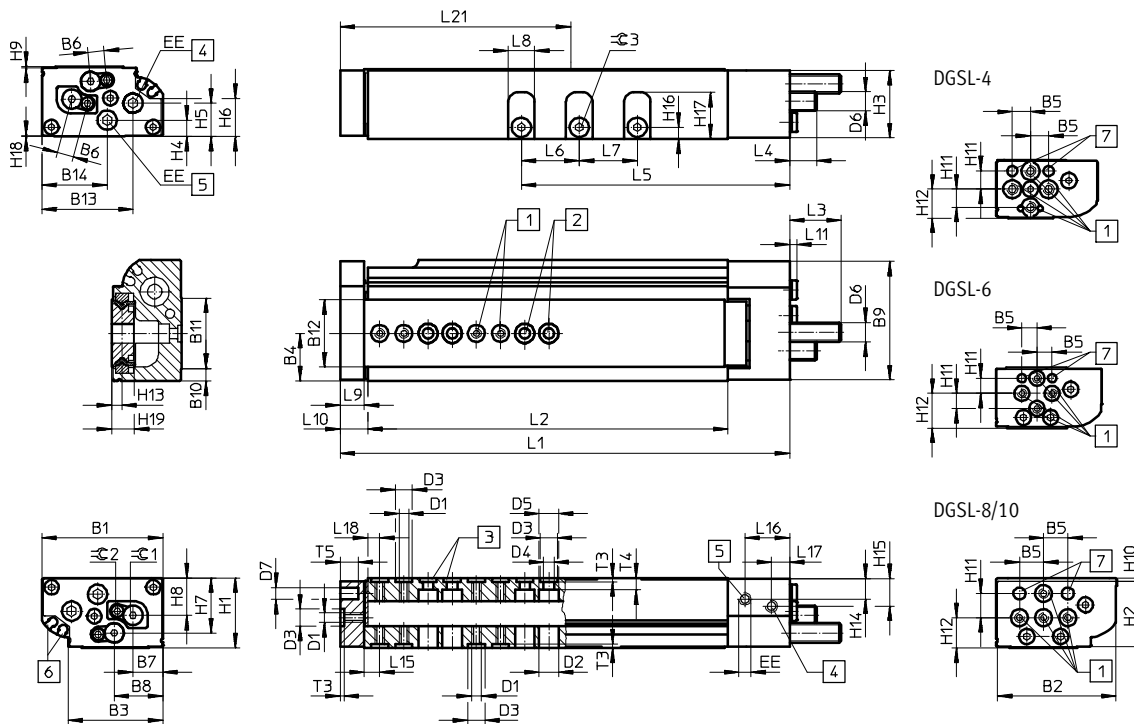
1) Packaging unit 3 pieces.

Mini slides DGSL

1

Dimensions

Size 4 ... 10



- 1) Mounting thread (centring sleeves included in the scope of delivery)
- 2) Through-holes for mounting the drive
- 3) Centring holes (centring sleeves included in the scope of delivery)
- 4) Supply port, advancing
- 5) Supply port, retracting
- 6) Slots for proximity sensor SME/SMT-10
- 7) Centring hole
- L10 Distance between outer edge of yoke plate and housing
- L15 Distance between centre of centring hole and outer edge of slide
- L18 Distance between centre of centring hole and outer edge of housing

| Size | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 | B13 | B14 | D1 |
|------|----|------|-------|-------|----|------|-------|-------|------|------|------|------|-------|-------|----|
| 4 | 28 | 27.4 | 18.35 | 9.4 | 5 | 3.55 | 6.3 | 11.95 | 27.5 | 2 | 17.2 | 12.4 | 23.15 | 16.15 | M3 |
| 6 | 35 | 34.5 | 26.3 | 13.5 | 5 | 5 | 8.2 | 13.55 | 34.5 | 3.5 | 19.9 | 20 | 28.1 | 18.9 | M3 |
| 8 | 42 | 41.3 | 31.45 | 16.6 | 10 | 6 | 10.3 | 16.25 | 41.5 | 4.57 | 24 | 24.1 | 33 | 24.4 | M4 |
| 10 | 50 | 49 | 39.2 | 19.65 | 10 | 6.8 | 12.35 | 20.1 | 49 | 5 | 29.2 | 28 | 37.7 | 27 | M4 |

| Size | D2 | D3 | D4 | D5 | D6 | D7 | EE | H1 | H2 | H3 | H4 | H5 | H6 | H7 | H8 |
|------|-----|-----|-----|-----|--------|-----|----|-------|------|-------|------|-------|-------|-------|-------|
| | ∅ | ∅ | ∅ | ∅ | | ∅ | | ±0.08 | | | | | | | |
| 4 | 6.3 | 5H7 | 3.3 | 6.2 | M4x0.5 | 3H7 | M3 | 16 | 15.4 | 15.1 | 3.85 | 6.25 | 8.55 | 8.1 | 8.4 |
| 6 | 6.3 | 5H7 | 3.3 | 6.2 | M5x0.5 | 3H7 | M3 | 20 | 19 | 19.25 | 4.7 | 7.8 | 10.2 | 16.05 | 10.55 |
| 8 | 8.2 | 7H7 | 4.3 | 8 | M6x0.5 | 5H7 | M3 | 24 | 22.7 | 23 | 6.46 | 10.63 | 14.06 | 18.9 | 13.3 |
| 10 | 8.2 | 7H7 | 4.3 | 8 | M8x1 | 5H7 | M5 | 29 | 27.1 | 28 | 6.8 | 13.8 | 15.8 | 22.8 | 15.5 |

| Size | H9 | H10 | H11 | H12 | H13 | H14 | H15 | H16 | H17 | H18 | H19 | T3 | T4 | T5 | ≈C 2 ¹⁾ | ≈C 3 |
|------|------|-----|-----|------|------|------|-------|-----|-------|------|------|------|------|-----|--------------------|------|
| | | | | | | | | | | | | +0.1 | | | | |
| 4 | 0.65 | 0.3 | 5 | 8 | 2.7 | 5.35 | 5.85 | 3.1 | 10.6 | 0.25 | 5.28 | 1.3 | 2.25 | 4 | 1.3 | 2 |
| 6 | 0.45 | 0.5 | 5 | 11.5 | 3.38 | 6.5 | 7.2 | 3.7 | 13.1 | 0.3 | 6.68 | 1.3 | 3.7 | 6 | 1.5 | 2.5 |
| 8 | 0.64 | 0.9 | 10 | 8.7 | 3.28 | 7.8 | 10.5 | 4.1 | 16.8 | 0.36 | 6.7 | 1.6 | 3.8 | 7.5 | 2 | 2.5 |
| 10 | 0.6 | 1.4 | 10 | 12.5 | 4.2 | 8.76 | 11.76 | 4.8 | 19.25 | 0.41 | 9 | 1.6 | 5.35 | 7.5 | 2.5 | 3 |

1) With size 4, the scope of delivery of the drive includes an Allen key

Dimensions

Download CAD data → www.festo.com

| Size | Stroke | L1 | L2 | L5 | L6 | L7 | L8 | L9 | L10 | L11 | L15 ±0.05 | L16 | L17 | L18 ±0.05 | L21 |
|------|--------|-------|-------|-------|----|----|-----|-----|------|-----|--------------|-------|------|--------------|-----|
| 4 | 10 | 72.1 | 48 | 28.85 | – | – | 6.5 | 5.5 | 6.6 | 2.5 | 4 | 13.25 | 4.95 | 3 | 31 |
| | 20 | 81.2 | 57.1 | 37.95 | 10 | | | | | | | | | | 36 |
| | 30 | 91.2 | 67.1 | 47.95 | 11 | | | | | | | | | | 42 |
| 6 | 10 | 81.1 | 54 | 33.1 | – | – | 8 | 8 | 9.6 | 2.5 | 5.1 | 13.25 | 4.95 | 3.5 | 37 |
| | 20 | 91.1 | 64 | 43.1 | – | | | | | | | | | | 42 |
| | 30 | 101.1 | 74 | 53.1 | 14 | | | | | | | | | | 47 |
| | 40 | 111.1 | 84 | 63.1 | – | | | | | | | | | | 52 |
| | 50 | 121.1 | 94 | 73.1 | – | | | | | | | | | | 57 |
| 8 | 10 | 90.2 | 59.6 | 34.6 | – | – | 8 | 10 | 11.6 | 2.5 | 7 | 14.65 | 6.1 | 5.5 | 41 |
| | 20 | 100.2 | 69.6 | 44.6 | 10 | | | | | | | | | | 46 |
| | 30 | 110.2 | 79.6 | 54.6 | – | | | | | | | | | | 51 |
| | 40 | 120.2 | 89.6 | 64.6 | 16 | | | | | | | | | | 56 |
| | 50 | 142.2 | 111.6 | 74.6 | – | | | | | | | | | | 67 |
| | 80 | 172.2 | 141.6 | 104.6 | 16 | | | | | | | | | | 82 |
| 10 | 10 | 103.1 | 66 | 41.3 | – | – | 11 | 10 | 11.6 | 2.5 | 6.4 | 18.5 | 7.5 | 5 | 43 |
| | 20 | 112.8 | 75.7 | 51 | – | | | | | | | | | | 46 |
| | 30 | 122.8 | 85.7 | 61 | – | | | | | | | | | | 51 |
| | 40 | 132.8 | 95.7 | 71 | – | | | | | | | | | | 56 |
| | 50 | 142.8 | 105.7 | 81 | – | | | | | | | | | | 61 |
| | 80 | 186.2 | 149.1 | 111 | 24 | | | | | | | | | | 83 |
| | 100 | 206.2 | 169.1 | 131 | 24 | | | | | | | | | | 24 |

| Size | Cushioning | L3 max. | L4 max. | ≈ 1 | |
|------|------------|------------|------------|----------------------------------------|--------------------------------|
| | | | | For adjusting the cushioning stroke | For adjusting the end position |
| 4 | P | 15.2 | 7.8 | – | 1.3 |
| | E | 5.7 | 0 | – | 1.3 |
| | P1 | 14 | 6 | 1.3 | 2.5 |
| 6 | P | 17.6 | 8.1 | – | 1.5 |
| | E | 6.6 | 0 | – | 1.5 |
| | P1 | 15.5 | 5.8 | 1.5 | 3 |
| 8 | P | 21.1 | 10.7 | – | 2 |
| | E | 6.6 | 0 | – | 2 |
| | P1 | 19 | 9.1 | 2 | 4 |
| | Y3 | 24.3 | 23.9 | – | 2 |
| 10 | P | 22.8 | 12.5 | – | 2.5 |
| | E | 8.8 | 0 | – | 2.5 |
| | P1 | 20.5 | 10.2 | 2.5 | 5 |
| | Y3 | 25.5 | 14.9 | – | 2.5 |
| | Y11 | 30.4 | 19.9 | – | 2 |

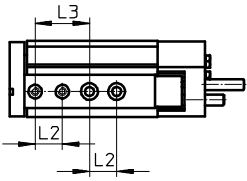
Mini slides DGSL

1

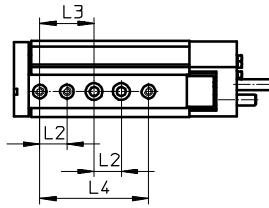
Dimensions

Hole pattern for mounting threads and centring holes

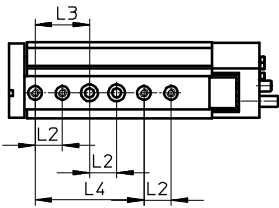
DGSL-4-10



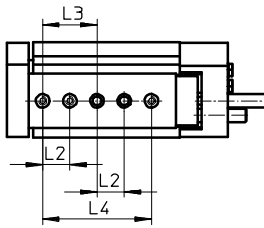
DGSL-4-20



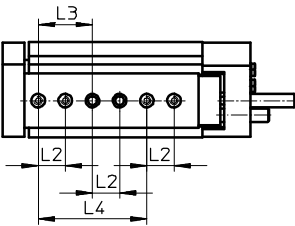
DGSL-4-30



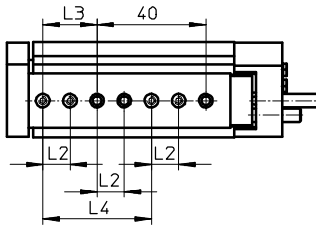
DGSL-6-10



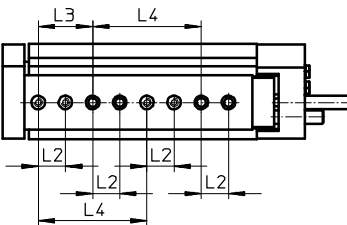
DGSL-6-20



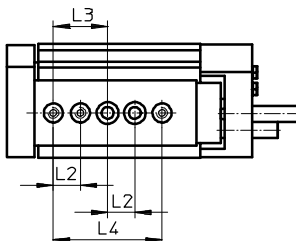
DGSL-6-30



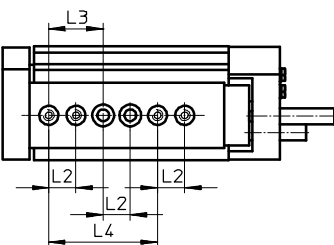
DGSL-6-40/50



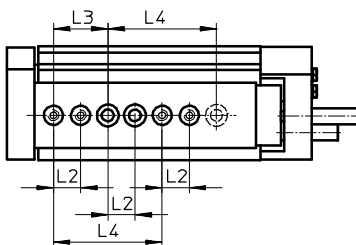
DGSL-8-10



DGSL-8-20



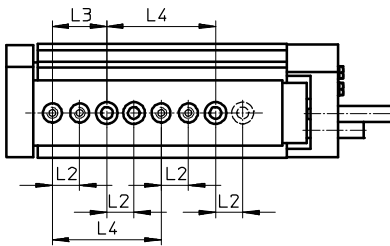
DGSL-8-30



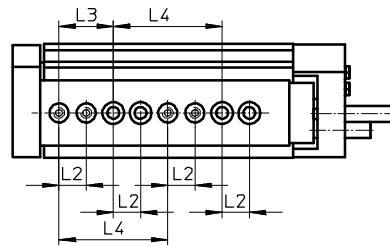
Dimensions

Hole pattern for mounting threads and centring holes

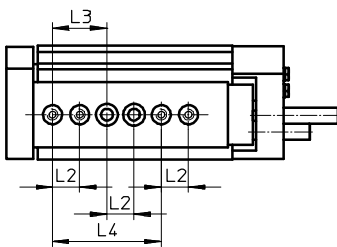
DGSL-8-40



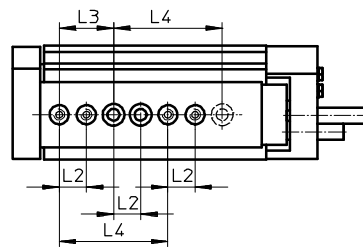
DGSL-8-50/80



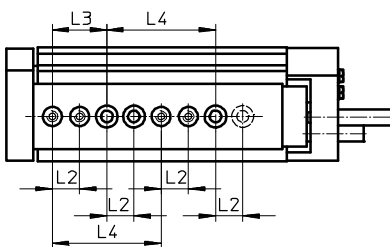
DGSL-10-10



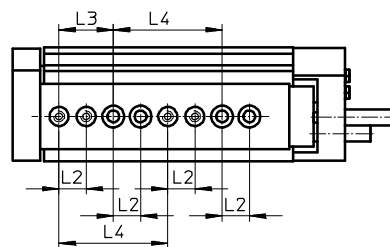
DGSL-10-20



DGSL-10-30

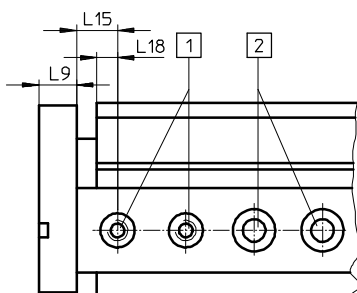


DGSL-10-40 ... 100



Distances from the yoke plate to the mounting threads and centring holes

DGSL-4 ... 10



- 1 Centring holes with thread
- 2 Through-holes for mounting the drive

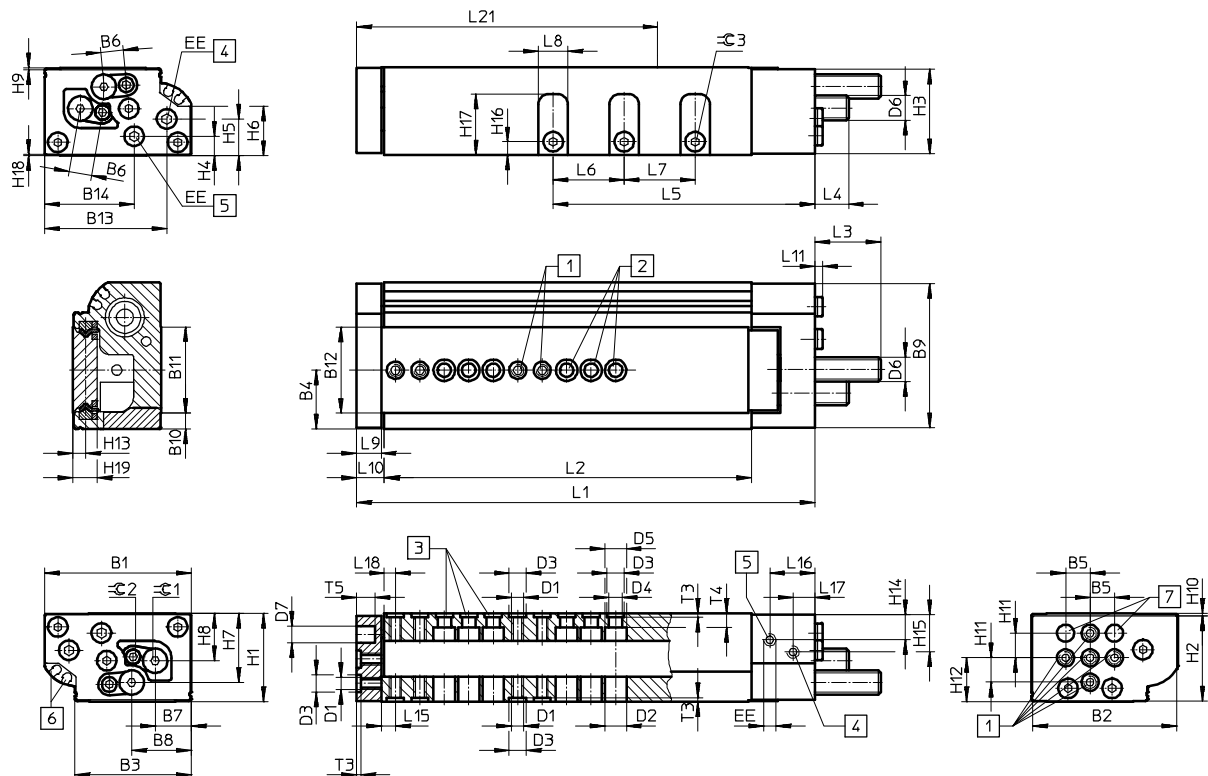
| Size | L2 ¹⁾ | L3 ¹⁾ | L4 ¹⁾ | L9 | L15 ±0.05 | L18 |
|------|------------------|------------------|------------------|-----|--------------|-----|
| 4 | 10 | 20 | 40 | 5.5 | 4 | 3 |
| 6 | | | | 8 | 5.1 | 3.5 |
| 8 | | | | 10 | 7 | 5.5 |
| 10 | 10 | 20 | 40 | 10 | 6.4 | 5 |

1) Tolerance for centring hole ±0.02.
Tolerance for through-hole ±0.1.

