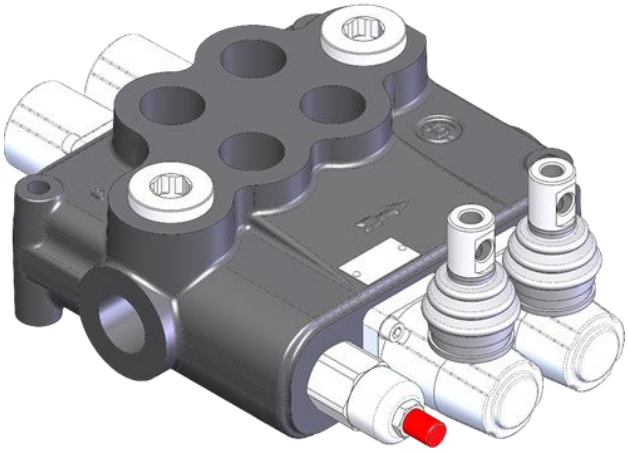
HYDRAULIC VALVES P120

Simple compact and heavy duty designed monoblock from 1 to 4 sections with open and closed centre hydraulic systems for high flow applciations:

- Equipped with a main pressure relief valve and a load check valve.
- Available with parallel circuit.
- Optional power beyond port for parallel circuits.
- 25 mm diameter interchangeable spools.
- Wide range of configuration options.
- Floating and regenerative spools and kits require additional machining of the valve body.
- Actuation – manual, pneumatic, electro-pneumatic, hydraulic, electro-hydraulic, and remote with flexible cable spool control kits.



APPLICATIONS

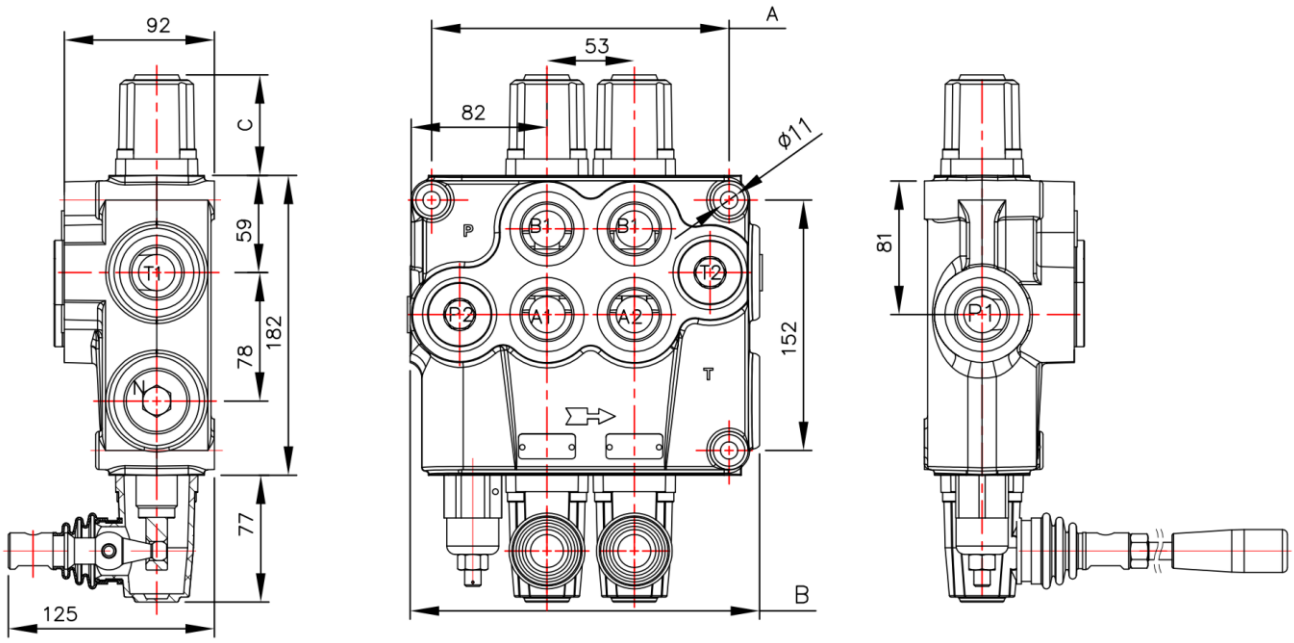
Construction and Earth moving

Industrial vehicles

Material handling

Specifications:

