

Explosion-proof Solenoid Directional Valve

Model: GD-WE6...6X

БЕЛИМПОРТНАБ



- ◆ Size 6
- ◆ Maximum working pressure 350 bar
- ◆ Maximum working flow rate 80 L/min-DC
60 L/min-AC

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Features

- With the direct type solenoid operated directional spool valve as the standard type
- Wet-pin explosion-proof solenoid with detachable coil

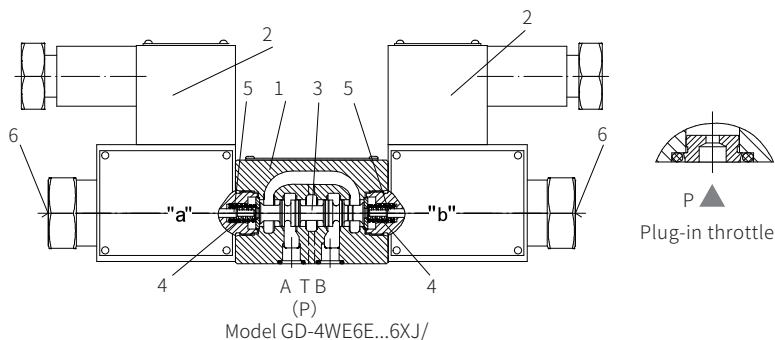
Function description, sectional drawing

The GD-WE6 directional control valve is a directional spool valve operated by a explosion-proof solenoid, it is used to control the opening, closing and flow direction of the liquid flow.

This directional control valve mainly includes valve body (1), one or two explosion-proof solenoids (2), control spool (3) and one or two reset springs (4).

In the non-energized condition, the control spool (3) is held in the middle or initial position by the reset spring (4). The control spool (3) is operated by the wet-pin explosion-proof solenoid (2). To ensure the proper functioning, the pressure chamber of the solenoid must be filled with oil.

The force of the explosion-proof solenoid (2) acts on the control spool (3) through the push rod (5) to push from the stationary position to the required position. In this way, the oil flows freely from P to A and B to T, or P To B and A to T. When the explosion-proof solenoid (2) is powered off, the control spool (3) is pushed back to the initial position by the reset spring (4).



Models and specifications

Models and specifications		more information in text	
explosion proof class I =G1		No code=	sealing material NBR seals
explosion proof class II =G2		V=	FKM seals (consult for other seals)
explosion proof valve		No code=	no plug-in throttle port
working oil port			plug-in throttle port (see table)
3 working oil ports	=3		
4 working oil ports	=4		
function symbol			
60 to 69 series	=6X		
(60 to 69 series installation and connection size unchanged)			
with reset spring	=No code		
no reset spring	=O		
no reset spring, with detent	=OF		
voltage			
G24	=24V DC		
B36	=36V AC with rectifier		
B127	=127V AC with rectifier		
B220	=220V AC with rectifier		

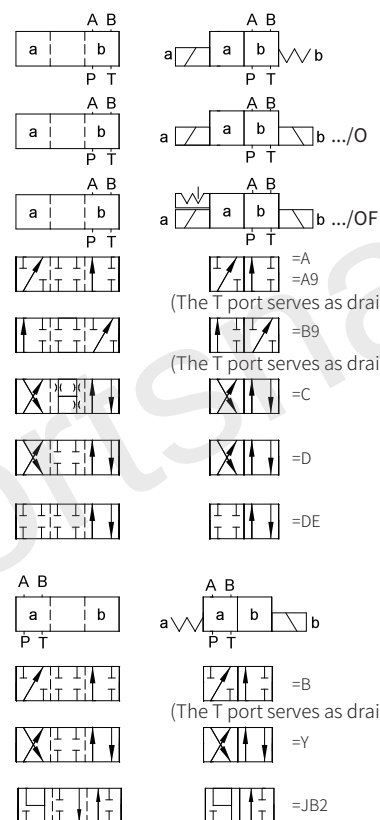
Oil port	throttle port Ø(mm)		
P	=B08	=B10	=B12
A	=H08	=H10	=H12
B	=R08	=R10	=R12
A and B	=N08	=N10	=N12
T	=X08	=X10	=X12

Note:

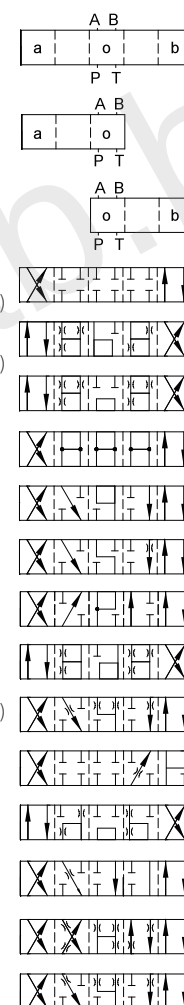
G1 explosion-proof grade EXD I
G2 explosion-proof grade EXD II CT4

Functional symbols

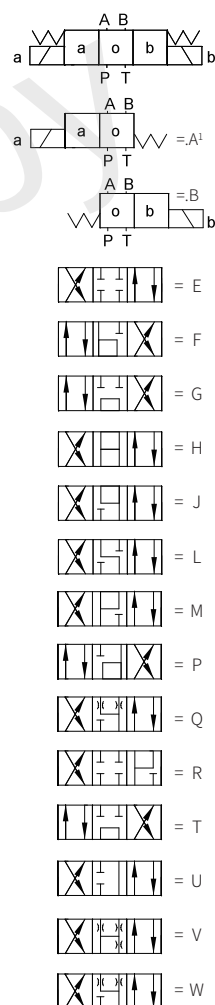
Transition function Spool valve function



Transition function



Spool valve function



1) For example: .

The function symbol EA means the coil on side A

Note: Functions A9 and B9 are only used as pilot valves

Technical parameters

Hydraulic				
Maximum working pressure	Oil ports A, B, P	bar	350	
	Oil port T	bar	210	
			When the working pressure exceeds the allowable pressure, the valves with symbols A and B must use T port as the drain port.	
Maximum flow		L/min	80	
Effective over-flow section (spool position)	symbol Q	mm ²	About 6% cross-sections	
	symbol W	mm ²	About 3% cross-sections	
Oil 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) -15 to +80 (FKM seal)	
Viscosity range	mm ² /s		2.8 to 500	
Cleanliness of oil			The maximum allowable pollution level of oil is ISO4406 level 20/18/15	

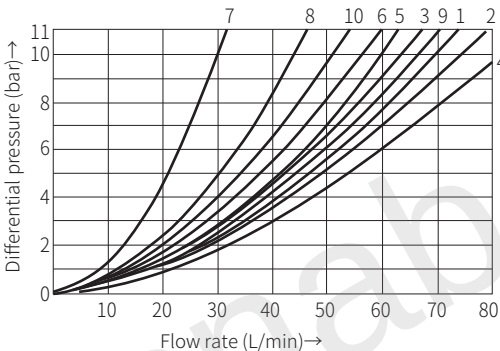
- 1) For NBR seal and FKM seal.
2) Only for FKM seal.
3) The oil must meet the cleanliness degree requested by the components in the hydraulic system.
Effective oil filtration can prevent failure and increase the service life of the components.

Electric				
Voltage type	DC		AC Rectifier	
Voltage available ⁴⁾	v	24	36	127 220
Allowable voltage tolerance (voltage unit)	%	± 10	± 10	
Power consumption	W	30	—	
Holding power	VA	—	50	
Impact power	VA	—	220	
Power rate	100 %		100 %	
Switching time to ISO6403	On	ms	25 to 45	10 to 20
	Off	ms	10 to 25	15 to 40
Maximum switching frequency	1/h	15000	7200	

4) Other voltages are determined as required

Characteristic curve

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



Functional symbol	Flow direction			
	P-A	P-B	A-T	B-T
A; B	3	3	—	—
C	1	1	3	1
D; Y	5	5	3	3
E	3	3	1	1
F	1	3	1	1
T	10	10	9	9
H	2	4	2	2
J; Q	1	1	2	1
L	3	3	4	9
M	2	4	3	3
P	3	1	1	1
R	5	5	4	—
V	1	2	1	1
W	1	1	2	2
U	3	3	9	4
G	6	6	9	9

- 7 Symbol R in control position B→A
8 Symbols G and T in center position
9 Symbols H and T in center position P→T