Mini slides DGSL

Dimensions

Size 12/16



- 1) Mounting thread (centring sleeves included in the scope of delivery)
- 2) Through-holes for mounting the drive
- 3) Centring holes (centring sleeves included in the scope of delivery)
- 4) Supply port, advancing
- 5) Supply port, retracting
- 6) Slots for proximity sensor SME/SMT-10
- 7) Centring hole
- L10 Distance between outer edge of yoke plate and housing
- L15 Distance between centre of centring hole and outer edge of slide
- L18 Distance between centre of centring hole and outer edge of housing

| Size | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 | B13 | B14 | D1 |
|------|----|----|------|------|----|------|------|------|----|------|-------|------|------|------|----|
| 12 | 60 | 59 | 47.6 | 24 | 10 | 9.2 | 14.7 | 24.3 | 59 | 6.45 | 35.25 | 35.2 | 50 | 36.7 | M5 |
| 16 | 66 | 65 | 53.5 | 26.7 | 10 | 11.1 | 16.7 | 27.5 | 65 | 7.75 | 37.9 | 38 | 50.4 | 36.7 | M5 |

| Size | D2 | D3 | D4 | D5 | D6 | D7 | EE | H1 | H2 | H3 | H4 | H5 | H6 | H7 | H8 |
|------|----|-----------------|-----|----|-------|-----------------|----|-------|------|------|-----|------|-------|------|------|
| | ∅ | ∅ | ∅ | ∅ | | ∅ | | ±0.08 | | | | | | | |
| 12 | 9 | 7 ^{H7} | 5.5 | 9 | M10x1 | 8 ^{H7} | M5 | 36 | 34.8 | 34.7 | 8 | 15.1 | 20.35 | 28.2 | 19.3 |
| 16 | 9 | 7 ^{H7} | 5.5 | 9 | M12x1 | 8 ^{H7} | M5 | 40 | 38 | 39 | 8.5 | 16.7 | 20.6 | 31.7 | 20.8 |

| Size | H9 | H10 | H11 | H12 | H13 | H14 | H15 | H16 | H17 | H18 | H19 | T3 | T4 | T5 | ∅ 2 | ∅ 3 |
|------|-----|------|-----|------|-----|-------|-------|-----|------|-----|------|------|-----|-----|-----|-----|
| | | | | | | | | | | | | +0.1 | | | | |
| 12 | 0.8 | 0.95 | 10 | 17.9 | 5.2 | 10.75 | 15.75 | 5.5 | 24.9 | 0.5 | 10.1 | 1.6 | 5.6 | 7.5 | 3 | 3 |
| 16 | 0.5 | 1.5 | 10 | 20 | 6.4 | 10.5 | 16.7 | 7 | 26.6 | 0.5 | 12.5 | 1.6 | 6.1 | 9 | 4 | 4 |

Dimensions

Download CAD data → www.festo.com

| Size | Stroke | L1 | L2 | L5 | L6 | L7 | L8 | L9 | L10 | L11 | L15 ±0.05 | L16 | L17 | L18 ±0.05 | L21 |
|------|--------|-------|-------|-------|----|----|----|----|------|-----|--------------|------|-----|--------------|-----|
| 12 | 10 | 106.2 | 68.6 | 42.4 | - | - | 12 | 10 | 11.6 | 2.5 | 5.8 | 18.5 | 9 | 4.5 | 44 |
| | 20 | 116.2 | 78.6 | 52.4 | | | | | | | | | | | 49 |
| | 30 | 126.2 | 88.6 | 62.4 | | | | | | | | | | | 54 |
| | 40 | 136.2 | 98.6 | 72.4 | | | | | | | | | | | 59 |
| | 50 | 146.2 | 108.6 | 82.4 | 29 | | | | | | | | | | 64 |
| | 80 | 197.6 | 160 | 112.4 | | | | | | | | | | | 88 |
| | 100 | 217.6 | 180 | 132.4 | | | | | | | | | | | 98 |
| | 150 | 267.6 | 230 | 182.4 | | | | | | | | | | | 29 |
| 16 | 10 | 124.1 | 82.5 | 45 | - | - | 14 | 12 | 13.6 | 2.5 | 6.8 | 21 | 10 | 5.5 | 54 |
| | 20 | 134.6 | 93 | 54.6 | | | | | | | | | | | 59 |
| | 30 | 144.6 | 103 | 64.6 | | | | | | | | | | | 64 |
| | 40 | 154.6 | 113 | 74.6 | | | | | | | | | | | 69 |
| | 50 | 164.6 | 123 | 84.6 | 35 | | | | | | | | | | 74 |
| | 80 | 194.6 | 153 | 114.6 | | | | | | | | | | | 89 |
| | 100 | 243.6 | 202 | 134.6 | | | | | | | | | | | 113 |
| | 150 | 293.6 | 252 | 184.6 | | | | | | | | | | | 138 |

| Size | Cushioning | L3 max. | L4 max. | ≈ 1 | |
|------|------------|------------|------------|----------------------------------------|--------------------------------|
| | | | | For adjusting the cushioning stroke | For adjusting the end position |
| 12 | P | 28.1 | 14.9 | - | 3 |
| | E | 8.8 | 0 | - | 3 |
| | P1 | 26 | 12.8 | 3 | 6 |
| | Y3 | 36.9 | 23.7 | - | 3 |
| | Y11 | 42.2 | 18.7 | - | 2.5 |
| 16 | P | 42.3 | 26.1 | - | 4 |
| | E | 8.8 | 0 | - | 4 |
| | P1 | 40 | 23.8 | 4 | 8 |
| | Y3 | 51.9 | 35.7 | - | 4 |
| | Y11 | 55.4 | 38.9 | - | 3 |

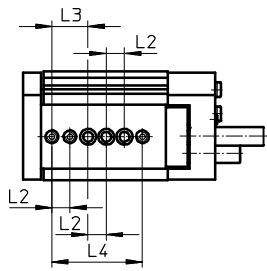
Mini slides DGSL

1

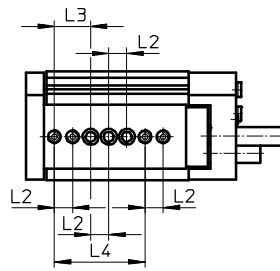
Dimensions

Hole pattern for mounting threads and centring holes

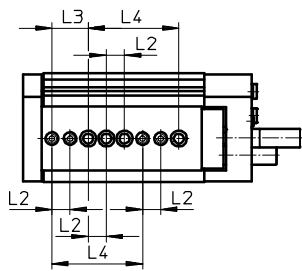
DGSL-12-10



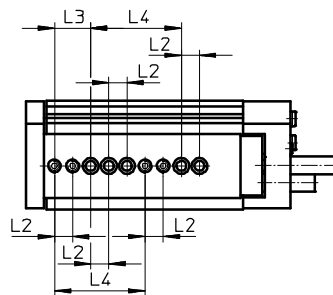
DGSL-12-20



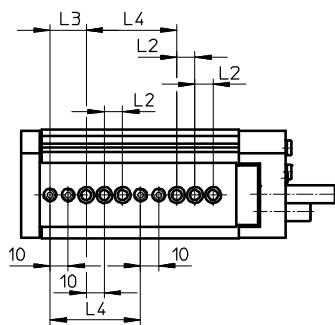
DGSL-12-30



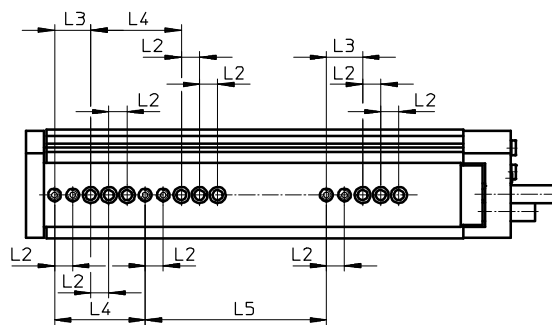
DGSL-12-40



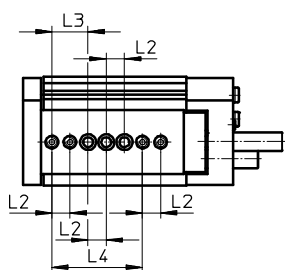
DGSL-12-50 ... 100



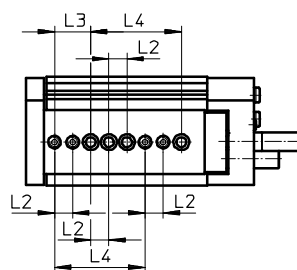
DGSL-12-150



DGSL-16-10



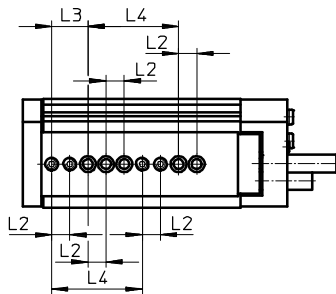
DGSL-16-20



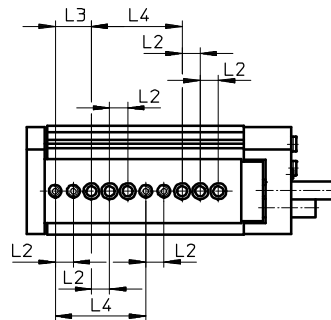
Dimensions

Hole pattern for mounting threads and centring holes

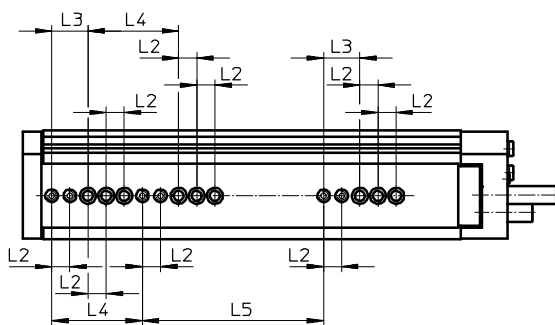
DGSL-16-30



DGSL-16-40 ... 100

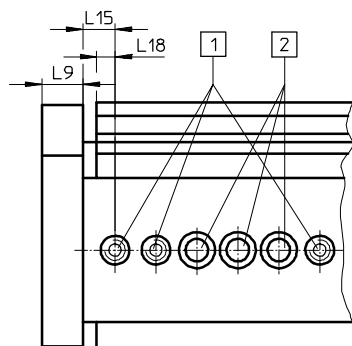


DGSL-16-150



Distances from the yoke plate to the mounting threads and centring holes

DGSL-12/16



- 1 Centring holes with thread
- 2 Through-holes for mounting the drive

| Size | L2 ¹⁾ | L3 ¹⁾ | L4 ¹⁾ | L5 ¹⁾ ±0.03 | L9 | L15 ±0.05 | L18 ±0.05 |
|------|------------------|------------------|------------------|---------------------------|----|--------------|--------------|
| 12 | 10 | 20 | 50 | 100 | 10 | 5.8 | 4.5 |
| 16 | 10 | 20 | 50 | 100 | 12 | 6.8 | 5.5 |

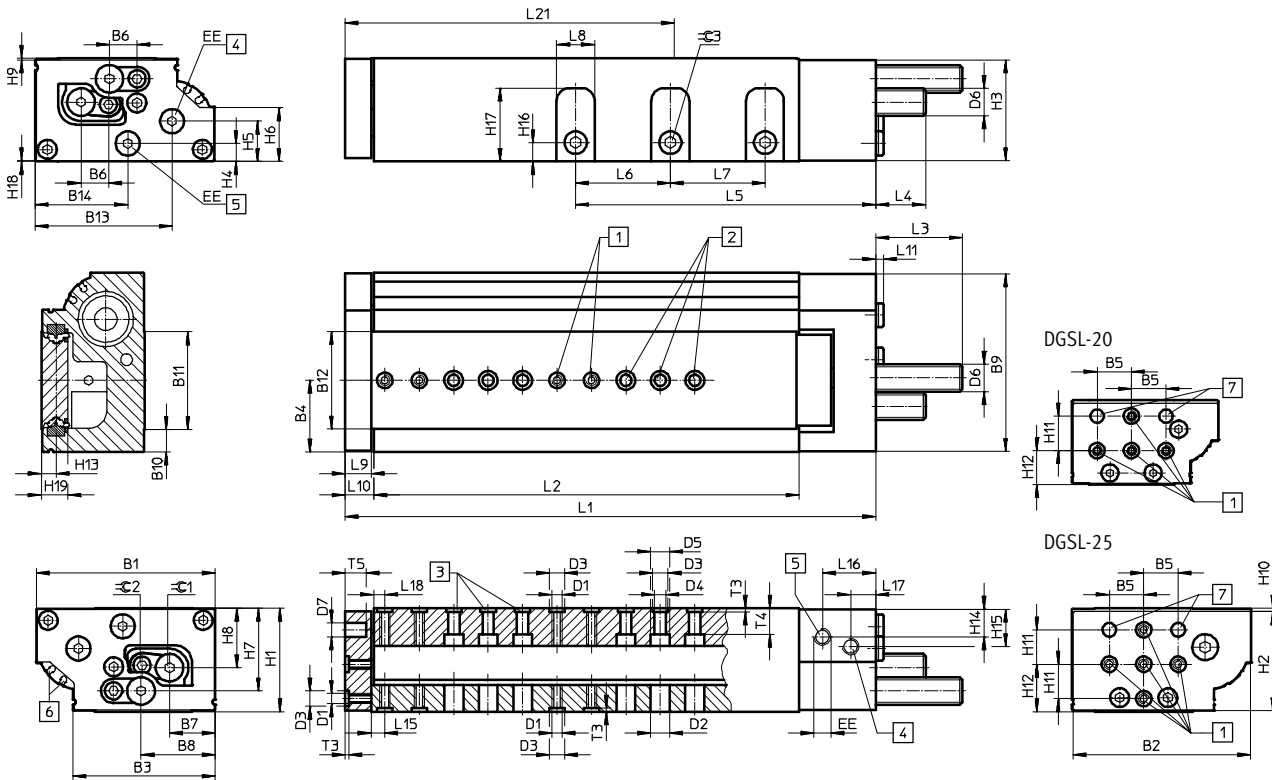
1) Tolerance for centring hole ±0.02.
Tolerance for through-hole ±0.1.

