

Cartridge Pilot Pressure Relief Valve

Model: DB...K...XJ



- ◆ Size 6/10/20
- ◆ Maximum working pressure 315bar
- ◆ Maximum working flow 300 L/min

Contents

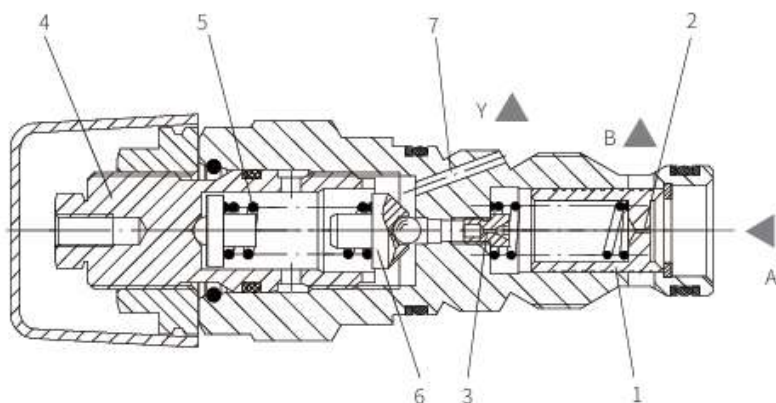
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Features

- Cartridge connection
- 4 pressure range
- 4 adjustment form
 - Rotary knob
 - Internal hexagon adjusting screw with protective cap
 - Lockable rotary knob with scale
 - Rotary knob with scale

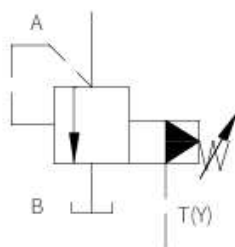
Function description, sectional drawing

The DB...K...valve is cartridge pilot pressure relief valve. It's used to limit the pressure in hydraulic system, the system pressure is set by adjustment element (4). At rest, the valve is closed. The pressure in the port A acts on valve spool (1). At the same time, the pressure is passed through orifice (2) of the spool (1) onto the spring chamber. and through orifice (3) to act on the pilot poppet (6). If the pressure in port A rises above the setting value of the spring (5), then the pilot poppet (6) opens. The pressure fluid can flow to the spring chamber of valve spool (1), and to port T(Y) through orifice (3) and channel (8), the resulting pressure drop moves valve spool (1) to open the connection from port A to port B. The control oil from 2 spring chambers is drain to the tank through port T (Y).

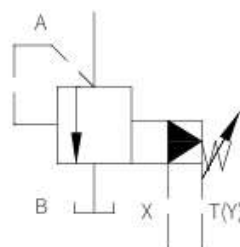


Functional symbols

Model DB...Y...



Model DB...XY...(Only for DB20K)



Models and specifications

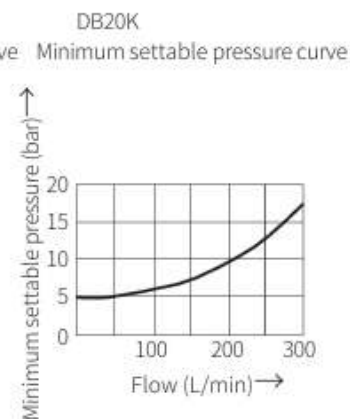
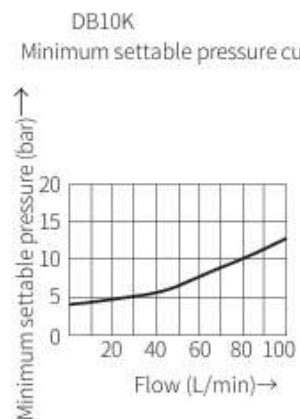
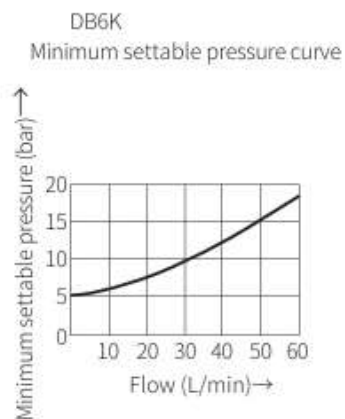
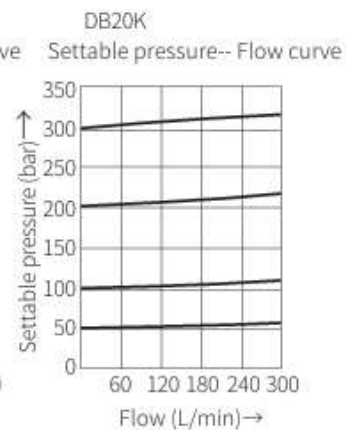
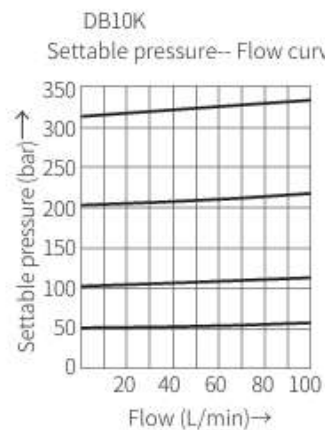
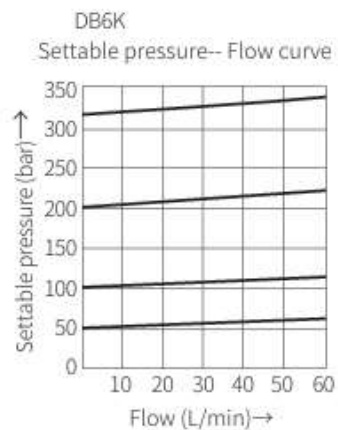
DB	K	J	.
pilot relief valve=	DB		more information in text
size 6	=6		sealing material
size 10	=10		No code = NBR seals
size 20	=20		V= FKM seals
			(consult for other seals)
cartridge connection	=K		Y= pilot oil supply internal and drain external
rotary knob=1	=1		XY= pilot oil supply and drain external(only for DB20K)
internal hexagon adjusting screw with protective cap	=2		
lockable rotary knob with scale	=3		
rotary knob with scale	=7		
40 to 49 series(for size 6 and size 10)	=4X		50= pressure setting up to 50bar
(40 to 49 series: installation and connection size unchanged)			100= pressure setting up to 100bar
10 to 19 series(for size 20)	=1X		200= pressure setting up to 200bar
(10 to 19 series: installation and connection size unchanged)			315= pressure setting up to 315bar
		J=	Rekith

Technical parameters

Size	6	10	20
Oil fluid	Mineral hydraulic oil or phosphate hydraulic oil		
Oil temperature range °C	-30 to +80 (NBR seal) -20 to +80 (FKM seal)		
Viscosity range mm ² /s	100 to 800		
Cleanliness of oil	The maximum allowable pollution level of oil is ISO4406 Class 20/18/15		
Maximum working pressure bar	to 315		
Settable pressure bar	to 50, to 100, to 200, to 315		
Maximum flow L/min	to 60	to 100	to 300
Weight kg	about 0.15	about 0.2	about 0.35

Characteristic curve

(Measured when using HLP 46, $\theta_{\text{ref}} = 40^\circ\text{C} \pm 5^\circ\text{C}$)



The above curves are measured without back pressure.