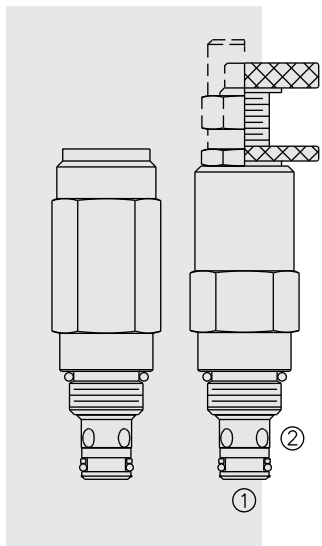


RV08-22 Relief, Differential Area Poppet



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.

OPERATION

The RV08-22 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 RV08-22 may be used in cross-over relief applications (back pressure on 1) with the use of the "C" double back-up ring seal option. See Ordering Table.

FEATURES

- Adjustments cannot be backed out of the valve.
- Adjustment options A, B, and C: positive stops prevent springs from going solid.
- Optional G coating guards against corrosion with 1000-hour salt spray protection.
- Hardened poppet and cage for long life.
- Optional spring ranges to 250 bar (3600 psi).
- Smooth response to pressure surges.
- Industry common cavity.
- Compact size.

RATINGS

Pressure Rating: 248 bar (3600 psi)

Proof Pressure: 496.4 bar (7200 psi)

Burst Pressure: 1037.7 bar (16168 psi)

Flow: The Performance Chart illustrates flow handling capacity at maximum setting for each spring range option. Pressure rise will vary with spring (range) and with setting within range due to flow forces. Consult factory for specific flow characteristic values. 30.2 lpm (8 gpm) at maximum pressure.

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

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

Reseat Pressure: Nominal 90% of crack pressure

Temperature: -40 to 100°C (-40 to 212°F) with Buna N seals; -26 to 204°C (-15 to 400°F) with fluorocarbon seals; -54 to 107°C (-65 to 225°F) with polyurethane seals.

Filtration: See page 9.010.1

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 sus); See Temperature and Oil Viscosity, page 9.060.1

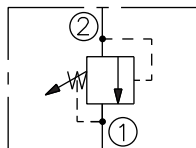
Installation: No restrictions; See page 9.020.1

Cavity: VC08-2; See page 9.108.1

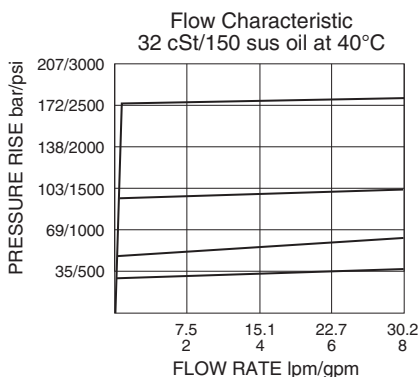
Cavity Tool: CT08-2XX; See page 8.600.1

Seal Kit: SK08-2X-T; See page 8.650.1; SK08-2X-M (for cross-over relief application)

