

## SECTIONAL DIRECTIONAL CONTROL VALVES

**KV15 SERIES**

## GENERAL FEATURES

### Standard Material Specifications

- High strength cast iron
- Hard chrome plated interchangeable spools
- Steel spring caps
- Aluminium lever caps
- NBR seals

### Standard Features

- Parallel circuit
- Adjustable main relief valve
- Load hold check valve
- Double action

### Optional Features

- Series circuit
- Variety of spool types
- Closed center
- Carry-over option
- Single action
- Service valves

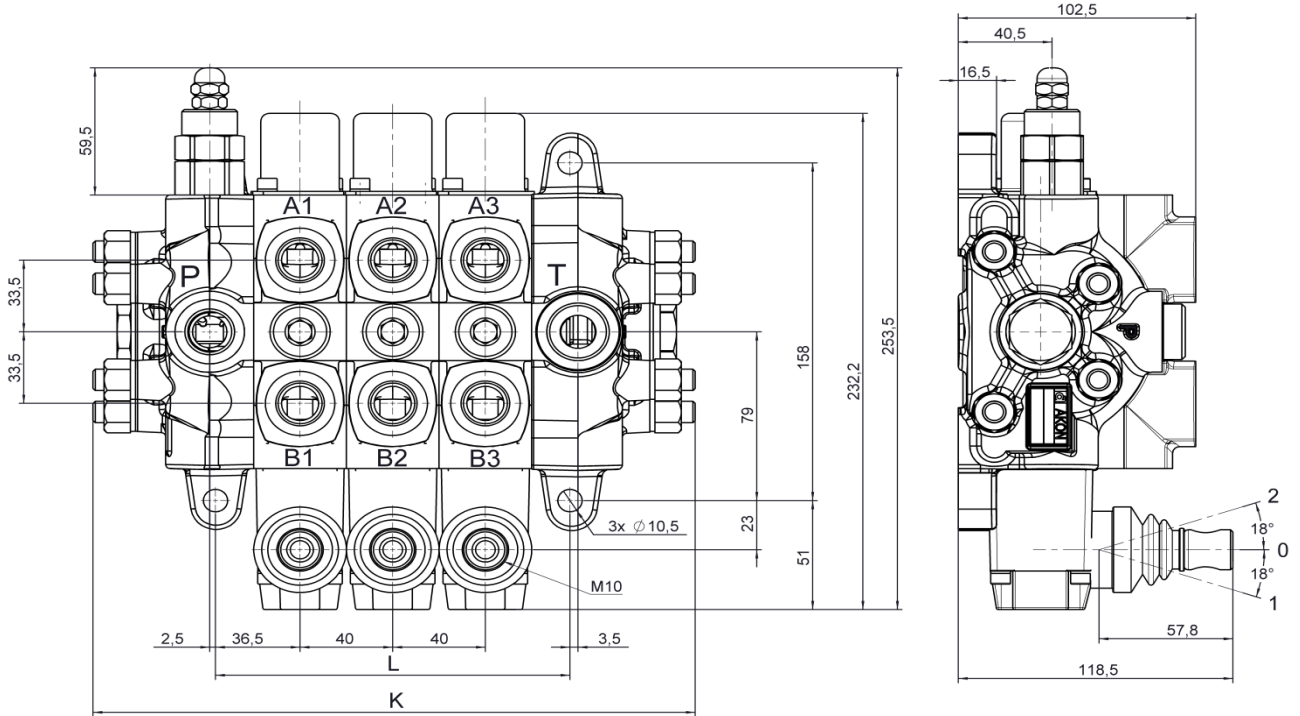
## TECHNICAL SPECIFICATIONS

Number of spools	<b>1 - 10</b> (Please ask for special orders more than 10 spools)
Nominal flow	<b>70lt/min</b>
Max. Operating pressure	<b>350 Bar</b>
Max. Back pressure	<b>30 Bar</b>
Internal leakage (at 100 Bar; 32 cSt, 40°C)	<b>4 to 9 cc/min</b>

## WORKING CONDITIONS

Recommended oil viscosity range	<b>10 cSt to 75 cSt</b>
Recommended oil filtering	<b><math>\beta_{10} \geq 75</math></b>
Recommended fluid temperature range	<b>-20 to +80</b>
Environmental temperature range	<b>-35 to +60</b>
Max. Contamination level	<b>Class 9 (NAS 1638) 19/16 (ISO 4406)</b>

## DIMENSIONAL DATA

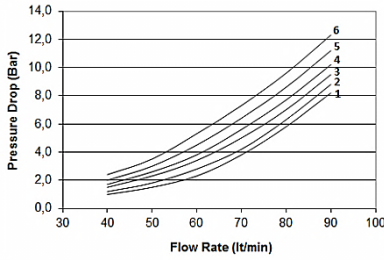


Type	L (mm)	K (mm)	W (kg)
KV 15/1	73	180	9,25
KV 15/2	113	220	12,30
KV 15/3	153	260	15,35
KV 15/4	193	300	18,40
KV 15/5	233	340	21,45
KV 15/6	273	380	24,50
KV 15/7	313	420	27,55
KV 15/8	353	460	30,60
KV 15/9	393	500	33,65

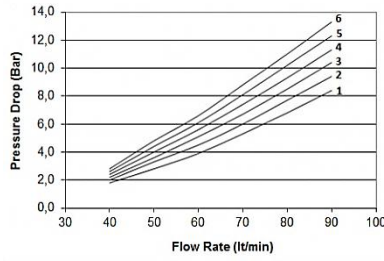
## PERFORMANCE DATA

### PRESSURE DROP

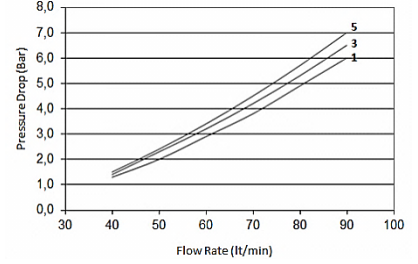
P - T



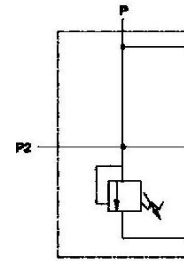
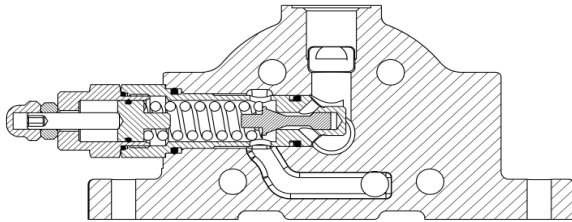
P - A/B



A/B - T

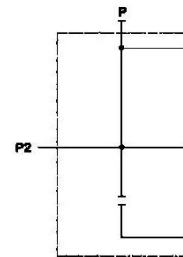
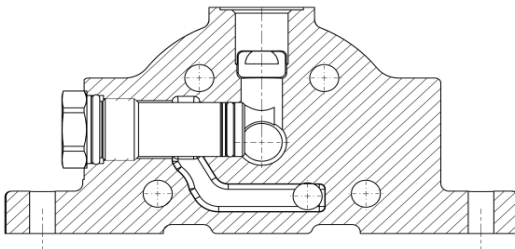


