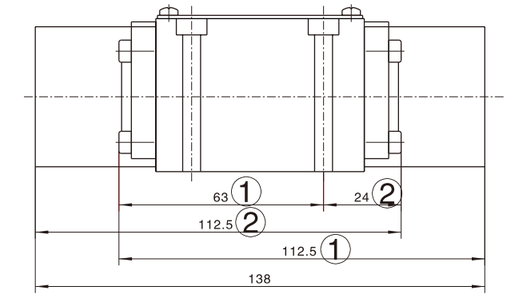
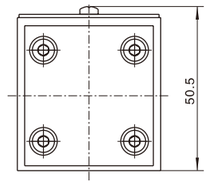
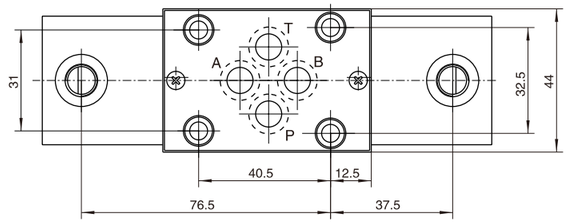
Hydraulic–operated Directional Control Valve

Dimension

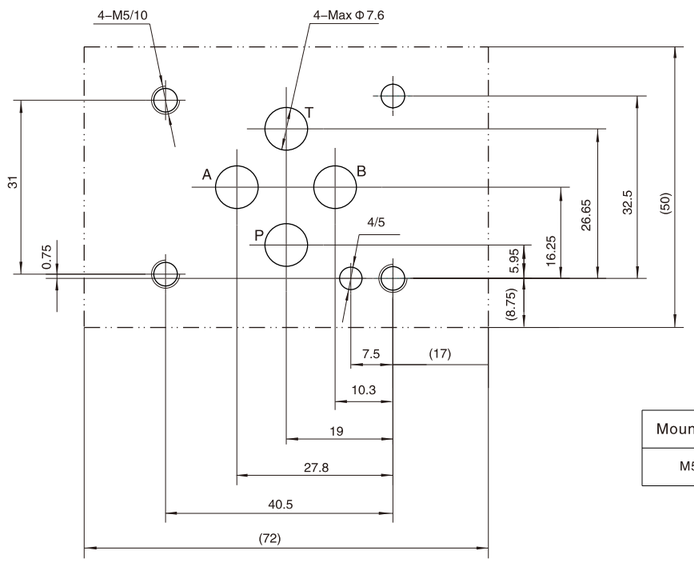




①②2–station valve



Subplate size

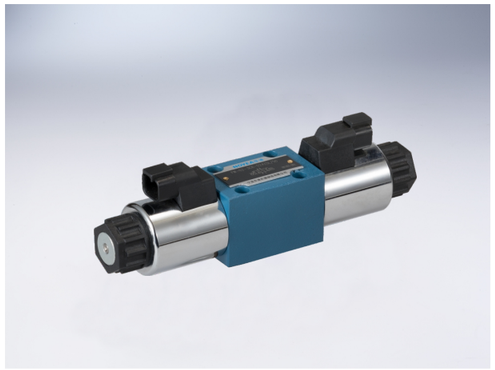


Mounting bolt	Qty	Tightening torque
M5X45	4	9Nm

Note:The surface, connecting with the valve, should be Ra0.8 roughness, and 0.01/100mm flatness.

Water–proof Electrical Operated Directional Control Valve

Technical specification



Specification		02
Working pressure (MPa)	Oil ports P, A, B	31.5
	Oil port T	10
Max. Flow (L/min)		80
Working fluid		Mineral oil; phosphate–ester
Fluid temp. (℃)		–20~70
Viscosity (mm^2/s)		2.8~380
Working voltage (V)		DC 12 24
Max.Switch frequency (T/h)		15000
Insulation grade		Ip65
Cleanliness	The maximum allowable cleanliness of the oil should be according to 9th degree of Standard NAS1638.It is suggested that the minimum filter rating should be β 10≥75.	

Water–proof electrical operated directional control valve uses solenoid to pull the spool and change the direction of the hydraulic oil.

Water–proof electrical operated directional control valve can directly control the start, stop and direction of a fluid flow. It also can be used as the pilot–operated valve, which could operate other valves.

Supplement: Water–proof electrical operated directional control valve is usually used at damp environment such as garbage trucks.

