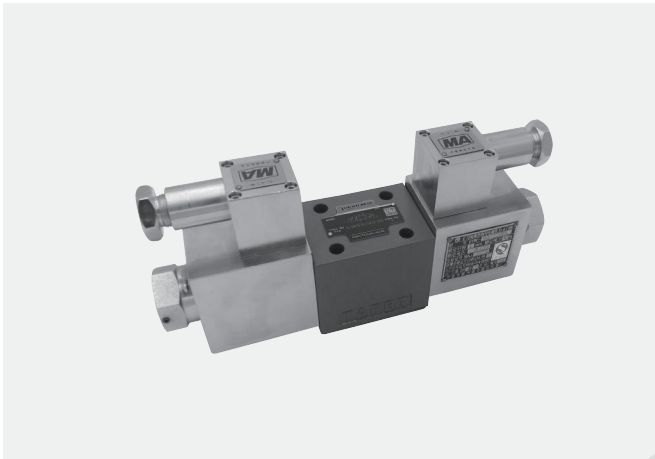


Explosion-proof Solenoid Directional Valve

Model: GD-WE10...3X



- ◆ Size 10
- ◆ Maximum working pressure 315 bar
- ◆ Maximum working flow rate 120 L/min

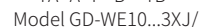
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Features

- Solenoid operated directional spool valve
- Wet-pin explosion-proof solenoid

When the explosion-proof solenoid (2) is powered off, the control spool (3) is pushed to the initial position by the return spring (4).



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

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, port T must be used as the drain port for symbols A and B.
Maximum flow		L/min	120
Effective over-flow section (spool position)	symbol Q	mm²	About 6% cross-sections
	symbol W	mm²	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		mm²/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.

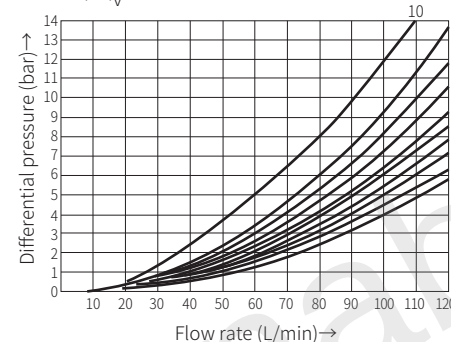
Electric			
Voltage type		DC	AC Rectifier
Available voltage ⁴⁾	v	24	36 127 220
Allowable voltage tolerance (voltage unit)	%	±10	±10
Power consumption	W	30	—
Holding power	VA	—	50
Impact power	VA	—	220
Power rate		100 %	100 %
Switching time to ISO6403	On	ms	25 to 45
	Off	ms	10 to 20
Maximum switching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

4) Other voltages are determined as required

Characteristic curve

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

$\Delta p-q_v$ -characteristic curve



Flow direction				
Function symbol	P - A	P - B	A - T	B - T
A, B	3	3	-	-
C	3	3	4	5
D, Y	5	5	6	6
E	1	1	4	4
F	2	3	7	4
G	3	3	6	7
H	1	1	6	7
J	1	1	3	3
L	2	2	3	5
M	1	1	4	5
P	4	2	5	7
Q	1	2	1	3
R	3	6	4	-
T	3	3	6	7
U, V	2	2	3	3
W	2	2	4	5
Switch position	P - A	B - A	A - T	P - T
R	-	9	-	-

	P - A	P - B	B - T	A - T	P - T
F	4	-	-	9	9
P	-	5	8	-	10
G, T	-	-	-	-	9
H	-	-	-	-	3

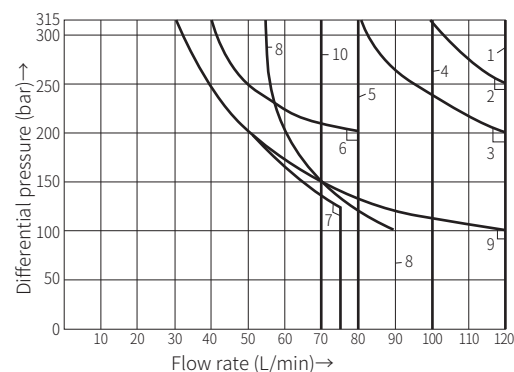
Characteristic limit

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

The indicated switching power limit applies to two flow directions (e.g. from P to A and simultaneous return oil flow from B to T).

Due to the effect of hydraulic power inside the valve, the allowable power will be significantly reduced when there is only one flow direction (e.g. from P to A, and the B oil port is closed).

The switching power limit is measured when the solenoid is at the operating temperature, at 10% below the standard voltage and without tank preloading.