## INLET COVER



**CODE : R**

## NO MAIN RELIEF VALVE

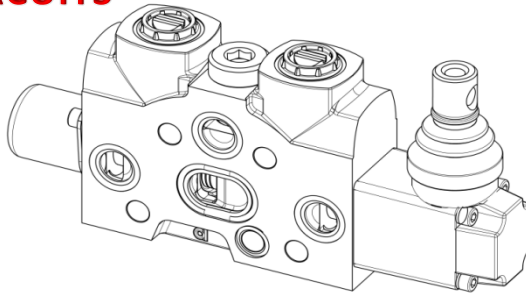


**CODE : Y**

### STANDARD THREADS

CODE	P
B	G1/2
C	G3/4

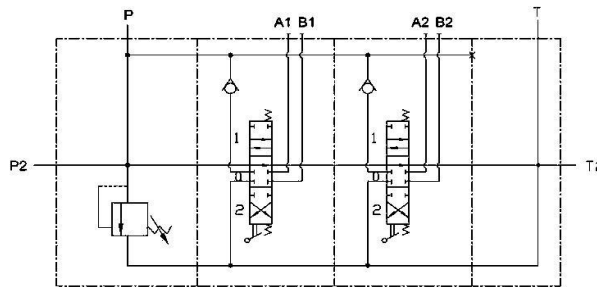
## HYDRAULIC CIRCUITS



### STANDARD THREADS

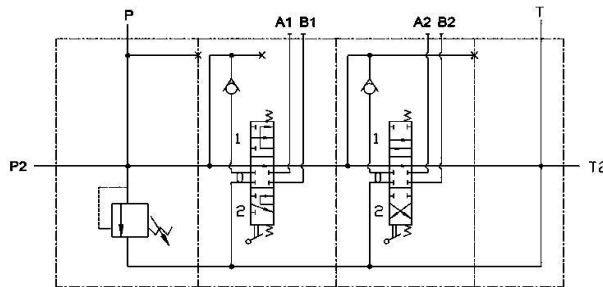
CODE	A/B
B	G1/2
C	G3/4

### STANDARD CIRCUIT



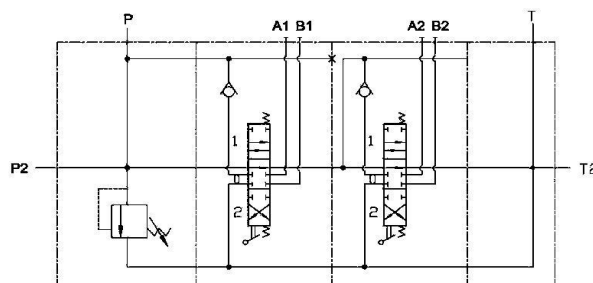
**NO CODE**

### SERIES CIRCUIT



**CODE : S**

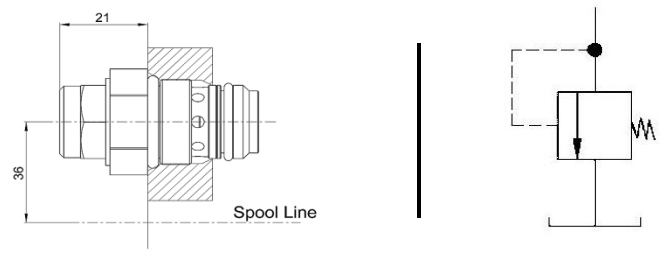
### TANDEM CIRCUIT



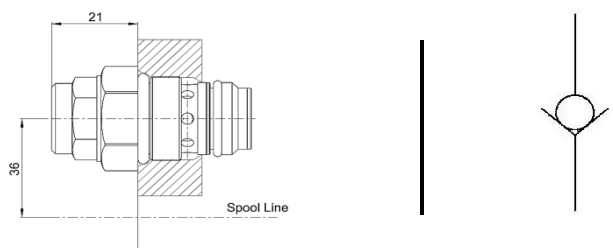
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## SERVICE VALVES

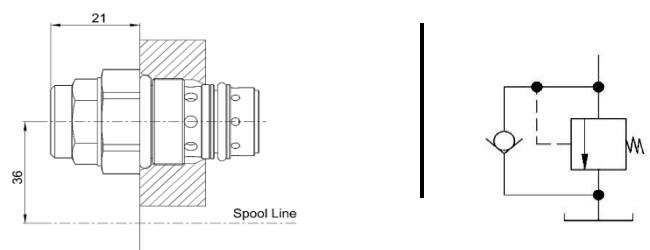
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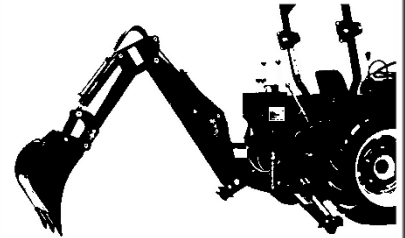
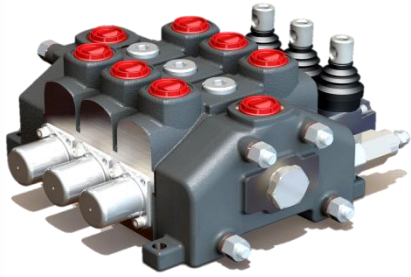


### ANTICAVITATION VALVES



### PORT RELIEF & ANTICAVITATION VALVES





## SECTIONAL DIRECTIONAL CONTROL VALVES

**KV18 SERIES**

## GENERAL FEATURES

### Standard Material Specifications

- High strength cast iron
- Hard chrome plated interchangeable spools
- Steel spring caps
- Aluminium lever caps
- NBR seals

### Standard Features

- Parallel circuit
- Adjustable main relief valve
- Load hold check valve
- Double action

### Optional Features

- Series circuit
- Variety of spool types
- Closed center
- Carry-over option
- Single action
- Service valves

## TECHNICAL SPECIFICATIONS

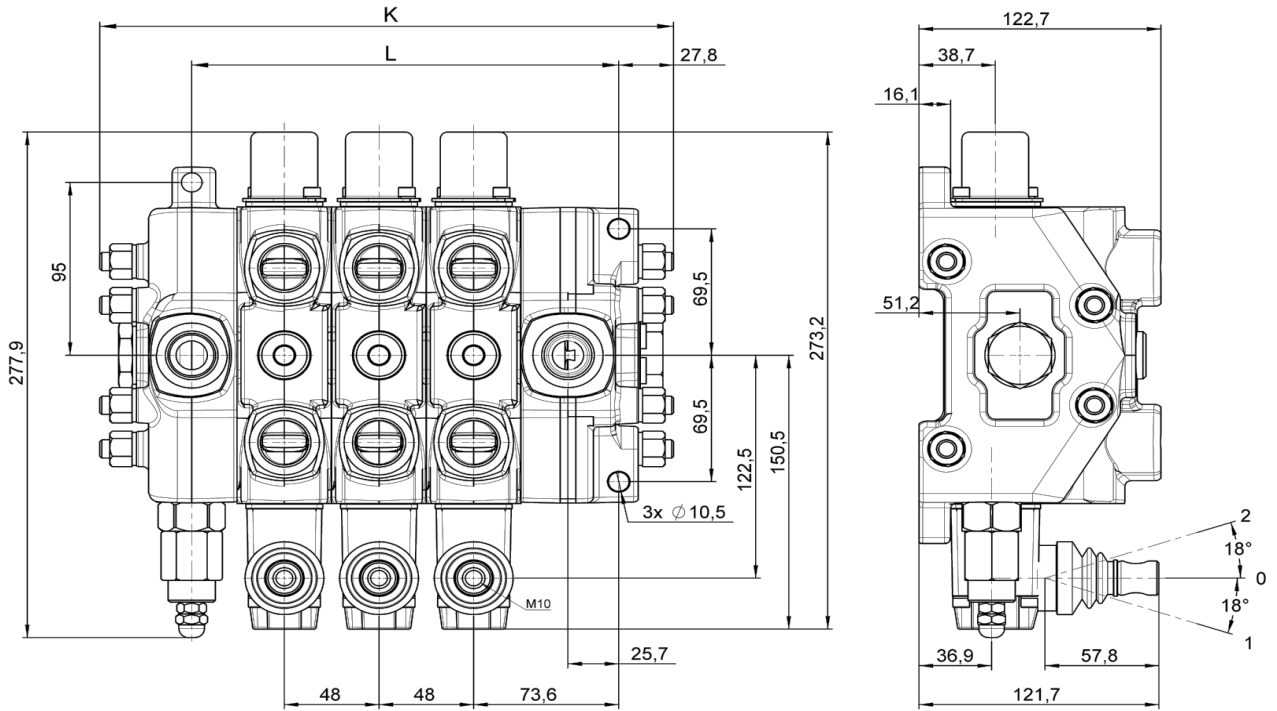
Number of spools	<b>1 - 10</b> (Please ask for special orders more than 10 spools)
Nominal flow	<b>100lt/min</b>
Max. Operating pressure	<b>320 Bar</b>
Max. Back pressure	<b>30 Bar</b>
Tie rod tightening torque	<b>30 Nm</b>
Internal leakage (at 100 Bar; 32 cSt, 40°C)	<b>4 to 9 cc/min</b>

## WORKING CONDITIONS

Recommended oil viscosity range	<b>10 cSt to 75 cSt</b>
Recommended oil filtering	<b><math>\beta</math> 10 <math>\geq</math> 75</b>
Recommended fluid temperature range	<b>-20 to +80</b>
Environmental temperature range	<b>-35 to +60</b>
Max. Contamination level	<b>Class 9 (NAS 1638) 19/16 (ISO 4406)</b>



## DIMENSIONAL DATA

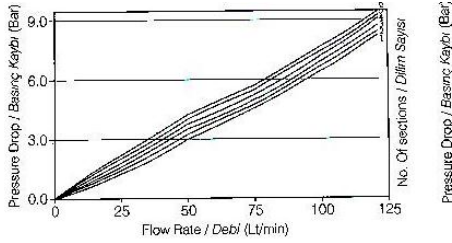


Type	L (mm)	K (mm)	W (kg)
KV 18/1	121	195	14,80
KV 18/2	169	243	20,00
KV 18/3	217	291	25,20
KV 18/4	265	339	30,40
KV 18/5	313	387	35,60
KV 18/6	361	435	40,80
KV 18/7	409	483	46,00
KV 18/8	457	531	51,20
KV 18/9	505	579	56,40

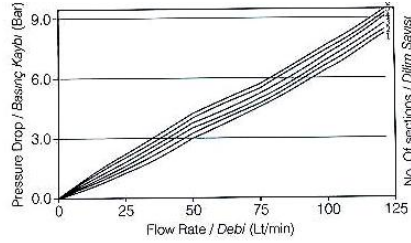
## PERFORMANCE DATA

### PRESSURE DROP

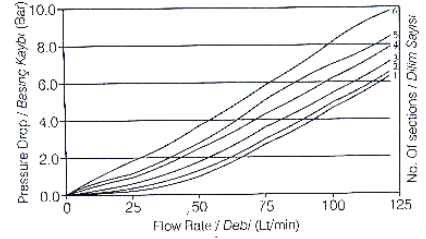
P - T



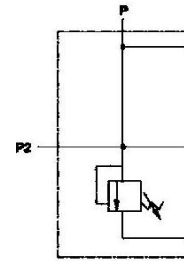
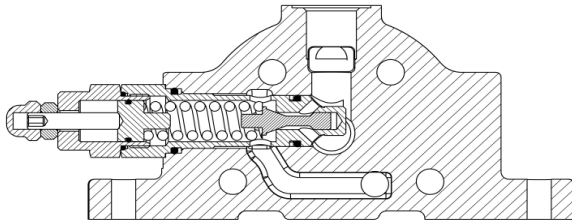
P - A/B