Mini slides DGSL

1

Dimensions

Size 20/25



- 1 Mounting thread (centring sleeves included in the scope of delivery)
- 2 Through-holes for mounting the drive
- 3 Centring holes (centring sleeves included in the scope of delivery)
- 4 Supply port, advancing
- 5 Supply port, retracting
- 6 Slots for proximity sensor SME/SMT-10
- 7 Centring hole
- L10 Distance between outer edge of yoke plate and housing
- L15 Distance between centre of centring hole and outer edge of slide
- L18 Distance between centre of centring hole and outer edge of housing

| Size | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 | B13 | B14 | D1 |
|------|-----|-----|-------|------|----|-------|------|-------|------|-------|------|------|-------|-------|----|
| 20 | 85 | 84 | 68.85 | 34.5 | 20 | 14.15 | 21.4 | 36.35 | 83.4 | 10 | 48.9 | 49.2 | 64.1 | 48.6 | M6 |
| 25 | 104 | 103 | 82.6 | 41.6 | 20 | 16.2 | 26.4 | 43.05 | 103 | 13.25 | 56.5 | 56.7 | 79.35 | 53.65 | M6 |

| Size | D2 | D3 | D4 | D5 | D6 | D7 | EE | H1 | H2 | H3 | H4 | H5 | H6 | H7 | H8 |
|------|------|-----------------|-----|----|-------|-----------------|-------------------------------|-------|------|------|-------|-------|-------|-------|------|
| | ∅ | ∅ | ∅ | ∅ | | ∅ | | ±0.08 | | | | | | | |
| 20 | 11.2 | 9 ^{H7} | 6.6 | 11 | M14x1 | 8 ^{H7} | G ¹ / ₈ | 49 | 46.5 | 47.7 | 10.3 | 20.6 | 23.2 | 38.2 | 26.1 |
| 25 | 11.2 | 9 ^{H7} | 6.6 | 11 | M16x1 | 8 ^{H7} | G ¹ / ₈ | 60 | 57.5 | 58.5 | 10.45 | 23.35 | 31.15 | 47.95 | 34.5 |

| Size | H9 | H10 | H11 | H12 | H13 | H14 | H15 | H16 | H17 | H18 | H19 | T3 | T4 | T5 | ≈ 2 | ≈ 3 |
|------|-----|-----|-----|------|------|-------|------|-----|------|------|------|-----|-----|----|-----|-----|
| 20 | 0.5 | 2 | 20 | 19.6 | 7.55 | 14.7 | 14.7 | 10 | 33.3 | 0.8 | 14.6 | 2.1 | 8.6 | 10 | 4 | 5 |
| 25 | 1 | 2 | 20 | 27.5 | 8.55 | 16.55 | 21.5 | 11 | 42.7 | 0.45 | 15.6 | 2.1 | 15 | 12 | 5 | 6 |

Dimensions

Download CAD data → www.festo.com

| Size | Stroke | L1 | L2 | L5 | L6 | L7 | L8 | L9 | L10 | L11 | L15 ±0.05 | L16 | L17 | L18 ±0.05 | L21 |
|------|--------|-------|-------|-------|----|----|-----|----|------|-----|--------------|------|------|--------------|-----|
| 20 | 10 | 141.2 | 84.6 | 59.1 | - | - | 17 | 14 | 15.6 | 4.6 | 7.8 | 30.5 | 12 | 6.5 | 56 |
| | 20 | 151.2 | 94.6 | 69.1 | | | | | | | | | | | 61 |
| | 30 | 161.2 | 104.6 | 79.1 | | | | | | | | | | | 66 |
| | 40 | 171.2 | 114.6 | 89.1 | | | | | | | | | | | 71 |
| | 50 | 183.2 | 126.6 | 99.1 | | | | | | | | | | | 76 |
| | 80 | 211.2 | 154.6 | 129.1 | | | | | | | | | | | 91 |
| | 100 | 270.2 | 213.6 | 149.1 | 44 | 44 | 121 | | | | | | | | |
| | 150 | 333.2 | 276.6 | 199.1 | | | 152 | | | | | | | | |
| | 200 | 383.2 | 326.6 | 249.1 | | | 177 | | | | | | | | |
| 25 | 10 | 157.1 | 96 | 63.7 | - | - | 22 | 15 | 16.6 | 4.6 | 8 | 32.3 | 14.5 | 6.5 | 64 |
| | 20 | 167.1 | 106 | 72.2 | | | | | | | | | | | 69 |
| | 30 | 177.1 | 116 | 82.2 | | | | | | | | | | | 74 |
| | 40 | 187.1 | 126 | 92.2 | | | | | | | | | | | 79 |
| | 50 | 197.1 | 136 | 102.2 | | | | | | | | | | | 84 |
| | 80 | 253.1 | 192 | 132.2 | | | | | | | | | | | 112 |
| | 100 | 286.1 | 225 | 152.2 | 55 | 55 | 129 | | | | | | | | |
| | 150 | 338.1 | 277 | 202.2 | | | 154 | | | | | | | | |
| | 200 | 388.1 | 327 | 254.2 | | | 179 | | | | | | | | |

| Size | Cushioning | L3 max. | L4 max. | = 1 | |
|------|------------|------------|------------|----------------------------------------|--------------------------------|
| | | | | For adjusting the cushioning stroke | For adjusting the end position |
| 20 | P | 52.4 | 31.2 | - | 4 |
| | E | 8.8 | 0 | - | 4 |
| | P1 | 50.1 | 28.9 | 4 | 8 |
| | Y3 | 55.5 | 34.3 | - | 4 |
| | Y11 | 67.4 | 45.9 | - | 4 |
| 25 | P | 51.9 | 30.5 | - | 5 |
| | E | 8.8 | 0 | - | 5 |
| | P1 | 49.6 | 28.2 | 5 | 10 |
| | Y3 | 65.2 | 43.8 | - | 5 |
| | Y11 | 78.4 | 56.9 | - | 4 |

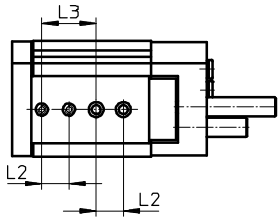
Mini slides DGSL

1

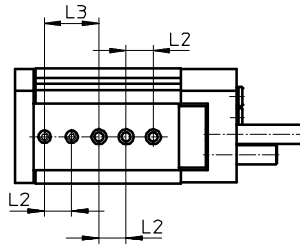
Dimensions

Hole pattern for mounting threads and centring holes

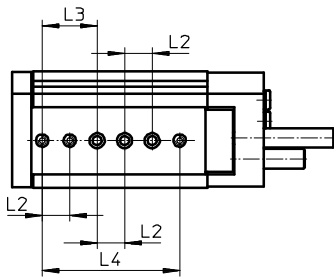
DGSL-20-10/20



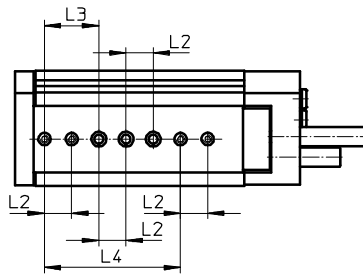
DGSL-20-30/40



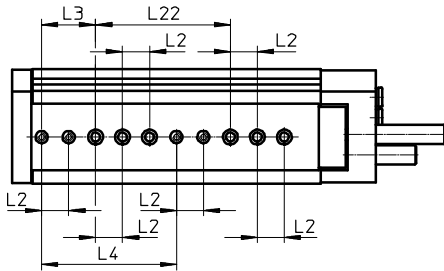
DGSL-20-50



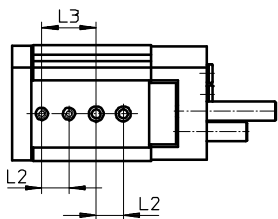
DGSL-20-80



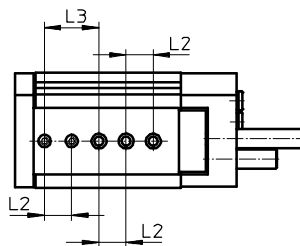
DGSL-20-100 ... 200



DGSL-25-10



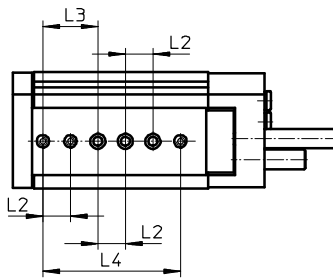
DGSL-25-20



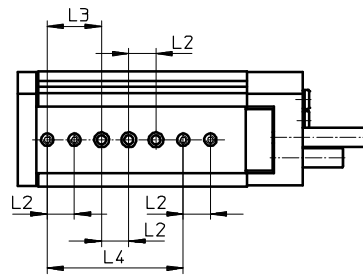
Dimensions

Hole pattern for mounting threads and centring holes

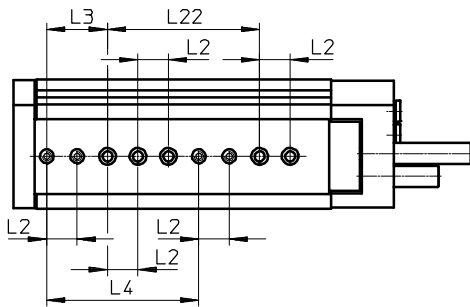
DGSL-25-30/40



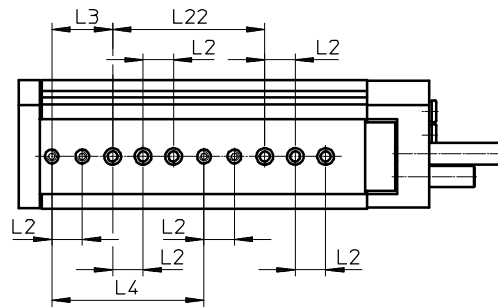
DGSL-25-50



DGSL-25-80

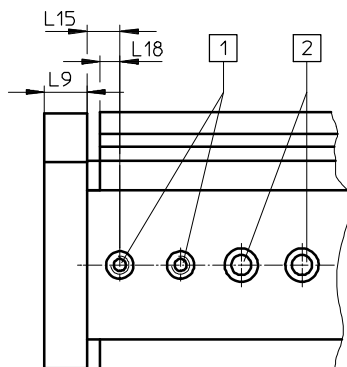


DGSL-25-100 ... 200



Distances from the yoke plate to the mounting threads and centring holes

DGSL-20/25



- 1 Centring holes with thread
- 2 Through-holes for mounting the drive

| Size | L2 ¹⁾ | L3 ¹⁾ | L4 | L9 | L15 ±0.05 | L18 ±0.05 | L22 |
|------|------------------|------------------|-------------------|----|--------------|--------------|-------------------|
| 20 | 20 | 40 | 100 ¹⁾ | 14 | 7.8 | 6.5 | 100±0.03 |
| 25 | 20 | 40 | 100±0.03 | 15 | 8 | 6.5 | 100 ¹⁾ |

1) Tolerance for centring hole ±0.02.
Tolerance for through-hole ±0.1.

Mini slides DGSL

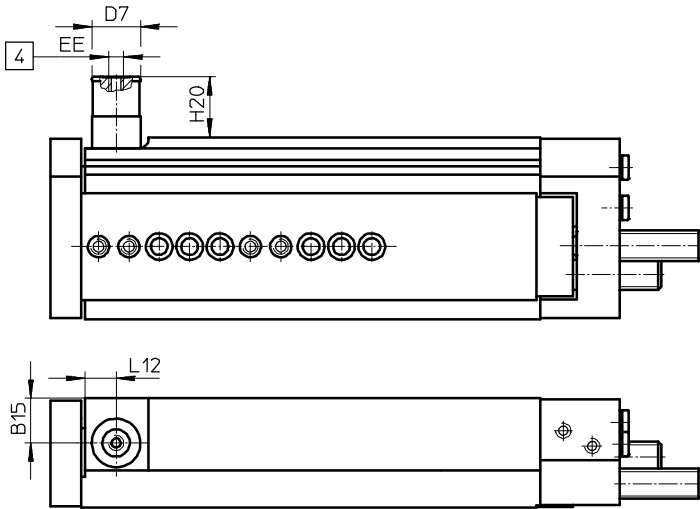
1

Dimensions

Download CAD data → www.festo.com

C – Clamping unit/E3 – End-position locking

4 Supply port



| Size | B15 | D7 Ø | EE | H20 | | L12 |
|------|-------|---------|----|---------------|-------|------|
| | | | | DGSL-... C | E3 | |
| 6 | 7.2 | 12 | M5 | 10.7 | 21.2 | 7.3 |
| 8 | 9.9 | 12 | | 10.5 | 21 | 7.3 |
| 10 | 11.2 | 16 | | 11.8 | 21.2 | 10.5 |
| 12 | 14.8 | 16 | | 10.5 | 19.9 | 10.3 |
| 16 | 14 | 20 | | 27.5 | 30.5 | 13 |
| 20 | 17 | 20 | | 21.3 | 24.3 | 14 |
| 25 | 22.55 | 20 | | 17.75 | 20.65 | 14 |



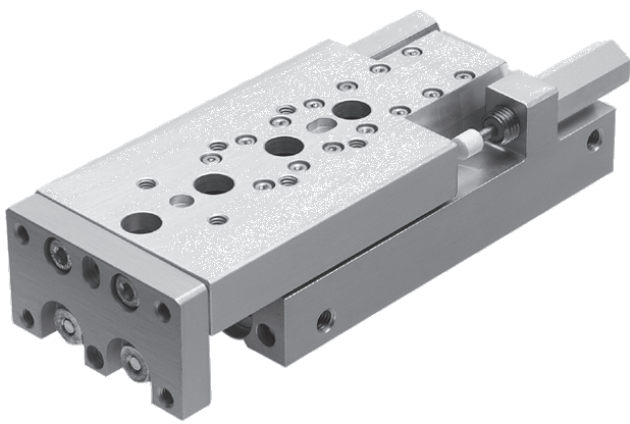
Overview/Configuration/Ordering
→ www.festo.com/catalogue/slt



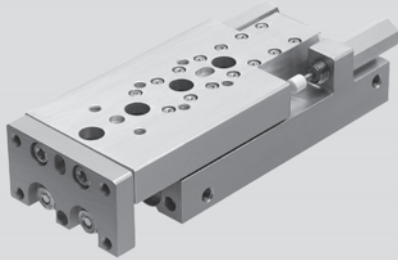
Additional information/Support/User documentation
→ www.festo.com/sp/slt

Drives with guides
Drives with slides
Mini slides

SLT



- + Powerful twin piston drive
- + Ball bearing guide
- + Versatile mounting options
- + Easy adjustment of end positions



- Double-acting drives
- Precise and rigid guide
- Powerful
- Highly adaptable thanks to wide choice of mounting and attachment options
- Spare parts service

→ www.festo.com/catalogue/slt

Product range overview

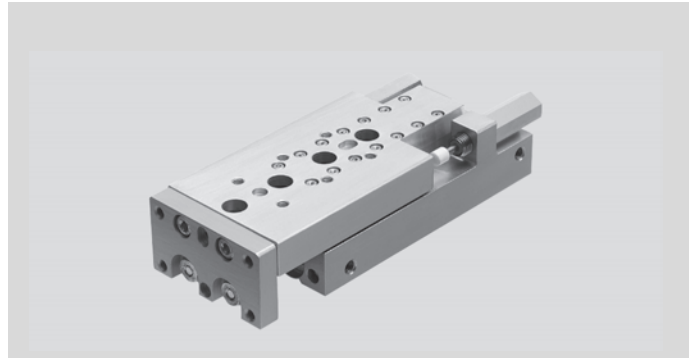
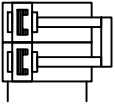
| Type/Function | Size | Stroke [mm] | Force [N] | Product options | | | |
|---------------|----------------|----------------|--------------|-----------------|---|----|---|
| | | | | A | P | CC | B |
| SLT | | | | | | | |
| Double-acting | 6 | 10 ... 200 | 34 ... 590 | ■ | ■ | – | – |
| | 10, 16, 20, 25 | | | ■ | ■ | ■ | ■ |

Product options

| | | | |
|---|------------------------------------|----|---------------------------------------|
| A | Position sensing | CC | Linear, self-adjusting shock absorber |
| P | Elastic cushioning, non-adjustable | B | B series |

Mini slides SLT

Data sheet



| Technical data | | | | | | Dimensions → 320 |
|----------------------------------------|------|---------------------------------------|------------------------|---------------------------------------|--------------------------------------------|--------------------------------------------|
| Size | | 6 | 10 | 16 | 20 | 25 |
| Pneumatic port | | M5 | | | G $\frac{1}{8}$ | |
| Stroke | [mm] | 10, 20, 30, 40, 50 | 10, 20, 30, 40, 50, 80 | 10, 20, 30, 40, 50, 80, 100, 125, 150 | 10, 20, 30, 40, 50, 80, 100, 125, 150, 200 | 10, 20, 30, 40, 50, 80, 100, 125, 150, 200 |
| Cushioning | | | | | | |
| SLT-...-P | | Elastic cushioning, non-adjustable | | | | |
| SLT-...-CC | | – | | | | |
| | | Linear, self-adjusting shock absorber | | | | |
| Theoretical force at 6 bar, advancing | [N] | 34 | 94 | 242 | 376 | 590 |
| Theoretical force at 6 bar, retracting | [N] | 25 | 79 | 218 | 317 | 495 |

| Operating conditions | | | | | | |
|-----------------------------------|-------|-------------|----|----------|----|----|
| Size | | 6 | 10 | 16 | 20 | 25 |
| Min. operating pressure | [bar] | 1.5 ... 10 | | 1 ... 10 | | |
| Ambient temperature ¹⁾ | [°] | –20 ... +60 | | | | |