ISO SYMBOL

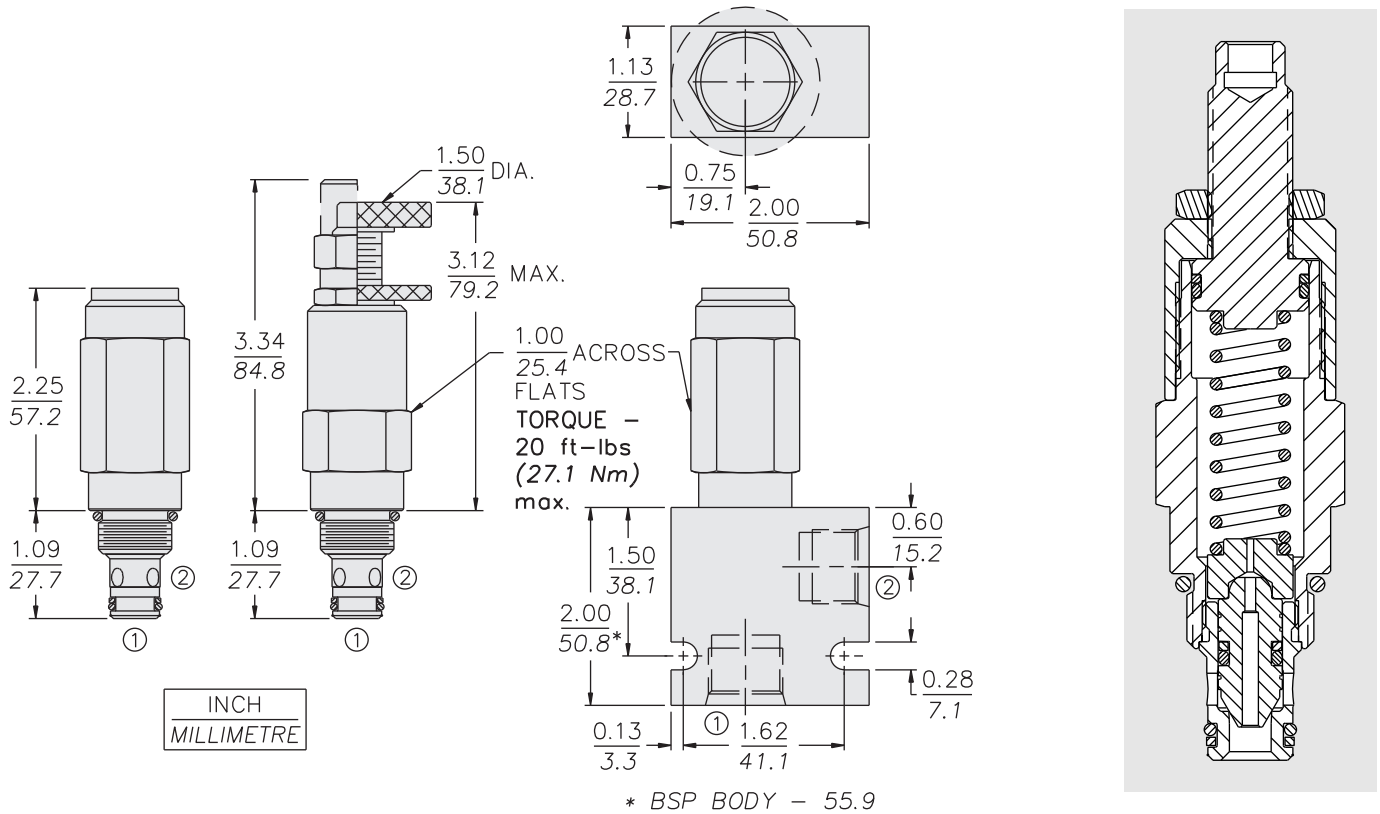


PERFORMANCE (Cartridge Only)



RV08-22

DIMENSIONS



MATERIALS

Cartridge: Weight: 0.22 kg. (0.48 lbs.) maximum (some models may weigh less). Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and back-up standard. Anodized aluminum knob.

Standard Ported Body: Weight: 0.16 kg. (0.35 lbs.) Anodized high-strength aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.008.1

TO ORDER

RV08-22 - - - /

1,000 Hour Salt Spray Coating **G**

Adjustment Option

- 1/4 in. Hex Allen Head **A**
- 1-1/2 in. Dia. Alum. Knob **B***
- Option A w/ Cover Cap **C***
- Factory Preset Non-Adj. **F***
- Factory Preset Hidden Adj. **H***
- Option C w/ Lockwire Holes **L***

* Adjustment options B, C, F, H, and L are not available on G-option valves.

Porting

- Cartridge Only **0**
- SAE 4 **4T**
- SAE 6 **6T**
- 1/4 in. BSP* **2B**
- 3/8 in. BSP* **3B**
- 1/2 in. BSP* **4B**

Seals

Pressure on P Only:

- N** Buna N (Std.)
- V** Fluorocarbon
- P** Polyurethane

Bidirectional Pressure:

- NC** Buna N
- VC** Fluorocarbon
- PC** Polyurethane

Note: Polyurethane seals recommended for operation over 241 bar (3500 psi).

Setting in bar[†]

- (Blank) for Adjustable, or Specify, for example: **M150** 150 bar
- Setting in psi[†]**
- (Blank) for Adjustable, or Specify, for example: **35** 3500 psi

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

Spring Range

- 4** 3.4 to 27.6 bar (50 to 400 psi)
- 7** 6.9 to 48.3 bar (100 to 700 psi)
- 13** 10.3 to 89.6 bar (150 to 1300 psi)
- 26** 17.2 to 248.2 bar (250 to 3600 psi)

Note: When used in cross-over relief applications (back pressure on 1) be sure to specify the Bidirectional Pressure Seal Option and SK-08-2X-M Double-Back-Up Ring Seal Kit.

*BSP Body; U.K. Mfr. Only