A/B - T

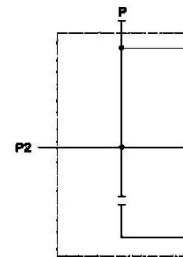
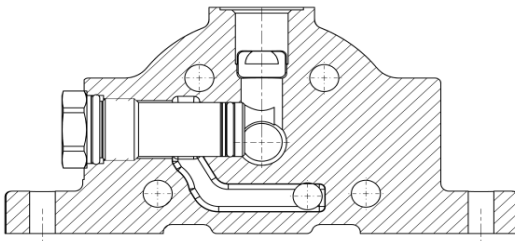


## INLET COVER



**CODE : R**

## NO MAIN RELIEF VALVE

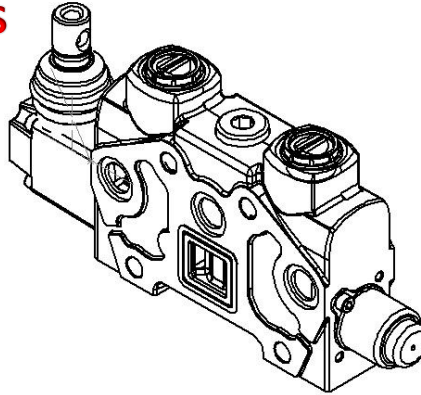


**CODE : Y**

### STANDARD THREADS

CODE	P
C	G3/4

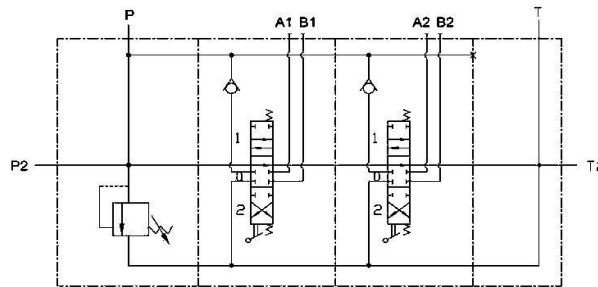
## HYDRAULIC CIRCUITS



### STANDARD THREADS

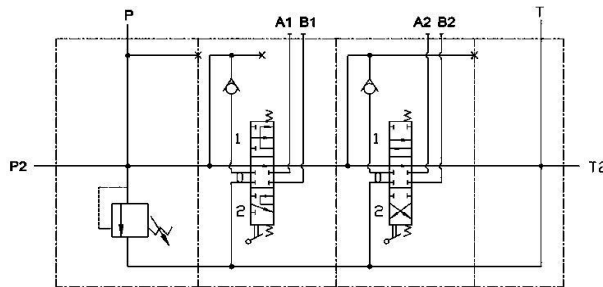
CODE	A/B
C	G3/4

### STANDARD CIRCUIT



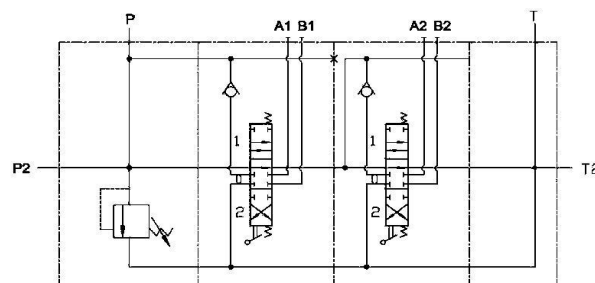
**NO CODE**

### SERIES CIRCUIT



**CODE : S**

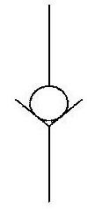
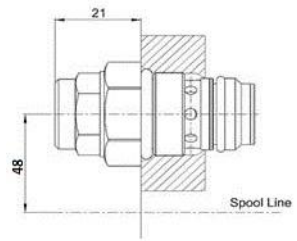
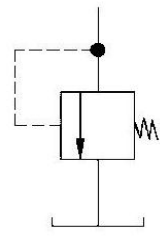
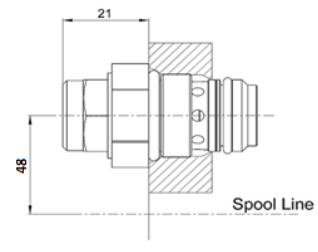
### TANDEM CIRCUIT



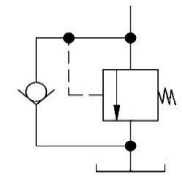
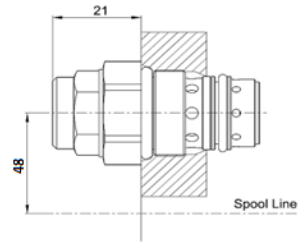
**CODE : T**

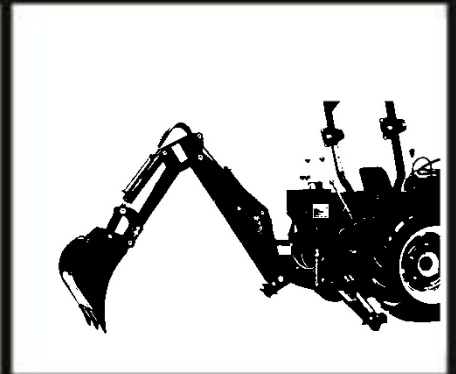
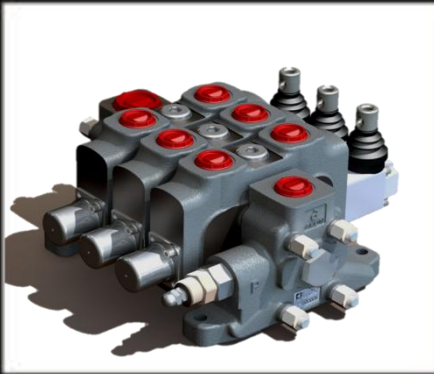
## SERVICE VALVES

### PORT RELIEF VALVES



### PORT RELIEF & ANTICAVITATION VALVES





# SECTIONAL DIRECTIONAL CONTROL VALVES

**KV20 SERIES**

## GENERAL FEATURES

### Standard Material Specifications

- High strength cast iron
- Hard chrome plated interchangeable spools
- Steel spring caps
- Aluminium lever caps
- NBR seals

### Standard Features

- Parallel circuit
- Adjustable main relief valve
- Load hold check valve
- Double action

### Optional Features

- Series circuit
- Variety of spool types
- Closed center
- Carry-over option
- Single action
- Service valves

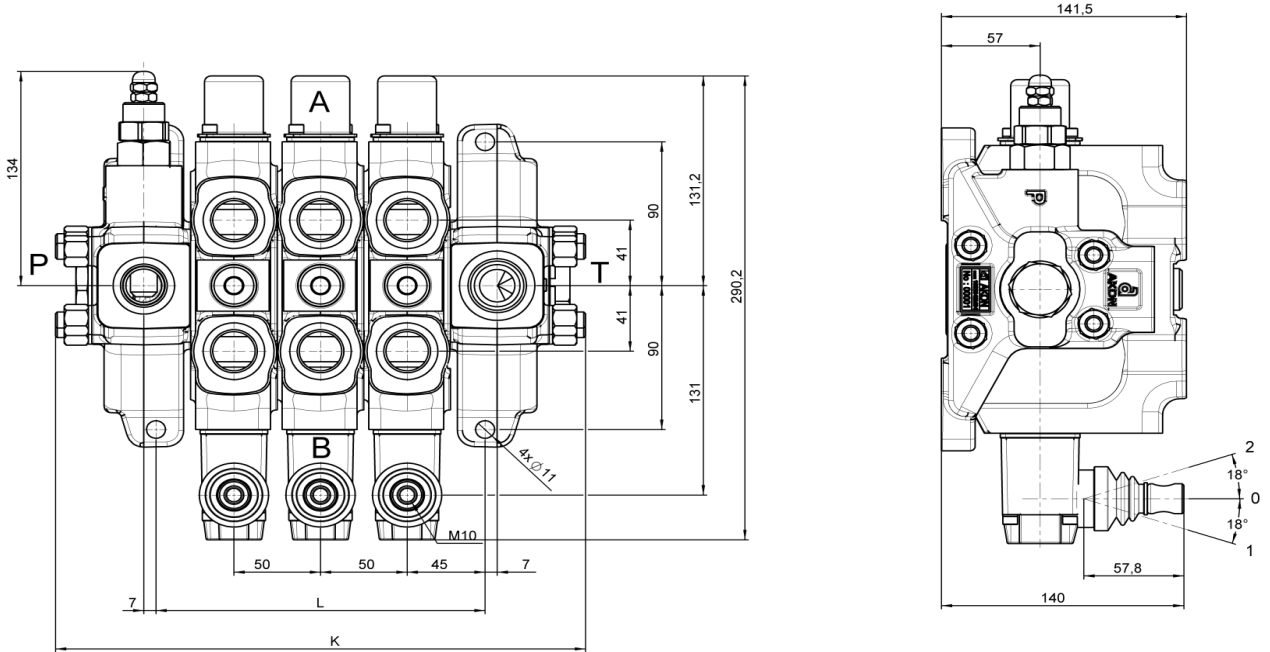
## TECHNICAL SPECIFICATIONS

Number of spools	<b>1 - 10</b> (Please ask for special orders more than 10 spools)
Nominal flow	<b>150lt/min</b>
Max. Operating pressure	<b>320 Bar</b>
Max. Back pressure	<b>30 Bar</b>
Tie rod tightening torque	<b>30 Nm</b>
Internal leakage (at 100 Bar; 32 cSt, 40°C)	<b>4 to 9 cc/min</b>