1) Note operating range of proximity sensors.

| Materials | |
|------------|----------------------------|
| Housing | Wrought aluminium alloy |
| End cap | Wrought aluminium alloy |
| Guide rail | Tempered steel |
| Piston rod | High-alloy stainless steel |
| Seals | HNBR |

Order code – With cushioning P: elastic cushioning

| | | | | | | | | | | |
|-------------------------|--------------------------------------------|-----|---|--|---|--|---|---|---|---|
| | | SLT | - | | - | | - | P | - | A |
| Type | | | | | | | | | | |
| SLT | Mini slide | | | | | | | | | |
| Size | | | | | | | | | | |
| | Stroke [mm] | | | | | | | | | |
| 6 | 10, 20, 30, 40, 50 | | | | | | | | | |
| 10 | 10, 20, 30, 40, 50, 80 | | | | | | | | | |
| 16 | 10, 20, 30, 40, 50, 80, 100, 125, 150 | | | | | | | | | |
| 20 | 10, 20, 30, 40, 50, 80, 100, 125, 150, 200 | | | | | | | | | |
| 25 | 10, 20, 30, 40, 50, 80, 100, 125, 150, 200 | | | | | | | | | |
| Cushioning | | | | | | | | | | |
| P | Elastic cushioning, non-adjustable | | | | | | | | | |
| Position sensing | | | | | | | | | | |
| A | Via proximity sensor | | | | | | | | | |

Order code – With cushioning CC: self-adjusting shock absorber

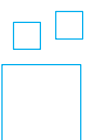
| | | | | | | | | | | | | |
|-------------------------|---------------------------------------|-----|---|--|---|--|---|---|---|----|---|---|
| | | SLT | - | | - | | - | A | - | CC | - | B |
| Type | | | | | | | | | | | | |
| SLT | Mini slide | | | | | | | | | | | |
| Size | | | | | | | | | | | | |
| | Stroke [mm] | | | | | | | | | | | |
| 10 | 30, 40, 50, 80 | | | | | | | | | | | |
| 16 | 30, 40, 50, 80, 100, 125, 150 | | | | | | | | | | | |
| 20 | 30, 40, 50, 80, 100, 125, 150, 200 | | | | | | | | | | | |
| 25 | 30, 40, 50, 80, 100, 125, 150, 200 | | | | | | | | | | | |
| Position sensing | | | | | | | | | | | | |
| A | Via proximity sensor | | | | | | | | | | | |
| Cushioning | | | | | | | | | | | | |
| CC | Linear, self-adjusting shock absorber | | | | | | | | | | | |
| Version | | | | | | | | | | | | |
| B | B series | | | | | | | | | | | |

Order example:

SLT-20-150-A-CC-B

Mini slide SLT - size 20 - stroke 150 mm - position sensing via proximity sensor - linear, self-adjusting shock absorber - B series

Ordering – Product options



Configurable product

This product and all its options can be ordered using the configurator.

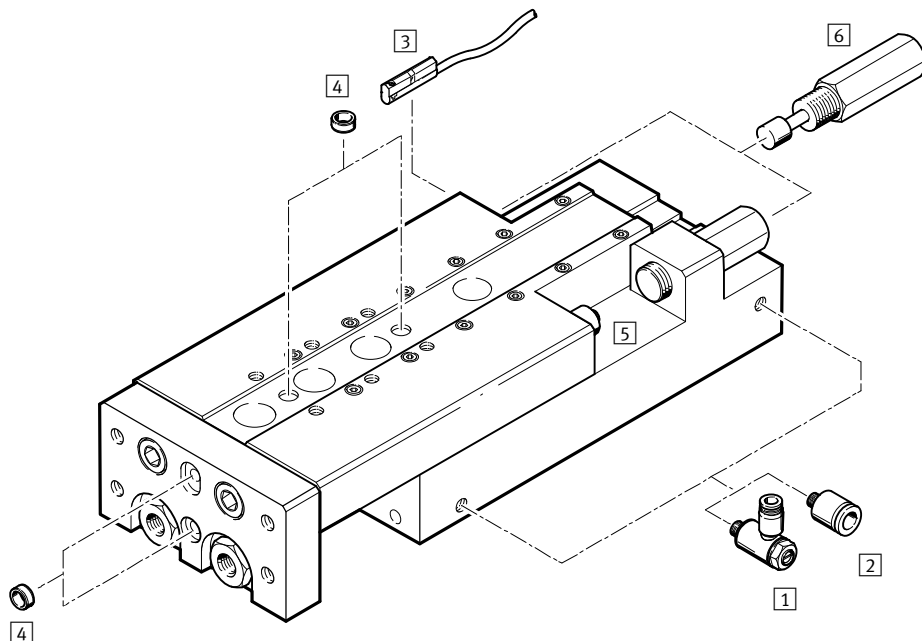
The configurator can be found under Products on the DVD or

→ www.festo.com/catalogue/...

Enter the type code in the search field.

Mini slide SLT

Accessories



Note
End stops must not be removed.

| | | → Page/online |
|---|--------------------------------------|---------------|
| 1 | One-way flow control valve GRLA | 319 |
| 2 | Push-in fitting QS | 1098 |
| 3 | Proximity sensor SME-/SMT-10 | 319 |
| 4 | Centring pin ZBS/centring sleeve ZBH | 319 |
| 5 | Cushioning with stop PF | 319 |

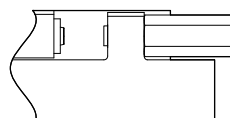
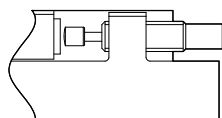
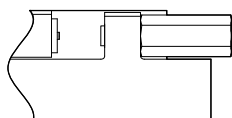
| | | → Page/online |
|---|-------------------------------------|---------------------|
| 6 | Cushioning with shock absorber YSRT | 317 |
| - | Cushioning P | 317 |
| - | Connecting cable NEBU | 319 |
| - | Drive/drive connections | slt |
| - | Drive/gripper connections | slt |

Cushioning variants


5 SLT...-P-A
with cushioning PF
Precision metal stop for small loads at low speed. At an operating pressure > 3 bar, the stop ensures precise, metal-to-metal contact. The stop can be retrofitted.

6 SLT...-CC-B
with cushioning YSRT
For large loads and high speed. Ensures precise, metal-to-metal contact after the cushioning.

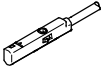
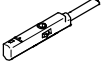

- SLT...-P-A
with cushioning P
Standard version with elastic cushioning components. Low-cost, no metal-to-metal contact.





Accessories – Ordering data

| | Connection | | Part no. | Type | |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------|----------|--------|-----------------------------|
| | Thread | O.D. | | | |
| 1 | One-way flow control valve with slotted head screw, metal¹⁾ for exhaust air flow control | | | | Technical data → 758 |
|  | M5 | 3 | ★ | 193137 | GRLA-M5-QS-3-D |
| | | 4 | ★ | 193138 | GRLA-M5-QS-4-D |
| | G ¹ / ₈ | 4 | ★ | 193143 | GRLA-1/8-QS-4-D |
| | | 6 | ★ | 193144 | GRLA-1/8-QS-6-D |



1) The recommended flow control valves are based on a tubing length to the valve of 1 m. For deviations of ±50%, flow control valves with a bigger or smaller flow rate must be selected to guarantee the optimum flow control function and cylinder speed.

| | For size | Cable length [m] | Part no. | Type | |
|------------------------------------------------------------------------------------|------------|------------------|----------|--------|-----------------------------------------------------------------------|
| | | | | | 3 Proximity sensor for C-slot, magneto-resistive – N/O contact |
|  | PNP, cable | 2.5 | ★ | 551373 | SMT-10M-PS-24V-E-2,5-L-OE |
| | PNP, plug | 0.3 | ★ | 551375 | SMT-10M-PS-24V-E-0,3-L-M8D |
| | PNP, plug | 0.3 | ★ | 551376 | SMT-10M-PS-24V-E-0,3-Q-M8D |
| Magnetic reed – N/O contact | | | | | Technical data → 892 |
|  | Plug | 0.3 | ★ | 551367 | SME-10M-DS-24V-E-0,3-L-M8D |
| | Cable | 2.5 | ★ | 551365 | SME-10M-DS-24V-E-2,5-L-OE |
| | Cable | 2.5 | ★ | 551369 | SME-10M-ZS-24V-E-2,5-L-OE |
|  | Plug | 0.3 | | 173212 | SME-10-SL-LED-24 |
| | Cable | 2.5 | | 173210 | SME-10-KL-LED-24 |

| | For size | Housing | | Slide | | Yoke | | |
|-------------------------------------------------------------------------------------|--------------------------------------------------|----------|-----------|----------|--------|----------|--------|-------------------------------------|
| | | Part no. | Type | Part no. | Type | Part no. | Type | |
| 4 | Centring pin/sleeve²⁾ | | | | | | | Technical data online: → zbh |
|  | 6 | 189652 | ZBH-5 | 189652 | ZBH-5 | 525273 | ZBS-02 | |
| | 10 | 186717 | ZBH-7 | 189652 | ZBH-5 | 189652 | ZBH-5 | |
| | 16 | 150927 | ZBH-9 | 189652 | ZBH-5 | 186717 | ZBH-7 | |
| | 20 | 189653 | ZBH-12 | 150927 | ZBH-9 | 150927 | ZBH-9 | |
| | 25 | 189653 | ZBH-12 | 189653 | ZBH-12 | 189653 | ZBH-12 | |
| 5 | Stop, metal for SLT-....-P-A³⁾ | | | | | | | |
|  | 6 | 539278 | PF-06-SLT | – | | – | | |
| | 10 | 539279 | PF-10-SLT | – | | – | | |
| | 16 | 539280 | PF-16-SLT | – | | – | | |
| | 20 | 539281 | PF-20-SLT | – | | – | | |
| | 25 | 539282 | PF-25-SLT | – | | – | | |

2) Packaging unit 10 pieces.

3) Packaging unit 2 piece.

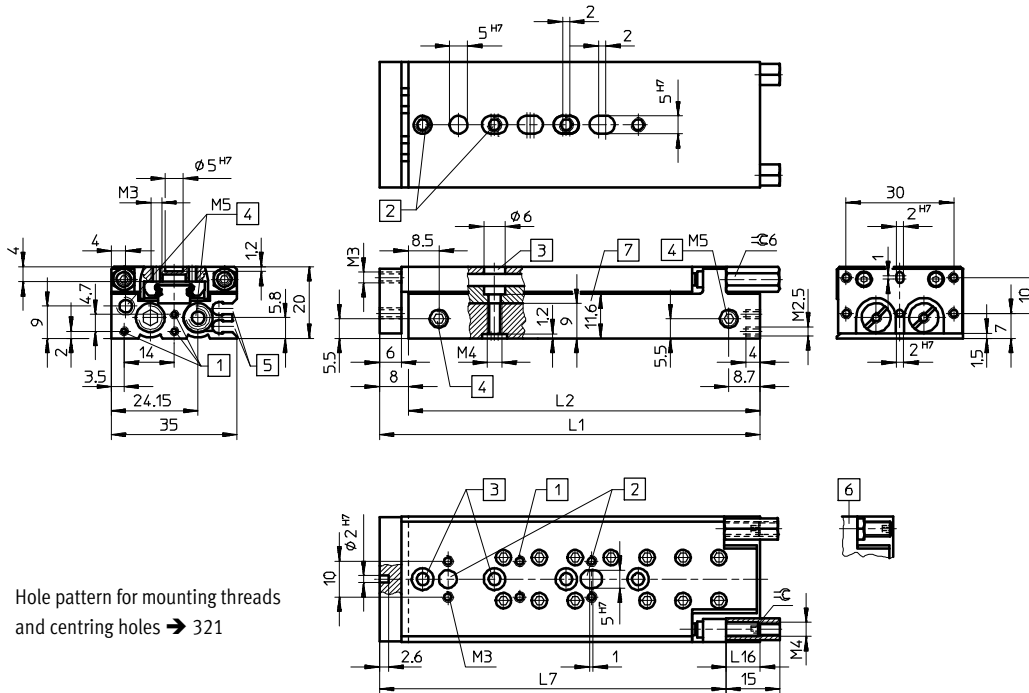
| | Cable length [m] | Part no. | Type | |
|-------------------------------------------------------------------------------------|------------------|----------|--------|------------------------------------------|
| | | | | Connecting cable, straight socket |
|  | 2.5 | ★ | 541333 | NEBU-M8G3-K-2.5-LE3 |
| | 5.0 | ★ | 541334 | NEBU-M8G3-K-5-LE3 |
| Angled socket | | | | |
|  | 2.5 | ★ | 541338 | NEBU-M8W3-K-2.5-LE3 |
| | 5.0 | ★ | 541341 | NEBU-M8W3-K-5-LE3 |

Mini slides SLT

1

Dimensions

Size 6



Hole pattern for mounting threads and centring holes → 321

- 1) Mounting thread
- 2) Centring holes (centring sleeves included in the scope of delivery)
- 3) Through-holes for mounting the drive
- 4) Supply ports
- 5) Slots for proximity sensor SME/SMT-10
- 6) Flat lock nuts are supplied loose
- 7) Through-hole length for mounting screws

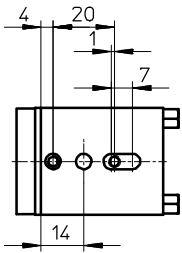
| ∅ | Stroke | L1 | L2 | L7 | L16 | ☞ |
|------|--------|-----|----|----|-----|----|
| [mm] | [mm] | | | | 1) | 1) |
| 6 | 10 | 48 | 40 | 38 | 14 | 2 |
| | 20 | 58 | 50 | 48 | | |
| | 30 | 68 | 60 | 58 | | |
| | 40 | 85 | 77 | 75 | | |
| | 50 | 106 | 98 | 96 | | |

1) With elastic cushioning.

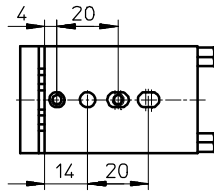
Dimensions

Hole pattern for mounting threads and centring holes

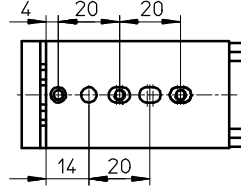
SLT-6-10



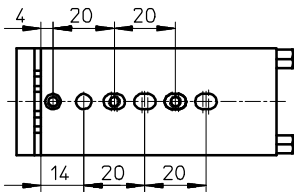
SLT-6-20



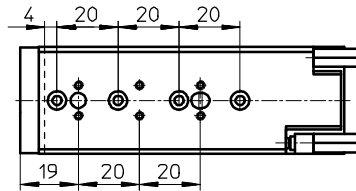
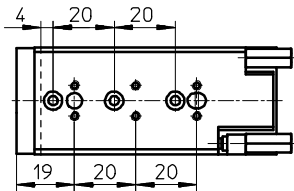
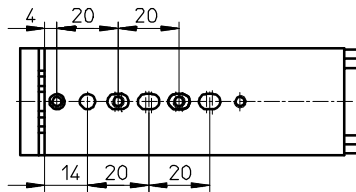
SLT-6-30