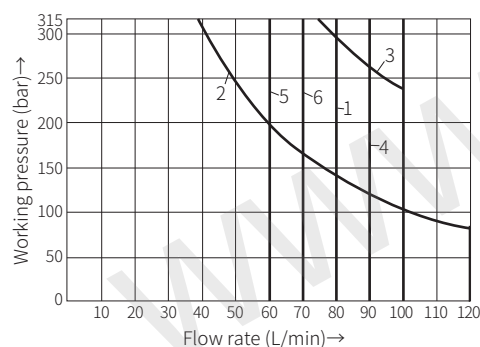
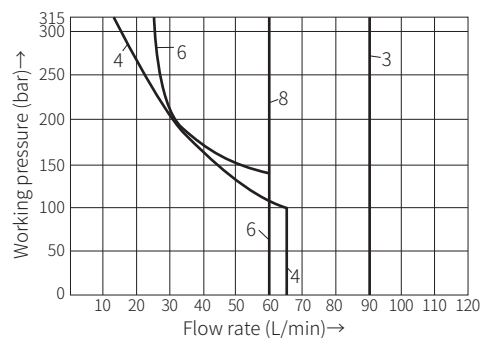
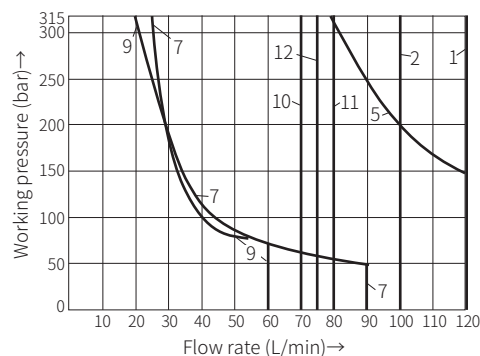


Characteristic curve	Functional symbols
1	C, C/O, C/OF, D, D/O, D/OF, Y, M
2	E
3	A/O, A/OF, L, U, Q, W
4	H
5 ¹⁾	R, L ²⁾ , U ²⁾
6	G
7	T
8	F, P
9	A, B
10	V

1) Return oil flow (Independent from area ratio)

2) Applicable only in the middle position

Characteristic limit

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

Characteristic curve	Function symbol
1	C, C/O, C/OF D, D/O, D/OF Y
2	E, L, U Q, W
3	M
4	A, B
5	A/O, A/OF, J
6	G
7	F, P
8	V
9	T
10	H
11	R
12 ¹⁾	L, U

1) Applicable only in the middle position

42V, 50Hz; 110V, 50Hz; 120V, 60Hz;
127V, 50Hz; 220V, 50Hz; 240V, 60Hz

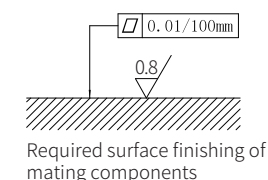
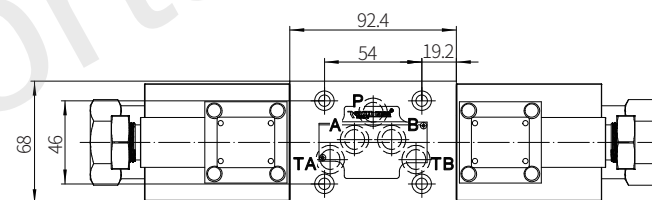
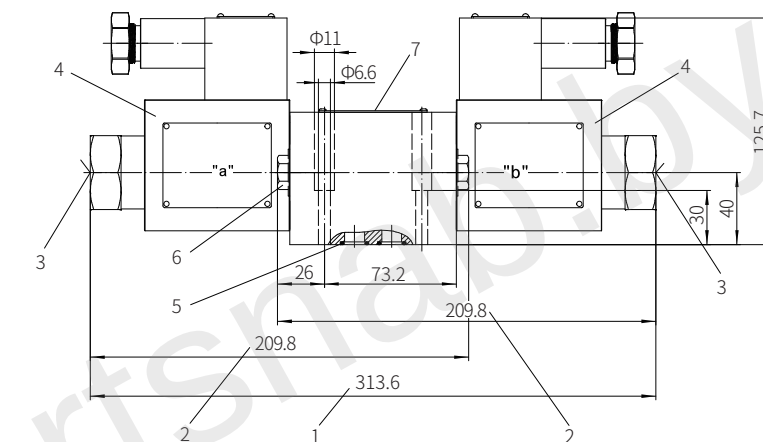
Characteristic curve	Function symbol
1	C, C/O, C/OF D, D/O, D/OF Y
2	A/O, A/OF
3	E
4	M
5	V
6	H

42V, 60Hz; 110V, 60Hz;
127V, 60Hz; 220V, 60Hz
Please consult us the power
limit of the special valve spools!

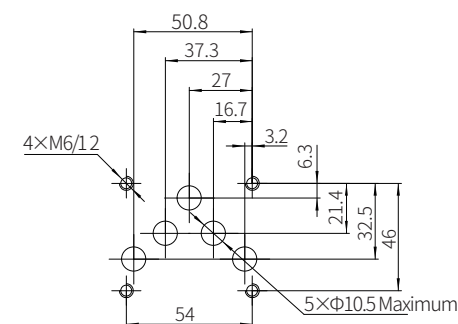
Component size

Size unit: mm

Model GD-4WE10...-3XJ/...

Required surface finishing of
mating components

- 1 Size of 3-position valve
- 2 Size of 2-position valve
- 3 Hidden emergency button
- 4 Solenoids
- 5 O-ring 12x2 (for oil ports P, A, B, T)
- 6 Plug for valve with one solenoid
- 7 Name plate

Valve fixing screw
M6x60-10.9 grade GB/T70.1-2000
Tightening torque $M_A=13.7\text{Nm}$ It must be ordered separately
if connection subplate is needed.
Subplate model:G66/01 (G3/8"); G66/02 (M18x1.5)
G67/01 (G1/2"); G67/02 (M22x1.5)
G534/01 (G3/4"); G534/02 (M27x2)