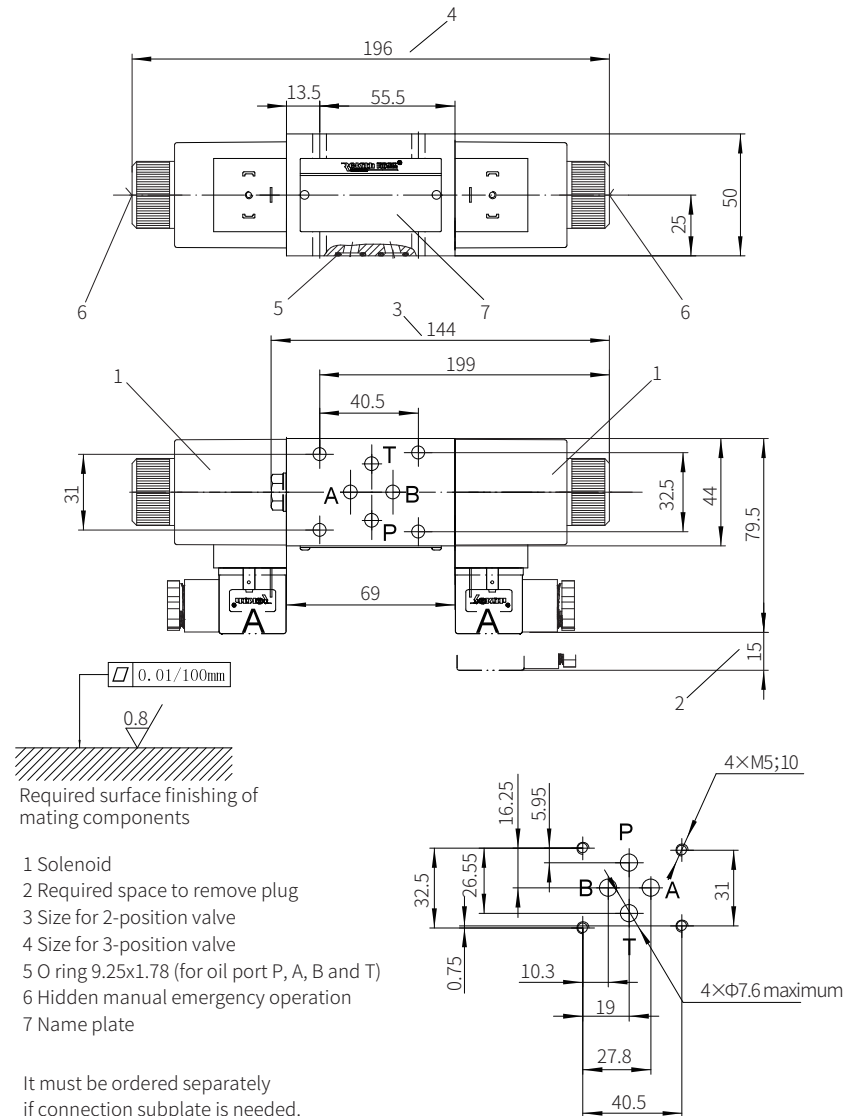


Component size

Size unit: mm

Valve with AC solenoid



Hydraulic and Pneumatic Directional Valve

Model: WH/WP6...XJ



- ◆ Size 6
- ◆ Maximum working pressure 315 bar
- ◆ Maximum flow rate 60 L/min

Contents

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| Models and specifications | 02 |
| Functional symbols | 03 |
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| Characteristic limit | 05 |
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Features

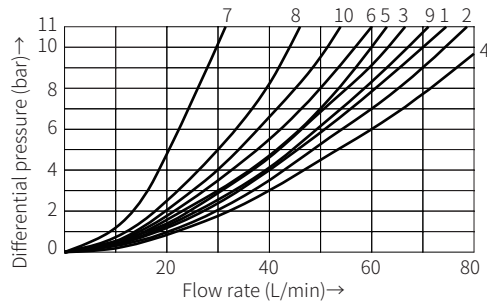
- Direct operated directional spool valve
- Operating types:
Pneumatic (WP)
Hydraulic (WH)
- Subplate mounting
- Porting pattern to DIN 24340 form A and ISO4401

Technical parameters

| | | | |
|------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------|---------------------------------|
| Valve type | | WP | WH |
| Weight | 1 operating cylinder | kg | 1.8 |
| | 2 operating cylinder | kg | 2 |
| Oil temperature range | | -30 to +80 (NBR seal) -20 to +80 (FKM seal) | |
| Max. working pressure | oil port A, B, P | bar | 315 |
| | oil port T | bar | 160 |
| Minimum control pressure | bar | 4 | 6-10 |
| Maximum control pressure | bar | 10 | 200 |
| Maximum flow | L/min | 60 | |
| Effective over-flow section (neutral position) | Type W | mm ² | 3% of the nominal cross-section |
| | Type Q | mm ² | 6% of the nominal cross-section |
| Control pressure | bar | Minimum 6 to 10 > return oil pressure, maximum 200 | |
| Working medium | Mineral oil, Phosphate ester | | |
| Viscosity range | mm ² /s | 2.8 to 500 | |
| Cleanliness of oil | The maximum allowable pollution level of oil is ISO4406 Class 20/18/15 | | |