SLT-6-40



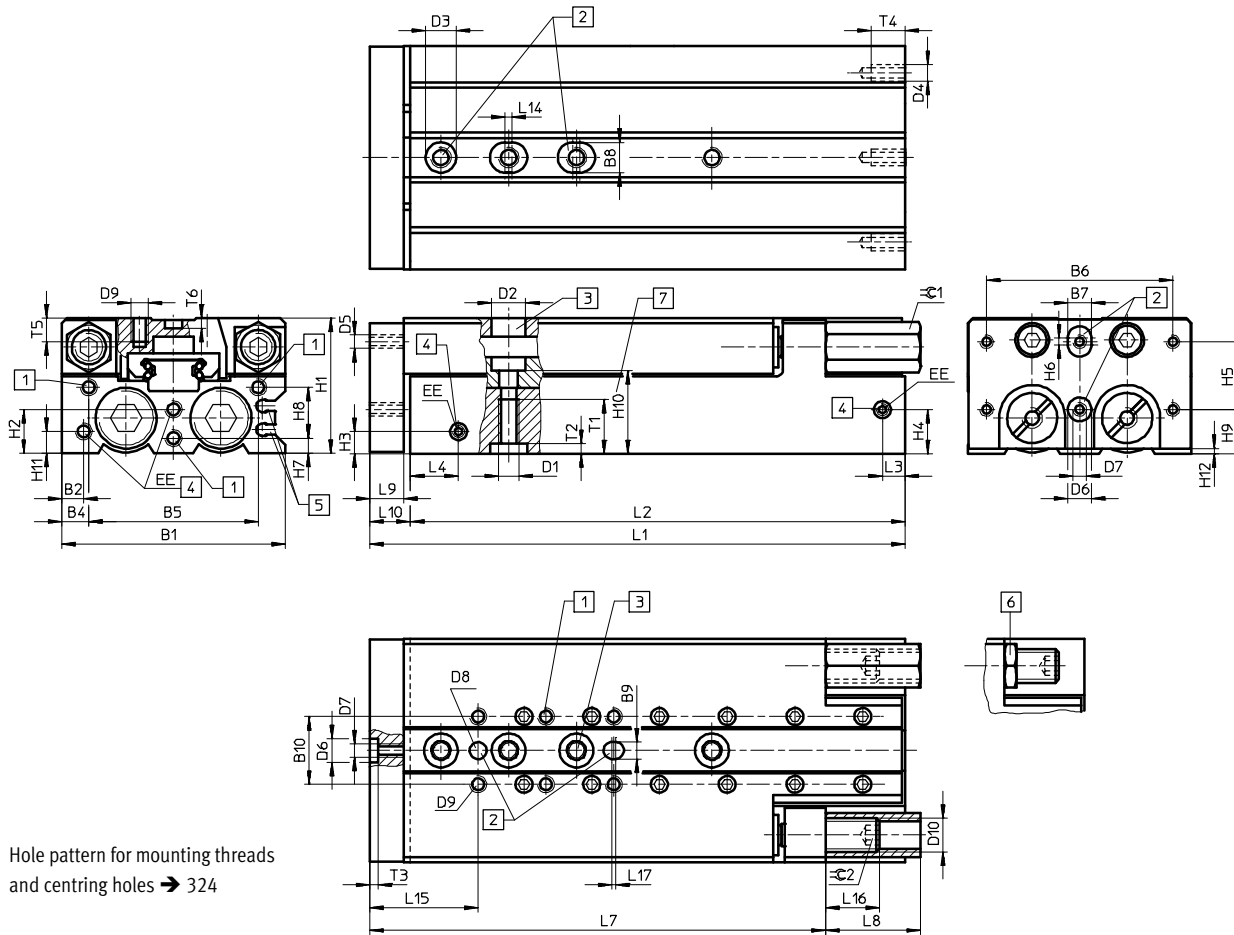
SLT-6-50



Mini slides SLT

Dimensions

Size 10 ... 25



Hole pattern for mounting threads and centring holes → 324

- 1 Mounting thread
- 2 Centring holes (centring sleeves included in the scope of delivery)
- 3 Through-holes for mounting the drive
- 4 Supply ports
- 5 Slots for proximity sensor SME/SMT-10
- 6 Flat lock nuts are supplied loose
- 7 Through-hole length for mounting screws

| ∅ | B1 | B2 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | D1 | D2 | D3 | D4 | D5 | D6 | D7 |
|------|-----|-----|----|----|----|----|----|----|-----|-----|----|----|----|----|----|----|
| [mm] | | | | | | H7 | H7 | H7 | | | ∅ | ∅ | | | ∅ | |
| 10 | 50 | 5.5 | 10 | 30 | 40 | 5 | 7 | 5 | 20 | M5 | 8 | 7 | M3 | M4 | 5 | M3 |
| 16 | 66 | 6.5 | 8 | 50 | 55 | 7 | 9 | | | M6 | 10 | 9 | M5 | M5 | 7 | M4 |
| 20 | 85 | 7 | 15 | 55 | 70 | 9 | 12 | 9 | 40 | M 8 | 11 | 12 | | | 9 | M5 |
| 25 | 104 | 8 | 12 | 80 | 80 | 12 | | 12 | | | | | M6 | M6 | 12 | M6 |

| ∅ | D8 | D9 | D10 | EE | H1 | H2 | H3 | H4 | H5 | H6 | H7 | H8 | H9 | H10 | H11 | H12 |
|------|----|----|-------|-------------------------------|----|------|-----|------|----|----|-----|----|----|-------|-----|-----|
| [mm] | ∅ | | | | | | | | | | | | | | | |
| 10 | 5 | M4 | M8x1 | M5 | 30 | 9.4 | 5.5 | 11 | 20 | 2 | 4 | 10 | 5 | 15.15 | 5.5 | 1.5 |
| 16 | | M5 | M10x1 | | 40 | 13 | 6.5 | 13 | | | 4.5 | 15 | 13 | 20 | 6.5 | |
| 20 | 9 | | M12x1 | G ¹ / ₈ | 49 | 19.5 | 9 | 19.7 | | | 6 | 19 | 16 | 30.5 | 9 | 2.5 |
| 25 | 12 | M6 | M16x1 | | 60 | 21 | 10 | 21 | 40 | | 5 | 25 | 10 | 34.5 | 10 | 1.5 |

Dimensions

Download CAD data → www.festo.com

| ∅ | Stroke | L1 | L2 | L3 | L4 | L7 | L8 | L9 | L10 | L14 | L15 |
|------|--------|-----|-----|------|------|------|-----|----|-----|------|-----|
| [mm] | [mm] | | | | | | | | | Min. | |
| 10 | 10 | 72 | 62 | 7 | 11.7 | 62.5 | 15 | 8 | 10 | 2 | 25 |
| | 20 | | | | | | | | | | |
| | 30 | 82 | 72 | | | | | | | | |
| | 40 | 92 | 82 | | | | | | | | |
| | 50 | 112 | 102 | | | | | | | | |
| | 80 | 162 | 152 | | | | | | | | |
| 16 | 10 | 80 | 68 | 6.7 | 14.2 | 63.5 | 22 | 10 | 12 | 2 | 32 |
| | 20 | | | | | | | | | | |
| | 30 | 87 | 75 | | | | | | | | |
| | 40 | 97 | 85 | | | | | | | | |
| | 50 | 112 | 100 | | | | | | | | |
| | 80 | 158 | 146 | | | | | | | | |
| | 100 | 199 | 187 | | | | | | | | |
| | 125 | 257 | 245 | | | | | | | | |
| | 150 | 282 | 270 | | | | | | | | |
| 20 | 10 | 97 | 85 | 11.5 | 15.2 | 74 | 28 | 10 | 12 | 2 | 25 |
| | 20 | | | | | | | | | | |
| | 30 | 107 | 95 | | | | | | | | |
| | 40 | | | | | | | | | | |
| | 50 | | | | | 122 | 110 | | | | |
| | 80 | | | | | 167 | 155 | | | | |
| | 100 | 203 | 191 | | | | | | | | |
| | 125 | 262 | 250 | | | | | | | | |
| | 150 | 302 | 290 | | | | | | | | |
| | 200 | 377 | 365 | | | | | | | | |
| 25 | 10 | 108 | 94 | 10.7 | 18.7 | 88.5 | 25 | 12 | 14 | 2 | 30 |
| | 20 | | | | | | | | | | |
| | 30 | 118 | 104 | | | | | | | | |
| | 40 | | | | | | | | | | |
| | 50 | | | | | 131 | 117 | | | | |
| | 80 | | | | | 177 | 163 | | | | |
| | 100 | 210 | 196 | | | | | | | | |
| | 125 | 264 | 250 | | | | | | | | |
| | 150 | 304 | 290 | | | | | | | | |
| | 200 | 379 | 365 | | | | | | | | |

| ∅ | L16 | | L17 | T1 | T2 | T3 | T4 | T5 | T6 | ≈C 1 | ≈C 2 | |
|------|------|------|------|----|-----|-----|----|----|-----|------|------|----|
| [mm] | 1) | 2) | Min. | | | | | | | | 1) | 2) |
| 10 | 21.7 | 8 | 1 | 12 | 1.5 | 1.3 | 7 | 8 | 1.2 | 10 | 2.5 | 4 |
| 16 | 23.5 | 16 | | 16 | 2.1 | 1.6 | 10 | 7 | | 13 | 3 | 5 |
| 20 | 34 | 17.5 | | 20 | 2.6 | 2.1 | | 10 | 10 | 2.1 | 15 | 4 |
| 25 | 49.5 | 18 | | | | 2.6 | 12 | 11 | 2.6 | 19 | 5 | 8 |

1) With hydraulic shock absorbers.

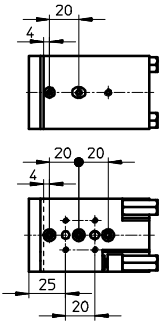
2) With elastic cushioning.

Mini slides SLT

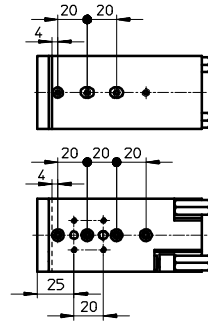
Dimensions

Hole pattern for mounting threads and centring holes

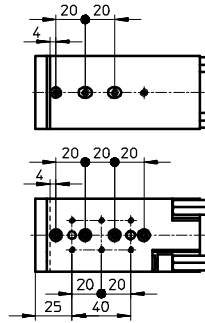
SLT-10-10 ... 30



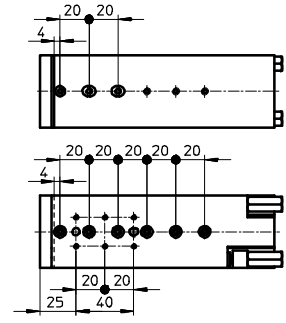
SLT-10-40



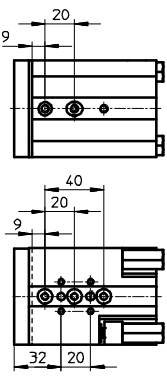
SLT-10-50



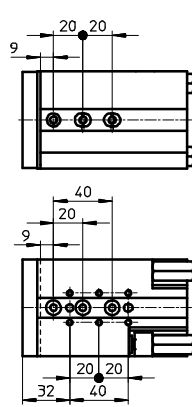
SLT-10-80



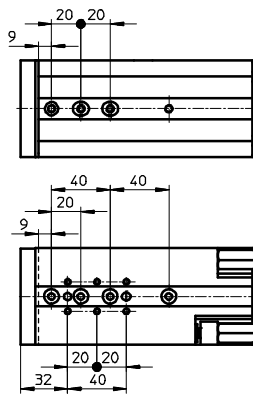
SLT-16-10 ... 40



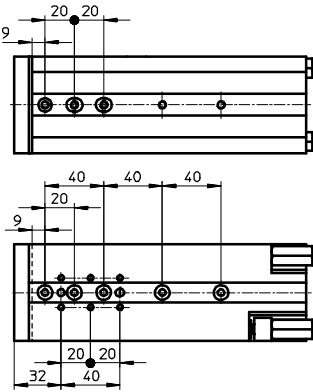
SLT-16-50



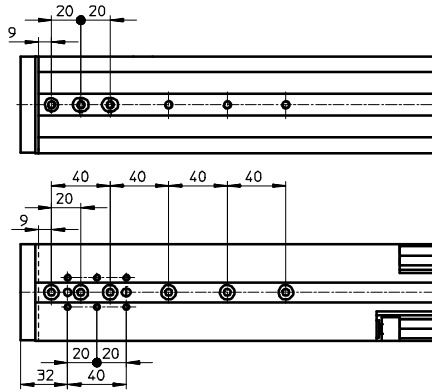
SLT-16-80



SLT-16-100



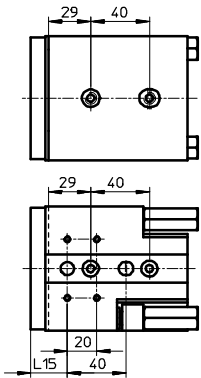
SLT-16-125/-150



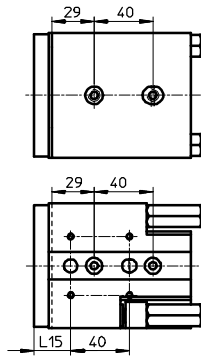
Dimensions

Hole pattern for mounting threads and centring holes

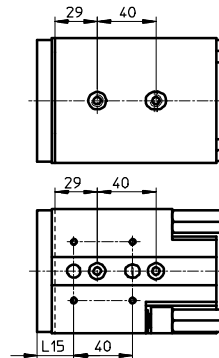
SLT-20-10 ... 40



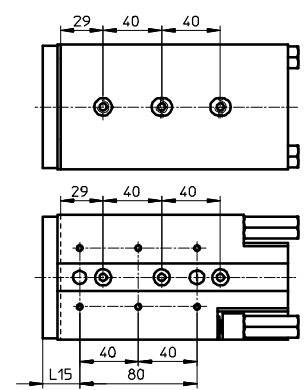
SLT-25-10 ... 40



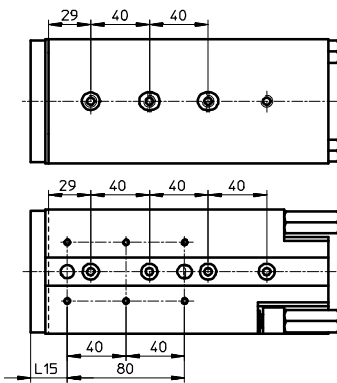
SLT-20/-25-50



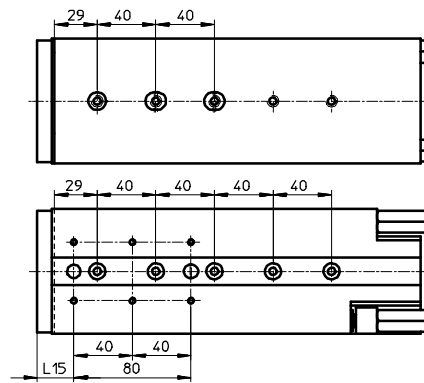
SLT-20/-25-80



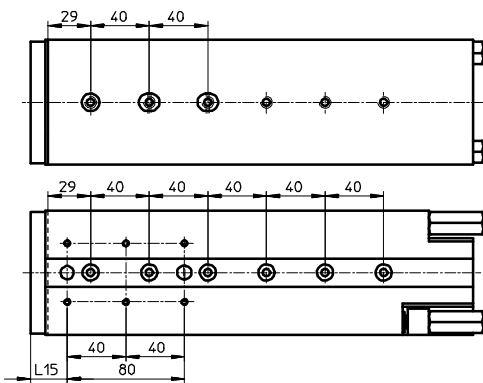
SLT-20/-25-100



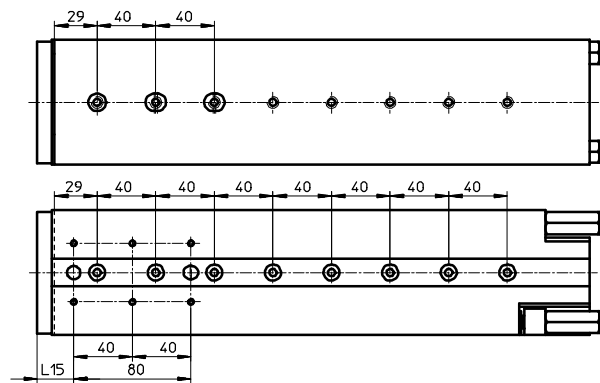
SLT-20/-25-125



SLT-20/-25-150



SLT-20/-25-200





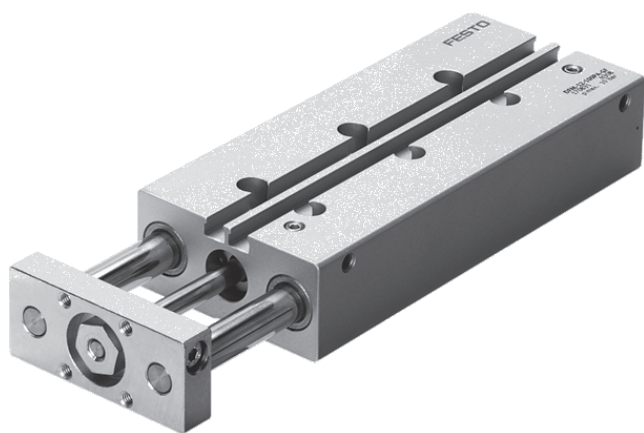
Overview/Configuration/Ordering
→ www.festo.com/catalogue/dfm



Additional information/Support/User documentation
→ www.festo.com/sp/dfm

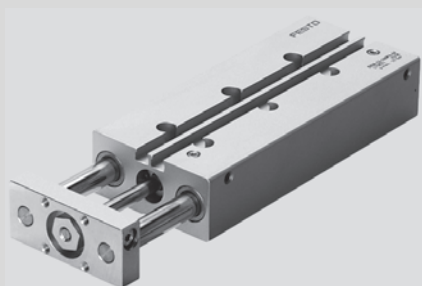
Drives with guides
Drives with guide rods
Guided drives

DFM



- + Drive and guide unit in a single housing
- + Plain or recirculating ball bearing guide
- + High resistance to torques and lateral forces
- + Wide range of mounting options
- + Wide range of variants

Guided drives DFM



- Sturdy and precise
- Optional with plain-bearing or recirculating ball bearing guide
- High resistance to torques and lateral forces
- Wide range of applications
- Spare parts service
- ★ Quick ordering of basic designs → 330

→ www.festo.com/catalogue/dfm

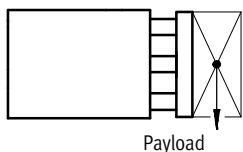
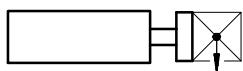
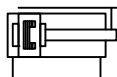
Product range overview

| Type/function | Piston [mm] | Stroke [mm] | Force [N] | Product options | |
|---------------|------------------------------------------------------|-------------|-------------|-----------------|---|
| | | | | P | A |
| Double-acting | DFM-...-GF – Plain-bearing guide | | | | |
| | 12, 16, 20, 25, 32, 40, 50, 63, 80, 100 | 10 ... 200 | 68 ... 4712 | ■ | ■ |
| | DFM-...-KF – Recirculating ball bearing guide | | | | |
| | 12, 16, 20, 25, 32, 40, 50, 63, 80, 100 | 10 ... 200 | 68 ... 4712 | ■ | ■ |

