DR6DP...type Direct Operated Reducing Valve

DR6DP...5XJ...type

Size 6
Max. Working Pressure: 210 bar
Max. Flow: 60 L/min

Contents

Function and configuration	02
Symbols	02
Specification	03
Technical data	03
Characteristic curves	04
Unit dimensions	05

Features

- Direct operated structure
- Porting pattern to DIN 24 340 form A, ISO4401
- 5pressure ratings
- 2adjustment elements:
  - Rotary knob
  - Adjustable bolt with protective cap
- With pressure gauge connection
- Check valve, optional

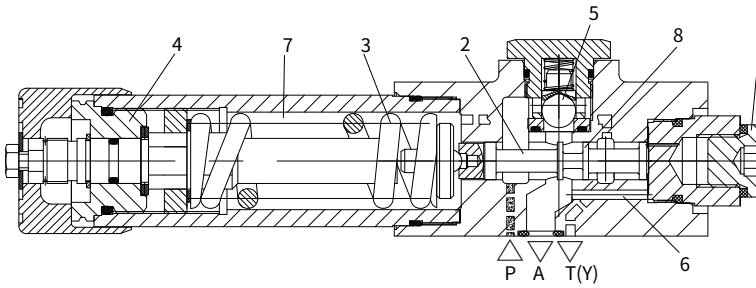
Function and configuration

DR6DP type valve is a direct operated pressure reducing valve with 3-way design, with a pressure limitation of the secondary side, to insure the secondary pressure steady. It is used to reduce the system pressure. The secondary pressure is set by the pressure adjustment element (4).

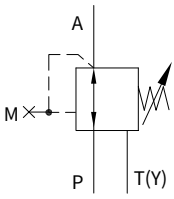
In the zero position, the valve is normally open and the pressure fluid flows unhindered from port P to port A. The pressure in port A acts at the spool(2) area opposite to the compression spring (3) via the control line (6). When the pressure in port A get the value setting at compression spring (3), the control spool (2) moves into the control position and keeps the setting pressure in port A constant. The internal control oil is taken from port A via the control line (6). If the pressure in port A still increases due to external forces on the actuator, the control spool (2) moves still further towards the compression spring (3).This causes a flow path to be opened via control land(8) on the control spool (2).Sufficient fluid then flows back to tank to prevent any further pressure rise.

Fluid in spring chamber always drained to tank externally via port T(Y). For free return flow from port A to port P an optional check valve(5) can be fitted One pressure gauge connection(1) used for monitoring the secondary pressure at the valve.