Mounting	3 bolts M10
Pressure connections	internal thread
Ambient temperature	from -40°C to 60°C
Hydraulic fluid	mineral oil based hydraulic oil
Viscosity	12-800 mm²/s permissible range 20-100 mm²/s recommended range
Fluid temperature	from -15°C to 80°C
Operating pressure (max.)	250 bar
Back pressure (max.)	50 bar
Leakage	30 cm³/min at 120 bar
Nominal flow	120 l/min
Spool stroke	± 10 mm
Actuating force	< 300 N in spool axis direction
Max. number of sections	4



Model	A	B	P1	P2	T1	T2
P120	129	160	+	+	+	+
02P120	182	213	+	+	+	+
03P120	235	266	+	+	+	+
04P120	288	319	+	+	+	+

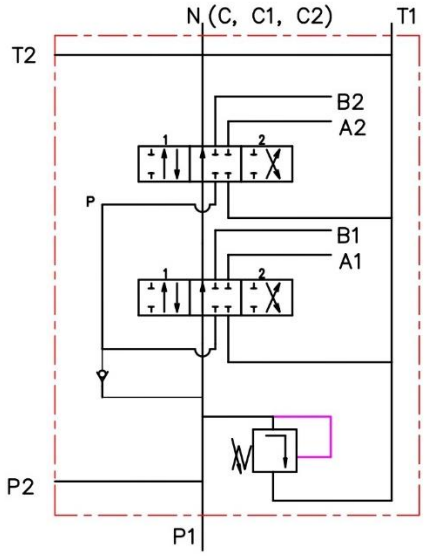
Spool control	C
1; 2; 3; 4; 5; 6; 7; 8; 9; 10; 11	64
12	74

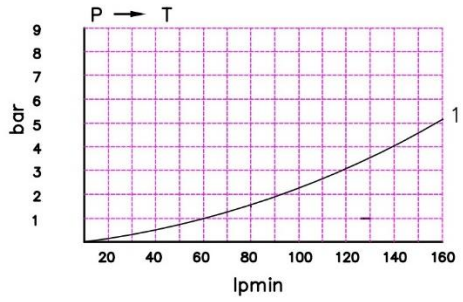
Order code

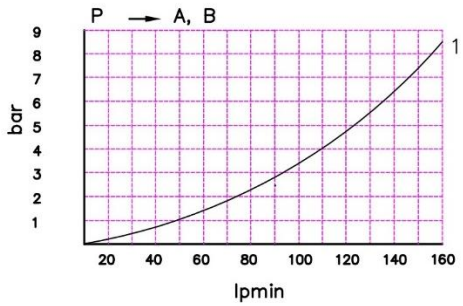
02 P120 1 A 1 A 1 G KZ1 H E C2 11 ...

2	Number of spools	Table 3
P120	Hydraulic directional control valve P120	
1	Parallel distribution	Table 4
A	Spool type – distribution	Table 5
1	Spool control	Table 6
A	Second spool distribution	Table 5
1	Second spool control	Table 6
G	Ports threads	Table 9
KZ1	Lever options	Table 10
H	Operation features	Table 8
E	Electric microswitch	Table 7
C2	Carry over center	Table 11
11	Connection ports in use	Table 12
...	Additional options	

02P120 1A1A1







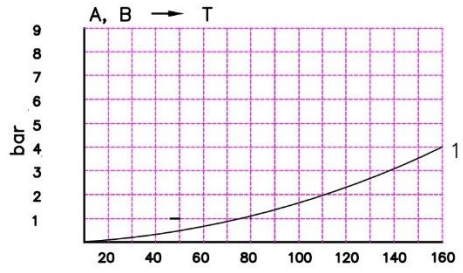


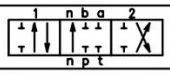
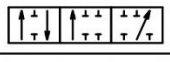
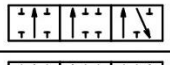
Table 3

	Number of spools
P120	1
02P120	2

Table 4

	Way of distribution
1	Paralel

Table 5

	Spool type
A	
B	
C	
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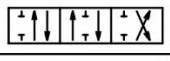
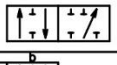
E	
F	
G	
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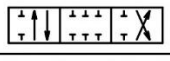
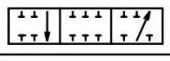
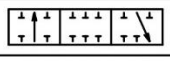
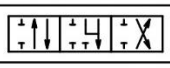
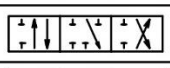
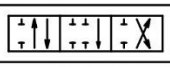
M	
N	
O	
P	
Q	
R	
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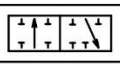
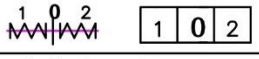
T	

