

Direct Operated Pressure Reducing Valve

Model: DR6DP...5X



- ◆ Size 6
- ◆ Maximum working pressure 315 bar
- ◆ Maximum working flow 15 L/min

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Features

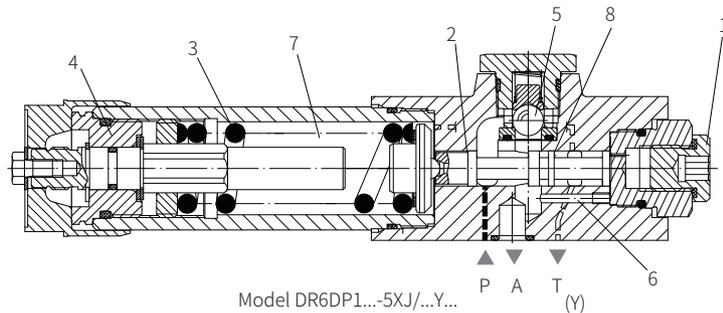
- 5 pressure ratings
- 2 adjustment elements
rotary knob
internal hexagon screw with
protective cap
- Check valve, optional

Function description, sectional drawing

The DR6DP valve is a 3-way direct operated pressure reducing valve and have relief function of the secondary pressure. It is used to reduce the system pressure. The secondary pressure is set via the adjusting element (4). At rest, the valve is normally open, the fluid can flow freely from port P to port A. The pressure at port A acts on the spool face of compression spring (3) via control line (6). When the pressure in port A exceeds the setting value of the compression spring (3), the control spool (2) moves into the control position and the pressure at port A remains constant. The control signal and control oil are supplied internally from port A via the control line (6).

If the pressure at port A continues to increase due to external forces acts on the actuator, the control spool (2) will still move towards the compression spring (3), then the port A is connected to the oil tank via the shoulder (8) at the control spool (2). The sufficient oil flows back to the tank to prevent further pressure increase at port A. The oil in the spring chamber (7) is drained external to the oil tank via port T(Y).

An optional check valve (5) allows the oil to flow freely from port A to port P, and the pressure gauge connection (1) is used for secondary pressure monitoring of the valve.

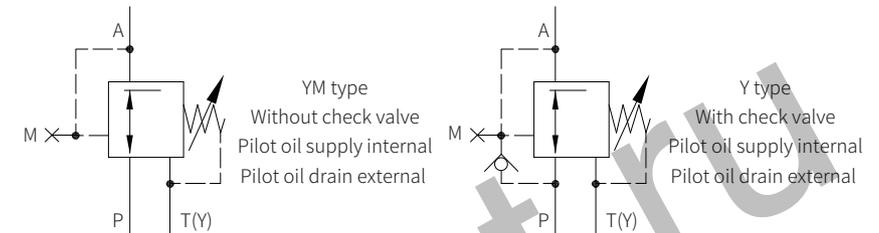


Models and specifications

DR6DP	-5X	Y	*
direct operated pressure reducing valve size 6	=6		
adjusting element rotary knob	=1		
internal hexagon screw with protective cap	=2		
50 to 59 series (50 to 59 series: installation and connection size unchanged)	=5X		
maximum secondary pressure 25bar	=25		
maximum secondary pressure 75bar	=75		
maximum secondary pressure 150bar	=150		
maximum secondary pressure 210bar	=210		
maximum secondary pressure 315bar	=315 ¹⁾		
		No code=	sealing material NBR seals FKM seals (consult for other seals)
		V=	
		No code=	with check valve
		M=	without check valve
		Y=	pilot oil supply internal pilot oil drain external