## WORKING CONDITIONS

Recommended oil viscosity range	<b>10 cSt to 75 cSt</b>
Recommended oil filtering	<b><math>\beta</math> 10 <math>\geq</math> 75</b>
Recommended fluid temperature range	<b>-20 to +80</b>
Environmental temperature range	<b>-35 to +60</b>
Max. Contamination level	<b>Class 9 (NAS 1638) 19/16 (ISO 4406)</b>

## DIMENSIONAL DATA

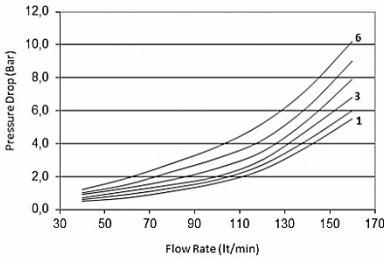


Type	L (mm)	K (mm)	W (kg)
KV 20/1	114	206	14,90
KV 20/2	164	256	21,80
KV 20/3	214	306	28,30
KV 20/4	264	356	34,80
KV 20/5	314	406	41,30
KV 20/6	364	456	47,80
KV 20/7	414	406	54,30
KV 20/8	464	556	60,80
KV 20/9	514	606	67,30

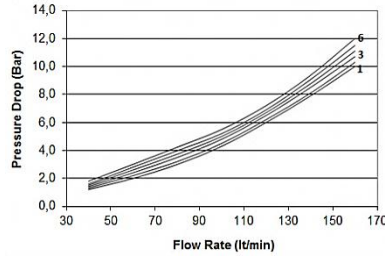
## PERFORMANCE DATA

### PRESSURE DROP

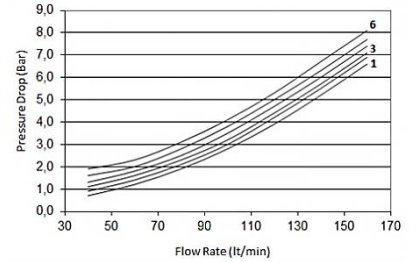
P - T



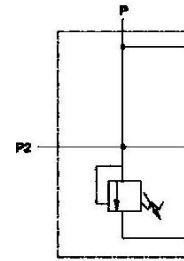
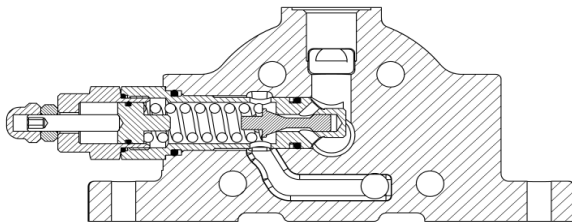
P - A/B



A/B - T

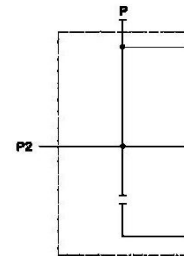
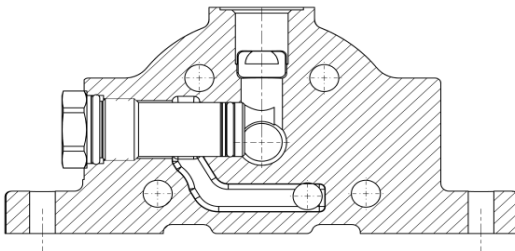


## INLET COVER



**CODE : R**

## NO MAIN RELIEF VALVE



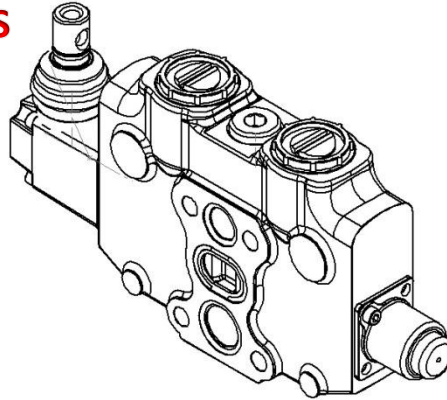
**CODE : Y**

### STANDARD THREADS

CODE	P
C	G3/4
D	G1



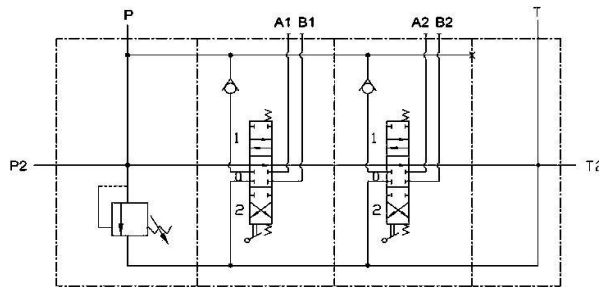
## HYDRAULIC CIRCUITS



### STANDARD THREADS

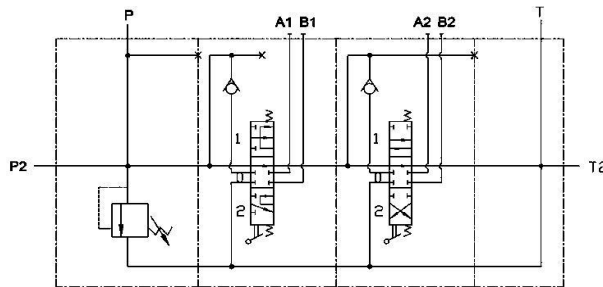
CODE	A/B
C	G3/4
D	G1

### STANDARD CIRCUIT



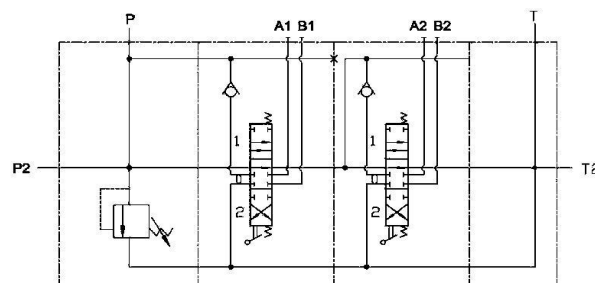
**NO CODE**

### SERIES CIRCUIT



**CODE : S**

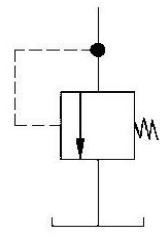
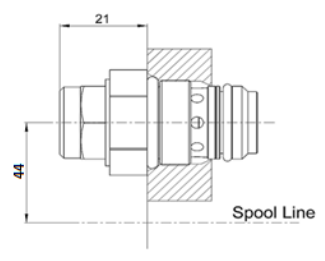
### TANDEM CIRCUIT



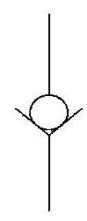
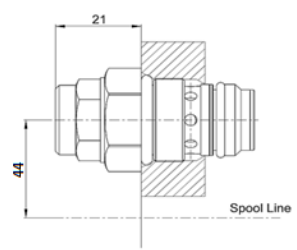
**CODE : T**

## SERVICE VALVES

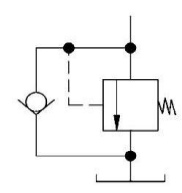
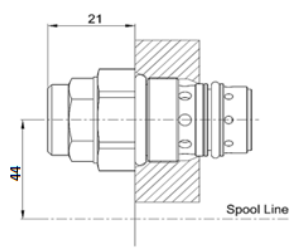
### PORT RELIEF VALVES



### ANTICAVITATION VALVES

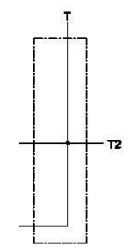
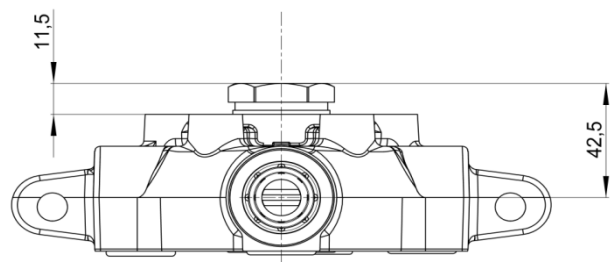


### PORT RELIEF & ANTICAVITATION VALVES



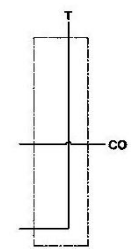
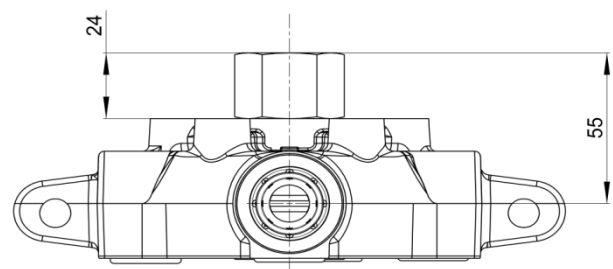
## OUTLET OPTIONS