Product options

- P Elastic cushioning rings/plates at both ends A Position sensing

Data sheet



| Technical data | | | | | Dimensions → 334 |
|--------------------------------------------|------------------------------------------------------------------------------|---------------|------------|--------------|------------------|
| Piston Ø | 12 | 16 | 20 | 25 | 32 |
| Pneumatic port | M5 | M5 | M5 | G1/8 | G1/8 |
| Stroke [mm] | 10 ... 100 | | 20 ... 100 | | 20 ... 200 |
| Cushioning | Elastic cushioning rings/pads at both ends | | | | |
| Theoretical force at 6 bar, advancing [N] | 68 | 121 | 188 | 295 | 482 |
| Theoretical force at 6 bar, retracting [N] | 51 | 90 | 141 | 247 | 415 |
| Max. effective load ¹⁾ [N] | 19 ... 28 | 24 ... 73 | 35 ... 110 | 84 ... 123 | 112 ... 188 |
| Torque load ¹⁾ [Nm] | 0.38 ... 0.65 | 0.55 ... 1.68 | 1.01 ... 3 | 2.85 ... 4.2 | 4.25 ... 7.3 |
| Protection against rotation | Guide rods with yoke, with plain-bearing or recirculating ball bearing guide | | | | |

| | | | | | |
|--------------------------------------------|------------------------------------------------------------------------------|----------------|-----------------|-----------------|-----------------|
| Piston Ø | 40 | 50 | 63 | 80 | 100 |
| Pneumatic port | G1/8 | G1/4 | G1/4 | G3/8 | G3/8 |
| Stroke [mm] | 25 ... 200 | | | | |
| Cushioning | Elastic cushioning rings/plates at both ends | | | | |
| Theoretical force at 6 bar, advancing [N] | 754 | 1178 | 1870 | 3016 | 4712 |
| Theoretical force at 6 bar, retracting [N] | 686 | 1057 | 1750 | 2827 | 4418 |
| Max. effective load ¹⁾ [N] | 109 ... 180 | 168 ... 257 | 168 ... 257 | 220 ... 352 | 332 ... 568 |
| Torque load ¹⁾ [Nm] | 4.80 ... 7.90 | 9.30 ... 14.15 | 10.50 ... 15.90 | 17.10 ... 27.20 | 25.70 ... 53.40 |
| Protection against rotation | Guide rods with yoke, with plain-bearing or recirculating ball bearing guide | | | | |

1) Dependent on stroke.

Data sheet

| Operating conditions | | | | | | | | | | | |
|-----------------------------------|-------|-------------|----|----|------------|----|----|----------|----|------------|-----|
| Piston Ø | | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
| Operating pressure | [bar] | 2 ... 10 | | | 1.5 ... 10 | | | 1 ... 10 | | 0.5 ... 10 | |
| Ambient temperature ¹⁾ | | | | | | | | | | | |
| DFM-...-GF | [°C] | -20 ... +80 | | | | | | | | | |
| DFM-...-KF | [°C] | -5 ... +60 | | | | | | | | | |

1) Note operating range of proximity sensors.

| Materials | |
|------------|----------------------------|
| Piston rod | High-alloy stainless steel |
| Housing | Wrought aluminium alloy |
| End cap | Wrought aluminium alloy |
| Yoke plate | Galvanized steel |
| Seals | Nitrile rubber |

Order code




| | | | | | | | | | | | | |
|-------------------------|--------------------------------------------|------------|---|--|---|--|---|---|---|---|---|--|
| | | DFM | - | | - | | - | P | - | A | - | |
| Type | | | | | | | | | | | | |
| DFM | Double-acting guided drive | | | | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | | | | |
| | Stroke [mm] | | | | | | | | | | | |
| 12, 16 | 10, 20, 25, 30, 40, 50, 80, 100 | 10 ... 100 | | | | | | | | | | |
| 20, 25 | 20, 25, 30, 40, 50, 80, 100 | 20 ... 100 | | | | | | | | | | |
| 32 | 20, 25, 30, 40, 50, 80, 100, 125, 160, 200 | 20 ... 200 | | | | | | | | | | |
| 40, 50, 63, 80, 100 | 25, 50, 80, 100, 125, 160, 200 | 25 ... 200 | | | | | | | | | | |
| Cushioning | | | | | | | | | | | | |
| P | Elastic cushioning rings/pads at both ends | | | | | | | | | | | |
| Position sensing | | | | | | | | | | | | |
| A | Via proximity sensor | | | | | | | | | | | |
| Guidance | | | | | | | | | | | | |
| GF | Plain-bearing guide | | | | | | | | | | | |
| KF | Recirculating ball bearing guide | | | | | | | | | | | |

Order example:

DFM-12-10-P-A-GF

Double-acting guided drive DFM - piston diameter 12 mm - stroke 10 mm - elastic cushioning rings/plates at both ends - position sensing via proximity sensor - plain-bearing guide

Ordering – Product options

| | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
|    | <p>Configurable product</p> | <p>This product and all its options can be ordered using the configurator.</p> | <p>The configurator can be found under Products on the DVD or</p> <p>→ www.festo.com/catalogue/...</p> | <p>Enter the type code in the search field.</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|

Guided drives DFM

1

★ Quick ordering¹⁾

GF – Plain-bearing guide

| Part no. | Type |
|-----------------------|-------------------|
| Piston Ø 12 mm | |
| 170824 | DFM-12-10-P-A-GF |
| 170825 | DFM-12-20-P-A-GF |
| 170826 | DFM-12-25-P-A-GF |
| 170827 | DFM-12-30-P-A-GF |
| 170828 | DFM-12-40-P-A-GF |
| 170829 | DFM-12-50-P-A-GF |
| 170830 | DFM-12-80-P-A-GF |
| 170831 | DFM-12-100-P-A-GF |
| Piston Ø 16 mm | |
| 170832 | DFM-16-10-P-A-GF |
| 170833 | DFM-16-20-P-A-GF |
| 170834 | DFM-16-25-P-A-GF |
| 170835 | DFM-16-30-P-A-GF |
| 170836 | DFM-16-40-P-A-GF |
| 170837 | DFM-16-50-P-A-GF |
| 170838 | DFM-16-80-P-A-GF |
| 170839 | DFM-16-100-P-A-GF |
| Piston Ø 20 mm | |
| 170840 | DFM-20-20-P-A-GF |
| 170841 | DFM-20-25-P-A-GF |
| 170842 | DFM-20-30-P-A-GF |
| 170843 | DFM-20-40-P-A-GF |
| 170844 | DFM-20-50-P-A-GF |
| 170845 | DFM-20-80-P-A-GF |
| 170846 | DFM-20-100-P-A-GF |

| Part no. | Type |
|-----------------------|-------------------|
| Piston Ø 25 mm | |
| 170847 | DFM-25-20-P-A-GF |
| 170848 | DFM-25-25-P-A-GF |
| 170849 | DFM-25-30-P-A-GF |
| 170850 | DFM-25-40-P-A-GF |
| 170851 | DFM-25-50-P-A-GF |
| 170852 | DFM-25-80-P-A-GF |
| 170853 | DFM-25-100-P-A-GF |
| Piston Ø 32 mm | |
| 170854 | DFM-32-20-P-A-GF |
| 170855 | DFM-32-25-P-A-GF |
| 170856 | DFM-32-30-P-A-GF |
| 170857 | DFM-32-40-P-A-GF |
| 170858 | DFM-32-50-P-A-GF |
| 170859 | DFM-32-80-P-A-GF |
| 170860 | DFM-32-100-P-A-GF |
| 170861 | DFM-32-125-P-A-GF |
| 170862 | DFM-32-160-P-A-GF |
| 170863 | DFM-32-200-P-A-GF |

| Part no. | Type |
|-----------------------|-------------------|
| Piston Ø 40 mm | |
| 170864 | DFM-40-25-P-A-GF |
| 170865 | DFM-40-50-P-A-GF |
| 170866 | DFM-40-80-P-A-GF |
| 170867 | DFM-40-100-P-A-GF |
| 170868 | DFM-40-125-P-A-GF |
| 170869 | DFM-40-160-P-A-GF |
| 170870 | DFM-40-200-P-A-GF |
| Piston Ø 50 mm | |
| 170871 | DFM-50-25-P-A-GF |
| 170872 | DFM-50-50-P-A-GF |
| 170873 | DFM-50-80-P-A-GF |
| 170874 | DFM-50-100-P-A-GF |
| 170875 | DFM-50-125-P-A-GF |
| 170876 | DFM-50-160-P-A-GF |
| 170877 | DFM-50-200-P-A-GF |
| Piston Ø 63 mm | |
| 170878 | DFM-63-25-P-A-GF |
| 170879 | DFM-63-50-P-A-GF |
| 170880 | DFM-63-80-P-A-GF |
| 170881 | DFM-63-100-P-A-GF |
| 170882 | DFM-63-125-P-A-GF |
| 170883 | DFM-63-160-P-A-GF |
| 170884 | DFM-63-200-P-A-GF |

1) All products in this table are easy to select and quick to order.

★ Quick ordering¹⁾

KF – Recirculating ball bearing guide

| Part no. | Type |
|-----------------------|-------------------|
| Piston Ø 12 mm | |
| 170899 | DFM-12-10-P-A-KF |
| 170900 | DFM-12-20-P-A-KF |
| 170901 | DFM-12-25-P-A-KF |
| 170902 | DFM-12-30-P-A-KF |
| 170903 | DFM-12-40-P-A-KF |
| 170904 | DFM-12-50-P-A-KF |
| 170905 | DFM-12-80-P-A-KF |
| 170906 | DFM-12-100-P-A-KF |
| Piston Ø 16 mm | |
| 170907 | DFM-16-10-P-A-KF |
| 170908 | DFM-16-20-P-A-KF |
| 170909 | DFM-16-25-P-A-KF |
| 170910 | DFM-16-30-P-A-KF |
| 170911 | DFM-16-40-P-A-KF |
| 170912 | DFM-16-50-P-A-KF |
| 170913 | DFM-16-80-P-A-KF |
| 170914 | DFM-16-100-P-A-KF |
| Piston Ø 20 mm | |
| 170915 | DFM-20-20-P-A-KF |
| 170916 | DFM-20-25-P-A-KF |
| 170917 | DFM-20-30-P-A-KF |
| 170918 | DFM-20-40-P-A-KF |
| 170919 | DFM-20-50-P-A-KF |
| 170920 | DFM-20-80-P-A-KF |
| 170921 | DFM-20-100-P-A-KF |

| Part no. | Type |
|-----------------------|-------------------|
| Piston Ø 25 mm | |
| 170922 | DFM-25-20-P-A-KF |
| 170923 | DFM-25-25-P-A-KF |
| 170924 | DFM-25-30-P-A-KF |
| 170925 | DFM-25-40-P-A-KF |
| 170926 | DFM-25-50-P-A-KF |
| 170927 | DFM-25-80-P-A-KF |
| 170928 | DFM-25-100-P-A-KF |
| Piston Ø 32 mm | |
| 170929 | DFM-32-20-P-A-KF |
| 170930 | DFM-32-25-P-A-KF |
| 170931 | DFM-32-30-P-A-KF |
| 170932 | DFM-32-40-P-A-KF |
| 170933 | DFM-32-50-P-A-KF |
| 170934 | DFM-32-80-P-A-KF |
| 170935 | DFM-32-100-P-A-KF |
| 170936 | DFM-32-125-P-A-KF |
| 170937 | DFM-32-160-P-A-KF |
| 170938 | DFM-32-200-P-A-KF |

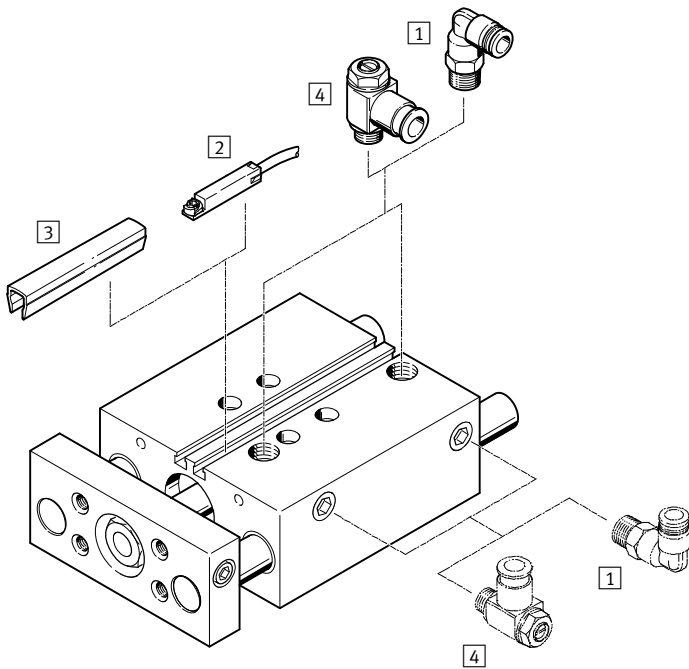
| Part no. | Type |
|-----------------------|-------------------|
| Piston Ø 40 mm | |
| 170939 | DFM-40-25-P-A-KF |
| 170940 | DFM-40-50-P-A-KF |
| 170941 | DFM-40-80-P-A-KF |
| 170942 | DFM-40-100-P-A-KF |
| 170943 | DFM-40-125-P-A-KF |
| 170944 | DFM-40-160-P-A-KF |
| 170945 | DFM-40-200-P-A-KF |
| Piston Ø 50 mm | |
| 170946 | DFM-50-25-P-A-KF |
| 170947 | DFM-50-50-P-A-KF |
| 170948 | DFM-50-80-P-A-KF |
| 170949 | DFM-50-100-P-A-KF |
| 170950 | DFM-50-125-P-A-KF |
| 170951 | DFM-50-160-P-A-KF |
| 170952 | DFM-50-200-P-A-KF |
| Piston Ø 63 mm | |
| 170953 | DFM-63-25-P-A-KF |
| 170954 | DFM-63-50-P-A-KF |
| 170955 | DFM-63-80-P-A-KF |
| 170956 | DFM-63-100-P-A-KF |
| 170957 | DFM-63-125-P-A-KF |
| 170958 | DFM-63-160-P-A-KF |
| 170959 | DFM-63-200-P-A-KF |

1) All products in this table are easy to select and quick to order.

Guided drives DFM

1

Accessories




| | | → Page/online |
|---|---------------------------------|---------------|
| 1 | Push-in fitting QS | 1098 |
| 2 | Proximity sensor SME-/SMT-8 | 332 |
| 3 | Slot cover ABP-5-S | 332 |
| 4 | One-way flow control valve GRLA | 333 |
| - | Centring sleeve ZBH | 333 |
| - | Connecting cable NEBU | 333 |
| - | Drive/drive connections | dfm |

Accessories – Ordering data


| | For Ø | Cable length [m] | | Part no. | Type | |
|-----------------------------------------------------------------------------------------------------------------------------|------------|------------------|---|----------|---------------------------|--|
| 2 Proximity sensor for T-slot, magneto-resistive – N/O contact Technical data → 878 | | | | | | |
| | PNP, cable | 2.5 | ★ | 574335 | SMT-8M-A-PS-24V-E-2,5-OE | |
| | PNP, plug | 0.3 | ★ | 574334 | SMT-8M-A-PS-24V-E-0,3-M8D | |
| | PNP, plug | 0.3 | ★ | 574337 | SMT-8M-A-PS-24V-E-0,3-M12 | |
| | NPN, cable | 2.5 | ★ | 574338 | SMT-8M-A-NS-24V-E-2,5-OE | |
| | NPN, plug | 0.3 | ★ | 574339 | SMT-8M-A-NS-24V-E-0,3-M8D | |
| Magneto-resistive – N/C contact Technical data → 878 | | | | | | |
| | PNP, cable | 7.5 | ★ | 574340 | SMT-8M-A-PO-24V-E-7,5-OE | |
| Magnetic reed – N/O contact Technical data → 873 | | | | | | |
| | cable | 2.5 | ★ | 543862 | SME-8M-DS-24V-K-2,5-OE | |
| | cable | 5.0 | ★ | 543863 | SME-8M-DS-24V-K-5,0-OE | |
| | cable | 2.5 | ★ | 543872 | SME-8M-ZS-24V-K-2,5-OE | |
| | Plug | 0.3 | ★ | 543861 | SME-8M-DS-24V-K-0,3-M8D | |
| Technical data → 875 | | | | | | |
| | cable | 2.5 | | 150855 | SME-8-K-LED-24 | |
| | Plug | 0.3 | | 150857 | SME-8-S-LED-24 | |
| Magnetic reed – N/C contact Technical data → 875 | | | | | | |
| | cable | 7.5 | | 160251 | SME-8-O-K-LED-24 | |
| 3 Slot cover¹⁾ | | | | | | |
| | 12 ... 100 | – | | 151680 | ABP-5-S | |

1) Packaging unit 2x 0.5 m.