Model description

WPF W – * – * – * * / * * 51 *

Water–proof electrical operated directional control valve

Specification
02 DN6
03 DN10

Function code
Details as following symbol table

Working voltage
D12 DC12V
D24 DC24V

Remarks

Serial number

Seal material
Omit NBR Seals
V FPM Seals

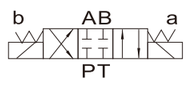
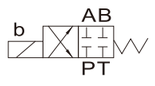
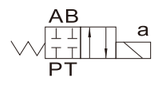
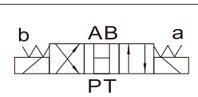
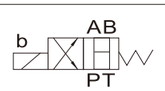
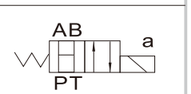
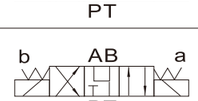
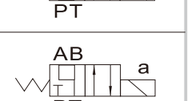
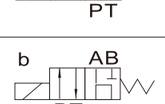
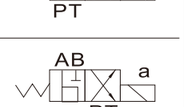
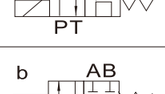
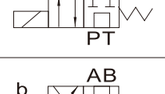
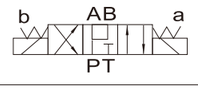
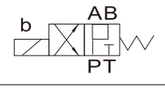
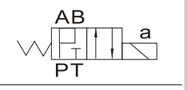
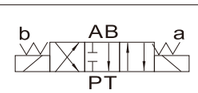
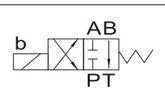
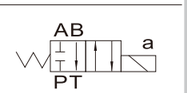
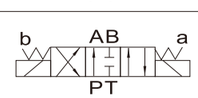
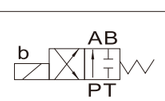
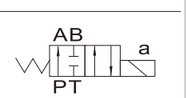
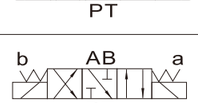
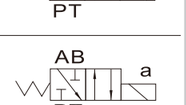
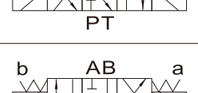
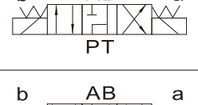
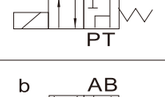
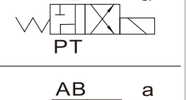
Omit without damping
08 Φ0.8 Damping
10 Φ1.0 Damping
12 Φ1.2 Damping

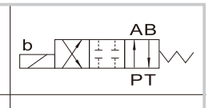
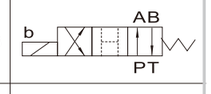
Omit without hand emergency
N9 with concealed hand emergency

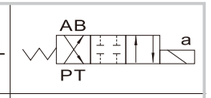
Water-proof Electrical Operated Directional Control Valve

Code symbol

Spring return

3C2		2B2B		2B2BL	
3C3		2B3B		2B3BL	
3C4		2B4B		2B4BL	
3C5		2B5B		2B5BL	
3C6		2B6B		2B6BL	
3C7		2B7B		2B7BL	
3C9		2B9B		2B9BL	
3C10		2B10B		2B10BL	
3C11		2B11B		2B11BL	
3C12		2B12B		2B12BL	
3C25		2B25B		2B25BL	
3C29		2B29B		2B29BL	

2B2	
2B3	
2B8	

2B2L	
2B3L	
2B8L	

Water-proof Electrical Operated Directional Control Valve

Name of solenoid

1. a When movement a, P→A B→T
2. b When movement b, P→B A→T
3. 3C5,3C6Oil flow in the opposite direction with the above-mentioned movement.

Specification Performance curve (Measured at υ=41mm²/s and t=50℃)

Function code	Direction			
	P→A	P→B	A→T	B→T
2B8 2B8L	3	3	–	–
2B3	1	1	3	1
2B2 2B2L	5	5	3	3
3C2	3	3	1	1
3C5	1	3	1	1
3C6	6	6	9	9
3C3	2	4	2	2
3C4	1	1	2	1
3C10 3C12	3	3	4	9
3C9	2	3	3	3
C25	3	1	1	1
3C29	5	5	4	–
3C7	1	2	1	1

7.Spool type "3C29" located in the control position A → B
8. Spool symbol 3C6 in the median position P→ T

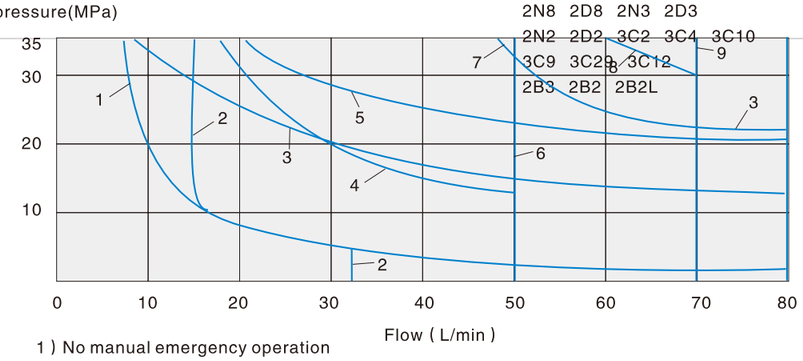
Water-proof Electrical Operated Directional Control Valve

Specification Working limits (The working limits for directional valve have determined by using solenoids attheir operating temperature, 10% under voltage and with no pre-loading of the tank.)

