



**SOLENOID PILOT OPERATED  
DIRECTIONAL CONTROL VALVE  
4DEP20**

**ENGINEERING**

**1**

**Ref. No. P04162**  
Release 06/2005

**Description**

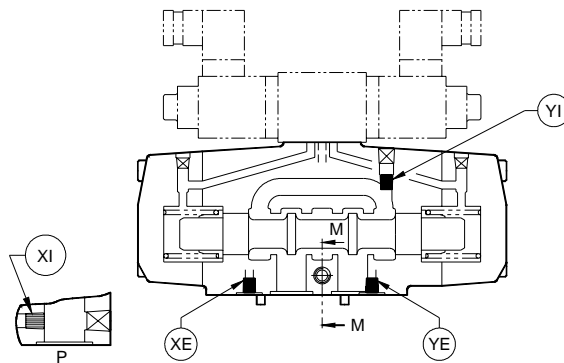
Completely encapsulated mechanism for protection against dirt.

Available as spring centred, spring offset

Valve mounting interface conforms to International and National standards.

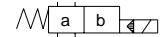


**Section**

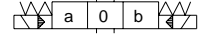


**Hydraulic Symbol**

2 position spring offset



3 position spring centered



For pilot pressure

External : Open XE

Close XI

Internal : Open XI

Close XE

For pilot drain

External : Open YE

Close YI

Internal : Open YI

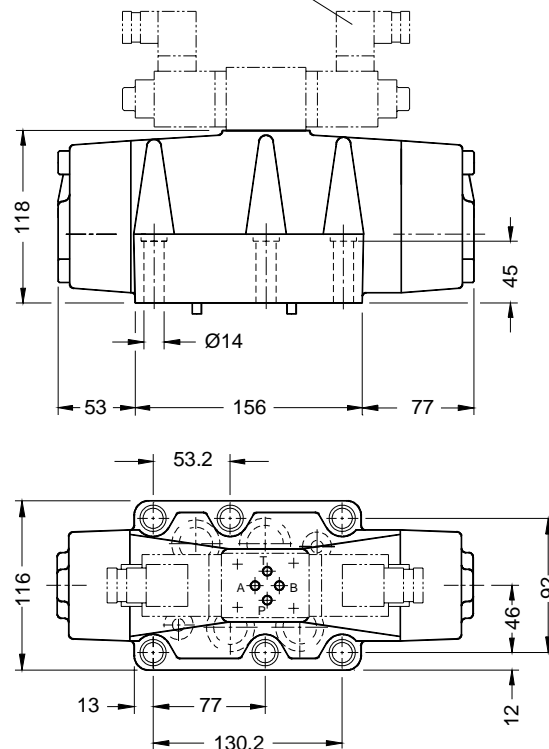
Close YE

**Unit Dimensions**

**Valve**

Provision

Dimensions in mm.



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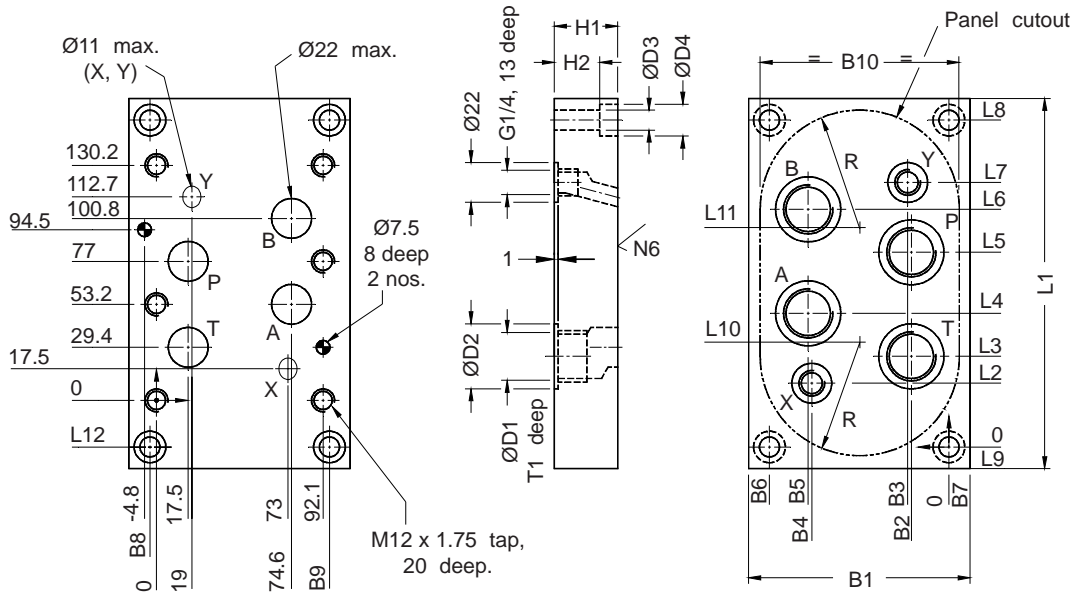
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**2**

