

WINMAN RELIEF VALVES

WVS0.S10 Valve Series



SAE10 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.

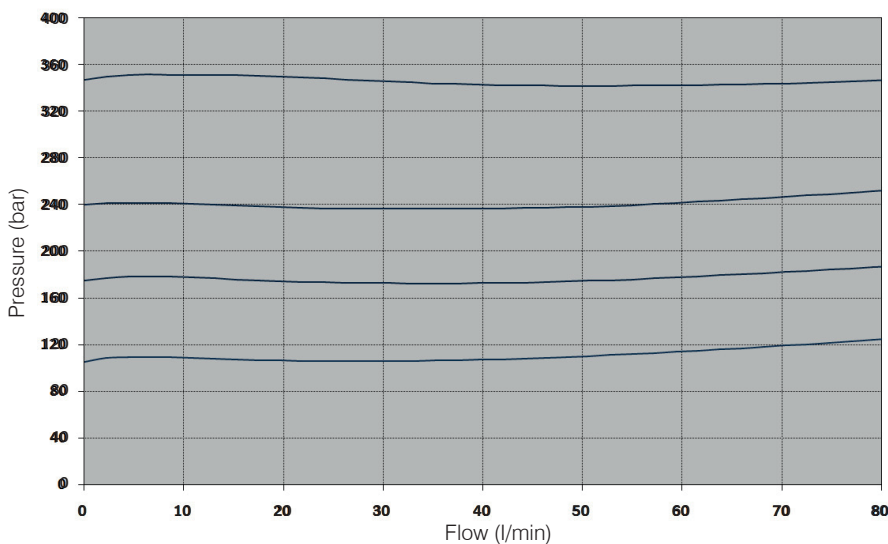
NOTE: the RVS0 in the standard configuration can be used in crossover relief applications (back pressure on port 2).

Technical Features

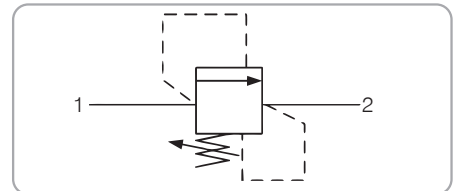
All external surfaces are zinc plated and corrosion-proof.

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) Back pressure on the tank port (port 2) is directly additive to the valve setting at a 1:1 ratio. Industry common cavity.

Performance Details



Symbol



Technical Data

Maximum operating pressure: 350 bar

Maximum flow: 80 l/min

Maximum internal leakage: 0.25 cc/min to 80% of nominal set point

Pressure settings established @ 5 l/min

Reseat pressure: nominal 90% of crack pressure

Temperature: -30°C to 110°C

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt

Orientation: no restrictions

Installation torque: 55-65 Nm

Seal kit code: SK.001

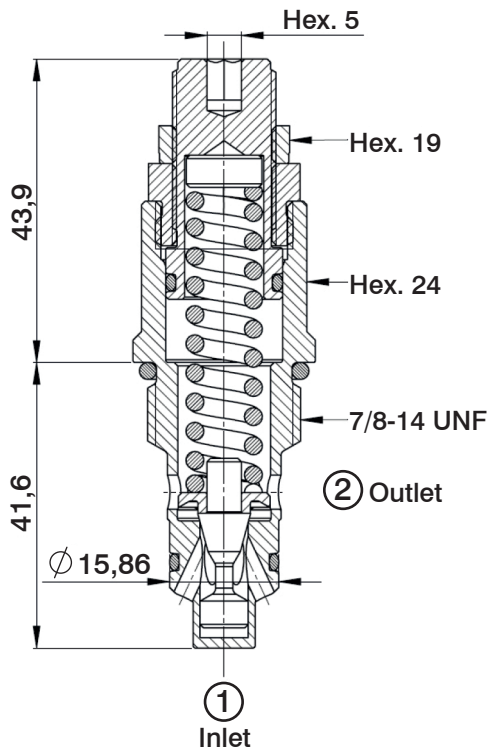
Weight: 0.170 kg

NOTE: The performance chart illustrates flow handling capacity at maximum setting for each spring range option.

P/Q curves are recorded at TOil = 40°C and 46 cSt

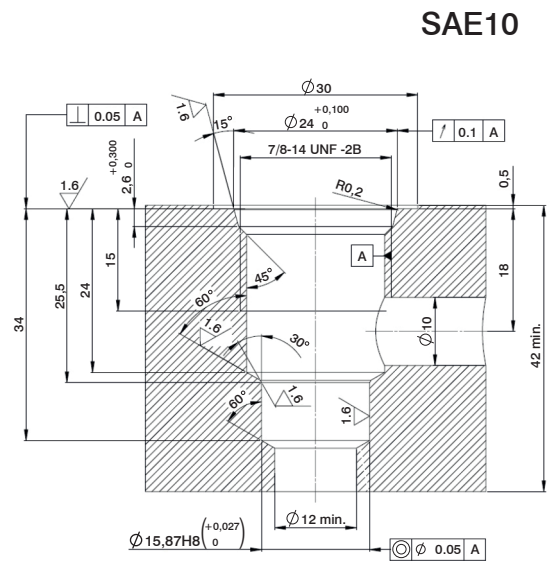
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Cross Section



To secure the setting, torque the Hex19 nut with 25-30 Nm

Cavity Details



SAE10

See page 330

Ordering Code



Valve basic code

Cavity

S10= 7/8 - 14 UNF with $\varnothing 15,86$ nose size

Spring range

(See table below for available option.)

Marking

0=Standard factory marking

Customized markings can be done upon request

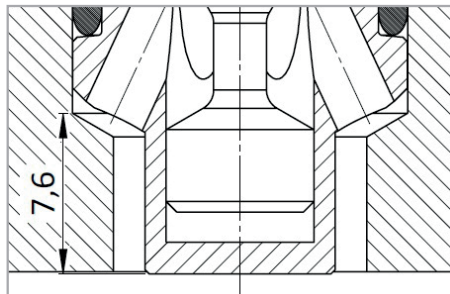
Pressure settings in (bar)

000=No specific setting required

Spring Ranges

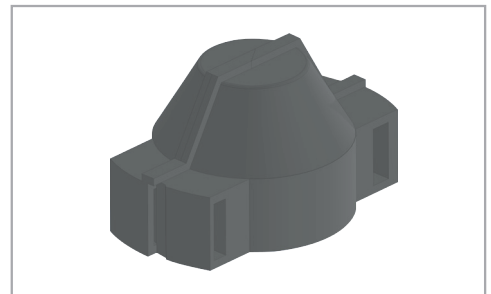
Spring Model Code	Pressure setting range (bar)
N	5-110
B	10-180
G	10-240
W	50-350

Design Notes



The nose of the valve protrudes by 7,6mm into ID 12mm of the cavity.

Options



Plastic tamper proof cap. 2 pieces are needed to build 1 complete cap. Ordering code: CTP.001