With regard to the four-way valve, the normal flow data as shown is get from the regular use of two directions of the flow (e.g.P to A,and simultaneous return flow from B to T). See tables.
If only one flow direction is needed, for example: When a four port valve which is closed up port A or port B, used as a three-way valve, the Maximum flow may be very small in the serious condition.

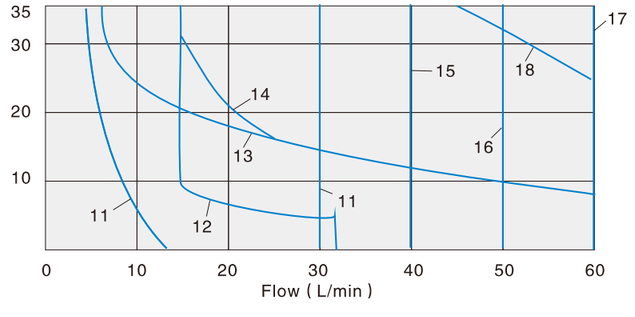
DC solenoid operation DC D24, D1 2, B220, B110		AC solenoid operation AC A110, A220, 50HZ	
Curve	Symbol	Curve	Symbol
1	2B8 2B8L1)	11	
2	3C7	12	
3	2B8 2B8L	13	
4	3C5 3C25	14	
5	3C4	15	
6	3C6 3C3	16	
7	2N8 2D8 3C10 3C12	17	
8	2B3 2B2 2B2L		2B8 2B8L1)
9	3C9		3C7
10	3C2 3C29 2N3	18	2B8 2B8L
	2D3 2N2 2D2		3C5 3C25
			3C6
			3C3
			2N8 2D8 2N3 2D3
			2N2 2D2 3C2 3C4 3C10
			3C9 3C29 3C12
			2B3 2B2 2B2L

Working pressure(MPa)



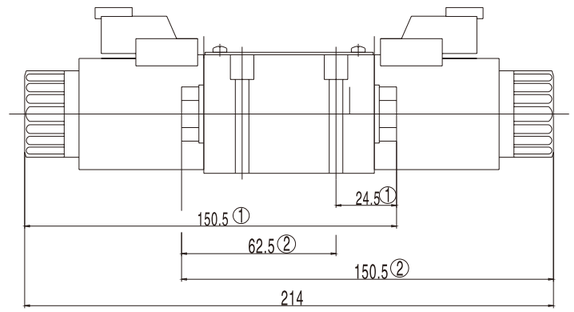
1) No manual emergency operation
2) Oil return from actuator to oil tank

Working pressure(MPa)

