

AH-DBK...type Cartridge Pilot Relief Valve

AH-DB20K...10S...type

Size 20
Max. Working Pressure: 315 bar
Max. Flow: 300 L/min



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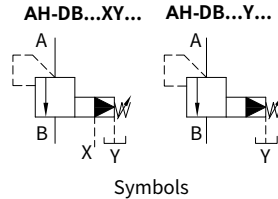
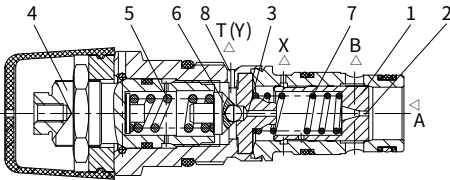
Features

- Cartridge valve
- 4 pressure ratings
- 4 adjustment elements:
 - Rotary knob
 - Adjustable bolt with protective cap
 - Lockable rotary knob with scale
 - Rotary knob with scale

Function and configuration

AH-DB...K...type pressure valve is pilot operated pressure relief valves for installation in manifolds. It is used to limit the pressure in a hydraulic system. The system pressure is set via adjustment element (4). At static position, the valves are closed. Pressure in port A acts on the spool (1). Pressure fluid is passed through orifice (2) to the spring loaded side of the spool (1) and through orifice (3) to the pilot poppet (6). If the pressure in port A rises beyond the value setting at spring (5), then the pilot poppet (6) opens. Fluid can flow from the spring loaded side of spool (1), through the orifice (3) and channel (8) into port T(Y). The pressure drop moves spool (1) to open the connection from A to B, while the setting pressure at spring (5) is maintained. Pilot oil returns from the two spring chambers via port T(Y) externally.

AH-DB20K2-10S/...XY



Specification

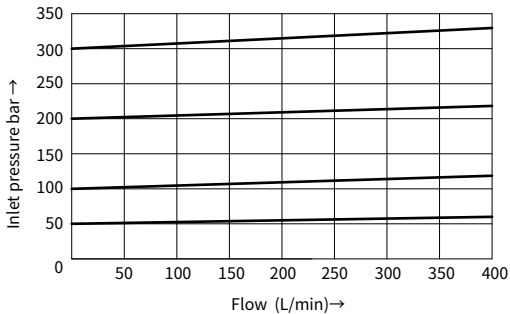
AH-DB	20	K	10S	/	*
Pressure relief valve=AH-DB					Further details in clear text
Nominal size 20	=20				No code = NBR seals V = FKM seals
Cartridge		=K			Y = Pilot oil supply internal and drain external XY = Pilot oil supply and drain external
Rotary knob			=1		
Adjustable bolt with protective cap			=2		
Lockable rotary knob with scale			=3		
Rotary knob with scale			=7		
Series 10S to 19S (10S to 19S: unchanged installation and connection dimensions)			=10S		50 = Pressure adjustable up to 50bar 100 = Pressure adjustable up to 100bar 200 = Pressure adjustable up to 200bar 315 = Pressure adjustable up to 315bar

Technical data

Fluid	Mineral oil suitable for NBR and FKM seal Phosphate ester for FKM seal		
Fluid temperature range	°C	-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	bar	315	
Max. back pressure	Port Y	bar	250
Max. adjustable pressure	bar	50;100;200;315	
Max. flow-rate	L/min	To 400	
Weight	kg	Approx.0.35	

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

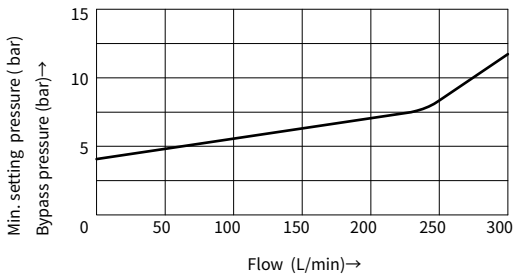
Inlet pressure in relation to the flow-rate



The curves are measured with external pilot oil drain at zero pressure.

With internal pilot oil drain the inlet pressure will increase with pressure at port B.

Min. setting pressure and bypass pressure in relation to the flow-rate



The curves are valid for outlet pressure PB=0

