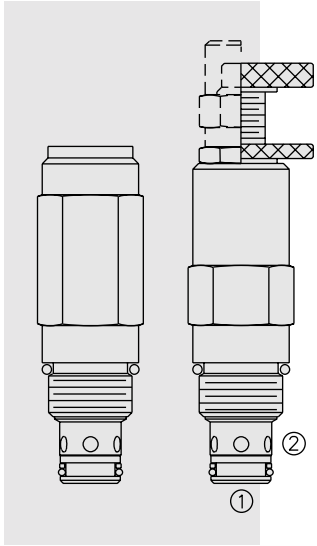


RV10-24 Relief, Pilot-Operated Poppet



DESCRIPTION

A screw-in, cartridge-style, pilot-operated (two-stage), poppet-type hydraulic relief valve, intended for use as a pressure limiting device in demanding hydraulic circuits which require fast response and low hysteresis.

OPERATION

The RV10-24 blocks flow from ① to ② until sufficient pressure is present at ① to force the piloting relief off its seat, allowing the main (second stage) poppet to shift, opening ① to ②.

The cartridge offers fast response to load changes in demanding hydraulic circuits.

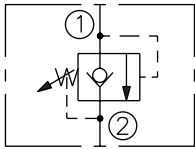
Note: Although the RV10-24 has a reverse flow check feature, its pressure differential (due to crack pressure) makes it unsuitable for anti-cavitation use.

FEATURES

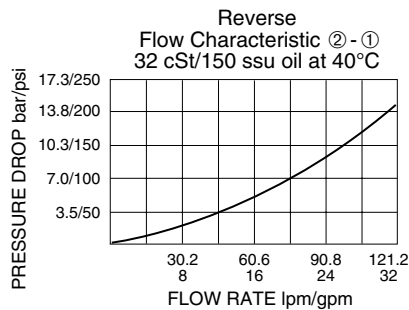
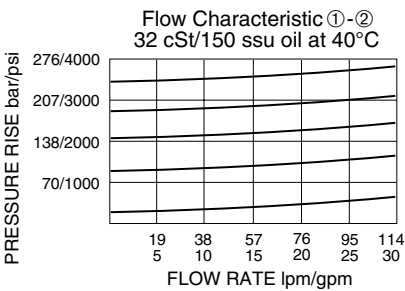
- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Hardened spool and cage for long life.
- Optional spring ranges to 210 bar (3000 psi).
- Fast, smooth response to pressure surges.
- Industry common cavity.

SYMBOLS

USAS/ISO:



PERFORMANCE (Cartridge Only)



RATINGS

Operating Pressure: 240 bar (3500 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. For flow rates below 11 lpm (3 gpm), consult factory.

Internal Leakage: 0.8 cc/minute (16 drops/minute) max. to 80% of nominal setting

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

Reseat Pressure: Nominal 75 psi below crack pressure

Standard Spring Ranges:

- 6.9 to 137.9 bar (100 to 2000 psi);
- 20.7 to 241.4 bar (300 to 3500 psi)

Temperature: -40 to 120°C

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 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: SK10-2N-B; See page 8.650.1

Note: This model RV10-24 is obsolete and has been replaced by either the RV10-23 (page 6.060.1) or the RV10-28 (page 6.170.1). The RV10-28 should be used for applications where low-overshoot and reverse free-flow features are required.