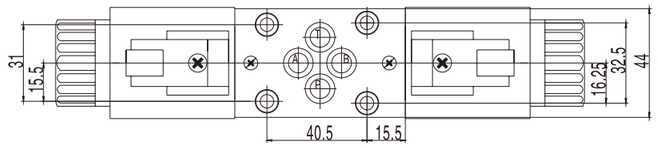


Water-proof Electrical Operated Directional Control Valve

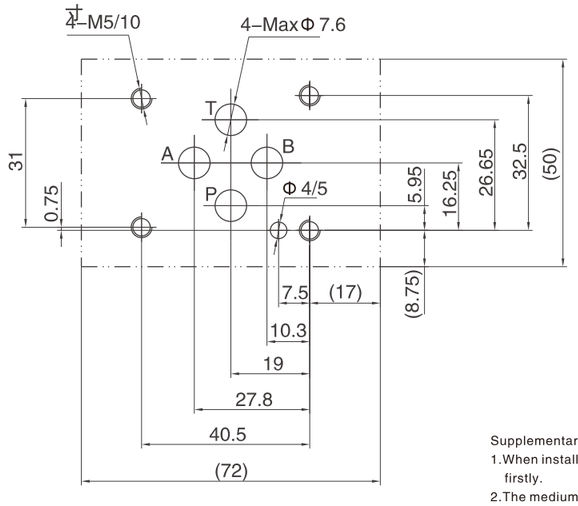
External dimensions



① ②
Two positions Electrical operated directional control valve



Size of subplate oil port

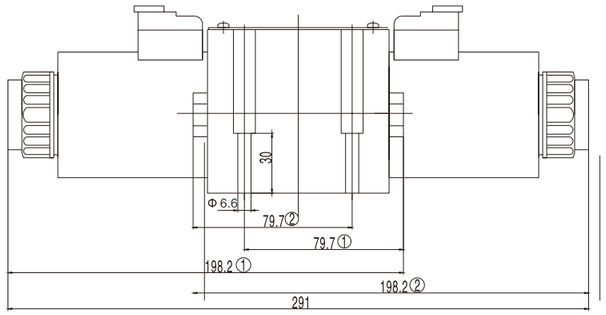


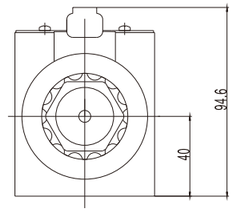
Mounting screw	Amount	Tighten torque
M5x45-10.9	4	9Nm

Supplementary explanation
1.When installing the product, considering horizontal position firstly.
2.The medium used in the hydraulic system must be filtered, its accuracy is at least 20 μ m.
3.Screw should be according to the parameters in catalogue.
4.The surface, connecting with the valve, should be Ra0.8 roughness, and 0.01/100mm flatness.

Water-proof Electrical Operated Directional Control Valve

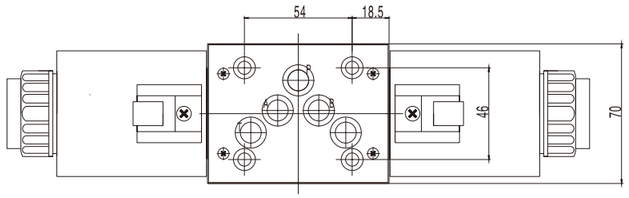
External dimensions



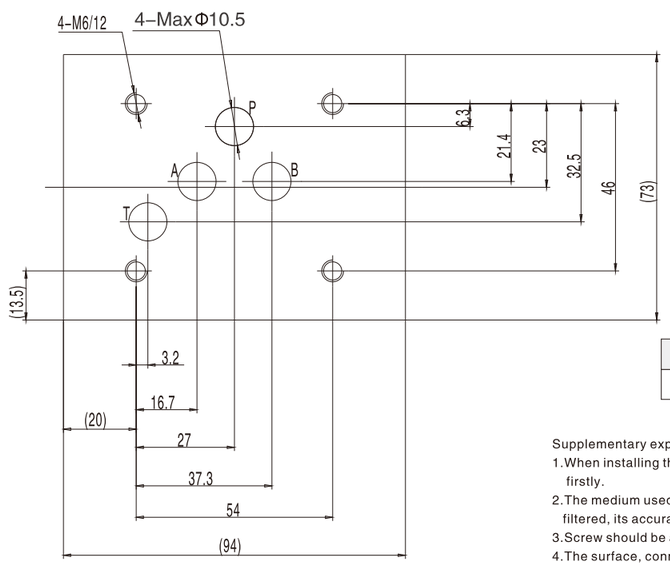


① ②

Two positions Electrical operated directional control valve



Size of subplate oil port



Mounting screw	Amount	Tighten torque
M6x40-10.9	4	15Nm

Supplementary explanation

1.When installing the product, considering horizontal position firstly.
2.The medium used in the hydraulic system must be filtered, its accuracy is at least 20 μ m.
3.Screw should be according to the parameters in catalogue.
4.The surface, connecting with the valve, should be Ra0.8 roughness, and 0.01/100mm flatness.

Modular Check Valve

Technical specification

Specification	02	03
Max. working pressure (MPa)	31.5	
Max. Flow (L/min)	40	100
Working fluid	Mineral oil; phosphate-ester	
Fluid temp. (℃)	-20~70	
Viscosity (mm^2/s)	2.8~380	
O pening pressure (MPa)	a:0.05 b:0.25 c:0.4	
Cleanliness	The maximum allowable cleanliness of the oil should be according to 9th degree of Standard NAS1638.It is suggested that the minimum filter rating should be β 10≥75.	

Model description

DA – * * – * / * 70 *

Modular check valve

Specification
02 DN 6
03 DN10

P P Pipeline
T T Pipeline
A A Pipeline
B B Pipeline
W AB Pipeline

Remarks

Serial number

Seal material
Omit NBR Seals
V FPM Seals

O pening pressure
a 0.05
b 0.25
c 0.4

Code symbol