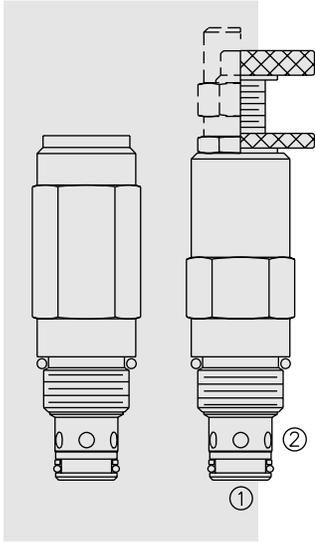


PRESSURE CONTROLS

RV50-22 Relief, Differential Area Poppet



DESCRIPTION

A screw-in, cartridge-style, direct-acting, differential area, poppet-type hydraulic relief valve for use as a pressure limiting device in more demanding hydraulic circuits requiring low hysteresis and low internal leakage at high working pressures.

OPERATION

The RV50-22 blocks flow from ② to ① until sufficient pressure is present at ② to force the poppet from its seat.

The cartridge offers smooth transition in response to load changes in common hydraulic circuits.

Note: The RV50-22 may not be used in cross-over relief applications (back pressure on ①).

FEATURES

- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Hardened poppet and cage for long life.
- Smooth response to pressure surges.
- Industry common cavity.

RATINGS

Operating Pressure: 345 bar (5000 psi)

Flow: The Performance Chart illustrates flow handling capacity at maximum setting. Pressure rise will vary with setting due to flow forces. Consult factory for specific flow characteristic values.

Pressure Rise: 0.34 bar/l (5 psi/g)

Internal Leakage: 0.25 cc/minute (5 drops/minute) max. to 85% of nominal setting

Crack (Set) Pressure Defined: bar (psi) evident at 0.95 lpm (0.25 gpm) attained

Standard Spring Range: 34.5 to 344.8 bar (500 to 5000 psi) at 80% accuracy

Temperature: -40 to 120°C

Filtration: Recommend 10µ nominal or better; See page 9.010.1

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 ssu)

Installation: No restrictions; See page 8.020.1

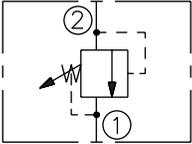
Cavity: VC10-2; See page 8.110.1

Cavity Tool: CT10-2XX; See page 8.600.1

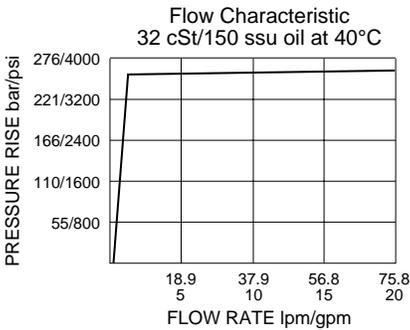
Seal Kit: SK10-2P-T; See page 8.650.1

SYMBOLS

USAS/ISO:

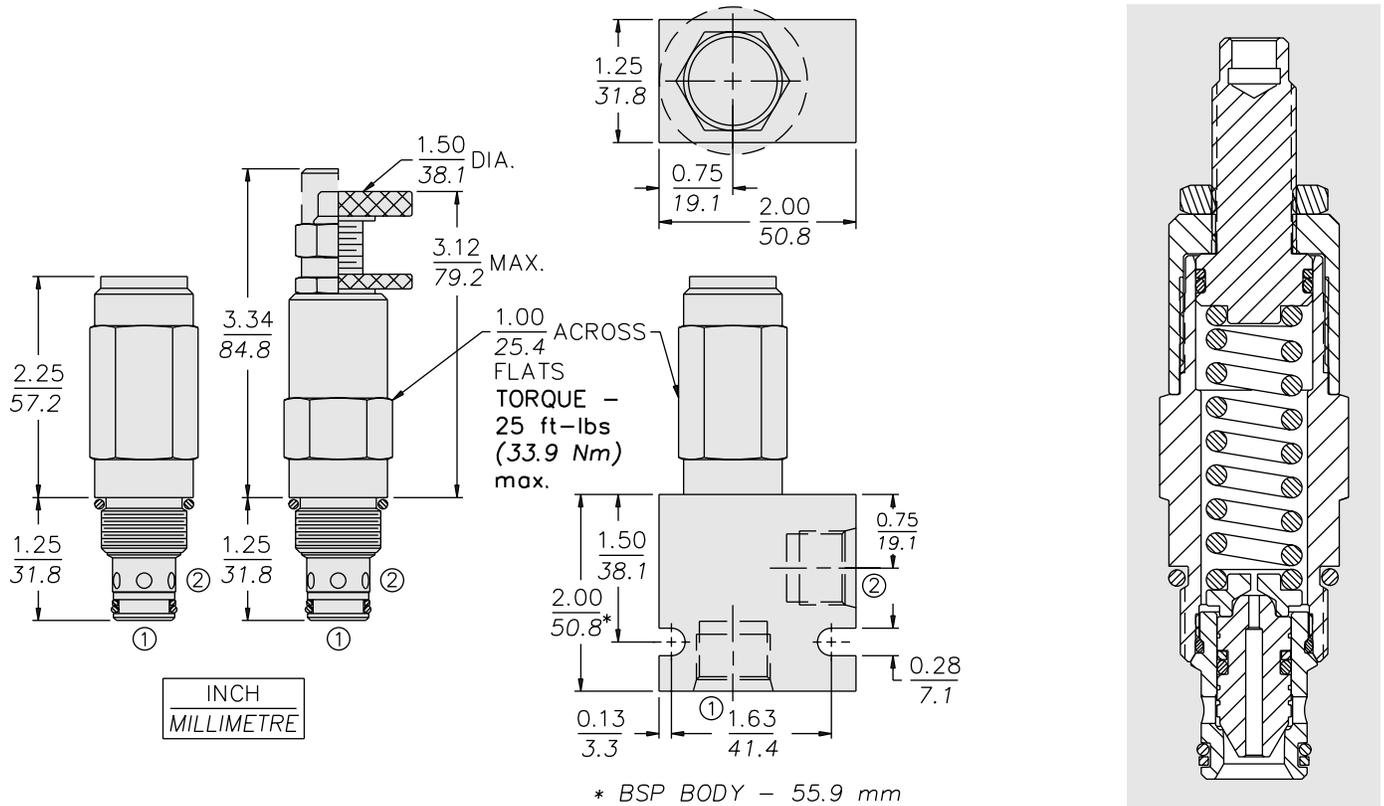


PERFORMANCE (Cartridge Only)



RV50-22

DIMENSIONS

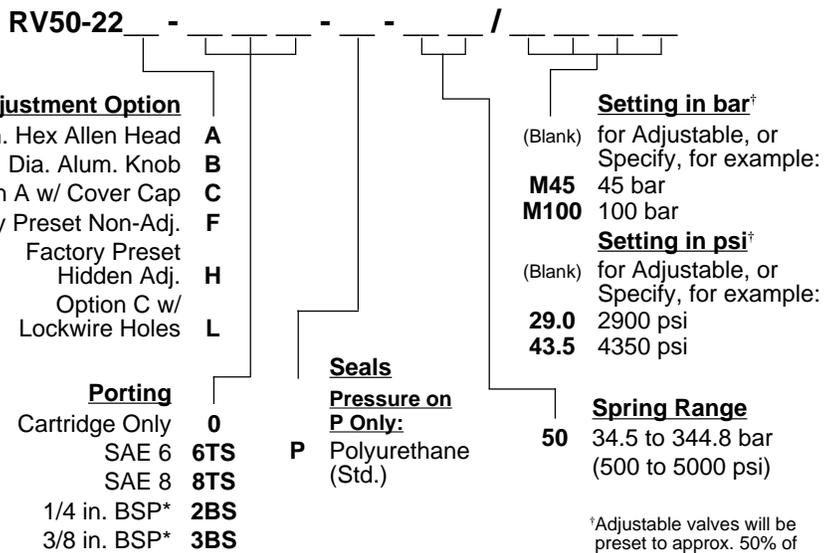


MATERIALS

Cartridge: Weight: 0.23 kg. (0.50 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Polyurethane seals with Fluorocarbon back-ups for pressures over 240 bar (3500 psi). Anodized aluminum knob.

Standard Ported Body: Weight: 0.54 kg. (1.2 lbs.); Steel, zinc-plated, rated to 345 bar (5000 psi); See page 8.010.1.

TO ORDER



[†]Adjustable valves will be preset to approx. 50% of spring max. potential.