Accessories – Ordering data

| Function | For Ø | Connection | | Part no. | Type |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|------|----------|-----------------|
| | | Thread | O.D. | | |
| 4 One-way flow control valve with slotted head screw, metal¹⁾ for exhaust air flow control Technical data → 758 | | | | | |
|  | 12, 16, 20 | M5 | 3 | ★ 193137 | GRLA-M5-QS-3-D |
| | 25 | G1/8 | 3 | ★ 193142 | GRLA-1/8-QS-3-D |
| | 32 | G1/8 | 4 | ★ 193143 | GRLA-1/8-QS-4-D |
| | 40 | G1/8 | 6 | ★ 193144 | GRLA-1/8-QS-6-D |
| | 50, 63 | G1/4 | 6 | ★ 193146 | GRLA-1/4-QS-6-D |
| | 80, 100 | G3/8 | 8 | ★ 193145 | GRLA-3/8-QS-8-D |

1) The recommended flow control valves are based on a tubing length to the valve of 1 m. For deviations of ±50%, flow control valves with a bigger or smaller flow rate must be selected to guarantee the optimum flow control function and cylinder speed.

| Centring sleeves ²⁾ | For Ø | For housing | | For yoke plate | | Technical data online: → zbh |
|-----------------------------------------------------------------------------------|--------|-------------|--------|----------------|--------|------------------------------|
| | | Part no. | Type | Part no. | Type | |
|  | 12 | 189652 | ZBH-5 | 189652 | ZBH-5 | |
| | | 150927 | ZBH-9 | | | |
| | 16 | 189652 | ZBH-5 | 189652 | ZBH-5 | |
| | | 150927 | ZBH-9 | | | |
| | 20 | 186717 | ZBH-7 | 150927 | ZBH-9 | |
| | | 150927 | ZBH-9 | | | |
| | 25 | 186717 | ZBH-7 | 150927 | ZBH-9 | |
| | | 150927 | ZBH-9 | | | |
| | 32 | 150927 | ZBH-9 | 150927 | ZBH-9 | |
| | | 189653 | ZBH-12 | | | |
| | 40 | 150927 | ZBH-9 | 150927 | ZBH-9 | |
| | | 189653 | ZBH-12 | | | |
| | 50 | 189653 | ZBH-12 | 189653 | ZBH-12 | |
| | 63 | 189653 | ZBH-12 | 189653 | ZBH-12 | |
| 80 | 189653 | ZBH-12 | 189653 | ZBH-12 | | |
| 100 | 191409 | ZBH-15 | 191409 | ZBH-15 | | |

2) 2 included in the scope of delivery in each case. Supplied in packs of 10 for repeat orders.

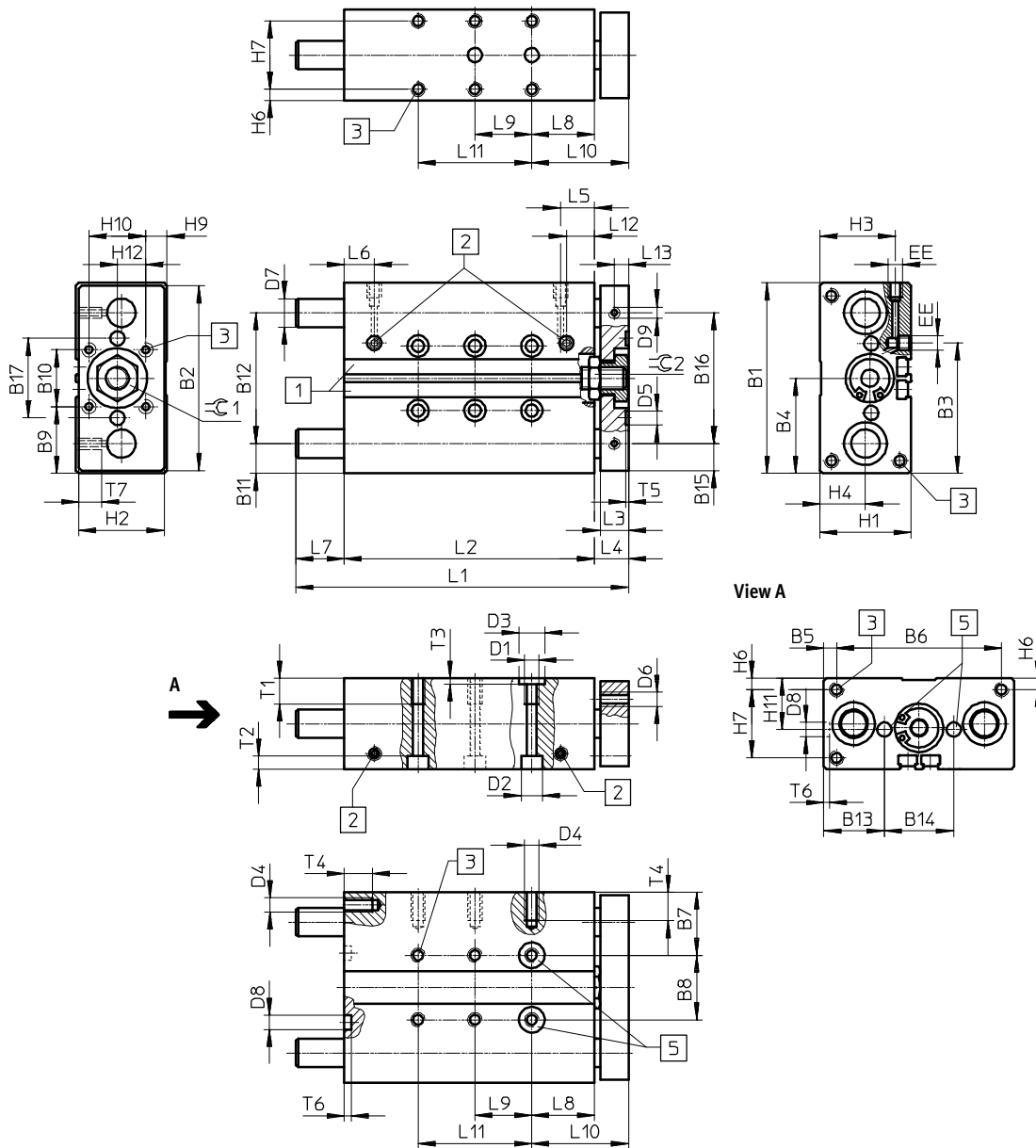
| | Cable length [m] | | Part no. | Type |
|---------------------------------------------------------------------------------------------------|------------------|---|----------|----------------------|
| Connecting cable, straight socket Technical data → 1161 | | | | |
|  | 2.5 | ★ | 541333 | NEBU-M8G3-K-2.5-LE3 |
| | 5.0 | ★ | 541334 | NEBU-M8G3-K-5-LE3 |
|  | 2.5 | ★ | 541363 | NEBU-M12G5-K-2.5-LE3 |
| | 5.0 | ★ | 541364 | NEBU-M12G5-K-5-LE3 |
| Angled socket Technical data → 1161 | | | | |
|  | 2.5 | ★ | 541338 | NEBU-M8W3-K-2.5-LE3 |
| | 5.0 | ★ | 541341 | NEBU-M8W3-K-5-LE3 |
|  | 2.5 | | 541367 | NEBU-M12W5-K-2.5-LE3 |
| | 5.0 | | 541370 | NEBU-M12W5-K-5-LE3 |

Guided drives DFM

1

Dimensions

∅ 12 ... 16



- 1 Mounting slot for proximity sensor SME/SMT-8
- 2 Supply port optional on side or top
- 3 Mounting thread
- 5 Tolerance between the centring holes ±0.02 mm

Note

If the guide rods project beyond the housing when the unit is in its retracted end position (→ dimension L7), a recess must be provided in the mounting surface if the unit is to be mounted on the end face so that the guide rods can move freely.

Dimensions

Download CAD data → www.festo.com

| ∅ | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 | B13 | B14 | B15 | B16 | B17 | D1 | D2 | D3 | |
|------|----|----|------|------|-----|----|------|----|------|-----|------|-----|------|------|-----|-----|-----|----|-----|----|--|
| [mm] | | | | | | | | | | | | | | | | | | | | | |
| 12 | 60 | 58 | 42.4 | 30 | 4.5 | 51 | 20.5 | 19 | 20 | 20 | 9.5 | 41 | 19.5 | 21 | 8.5 | 41 | 25 | M5 | 8 | 9 | |
| 16 | 67 | 65 | 45.9 | 33.5 | 4.5 | 58 | 22 | 23 | 23.5 | 20 | 10.5 | 46 | 21.3 | 24.4 | – | – | 28 | M5 | 7.5 | 9 | |

| ∅ | D4 | D5 | D6 | D7 | | D8 | D9 | EE | H1 | H2 | H3 | H4 | H6 | H7 | H9 | H10 | H11 | H12 |
|------|----|----|----|------------------|------------------|----|----|----|----|----|------|----|----|----|-----|-----|-----|-----|
| [mm] | | | | GF | KF | | | | | | | | | | | | | |
| | | H7 | | | | H7 | | | | | | | | | | | | |
| 12 | M4 | 5 | M4 | 10 _{h8} | 8 _{h6} | 5 | M4 | M5 | 28 | 26 | 24 | 14 | 4 | 20 | 4 | 20 | 14 | 10 |
| 16 | M5 | 5 | M5 | 12 _{h8} | 10 _{h6} | 5 | – | M5 | 32 | 30 | 26.5 | 16 | 4 | 24 | 7.4 | 20 | 16 | 10 |

| ∅ | Stroke | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10 | L11 |
|------|--------|-----|-----|----|----|------|------|----|----|----|------|-----|
| [mm] | [mm] | | | | | | | | | | ±0.1 | |
| 12 | 10 | 59 | 46 | 10 | 13 | 11.4 | 9.5 | – | 21 | – | 34 | – |
| | 20 | 69 | 56 | | | | | – | | – | | |
| | 25 | 74 | 61 | | | | | – | | 20 | | – |
| | 30 | 79 | 66 | | | | | – | | 20 | | – |
| | 40 | 95 | 76 | | | | | 6 | | 20 | | – |
| | 50 | 105 | 86 | | | | | 6 | | 40 | | – |
| | 80 | 135 | 116 | | | | | 6 | | 40 | | – |
| | 100 | 155 | 136 | | | | | 6 | | 40 | | 80 |
| 16 | 10 | 60 | 48 | 10 | 12 | 11.9 | 10.6 | – | 22 | – | 34 | – |
| | 20 | 70 | 58 | | | | | – | | – | | |
| | 25 | 75 | 63 | | | | | – | | 20 | | – |
| | 30 | 80 | 68 | | | | | – | | 20 | | – |
| | 40 | 107 | 78 | | | | | 17 | | 20 | | – |
| | 50 | 117 | 88 | | | | | 17 | | 40 | | – |
| | 80 | 147 | 118 | | | | | 17 | | 40 | | – |
| | 100 | 167 | 138 | | | | | 17 | | 40 | | 80 |

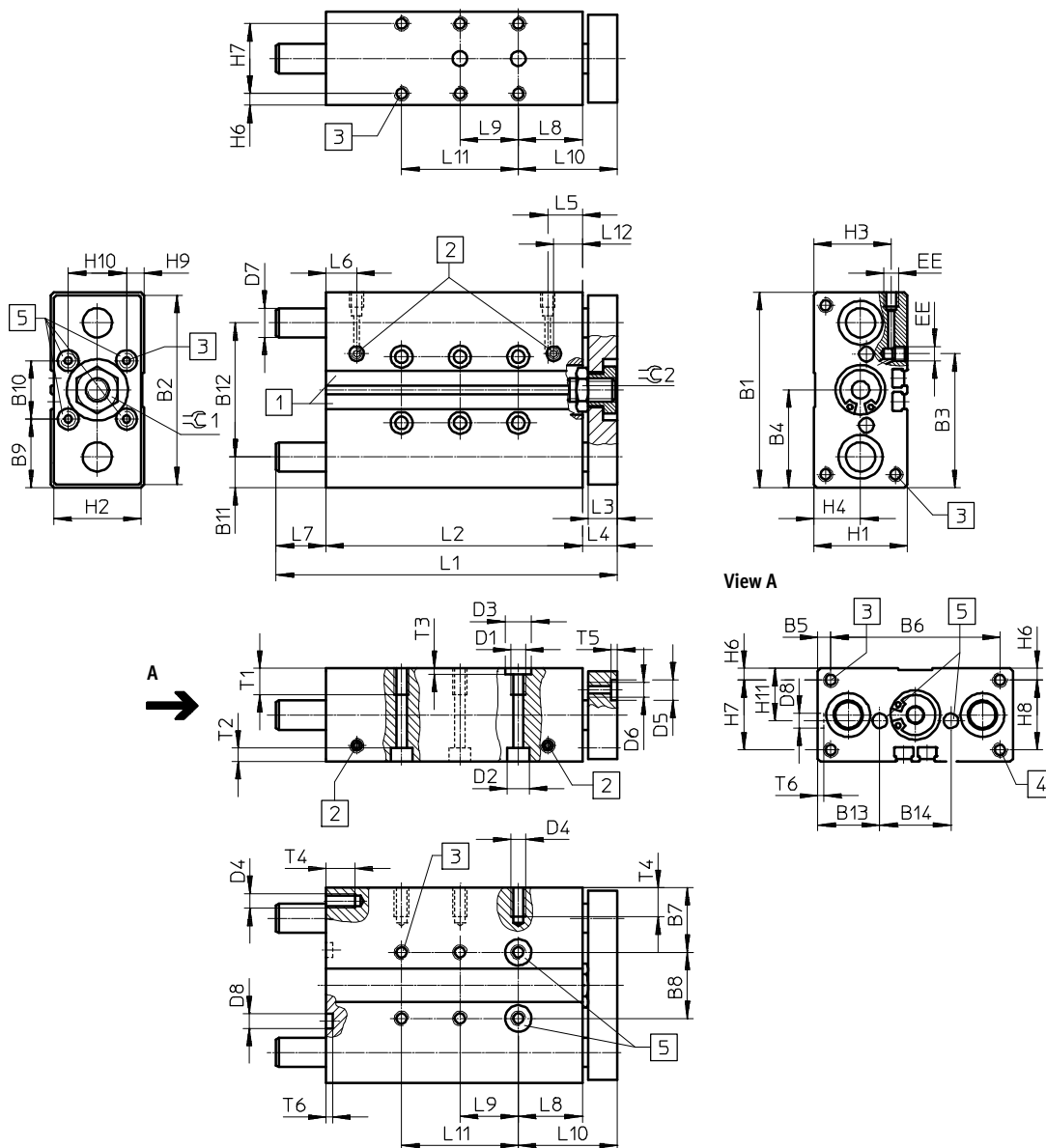
| ∅ | Stroke | L12 | L13 | T1 | T2 | T3 | T4 | T5 | T6 | T7 | ⊕C1 | ⊕C2 |
|------|--------|------|-----|----|-----|-----|----|-----|----|----|-----|-----|
| [mm] | [mm] | | | | | | | | | | | |
| 12 | 10 | 11.4 | 5 | 9 | 9.4 | 2.1 | 8 | 1.2 | 1 | 8 | 10 | 10 |
| | 20 | | | | | | | | | | | |
| | 25 | | | | | | | | | | | |
| | 30 | | | | | | | | | | | |
| | 40 | | | | | | | | | | | |
| | 50 | | | | | | | | | | | |
| | 80 | | | | | | | | | | | |
| 16 | 10 | 11.9 | – | 9 | 4.6 | 2.1 | 10 | 1.2 | 1 | – | 14 | 14 |
| | 20 | | | | | | | | | | | |
| | 25 | | | | | | | | | | | |
| | 30 | | | | | | | | | | | |
| | 40 | | | | | | | | | | | |
| | 50 | | | | | | | | | | | |
| | 80 | | | | | | | | | | | |
| 100 | | | | | | | | | | | | |

Guided drives DFM

1

Dimensions

∅ 20 ... 25



View A

- 1 Mounting slot for proximity sensor SME-/SMT-8
- 2 Supply port optional on side or top
- 3 Mounting thread
- 4 Mounting thread (not with ∅20)
- 5 Tolerance between the centring holes ±0.02 mm

Note
 If the guide rods project beyond the housing when the unit is in its retracted end position (→ dimension L7), a recess must be provided in the mounting surface if the unit is to be mounted on the end face so that the guide rods can move freely.