### STANDARD



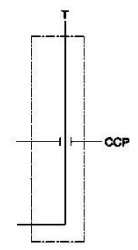
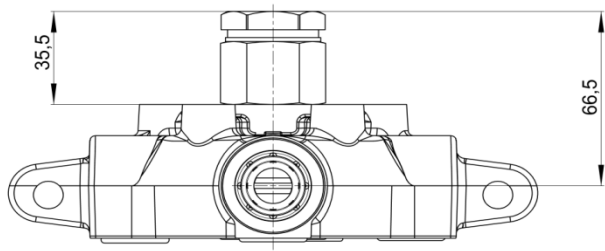
**NO CODE**

### CARRY-OVER PLUG



**CODE : H**

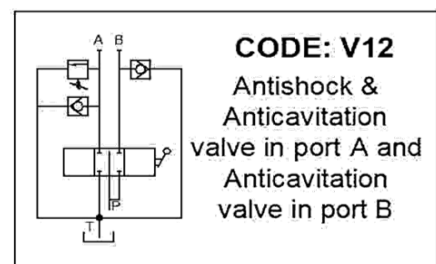
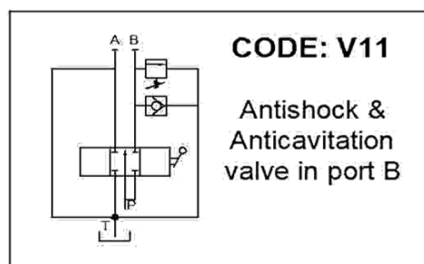
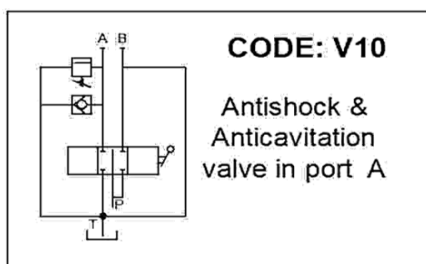
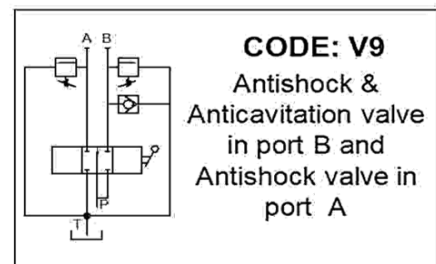
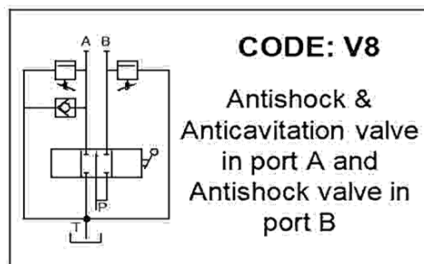
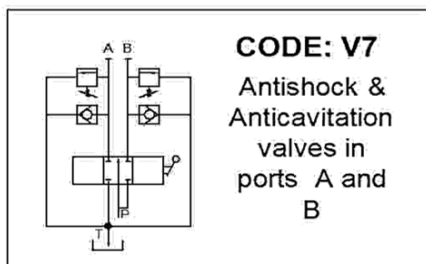
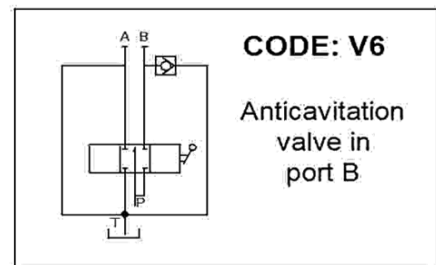
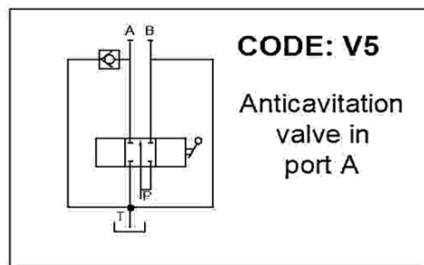
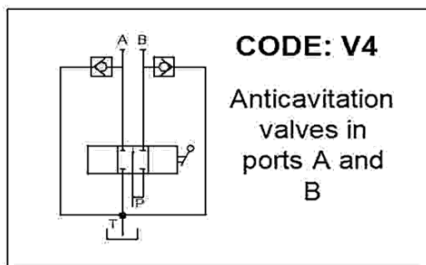
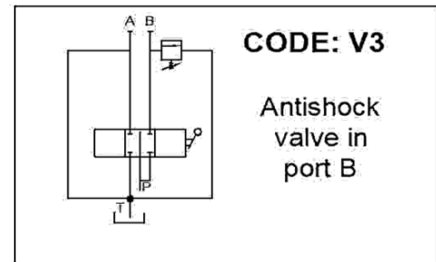
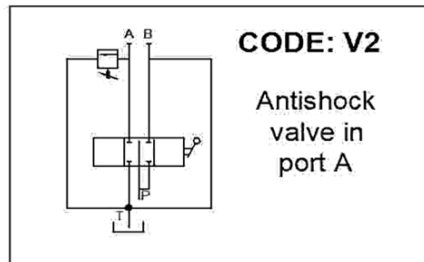
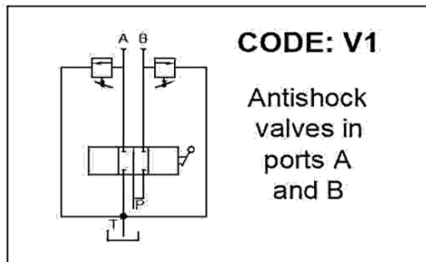
### CLOSED CENTER PLUG

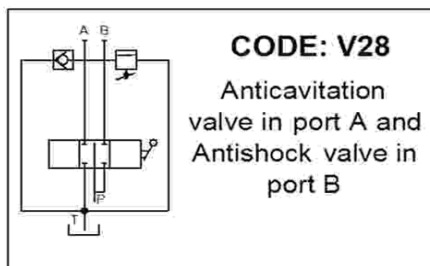
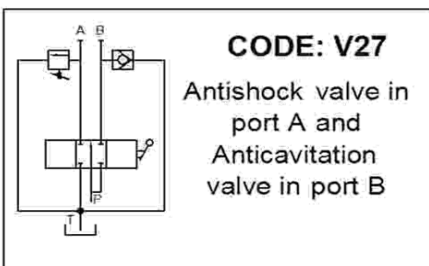
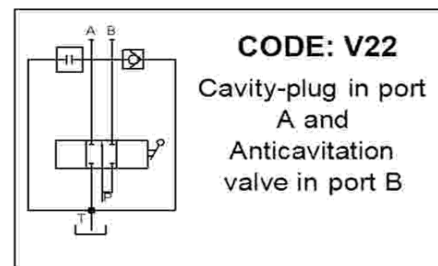
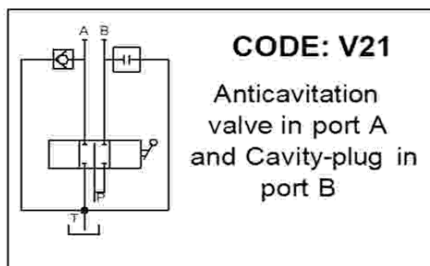
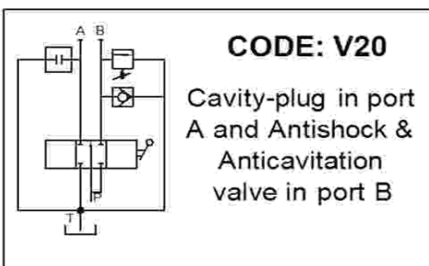
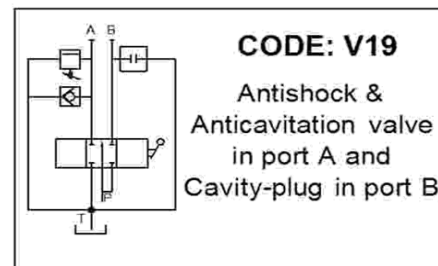
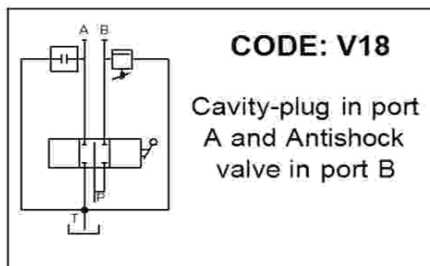
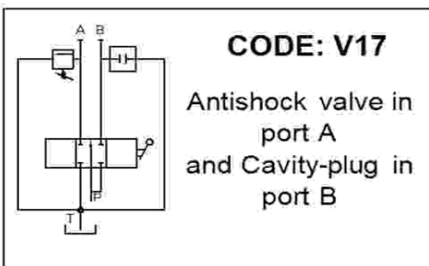
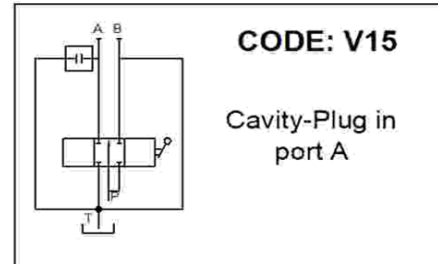
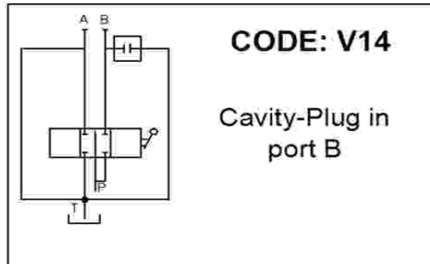
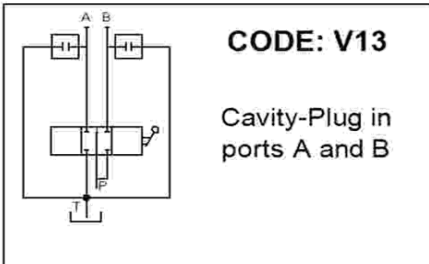


