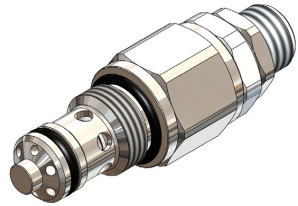


# Relief Valves

## RVC0.S09 Valve Series

- Hybrid SAE Cartridge - 350 bar
- Direct acting - Poppet type

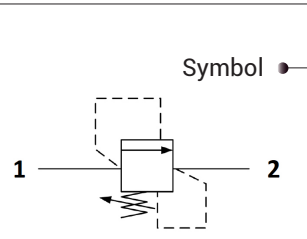


### Description

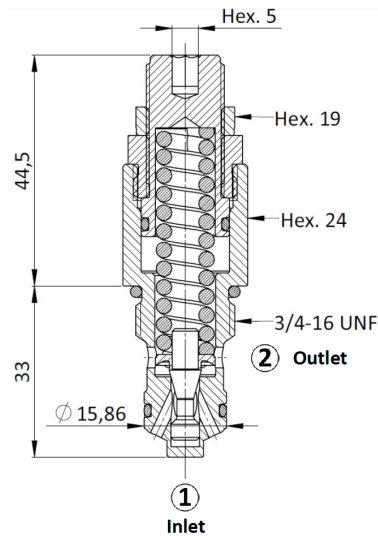
A screw-in, cartridge style, direct acting, poppet type, normally closed hydraulic relief valve. It's typically used to protect hydraulic components from pressure transients. When the pressure at the Inlet (1) reaches the valve setting, the valve starts to open to tank (2) throttling flow to minimize the pressure rise. The innovative geometry of the deflector provides in fact a very low rise rate, and the poppet design guarantees great stability. The cartridge offers quick response to load changes in hydraulic circuits requiring low internal leakage as well as limited hysteresis. *NOTE:* the RVC0 in the standard configuration can be used in crossover relief applications.

### Technical Features

All external surfaces are zinc plated and corrosion-proof. All valve parts are made of high strength steel. Poppet is hardened and ground to guarantee minimal wear and to extend service life. Adjustment screw cannot be backed out of the valve. Positive stop prevents springs from going solid. Optional spring ranges to 350 bar (5000 psi). Industry commonly used hybrid cavity "SAE09".

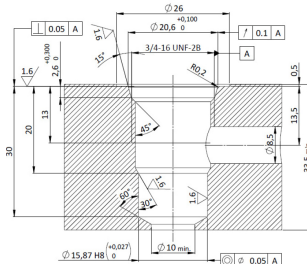


### Cross Section



### Cavity Details

SAE09

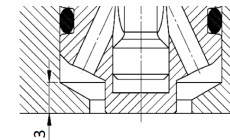


### Technical Data

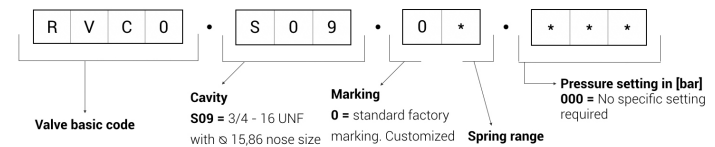
Maximum operating pressure	350 bar
Maximum flow	40 l/min
Setting Pressure	See table below
Maximum internal leakage	0,25 cm <sup>3</sup> /min to 80% of nominal set point
External component treatment	Zn/Fe - standard (96h) Zn/Ni (720h)
O-ring Temperature Range	-30° C to 110° C (standard sealing NBR - BUNA-N)
Oil Temperature Range	-30° C to 110° C
Pressure settings established	@5 l/min
Reset 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. 24)
Tightening torque nut	25-30 Nm (Hex. 19)
Technical specifications for characterization	See page 480
Oil testing condition	ISO VG 46 cSt
Seal kit code	SK.002
Plastic tamper proof cap	CTP.001 (for more details see page 428-429)
Weight	0,150 kg

### Design Note

- The nose of the valve protrudes by 3 mm into ID 10 mm of the cavity.



### Ordering Code



Spring model code	Pressure setting range (bar)	Pressure Increment per turn (bar)
Y	15-60	8
N	25-135	20
B	50-220	33
G	120-350	58

# Relief Valves

## RVC0.S09 Valve Series

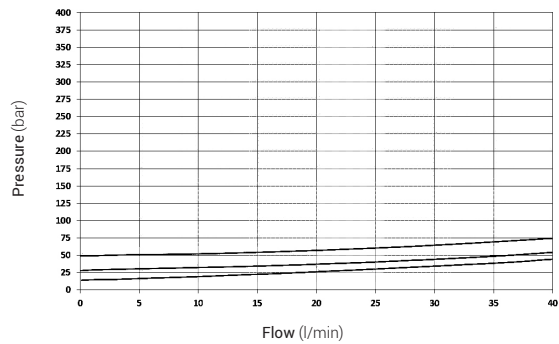
### Springs' Graphs

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

Spring = Y (15 - 60bar)

①

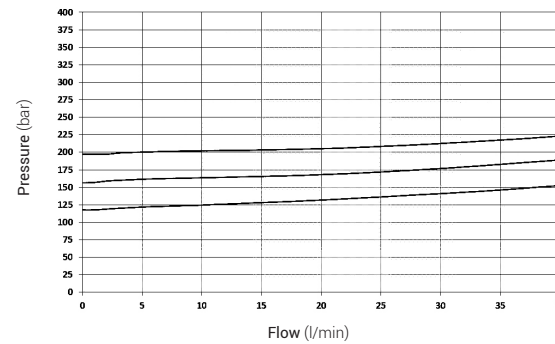
p/Q performance



Spring = B (50 - 220bar)

③

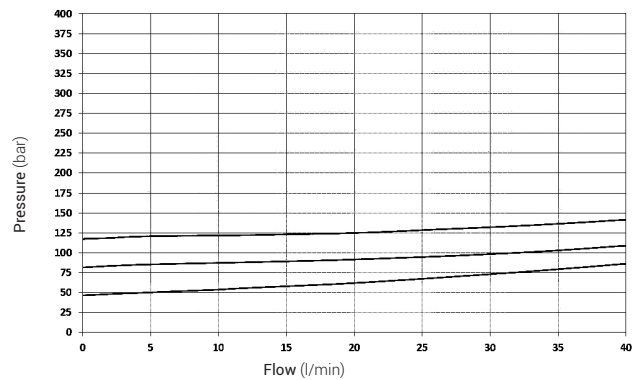
p/Q performance



Spring = N (25 - 135bar)

②

p/Q performance



Spring = G (120 - 350bar)

④

p/Q performance