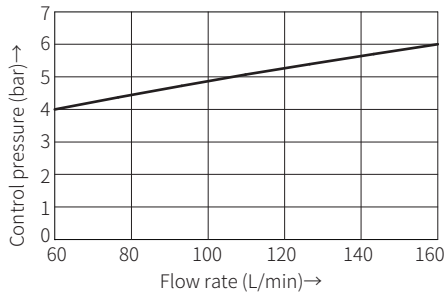
Characteristic curve

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



| Function symbol | Flow direction | | | |
|-----------------|----------------|--------|--------|--------|
| | P to A | P to B | A to T | B to T |
| AB | 3 | 3 | - | - |
| C | 1 | 1 | 3 | 1 |
| DY | 5 | 5 | 3 | 3 |
| E | 3 | 3 | 1 | 1 |
| F | 1 | 3 | 1 | 1 |
| T | 10 | 10 | 9 | 9 |
| H | 2 | 4 | 2 | 2 |
| JQ | 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 |

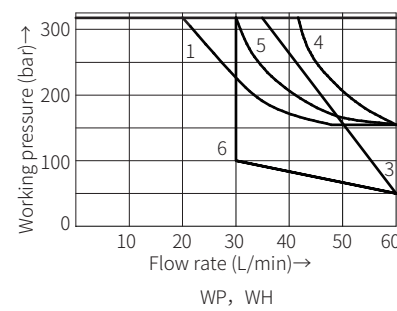
- 7 Symbol "R" in the switching position B → A
- 8 Symbols "G" and "T" in the middle position P → T
- 9 Symbol "H" in the middle position P → T



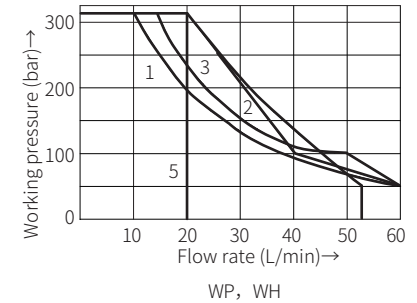
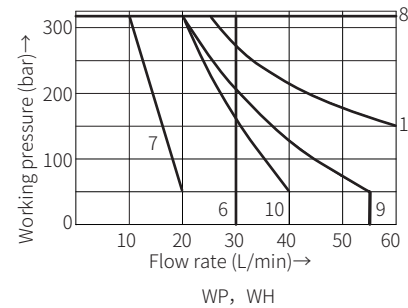
If the pressure of the return oil (tank) increases, the minimum control pressure must be increased according to this curve.

Characteristic limit

Due to blockage, the working performance of this type of valve is related to the filtration accuracy. In order to obtain the given allowable flow value, it is recommended to use a full flow filtration of 25µm. The various forces inside the valve also affect its working limit. Therefore, for a four-way valve, the given flow value is the value under normal conditions when both flow channels are working (for example, P to A and simultaneously return from B to T). If only one direction of flow is needed, the A or B ports of the four-way valve is blocked and used as a three-way valve, the flow rate may be very small in severe cases



| Characteristic curve | Function symbol |
|----------------------|---------------------------------------------|
| 1 | A, B |
| 2 | A/O, C, C/O, D, D/O, E, G, H, J, L, M, Q, U |
| 3 | F, P |
| 4 | R |
| 5 | T |
| 6 | V |



