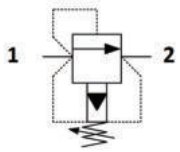
DB.Q0.S10 Valve Series

SAE10 Cartridge - 420 Bar
Direct acting - Spool type

Description & Operation

A screw-in, cartridge style, pilot operated (2-stage), spool type, normally closed, hydraulic relief valve. When the pressure at the Inlet (1) reaches the valve setting, the pilot poppet starts to open from its seat and determines the shifting of the main stage poppet (spool type) that throttles oil flow to tank (2). The cartridge offers smooth transition in response to load changes in demanding hydraulic circuits. Fast, smooth response and limited hysteresis.



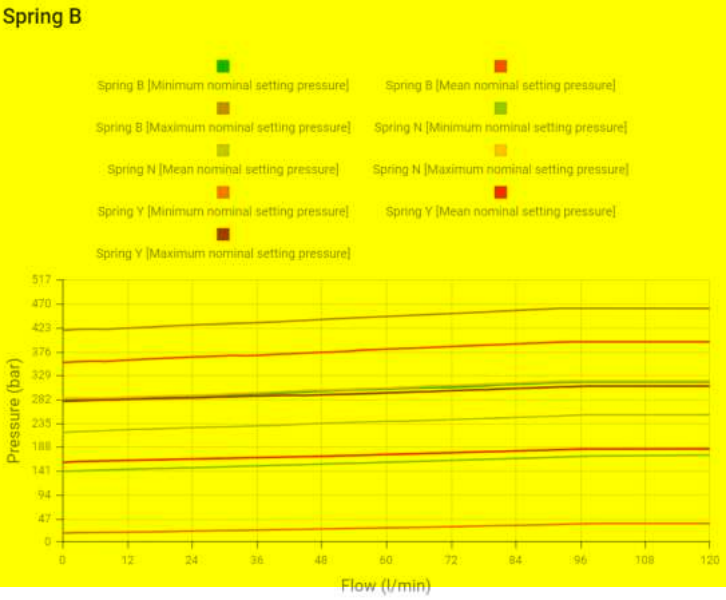
Hydraulic Symbol

Technical Data

Maximum operating pressure	420 Bar
Maximum flow	120 LPM
Pressure Setting Established	@ 5.00 LPM
Maximum internal leakage	see table below
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
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	55-65 Nm Hex. 24
Tightening torque nut	10-13 Nm Hex. 13
Oil testing condition	ISO VG 46 cSt
Seal kit code	SLKT.001
Plastic tamper proof cap	CPT.003
Weight	0.165 kg

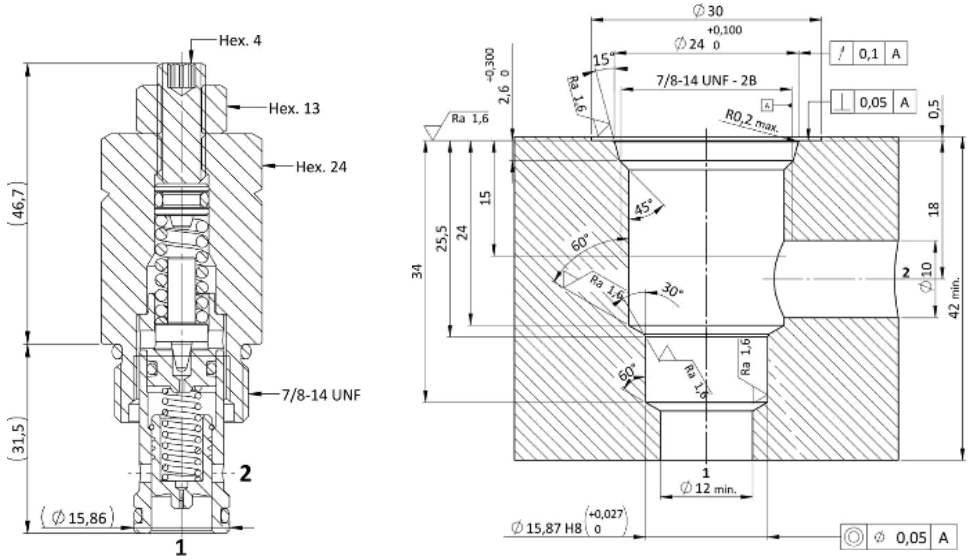
Performance Curve

Note:
The performance chart illustrates flow handling capacity for each spring bias options.
p/Q curves are recorded at TOil = 40°C and 46 cSt.



Dimensional Drawing

Cross Section and Cavity Details



Ordering Code

D	B	•	Q	0	•	S	1	0	•	0	*	•	*	*	*

valve basic code

Cavity
S10 =7/8- 14 UNF with ⌀15.86 nose sizes

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

Pressure setting in (Bar)
Note=No specific setting required

Spring range

Spring model Code	Maximum Internal Leakage [cm3/min]	Pressure setting range (Bar)	Pressure Increment per Turn (Bar)
Y	100	20-280	80
N	100	141-280	130
B	200	281-420	160