Table 6

	Spool control
1	
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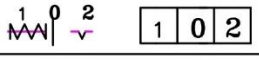
3	
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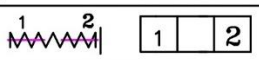
5	
6	
7	
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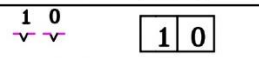
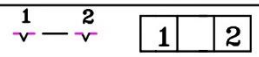
9	
10	
11	

Table 7

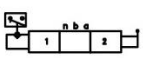
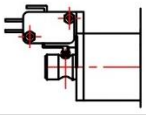
	Incorporated microswitch	
E		Microswitch type Omron-V 165 I C5 

Table 8

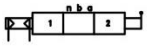
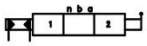
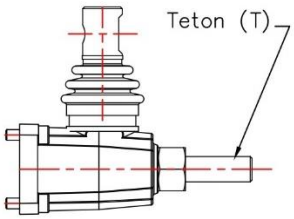
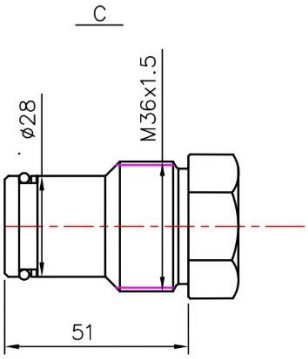
	Operation features	
P		ON/OFF pneumatic control, 5-10 bar, ports NPTF 1/8-27
H		ON/OFF hydraulic control, pn 5-20 bar, ports G1/4

Table 9

Outlets/ports	Metric	BSP	SAE	
P, A, B, T	M33x2	G 1"	SAE 16	
N	M36x1.5	–	–	–





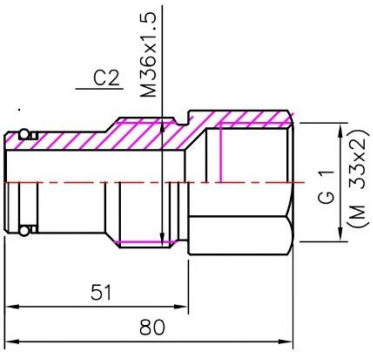


Table 10

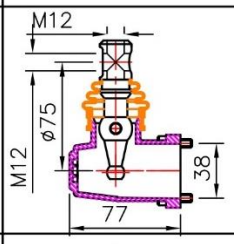
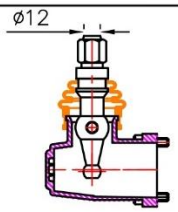
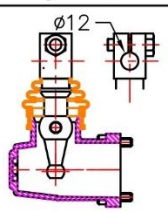
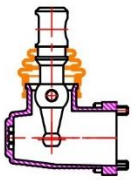
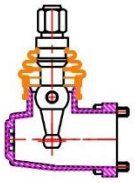
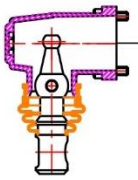
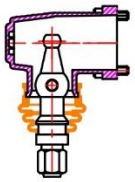
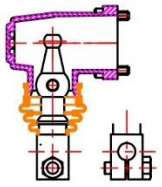
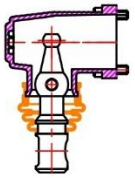
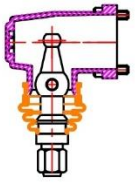
	With M12 thread		With fork Φ12		With fork Φ12
KZ		KY		KI	
KZ1	With lever L=200 mm 	KY1	With lever L=200 mm 		
KZ0	Rotated 180° 	KY0	Rotated 180° 	KI0	Rotated 180° 
KZ01	With lever L=200 mm 	KY01	With lever L=200 mm 		

Table 11

	Metric
X	With port N
–	With port N, closed
C	With port N and plug C – closed center
C1	Port N – carry-over for EO
C2	Port N – carry-over, internal thread

Table 12

	Ports for connection in use
11	P1 ; T1
12	P1 ; T2
21	P2 ; T1
21	P2 ; T1