1) Only with adjusting element "2" and without check valve

Functional symbols



Technical parameters

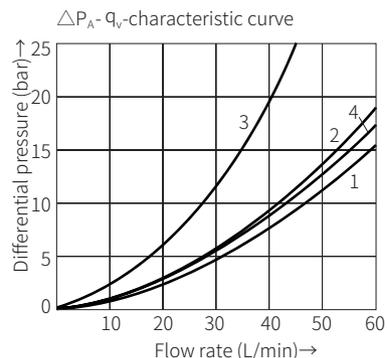
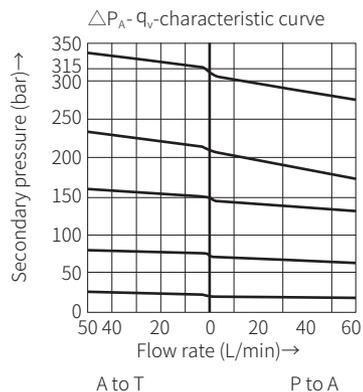
Installation position	Optional		
Environment temperature range	°C	-30 to +50 (NBR seal) -20 to +50 (FKM seal)	
Weight	Kg	1.2	
Hydraulic			
Maximum working pressure	Port P	bar	210,315
Maximum secondary pressure	Port A	bar	25,75,150,210,315
Maximum backpressure	Port T(Y)	bar	160
Maximum flow		L/min	60
Medium	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⁾		
Cleanliness of oil	The maximum allowable pollution level of oil is ISO4406 Class 20/18/15		
Hydraulic oil temperature range	°C	-30 to +80 (NBR seal) -20 to +80 (FKM seal)	
Viscosity range ³⁾	mm ² /s	10 to 800	

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.

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



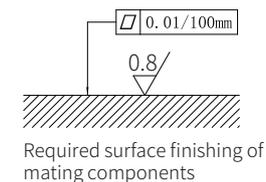
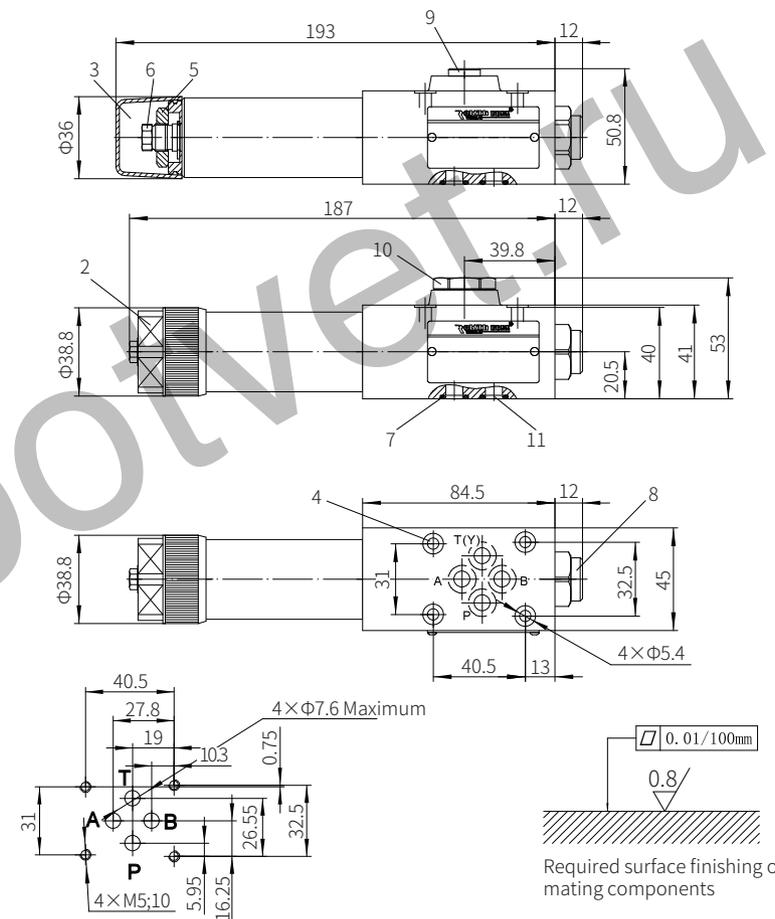
Note:

When the setting pressure is low, the characteristic curve remains within the corresponding pressure level range.

The characteristic curves are valid for an outlet pressure = 0 over the entire flow range!

- 1 P to A (minimum pressure differential)
- 2 A to T(Y) (minimum pressure differential)
- 3 Δp only via check valve
- 4 Δp via check valve and completely opened control cross-section

Model DR6DP...-5XJ/...



- 1 Name plate
- 2 Adjustment unit "1"
- 3 Adjustment unit "2"
- 4 Valve fixing screw hole
- 5 Locknut S=24
- 6 Internal hexagon adjusting screw S=10
- 7 O ring 9.25x1.78 (for port P, A, B, T)
- 8 Pressure gauge connection G1/4 or M14X1.5, 12 deep
- 9 Without check valve
- 10 With check valve
- 11 Port B without function

Valve fixing screw
M5-10.9 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)