

# Hydraulic Directional Control Valves

**Nordvalves**  
hydraulic components



For starting, controlling and stopping the working fluid between the generator of pressured flow, the consumers at the Tank.

## Specifications

1.Valve monoblock	
2.Mounting	3 bolts M10
3.Pressure connections	internal thread
4.Ambient temperature	-40C...+60C
5.Pressure medium	mineral oil based hydraulic oil
6.Viscosity	12...800 mm <sup>2</sup> /s permissible range 20...100 mm <sup>2</sup> /s recommended range
7.Fluid temperature	- 15C...+80C
8.Filtration	Oil contamination 10 to NAS1638
9. Max. operating pressure max. bar	P = 250 bar T = 50 bar A, B = 300 bar
10.Leakage	30 cm <sup>3</sup> /min at 120 bar
11.Nominal flow	120 l/min (see "operating" diagram)
12.Spools stroke	± 10 mm, L12 = ± 10 mm +6 mm
13.Actuating force	< 300 N in spool axis direction

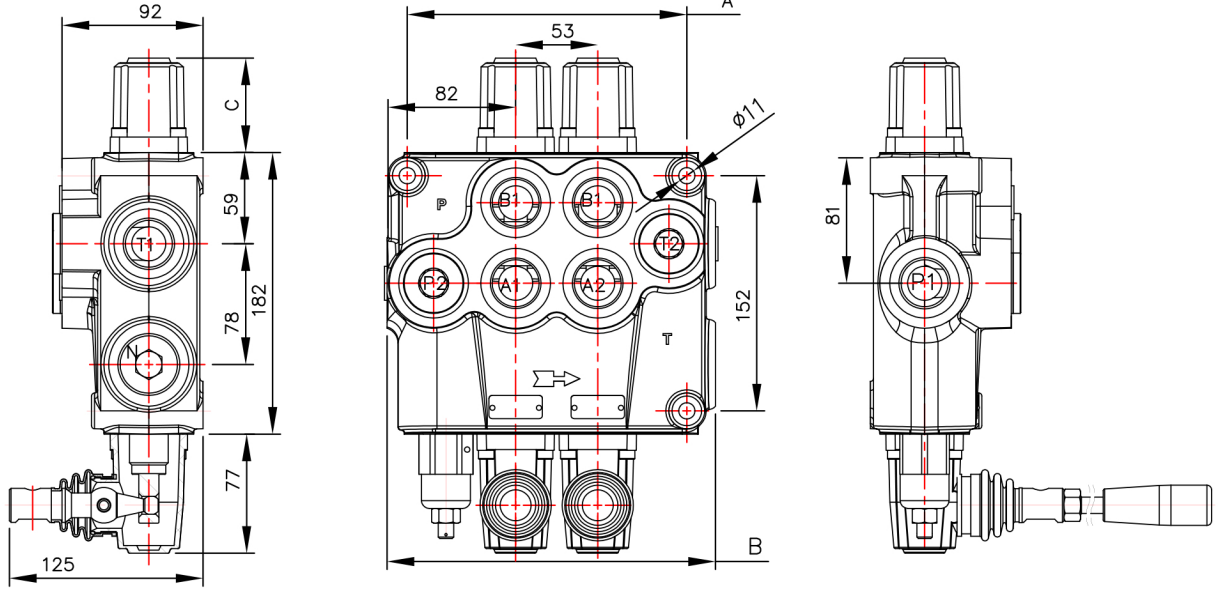


Table 1

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

Table 2

spool control фиксация золотника	C
1; 2, 3, 4; 5; 6; 7; 8; 9; 10; 11;	64
12	74

02 number of spools (table 3)  
 P120 hydraulic directional control valve P120  
 1 parallel distribution (table 4) (parallel)  
 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)  
 ... there is something else

02P120 1A1A1

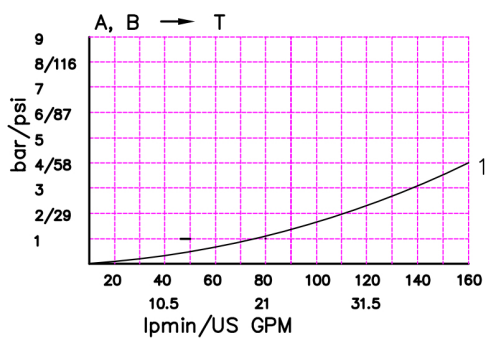
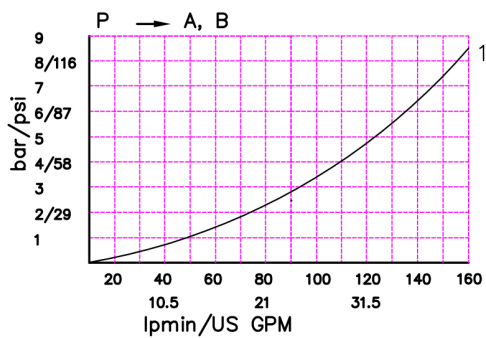
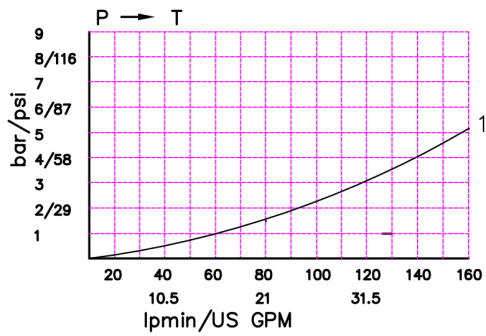
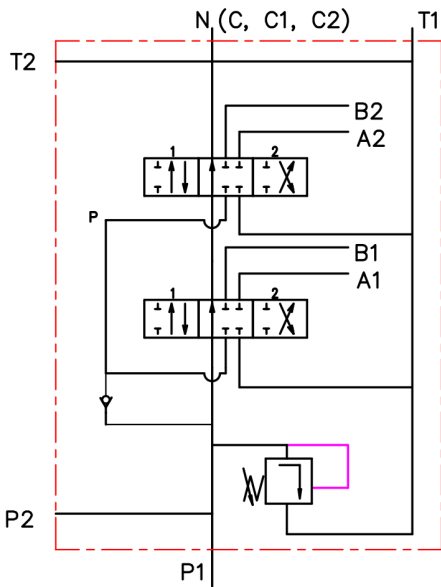


Table 3

code	Number of spools
P120	1
02P120	2

Table 4

code	way of distribution
1	parallel

Table 5

code	spool type
A	
B	
C	
D	
E	
F	
G	
H	
M	
N	
O	
P	
Q	
R	
S	
T	

Table 6

code	spool control
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	

Table 7

code	incorporated microswitch
E	<div style="display: inline-block; vertical-align: middle;"> <p>mikroswitch type Omron-V 165 I C5</p> </div>

Table 8

code	operation feature
P	<p>on-off pneumatic control; 5-10 bar; ports NPTF 1/8-27</p>
H	<p>on-off hydraulic control; pn = 5 - 20 bar; ports G1/4</p>

treads for conection

Table 9

outlets/ports/	metric	BSP	SAE	
P, A, B, T	M33x2	G 1"	SAE 16	
N	M36x1.5	—	—	—

Table 10

code	with thread M12	code	with zange $\varnothing 12$	code	with zange $\varnothing 12$
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

code	metric
X	without 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

code	ports for connection in uze
11	P1 ; T1
12	P1 ; T2
21	P2 ; T1
21	P2 ; T1