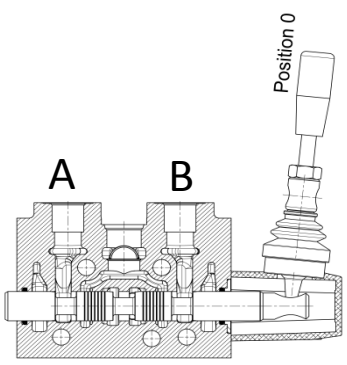
**CODE : K**

### STANDARD THREADS

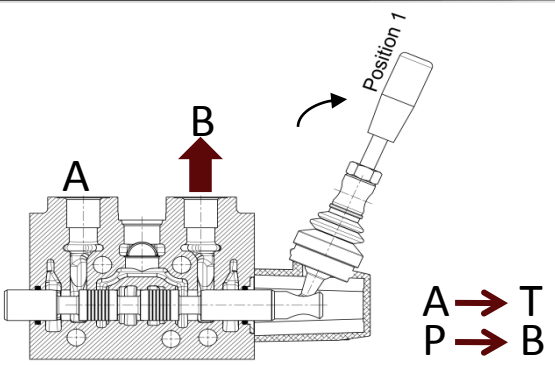
CODE	T
C	G1



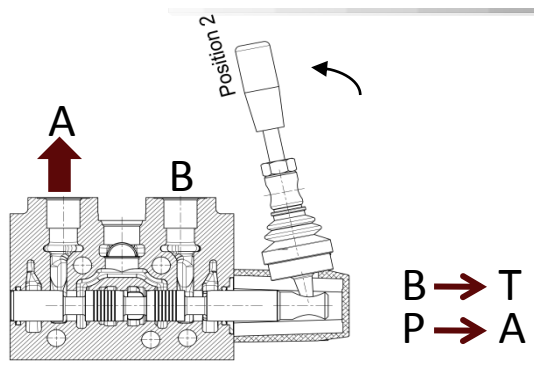




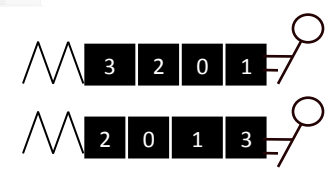
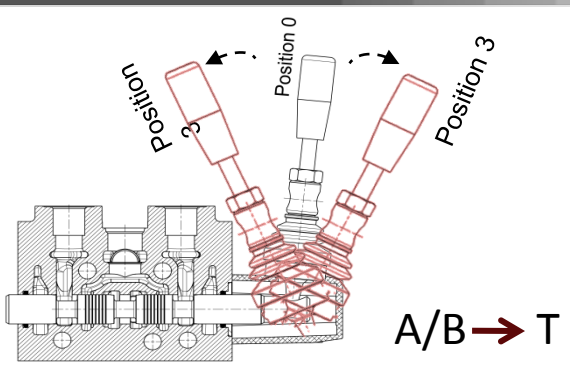
Spool - neutral position;  
**POSITION 0**



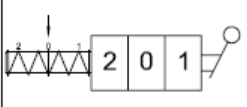
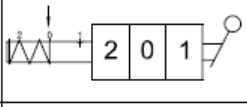
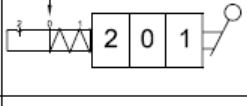
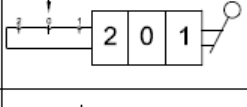
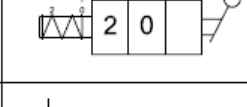
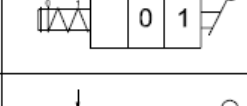
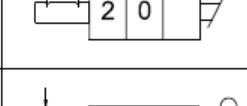
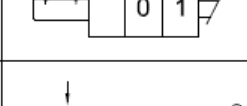
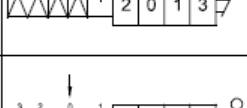
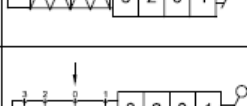
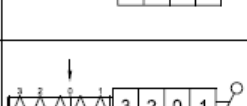
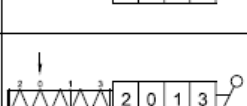
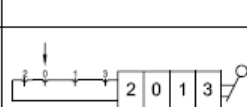
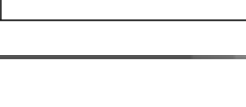
Spool - out position;  
**POSITION 1**

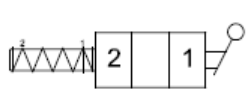
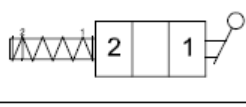
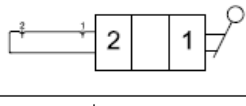
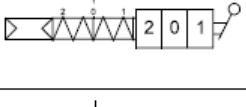
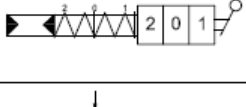

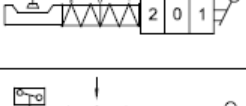
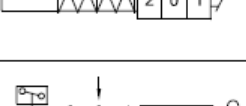

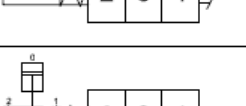
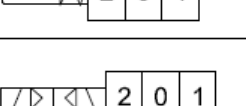
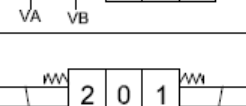
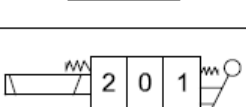



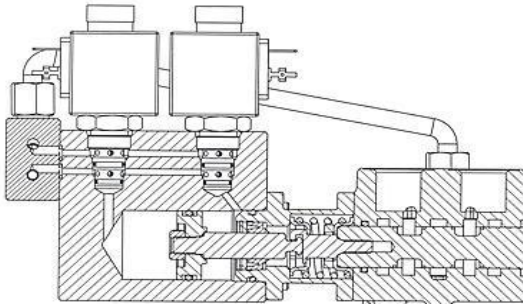
Spool - in position;  
**POSITION 2**



**4 positions and 4th position can be spool - in or spool -out position optionally;**  
**POSITION 3**

SC1		3 positions spring centered
SC2		3 positions spring centered, detent in 1st position
SC3		3 positions spring centered, detent in 2nd position
SC4		3 positions, detent in all positions
SC5		2 positions spring centered
SC6		2 positions spring centered
SC7		2 positions, detent in both positions
SC8		2 positions, detent in both positions
SC9		4 positions spring centered, detent in 3rd position
SC23		4 positions spring centered, detent in 3rd position
SC10		4 positions, detent in all positions
SC21		4 positions, all spring centered
SC22		4 positions, all spring centered
SC24		4 positions, detent in all positions

SC11		2 positions spring centered in 1st position
SC12		2 positions spring centered in 2nd position
SC13		2 positions, detent in both positions
SC15		3 positions pneumatic control
SC16		3 positions hydraulic control
SC17		3 positions electro-hydraulic control
SC18		3 positions microswitch operated in both positions
SC19		3 positions microswitch operated in 1st position
SC20		3 positions microswitch operated in 2nd position
SC28		3 positions, spring centered and detent with spring in all positions
SC29		Hydraulic Kick-out
SC30		3 positions, Elektro-pneumatic control
SC32		3 positions, direct solenoid control (push type)
SC14		3 positions, direct solenoid control (push pull type)



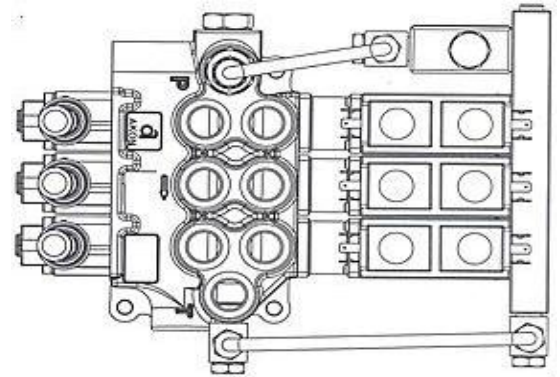
## ON-OFF ELECTRO-HYDRAULIC CONTROL

### Solenoid valve features

Coil power: 18 W  
Voltage: 12V or 24V DC  
Max. Pressure: 50 Bar  
Max. Flow: 5 lt/min

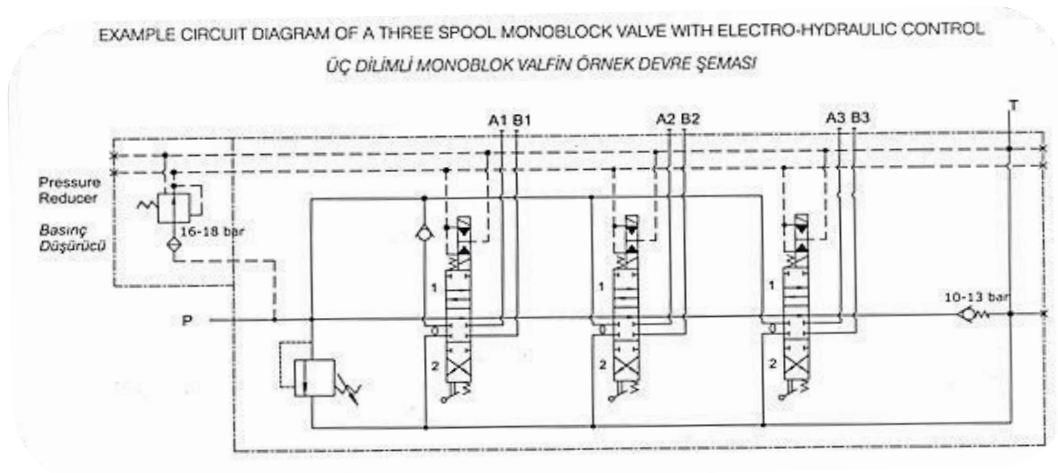
### Solenoid valf özellikleri

Bobin gücü: 18 W  
Voltaj: 12V veya 24V DC  
Max. Basınç: 50 Bar  
Max. Debi: 5 lt/dk



