



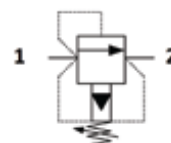
DB.B7.S08 Valve Series

SAE08 Cartridge – 420 bar
Direct acting – Poppet type



Description & Operation

A screw-in, cartridge style, direct acting, poppet type, normally closed hydraulic relief valve. It's typically used to protect hydraulic components from pressure transients. When the pressure at the Inlet (1) reaches the valve setting, the valve starts to open to tank (2) and thanks to the effect of the deflector integrated into the poppet it provides a limited pressure rise. The cartridge offers excellent response to load changes in hydraulic circuits requiring low internal leakage as well as limited hysteresis.



Hydraulic Symbol



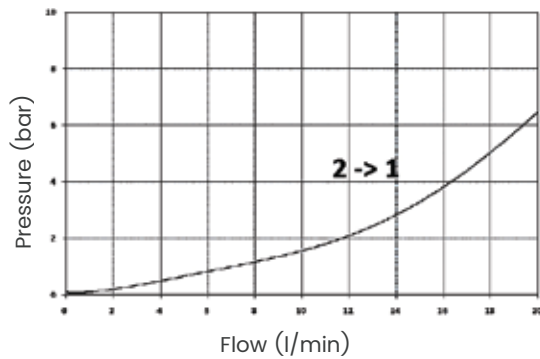
Technical Data

Maximum operating pressure	420 bar
Maximum flow	25 l/min
Setting Pressure	See table below
Maximum internal leakage	0,25 cm ³ /min to 80% of nominal set point
External component treatment	Zn/Fe - standard (96h) Zn/Ni (720h)
O-ring Temperature	-30° C to 110° C (standard sealing NBR - BUNA-N)
Oil Temperature Range	-30° C to 110° C
Pressure settings established	@5 l/min
Reseat pressure	nominal 90% of cracking pressure
Fluids	Mineral - based or synthetics with lubricating properties
Viscosities	7,4 to 420 cSt
Filtration	20/18/15 ISO 4406 (maximum filtration admitted)
Orientation	No restrictions
Installation torque	40-45 Nm (Hex. 20)
Tightening torque nut	25-30 Nm (Hex. 19)
Oil testing condition	ISO VG 46 cSt
Seal kit code	SK.030
Plastic tamper proof cap	CTP.001 (for more details see page 428-429)
Weight	0,100 kg

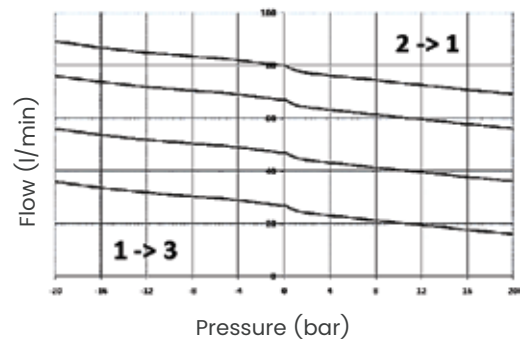


Performance Curve

p/Q curve (fully open)



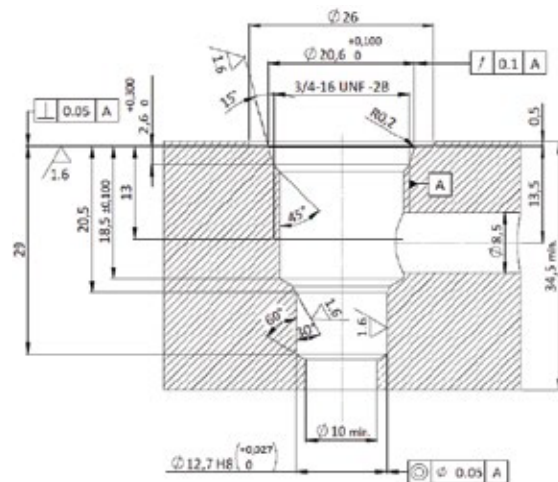
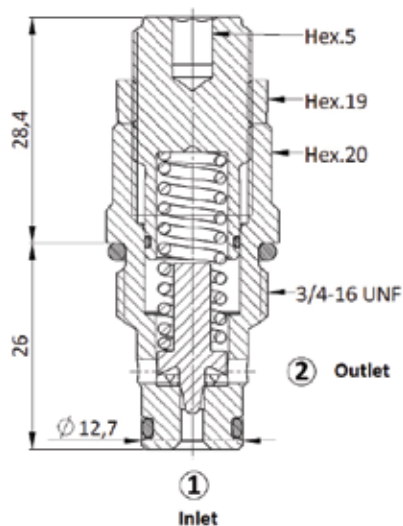
Working characteristics
Reducing 2→1
Relieving 1→3



Note: The performance chart illustrates flow handling capacity in the pressure compensated mode for a few significant flow settings.
p/Q curves are recorded at TOil = 40°C and 46 cSt.



Dimensional Drawing



Ordering Code

The diagram illustrates the structure of the valve code **DBS080****:

- DB**: valve basic code
- S080**: serial number
- ****: pressure setting in (bar)

pressure setting in (bar)
000=No specific setting
 required

Cavity
S08 = 3/4- 16 UNF with
Ø12.7 nose sizes

Marking
0 = standard factory marking. customized marking can be done upon request

Spring range

Spring model code	Pressure setting range (bar)
Y	20-70
S	10-160
N	50-180
B	100-290
G	130-350
V	170-420