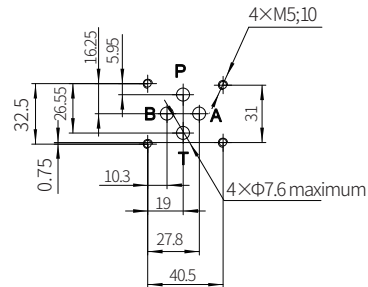
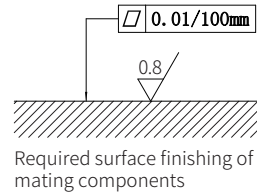
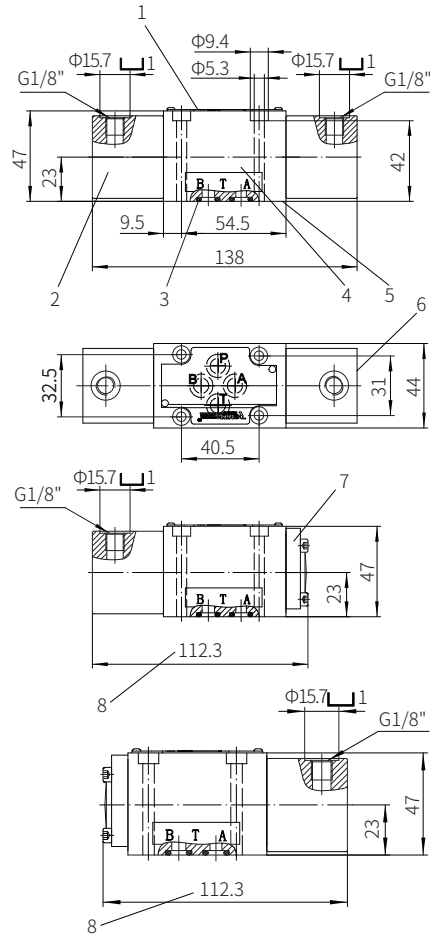
| Control pressure 6 bar > T-port pressure | | |
|------------------------------------------|-----------------|------------------------|
| Characteristic curve | Function symbol | |
| Reset Spring | 1 | A, B |
| | 2 | C, D, Y |
| | 3 | E, J, L, U, M, Q, V, W |
| | 4 | F, P |
| | 5 | T |
| | 6 | G, H |
| | 7 | R |
| .../OF... .../O... | 8 | A, C, D |

| Control pressure 10 bar > T-port pressure | | |
|-------------------------------------------|-----------------|------------------------|
| Characteristic curve | Function symbol | |
| Reset Spring | 1 | A, B |
| | 8 | C, D, Y, E, G, H, J, L |
| | | U, M, Q, V, W |
| | 9 | F, P |
| | 10 | R |
| | 11 | T |
| .../OF... .../O... | 8 | A, C, D |

Component size

Size unit: mm

Model WH6...5XJ/...



Valve fixing screw
M5x50-10.9 grade GB/T70.1-2000
Tightening torque $M_A=7.8\text{Nm}$

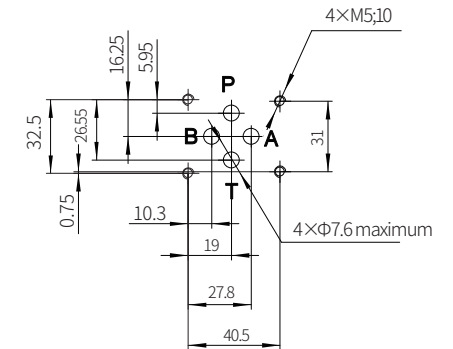
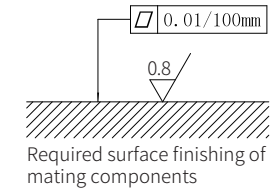
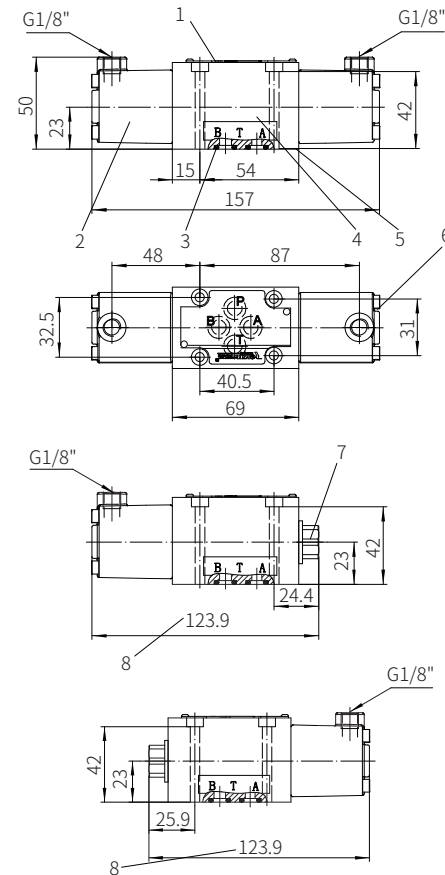
It must be ordered separately
if connection subplate is needed.
Subplate model:
G341/01 (G1/4"); G341/02 (M14x1.5)
G342/01 (G3/8"); G342/02 (M18x1.5)
G502/01 (G1/2"); G502/02 (M22x1.5)

- 1 Name plate
- 2 Actuation cylinder "b"
- 3 O-ring 9.25x1.78 (for oil ports P, A, B, T)
- 4 Valve body
- 5 Connection surface
- 6 Actuation cylinder "a"
- 7 Cover plate for 2-position valve
- 8 Size of 2-position valve

Component size

Size unit: mm

Model WP6...6XJ/...



Valve fixing screw
M5x50-10.9 grade GB/T70.1-2000
Tightening torque $M_A=7.8\text{Nm}$

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