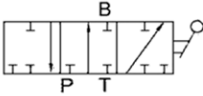



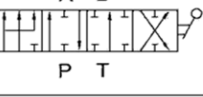







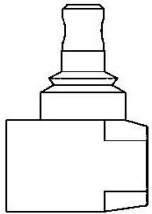
EXAMPLE CIRCUIT DIAGRAM OF A THREE SPOOL MONOBLOCK VALVE WITH ELECTRO-HYDRAULIC CONTROL

ÜÇ DİLİMLİ MONOBLOK VALFİN ÖRNEK DEVRE ŞEMASI

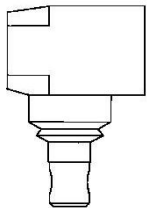




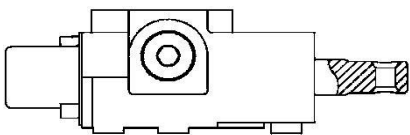
ST1		3 position Double acting spool
ST2		3 position Single acting on A side
ST3		3 position Single acting on B side
ST4		3 position Closed center spool
ST11		3 position Double acting spool A and B to tank
ST9		4 position Double acting with float on 4th position
ST10		4 position Double acting, regenerative in 4th position
ST5		3 position Single acting spool A open to tank
ST6		3 position Single acting spool B open to tank
ST7		3 position Double acting spool A to tank, B blocked
ST8		3 position Double acting spool B to tank, A blocked
ST12		3 position Double acting spool P open to A and B in 2nd position



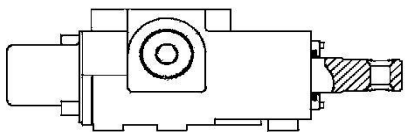
**NO CODE**  
Standard Lever



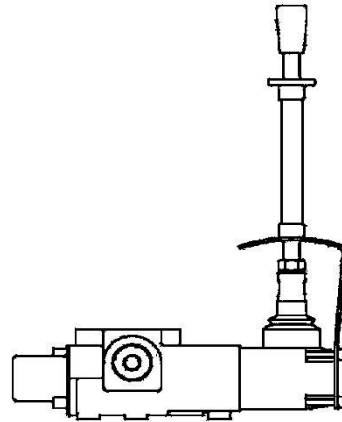
**CODE : K1**  
Reverse Lever



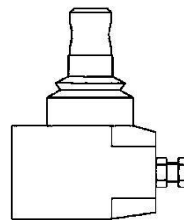
**CODE : K2**  
No Lever



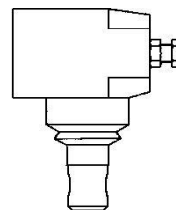
**CODE : K3**  
Without Lever with  
dustproof plate



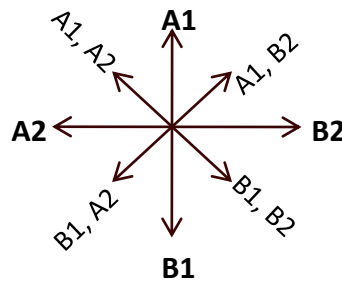
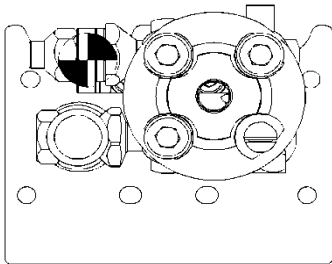
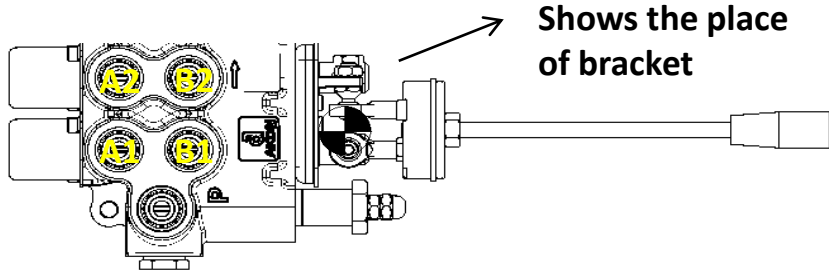
**CODE : K4**  
Safety Lever



**CODE : K5**  
With Spool Limiter



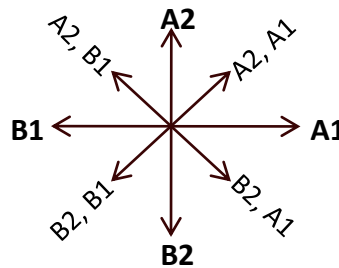
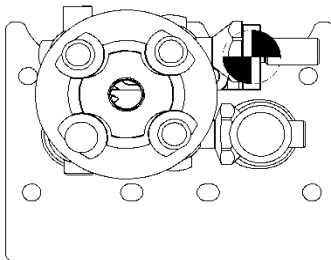
**CODE : K6**  
Reverse Lever with  
Spool Limiter



**CODE : K7-A**

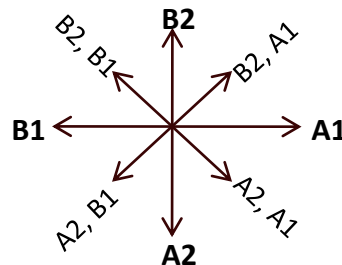
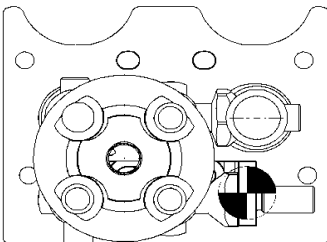
Manual joystick for 2 spools, bracket placed on top-left

\* If not specified this code will be standard



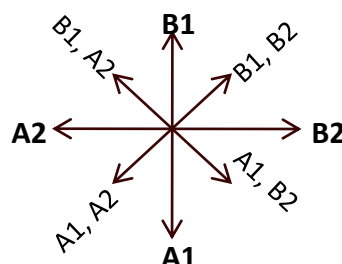
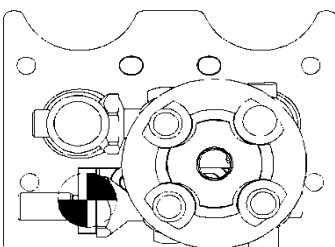
**CODE : K7-B**

Manual joystick for 2 spools, bracket placed on top-right



**CODE : K7-C**

Manual joystick for 2 spools, bracket placed on down-right



**CODE : K7-D**

Manual joystick for 2 spools, bracket placed on down-left.



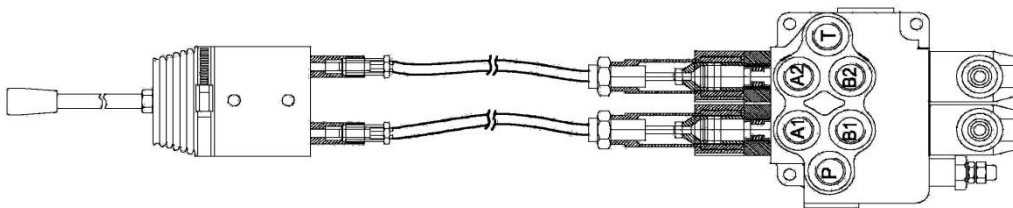
**CODE : K8**

Cable remote control on spring cap side



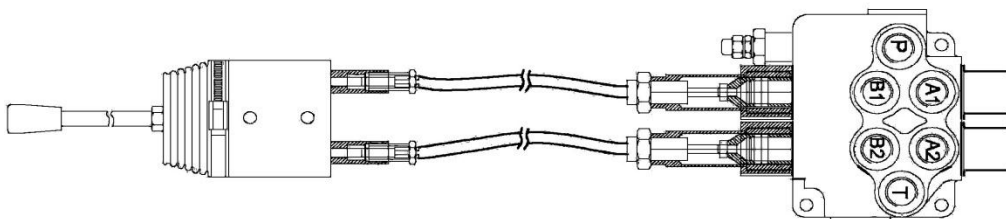
**CODE : K9**

Cable remote control on lever cap side



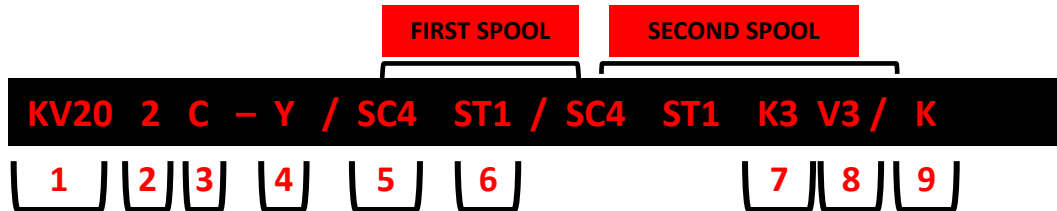
**CODE : K10**

Remote joystick control on spring cap side



**CODE : K11**

Remote joystick control on lever cap side



<b>1 Valve Type</b>	
<b>2 Number Of Spools</b>	
<b>3 Port Threads (P, A/B, T)</b>	C : G <sup>3/4</sup> (Please contact us for other thread demands)
<b>4 Main Relief Valve</b>	Y : Without main relief valve  R : With main relief valve (indicate pressure setting)
<b>5 Spool Controls and Actuators</b>	See page 10 (if necessary indicate more than one spool control or actuator)
<b>6 Spool Types</b>	See page 12
<b>7 Lever Types</b>	See page 13-15
<b>8 Service Valves</b>	See page 6-7
<b>9 Outlet</b>	See page 8  No code for standard  H : High pressure carry-over  K : Plugged for closed center

## AMF VALVES

AMF 01 valve is a specially designed auxiliary hydraulic valve for Massey Ferguson tractors for the operation of all kinds of hydraulic attachments on the tractor. Simple to attach and use:

- Valve can easily be attached to the tractor bolts where the cap hydraulic lift cover on the tractor has been removed.
- The three point linkage system control lever enables the user to lock and to control the movement speed of the linkage system sensitively while the handle position lock makes the control lever locked at the desired position and remains stable during the operations.