Type DR6DP1-5XJ/...Y

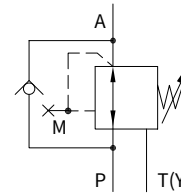


Symbols



Version "YM"
Pilot oil supply internal
oil drain external

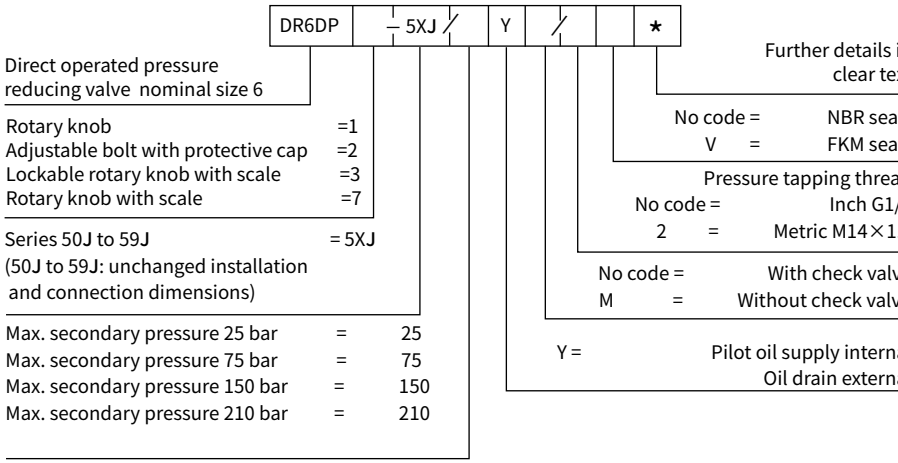
Without check valve



Version "Y"
Pilot oil supply internal
oil drain external

With check valve

Specification

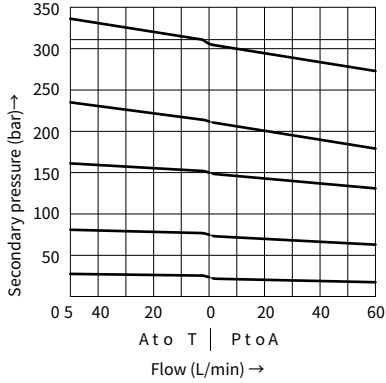


Technical data

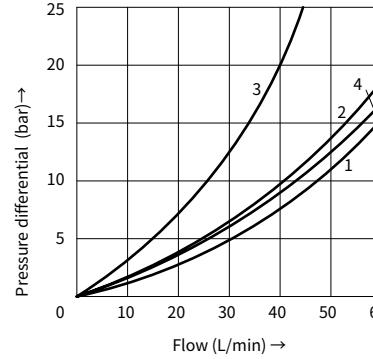
Fluid			Mineral oil suitable for NBR and FKM seal
			Phosphate ester for FKM seal
Fluid temperature range		℃	-30 to +80 (NBR seal)
			-20 to +80 (FKM seal)
Viscosity range		mm^2/s	10 to 800
Degree of contamination			Maximum permissible degree of fluid contamination: Class 9. NAS 1638 or 20/18/15 , ISO4406
Max.operating pressure	Port P	bar	315
Max.secondary pressure	Port A		25; 75; 150; 210; 315(without check valve)
Max.backing pressure	PortT(Y)		16
Max. flow-rate		L/min	60
Weight		kg	Approx.1.6

Characteristic curves (Measured at t=40℃ ±5℃ , using HLP46)

P_A-Q characteristic curve

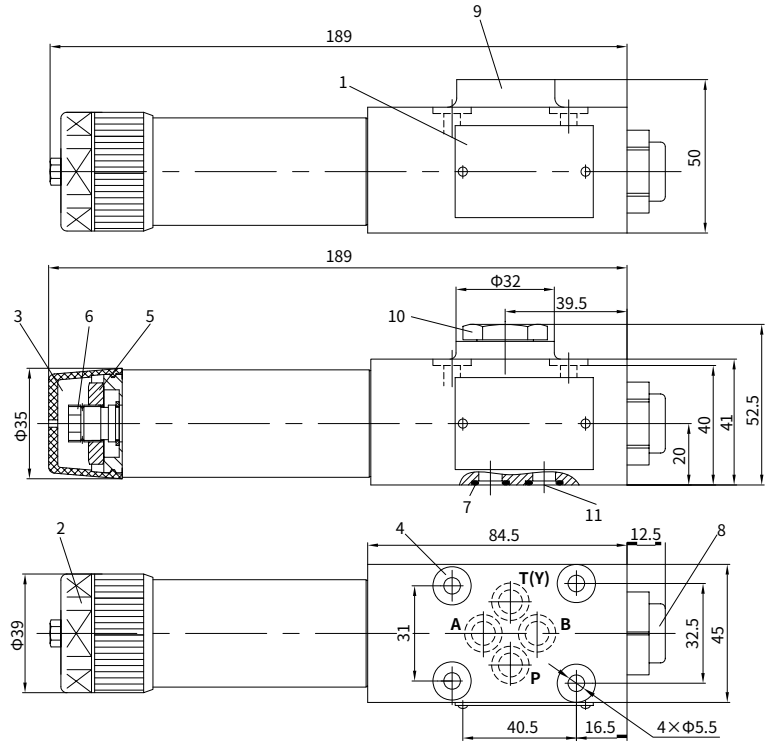


ΔP-Q characteristic curve



Unit dimensions

(Dimensions in mm)



1 Nameplate
2 Adjustment element "1"
3 Adjustment element "2"
4 Valve fixing holes
5 Lockable nut S=24
6 Internal hexagon screw S=10
7 O-ring 9.25×1.78 (A, B, P, T)
8 Pressure gauge connection:
G1/4 or M14×1.5; 12 deep
Hex wrench S=6
9 Without check valve
10 With check valve
11 Port B blocked, has no function