

Solenoid Operated Directional Valve

Model: WE4...2X



- ◆ Size 4
- ◆ Maximum working pressure 210 bar
- ◆ Maximum working flow 30 L/min

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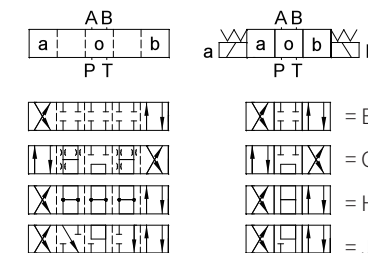
Features

- Solenoid operated direct type directional spool valve
- Wet-pin DC or AC solenoids

If the flow exceeds the maximum power limit of the valve during the direction changing process under the given working conditions, it is recommended to insert a plug-in throttle into port P.



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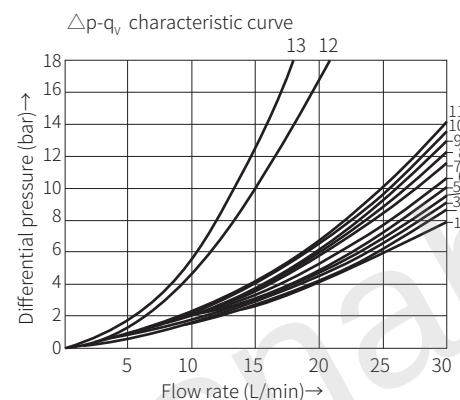
Technical parameters

Universal			
Installation position			Optional
Environment temperature range		°C	-30 to +50 (NBR seal) -20 to +50 (FKM seal)
Weight	Valve with one solenoid	kg	0.8
	Valve with two solenoids	kg	1.1
Hydraulic			
Maximum working pressure	Oil port A, B, P	bar	210
	Oil port T	bar	100 When the working pressure exceeds the allowable tank pressure, port T must be used as drain port for symbols A and B.
Maximum flow		L/min	30
Pressure fluid			Mineral oil (HL, HLP) ¹⁾ in accordance with DIN 51524; Fast living organisms degraded oil according to VDMA 24568; HETG (Rapeseed oil) ¹⁾ ; HEPG(Polyethyleneglycol) ²⁾ ; HEES (Synthetic Fats) ²⁾
Oil temperature range		°C	-30 to +80 (NBR seal) -20 to +80 (FKM seal)
Viscosity range		mm² /s	2.8 to 500
Oil cleanliness			The maximum allowable pollution level of oil is ISO4406 level 20/18/15
Electric			
Voltage available		V	24 (DC)
Allowable voltage tolerance (voltage unit)		%	± 10
Power consumption		W	19
Duty		%	100 (continued)
Switching time to ISO 6403	On ⁵⁾	ms	20 to 30
	Off	ms	10 to 20
Switching frequency		1/h	to 15000
Protective measures to EN 60529			IP65, plug-in connector installed and fixed
Maximum coil temperature		°C	150

- 1) For NBR seal and FKM seal.
- 2) Only for FKM seal.
- 3) The oil must meet the cleanliness degree requested by the components in the hydraulic system. Effective oil filtration can prevent failure and increase the service life of the components.

Characteristic curve

(Measured when using HLP46, $\vartheta_{oil}=40^{\circ}\text{C} \pm 5^{\circ}\text{C}$)



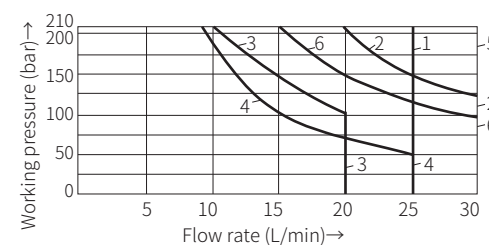
Symbol	Flow direction					
	P-A	P-B	A-T	B-T	P-T	B-A
A, B	7	6	-	-	-	-
C	11	11	8	7	-	-
D, Y	11	11	8	7	-	-
E	8	8	6	6	-	-
G	6	8	8	6	12	-
H	2	4	6	7	7	-
Q	9	8	4	5	-	-
L	9	7	1	5	-	-
M	3	3	7	7	-	-
R	11	9	5	-	-	13
J	10	10	3	4	-	-
W	11	11	8	7	-	-

Characteristic limit

(Measured when using HLP46, $\vartheta_{oil}=40^{\circ}\text{C} \pm 5^{\circ}\text{C}$)

The performance limits shown are valid when using valves with flow in both directions (e.g. flow from P to A with return flow from B to T). Because of the hydraulic force inside the valve, the allowable performance limit when oil flows in one direction (for example, from P to A and oil port B is blocked) is much lower!

Performance limits are measured using a solenoid coil at operating temperature and undervoltage 10%, without tank preinstalled.

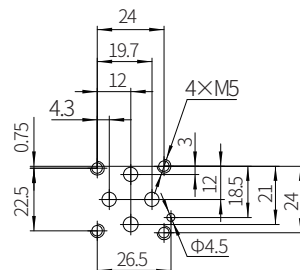
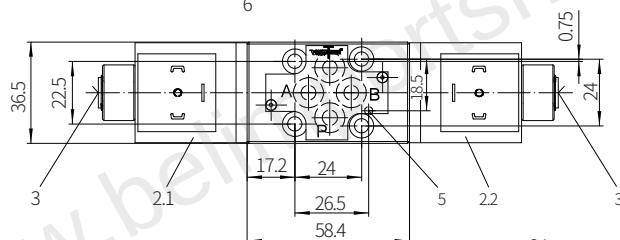
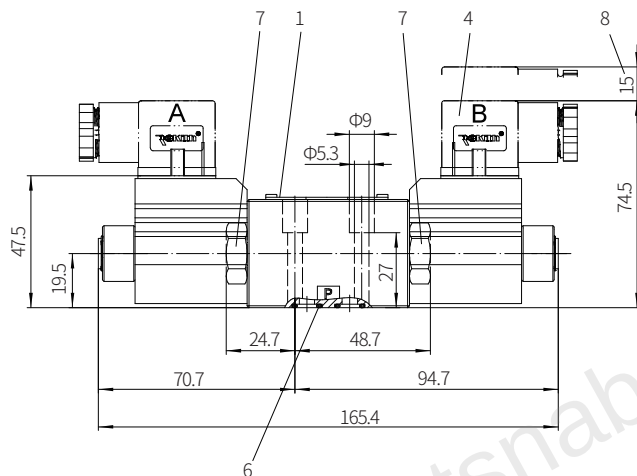


Characteristic curve	Symbol
1	C, C/O, C/OF, D, D/O, D/OF, Y
2	E, J, L, Q, U, W
3	G
4	A, B
5	H, M
6 ¹⁾	R

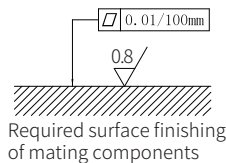
Return oil flow
(Independent from area ratio)
Other switching performance limits available on request!

Model 4WE4...2XJ/...

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- 1 Name plate
- 2.1 Solenoid "a"
- 2.2 Solenoid "b"
- 3 Manual emergency operation "N9"
- 4 Plug
- 5 Hole of locating pin
- 6 O-ring (for oil port P, A, B, T)
- 7 Plug for valve with one solenoid
- 8 Space required to remove the plug
- Valve fixing screw
- M5x35-10.9 grade GB/ T70.1-2000
- Tightening torque $M_A=6Nm$



Required surface finishing
of mating components