## TECHNICAL SPECIFICATIONS

Number of spools	1 - 2
Nominal flow	45lt/min
Max. Operating pressure	315 Bar
Adjustable Direct Operated Relief Valve	

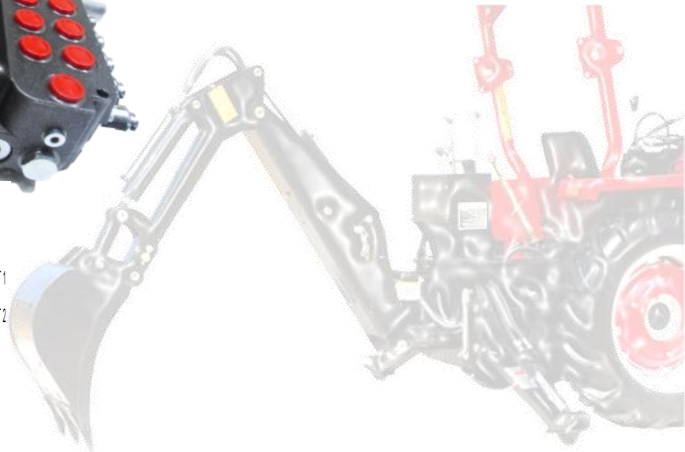
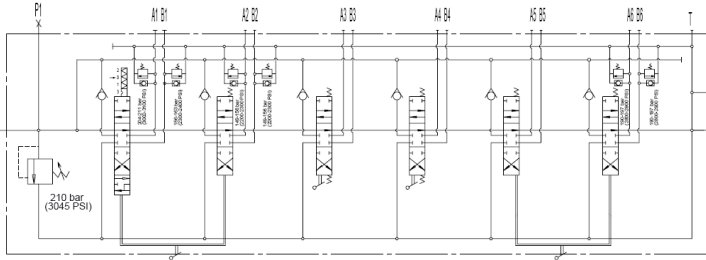
## OTHER CUSTOMIZED TRACTOR VALVES





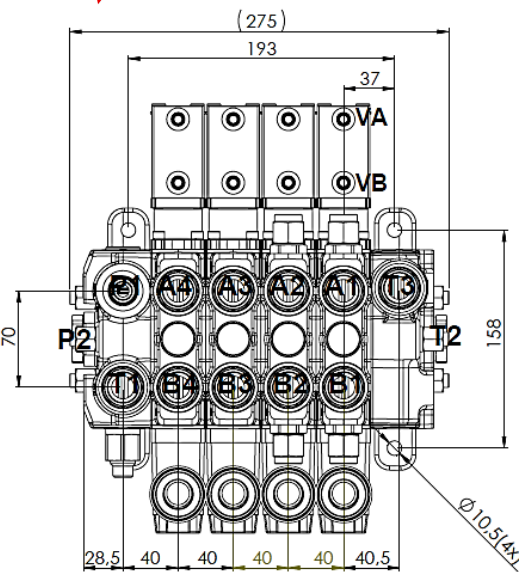
# KVM126

45LPM, Monoblock Back-Hoe Valve

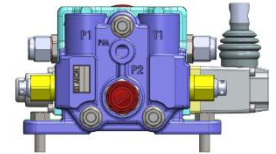


# KV17 SERIES

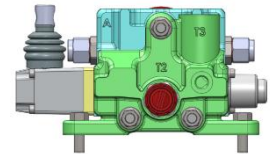
85LPM, Sectional Valve Series



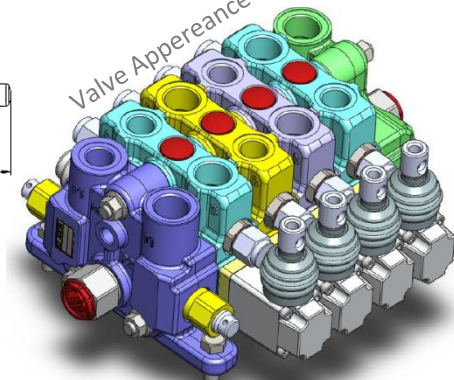
Side View



Side View



Valve Appearance

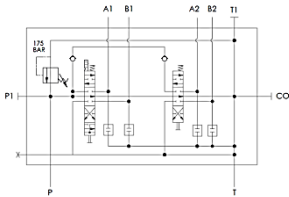






## LVM92

### 90LPM, Monoblock Rear Ported Front Loader Valve



↪ 2 Spool Open Center monoblock directional valve with closed center option,

↪ Standard 4 Position Float Spool for loader boom,

↪ With load hold check valves on each spool,

↪ Available secondary valves as an option,

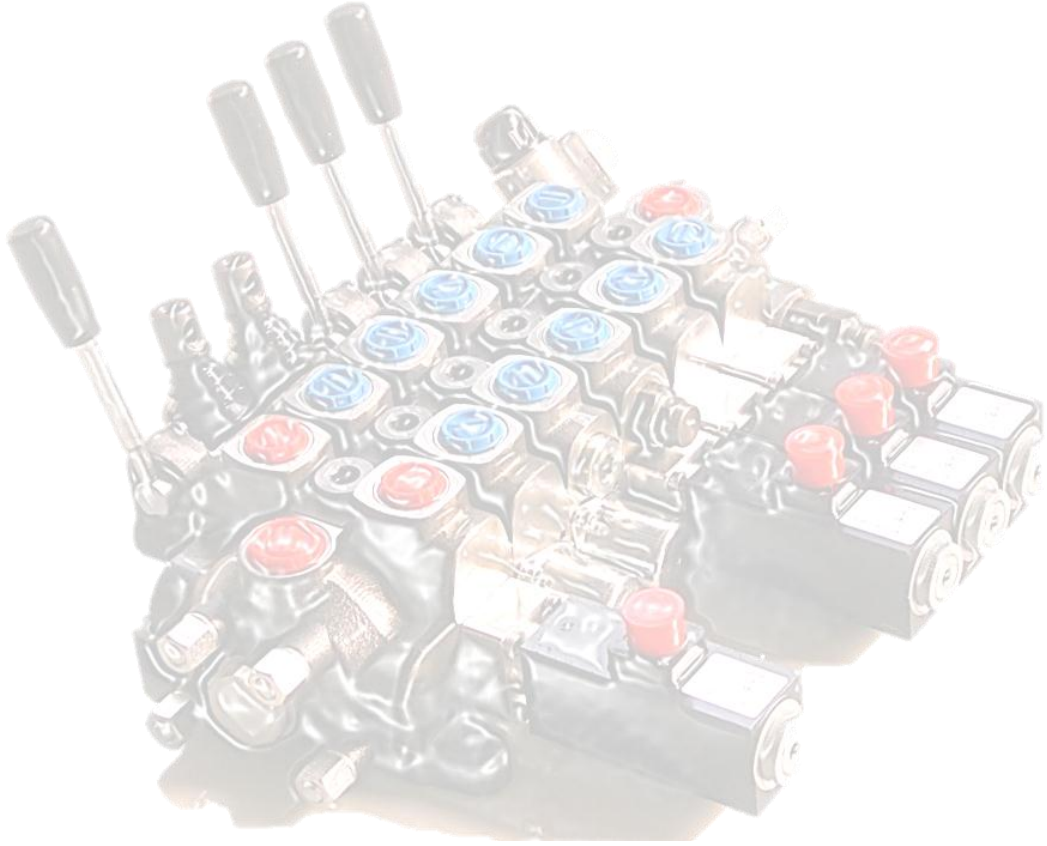
↪ Wide variety of spools increasing control ability,

↪ Load sensing option offers improved control and efficiency...



Compactly designed for your  
Front Loaders





*akışkan kontrol*

**AKON HIDROLİK VALF SAN. VE TIC. A.S.**

A.O.S.B. 10000 Sok. No.22

Cigli / Izmir/ Turkey

Tel: +90.232.376 79 99

Fax: +90232.376 80 78

E-Mmail: [info@akon.com.tr](mailto:info@akon.com.tr)

Web : [www.akon.com.tr](http://www.akon.com.tr)