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**Subplate**



Subplate type	ØD1	ØD2	T1	ØD3	ØD4	H1	H2	B1	B2	B3	B4	B5	B6	B7	B8	B9
1SD07G0	G 3/4	36	18	11	17.5	35	25	116	17.	19	73	74.5	92.	-1	0	92.
1SD07G0	G 1	44	18	11	17.5	35	25	116	17.	19	73	74.5	92.	-1	0	92.
1SD07G1	G1 1/4	54	21	14	--	78	43	170	32	36	106	110	142	-1	-2	117

Subplate type	B10	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	R	Mass kg.
1SD07G0	110	205	35.	50.	74	107.8	131.6	146.5	18	-1	50.	131.6	-25.8	55	6
1SD07G0	110	205	35.	50.	74	107.8	131.6	146.5	18	-1	50.	131.6	-25.8	55	6
1SD07G1	160	250	16.	60.	84	137.8	161.6	205	22	-1	103	119	-46	11	19

Note : Valve fixing screws M12 X 1.75, 65 long. 6 nos. Property class 12.9 Tightening torque 105 Nm.

**Technical Specifications**

Construction .....	Spool type
Mounting .....	Subplate mounting as per ISO 4401 - AE - 08 - 4 - A and IS - 10187 - 20 mm. diameter nominal port.
Mounting position .....	Optional
Flow direction .....	As per spool type.
Operating pressure .....	For port P, A, B and X ..... 350 bar For port T ( for external drain ) ..... 250 bar ( for Internal drain ) ..... 160 bar For port Y ..... 160 bar
Minimum pilot pressure .....	5 bar
Hydraulic medium .....	Mineral oil
Viscosity range .....	10 cSt to 380 cSt.
Fluid temperature range .....	-20 °C to +70 °C
Fluid cleanliness requirement .....	As per ISO 16/13 or better.
Maximum flow handling capacity .....	Refer performance curves.
Mass .....	17.5 Kg. APPROX



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**3**

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**Performance Curve**

Oil used : ISO VG 68, Viscosity : 68 cSt @ 40 °C, Temp test : 50 °C.

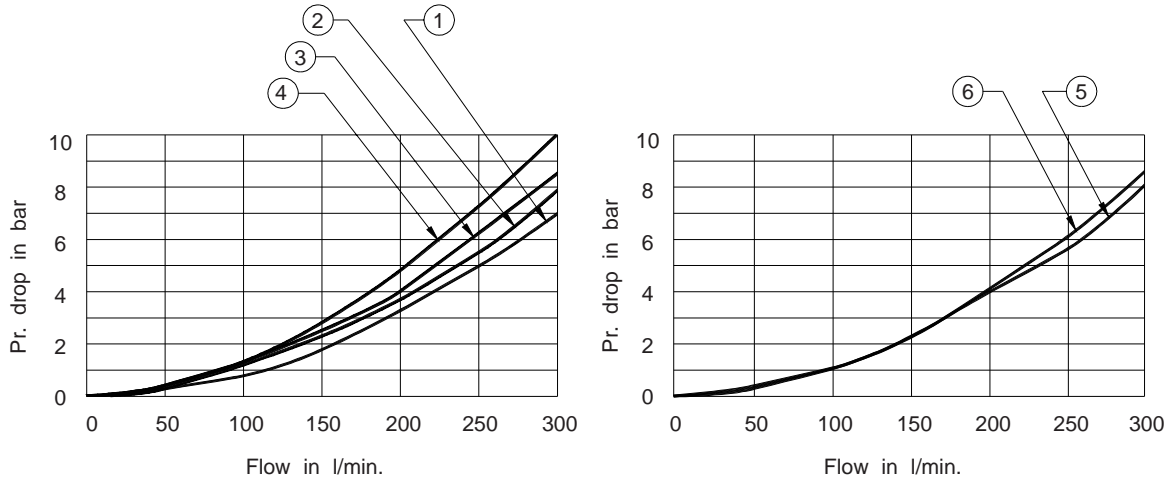


Table showing the relation between the spool type, direction of flow and curve in the above graph to be referred to.

Direction of flow	P to T	P to A	P to B	A to T	B to T
Spool type	Curve No.				
E	--	2	2	2	2
F	--	1	1	1	2
G	3	6	6	5	4
H	--	--	--	1	1
J	--	2	2	1	1
L	--	2	2	1	2
P	--	1	1	2	1



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4

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Ordering Code

4 DEP 20 E X S 10

4 Service port

Directional control valve  
Electrically controlled  
pilot operated

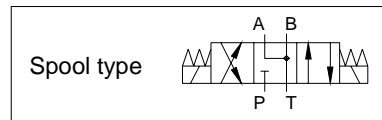
Size 20

Spool type (Refer chart)

Design code subject to  
change. Installation  
dimensions remain same.  
for design code 10 thru 19.

S  
Spring centred  
for 3 position valves  
Spring offset  
for 2 position valves

External pilot supply, External pilot drain.	XY
Internal pilot supply, External pilot drain.	Y
Internal pilot supply, Internal pilot drain.	Omit for Std.
External pilot supply, Internal pilot drain.	X



Note : Subplate and Solenoid (refer spool type) to be ordered separately.

Spool Chart

Type	Symbol	Crossover	Type	Symbol	Crossover
C			T		
D			M		
E			P		
F			Q		
G			U		
H			V		
J					
L					

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Subject to revision.