

Pilot Operated Pressure Reducing Valve

Model: DR10K...-3X



ГИДРООТВЕТ

доступная гидравлика

- ◆ Size 10
- ◆ Maximum working pressure 315 bar
- ◆ Maximum working flow 100 L/min

Contents

Function description, sectional drawing	02
Models and specifications	02
Technical parameters	03
Characteristic curve	03
Component size	04-05

Features

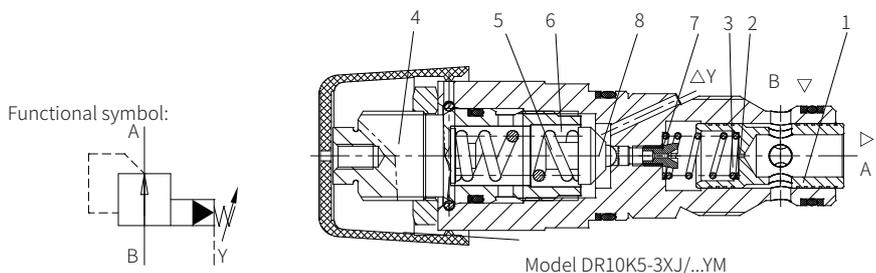
- Cartridge construction
- 4 pressure ratings
- 4 adjusting elements
- Rotary knob
- Adjusting screw with protective cap
- Lockable rotary knob with scale
- Rotary knob with scale

Function description, sectional drawing

The DR10K valve is pilot operated pressure reducing valve installed into the manifolds. It is used to reduce the system pressure. The secondary pressure is adjusted by means of adjusting elements (4).

At rest, the valve is normally open. The hydraulic oil can flow freely from port B to port A. The pressure at port A simultaneously acts on the main spool (1) and on the spring-loaded inner side of main spool (1) through the orifice (2). In addition, it acts on pilot poppet (8) through the orifice (7).

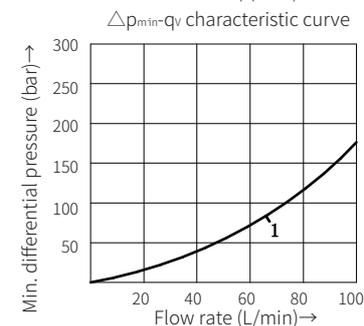
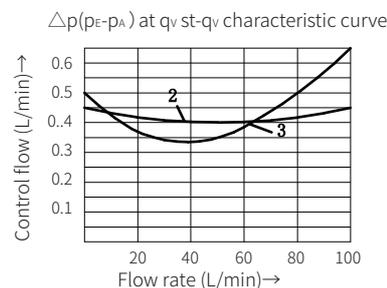
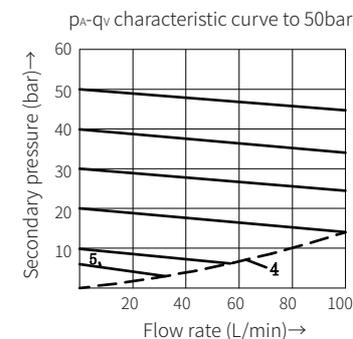
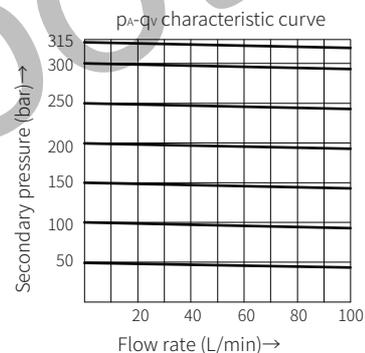
If the pressure at port A exceeds the setting value of the spring (5), the pilot poppet (8) opens. The hydraulic oil flows from spring chamber (3) to working port Y through orifice (7), pilot poppet (8) and spring chamber (6). The main spool (1) moves to the control position and keeps the pressure value set on spring (5) constant in port A. The pilot oil is always drained externally from the spring chamber (6) through port Y. Note: The value in port Y must be increased to the setting pressure value.



Technical parameters

Working medium	Mineral oil - for NBR seals and FKM seals
	Phosphate - for FKM seals
Working medium temperature range °C	-30 to +80 (NBR seal)
	-20 to +80 (FKM seal)
Viscosity range	mm ² /s 10 to 800
Cleanliness of oil	The maximum allowable pollution level of oil is ISO4406 Class 20/18/15
Maximum working pressure	bar 315
Maximum adjusting pressure	bar 50; 100; 200; 315
Maximum flow	L/min to 100
Weight	kg about 0.2

Characteristic curve



- 1 B to A 2 Δp= 50 bar 3 Δp= 250 bar
- 4 Actuator resistance depends on the system
- 5 Lowest settable secondary pressure p_A for all pressure ratings

Models and specifications

DR	10	K	3X	Y	M	*
pilot operated pressure reducing valve	=DR					more information in text
size 10	=10					No code= NBR seals V= FKM seals
cartridge type	=K					M= without check valve
rotary knob	=4					Y= pilot oil supply internal drain external
adjusting screw with protective cap	=5					
lockable rotary knob with scale	=6					
rotary knob with scale	=7					
30 to 39 series	=3X					5= pressure up to 50 bar
(30 to 39 series installation and connection size unchanged)						10= pressure up to 100 bar
						20= pressure up to 200 bar
						31.5= pressure up to 315 bar