Dimensions

Download CAD data → www.festo.com

| ∅ | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 | B13 | B14 | D1 | D2 | D3 | D4 |
|------|----|----|------|------|------|----|------|----|------|-----|------|-----|-----|-----|----|----|----|----|
| [mm] | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | H7 | |
| 20 | 83 | 81 | 53.6 | 41.5 | 6.5 | 70 | 26.5 | 30 | 26.5 | 30 | 12.5 | 58 | 26 | 31 | M6 | 9 | 9 | M5 |
| 25 | 95 | 93 | 70 | 47.5 | 15.5 | 64 | 30 | 35 | 27.5 | 40 | 13.5 | 68 | 29 | 37 | M6 | 9 | 9 | M6 |

| ∅ | D5 | D6 | D7 | | D8 | EE | H1 | H2 | H3 | H4 | H6 | H7 | H8 | H9 | H10 | H11 |
|------|----|----|------------------|------------------|----|-----------------|----|----|------|----|-----|----|----|----|-----|-----|
| [mm] | | | | | | | | | | | | | | | | |
| | H7 | | GF | KF | H7 | | | | | | | | | | | |
| 20 | 9 | M5 | 14 _{h8} | 12 _{h6} | 7 | M5 | 36 | 34 | 29.5 | 17 | 4.5 | 27 | – | 7 | 20 | 18 |
| 25 | 9 | M6 | 16 _{h8} | 14 _{h6} | 7 | G $\frac{1}{8}$ | 44 | 42 | 34.8 | 19 | 4.5 | 35 | 35 | 12 | 20 | 22 |

| ∅ | Stroke | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10 |
|------|--------|-----|-------|----|----|------|------|------|----|----|------|
| [mm] | [mm] | | | | | | | | | | ±0.1 |
| 20 | 20 | 75 | 61 | 12 | 14 | 14 | 10.5 | – | 26 | – | 40 |
| | 25 | 80 | 66 | | | | | 20 | | | |
| | 30 | 85 | 71 | | | | | 20 | | | |
| | 40 | 121 | 81 | | | | | 20 | | | |
| | 50 | 131 | 91 | | | | | 40 | | | |
| | 80 | 161 | 121 | | | | | 40 | | | |
| | 100 | 181 | 141 | | | | | 40 | | | |
| 25 | 20 | 93 | 65.6 | 12 | 14 | 17.5 | 9.5 | 13.4 | 26 | – | 40 |
| | 25 | 98 | 70.6 | | | | | 20 | | | |
| | 30 | 103 | 75.6 | | | | | 20 | | | |
| | 40 | 123 | 85.6 | | | | | 20 | | | |
| | 50 | 133 | 95.6 | | | | | 40 | | | |
| | 80 | 163 | 125.6 | | | | | 40 | | | |
| | 100 | 183 | 145.6 | | | | | 40 | | | |

| ∅ | Stroke | L11 | L12 | T1 | T2 | T3 | T4 | T5 | T6 | ≈C1 | ≈C2 |
|------|--------|-----|-----|----|-----|-----|----|-----|-----|-----|-----|
| [mm] | [mm] | | | | | | | | | | |
| 20 | 20 | – | 14 | 12 | 5.7 | 2.1 | 10 | 2.1 | 1.6 | 17 | 17 |
| | 25 | – | | | | | | | | | |
| | 30 | – | | | | | | | | | |
| | 40 | – | | | | | | | | | |
| | 50 | – | | | | | | | | | |
| | 80 | – | | | | | | | | | |
| 25 | 20 | – | 15 | 14 | 5.7 | 2.1 | 12 | 2.1 | 1.6 | 17 | 17 |
| | 25 | – | | | | | | | | | |
| | 30 | – | | | | | | | | | |
| | 40 | – | | | | | | | | | |
| | 50 | – | | | | | | | | | |
| | 80 | – | | | | | | | | | |
| 100 | 80 | | | | | | | | | | |

Dimensions

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| ∅ | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 | B13 | B14 | D1 | D2 | D3 | D4 |
|------|-----|-----|-------|----|----|-----|------|----|----|-----|------|-----|------|-----|-----|----|----|-----|
| [mm] | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | H7 | H7 | |
| 32 | 110 | 108 | 81 | 55 | 20 | 70 | 33.5 | 43 | 35 | 40 | 16 | 78 | 32.5 | 45 | M 8 | 11 | 12 | M 6 |
| 40 | 120 | 118 | 94 | 60 | 15 | 90 | 34.5 | 51 | 35 | 50 | 16 | 88 | 32.5 | 55 | M 8 | 11 | 12 | M 8 |
| 50 | 148 | 146 | 116.5 | 74 | 19 | 110 | 42 | 64 | 44 | 60 | 19 | 110 | 40 | 68 | M 8 | 11 | 12 | M 8 |
| 63 | 162 | 160 | 139 | 81 | 9 | 144 | 41 | 80 | 41 | 80 | 18.4 | 125 | 39.5 | 83 | M10 | 15 | 12 | M10 |

| ∅ | D5 | D6 | D7 | | D8 | EE | H1 | H2 | H3 | H4 | H6 | H7 | H8 | H9 | H10 | H11 |
|------|----|----|------------------|------------------|----|-----------------|----|----|------|------|----|----|----|-----|-----|------|
| [mm] | | | | | | | | | | | | | | | | |
| | H7 | | GF | KF | H7 | | | | | | | | | | | |
| 32 | 9 | M6 | 20 _{h8} | 16 _{h6} | 9 | G $\frac{1}{8}$ | 49 | 47 | 38.5 | 22 | 6 | 37 | 37 | 8.5 | 30 | 24.5 |
| 40 | 9 | M6 | 20 _{h8} | 16 _{h6} | 9 | G $\frac{1}{8}$ | 54 | 52 | 40.5 | 24 | 6 | 42 | 42 | 10 | 30 | 27 |
| 50 | 12 | M8 | 25 _{h8} | 20 _{h6} | 12 | G $\frac{1}{4}$ | 64 | 62 | 50.5 | 29.5 | 7 | 50 | 50 | 12 | 40 | 32 |
| 63 | 12 | M8 | 25 _{h8} | 20 _{h6} | 12 | G $\frac{1}{4}$ | 78 | 76 | 55 | 32 | 9 | 60 | 60 | 19 | 40 | 39 |

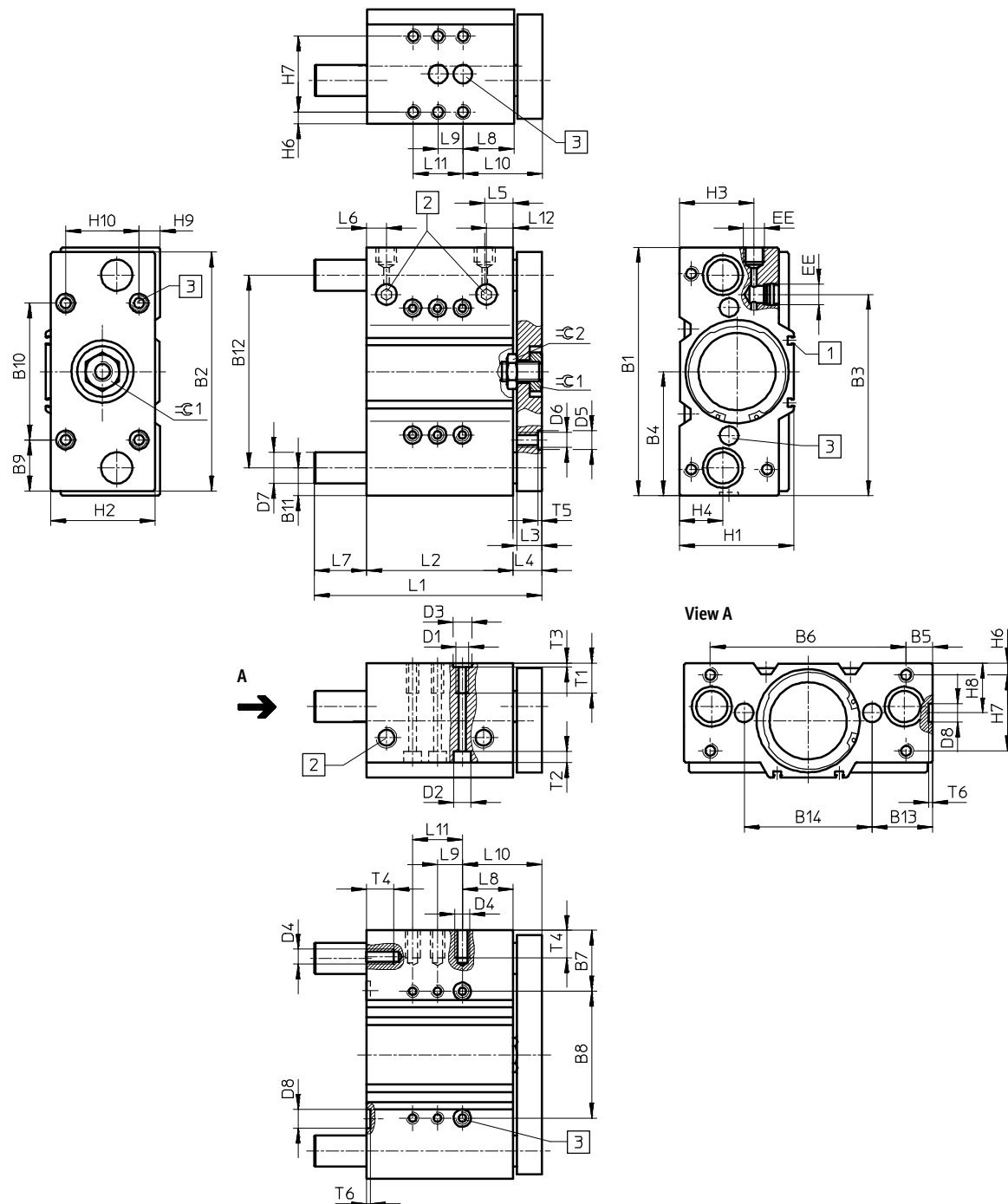
| ∅ | Stroke | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10 | L11 | L12 | T1 | T2 | T3 | T4 | T5 | T6 | ≈C1 | ≈C2 |
|------|--------|-----|-----|----|----|------|------|----|----|----|------|-----|------|----|-----|-----|----|-----|-----|-----|-----|
| [mm] | [mm] | | | | | | | | | | ±0.1 | | | | | | | | | | |
| 32 | 20 | 101 | 68 | 14 | 16 | 17 | 12 | 17 | 29 | - | 45 | - | 17 | 15 | 6.8 | 2.6 | 12 | 2.1 | 2.1 | 17 | 22 |
| | 25 | 106 | 73 | | | | | 17 | | 20 | | - | | | | | | | | | |
| | 30 | 111 | 78 | | | | | 17 | | 20 | | - | | | | | | | | | |
| | 40 | 121 | 88 | | | | | 17 | | 20 | | - | | | | | | | | | |
| | 50 | 131 | 98 | | | | | 17 | | 40 | | - | | | | | | | | | |
| | 80 | 179 | 128 | | | | | 35 | | 40 | | - | | | | | | | | | |
| | 100 | 199 | 148 | | | | | 35 | | 40 | | 80 | | | | | | | | | |
| | 125 | 244 | 173 | | | | | 55 | | 40 | | 80 | | | | | | | | | |
| | 160 | 279 | 208 | | | | | 55 | | 40 | | 120 | | | | | | | | | |
| | 200 | 319 | 248 | | | | | 55 | | 40 | | 160 | | | | | | | | | |
| 40 | 25 | 106 | 76 | 14 | 16 | 17.8 | 13.1 | 14 | 29 | 20 | 45 | - | 17.8 | 15 | 6.8 | 2.6 | 16 | 2.1 | 2.1 | 17 | 22 |
| | 50 | 131 | 101 | | | | | 14 | | 40 | | - | | | | | | | | | |
| | 80 | 179 | 131 | | | | | 32 | | 40 | | - | | | | | | | | | |
| | 100 | 199 | 151 | | | | | 32 | | 40 | | 80 | | | | | | | | | |
| | 125 | 244 | 176 | | | | | 52 | | 40 | | 80 | | | | | | | | | |
| | 160 | 279 | 211 | | | | | 52 | | 40 | | 120 | | | | | | | | | |
| | 200 | 319 | 251 | | | | | 52 | | 40 | | 160 | | | | | | | | | |
| 50 | 25 | 118 | 77 | 16 | 18 | 17.8 | 14.2 | 23 | 32 | 20 | 50 | - | 17.8 | 15 | 6.8 | 2.6 | 16 | 2.6 | 2.6 | 19 | 24 |
| | 50 | 143 | 102 | | | | | 23 | | 40 | | - | | | | | | | | | |
| | 80 | 194 | 132 | | | | | 44 | | 40 | | - | | | | | | | | | |
| | 100 | 214 | 152 | | | | | 44 | | 40 | | 80 | | | | | | | | | |
| | 125 | 259 | 177 | | | | | 64 | | 40 | | 80 | | | | | | | | | |
| | 160 | 294 | 212 | | | | | 64 | | 40 | | 120 | | | | | | | | | |
| | 200 | 334 | 252 | | | | | 64 | | 40 | | 160 | | | | | | | | | |
| | 63 | 25 | 118 | | | | | 83 | | 16 | | 18 | | | | | | | | | |
| 50 | | 143 | 108 | 17 | 40 | - | | | | | | | | | | | | | | | |
| 80 | | 194 | 138 | 38 | 40 | 80 | | | | | | | | | | | | | | | |
| 100 | | 214 | 158 | 38 | 40 | 80 | | | | | | | | | | | | | | | |
| 125 | | 259 | 183 | 58 | 40 | 120 | | | | | | | | | | | | | | | |
| 160 | | 294 | 218 | 58 | 40 | 160 | | | | | | | | | | | | | | | |
| 200 | | 334 | 258 | 58 | 40 | 200 | | | | | | | | | | | | | | | |

Guided drives DFM

1

Dimensions

Ø 80 ... 100



1 Mounting slot for proximity sensor SME-/SMT-8

2 Supply port optional on side or top

3 Tolerance between the centring holes ±0.02 mm

Note

If the guide rods project beyond the housing when the unit is in its retracted end position (→ dimension L7), a recess must be provided in the mounting

surface if the unit is to be mounted on the end face so that the guide rods can move freely.

Dimensions

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| ∅ | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 | B13 | B14 | D1 | D2 | D3 |
|------|-----|-----|-------|-----|------|-----|------|-----|----|-----|------|-----|------|-----|-----|----|----|
| [mm] | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | H7 |
| 80 | 200 | 192 | 162.5 | 100 | 21.5 | 157 | 48.5 | 103 | 41 | 110 | 22.5 | 155 | 48.5 | 103 | M10 | 15 | 12 |
| 100 | 240 | 232 | 201 | 120 | 21 | 198 | 54 | 132 | 56 | 120 | 26 | 188 | 57 | 126 | M12 | 18 | 15 |

| ∅ | D4 | D5 | D6 | D7 | | D8 | EE | H1 | H2 | H3 | H4 | H6 | H7 | H8 | H9 | H10 |
|------|-----|----|-----|------------------|------------------|----|-------------------------------|-----|-----|----|------|----|----|----|----|-----|
| [mm] | | | | | | | | | | | | | | | | |
| | | H7 | | GF | KF | H7 | | | | | | | | | | |
| 80 | M10 | 12 | M10 | 30 _{h8} | 25 _{h6} | 12 | G ³ / ₈ | 92 | 84 | 61 | 35 | 9 | 62 | 40 | 16 | 60 |
| 100 | M12 | 15 | M12 | 35 _{h8} | 30 _{h6} | 15 | G ³ / ₈ | 112 | 104 | 66 | 39.5 | 10 | 68 | 44 | 16 | 80 |

| ∅ | Stroke | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10 | L11 | L12 | T1 | T2 | T3 | T4 | T5 | T6 | ≈C1 | ≈C2 |
|------|--------|-----|-----|----|----|----|----|----|----|----|------|-----|-----|----|----|-----|----|-----|-----|-----|-----|
| [mm] | [mm] | | | | | | | | | | ±0.1 | | | | | | | | | | |
| 80 | 25 | 137 | 93 | 20 | 23 | 23 | 16 | 21 | 41 | 20 | 64 | - | 23 | 20 | 9 | 2.6 | 20 | 2.6 | 2.6 | 27 | 30 |
| | 50 | 183 | 118 | | | | | 42 | | 40 | | - | | | | | | | | | |
| | 80 | 243 | 148 | | | | | 72 | | 40 | | - | | | | | | | | | |
| | 100 | 263 | 168 | | | | | 72 | | 40 | | 80 | | | | | | | | | |
| | 125 | 288 | 193 | | | | | 72 | | 40 | | 80 | | | | | | | | | |
| | 160 | 323 | 228 | | | | | 72 | | 40 | | 120 | | | | | | | | | |
| | 200 | 363 | 268 | | | | | 72 | | 40 | | 160 | | | | | | | | | |
| 100 | 25 | 150 | 109 | 20 | 23 | 29 | 20 | 18 | 13 | 40 | 36 | - | 29 | 25 | 11 | 3.1 | 24 | 3.1 | 3.1 | 32 | 30 |
| | 50 | 197 | 134 | | | | | 40 | | 40 | | 80 | | | | | | | | | |
| | 80 | 257 | 164 | | | | | 70 | | 40 | | 80 | | | | | | | | | |
| | 100 | 277 | 184 | | | | | 70 | | 40 | | 120 | | | | | | | | | |
| | 125 | 302 | 209 | | | | | 70 | | 40 | | 160 | | | | | | | | | |
| | 160 | 337 | 244 | | | | | 70 | | 40 | | 160 | | | | | | | | | |
| | 200 | 377 | 284 | | | | | 70 | | 40 | | 200 | | | | | | | | | |

