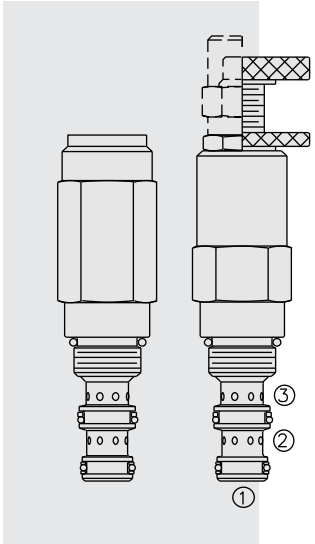


CR08-38 Bi-Directional Relief Valve, Vented



DESCRIPTION

A screw-in, cartridge-style, direct-acting, differential area, poppet-type, bi-directional relief valve, intended for use as a pressure limiting device in demanding hydraulic circuits.

OPERATION

The **CR08-38** is a direct-acting, dual cross-over relief valve in a single cartridge format. It blocks flow from 1 to 2 bi-directionally, with the spring chamber constantly drained at 3.

On attainment of a pre-determined pressure at either 1 or 2, the poppet is forced from its seat. Back pressure on port 3 will affect the nominal setting on a 2:1 basis.

NOTE: If pressure is applied simultaneously at port 1 and port 2, the pressure is additive and may cause the valve to shift at a pressure lower than the pre set pressure setting.

FEATURES

- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Hardened parts for long life.
- Industry common cavity.

RATINGS

Maximum Operating Pressure: 205 bar (3000 psi)

Adjustable Pressure Range: 68–205 bar (1000–3000 psi); Pressure is set at port 2

Proof Pressure: 345 bar (5000 psi)

Reseat Pressure: 80% of Crack; Crack: 0.96 lpm (0.25 gpm)

Maximum Difference for Crack Pressure in Both Directions: 20.7 bar (300 psi)

Flow Range: 30 lpm (8 gpm); See performance chart

Maximum Internal Leakage: When reseal to 75% of crack pressure: 0.4 cc/minute (8 drops/minute maximum)

Cycle Limitations: Internal seal life is limited to 300,000 cycles in either direction at maximum setting

Temperature: -40 to 120°C with Buna N 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

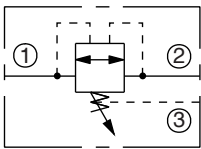
Cavity: VC08-3; See page 9.108.1

Cavity Tool: CT08-3XX; See page 8.600.1

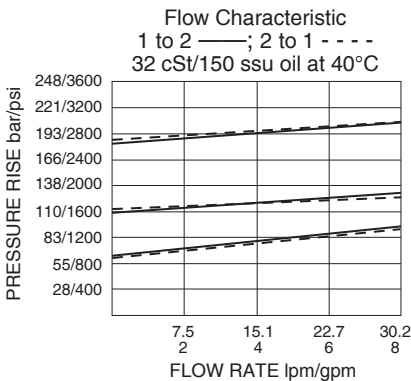
Seal Kit: SK08-3X-BM; See page 8.650.1

SYMBOLS

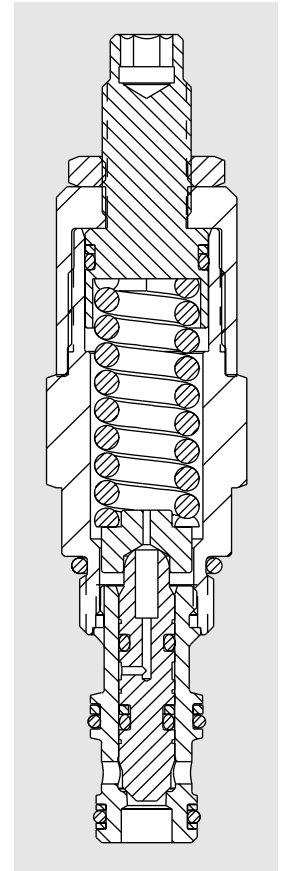
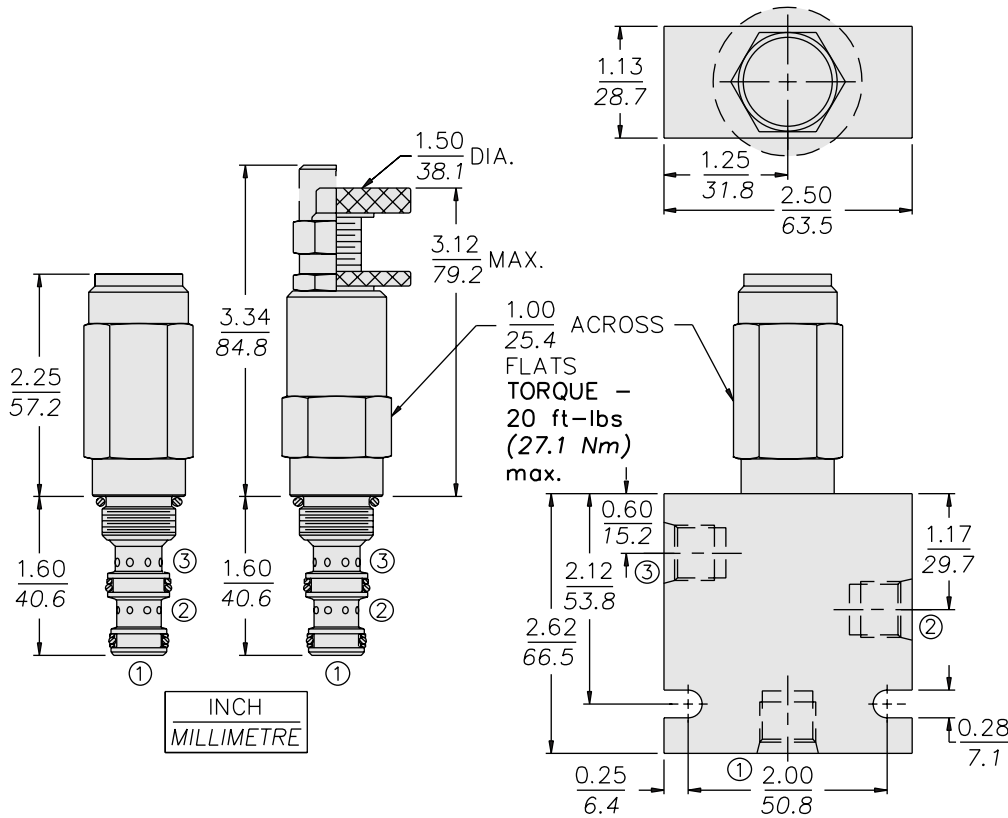
USASI/ISO:



PERFORMANCE (Cartridge Only)



DIMENSIONS



MATERIALS

Cartridge: Weight: 0.14 kg. (0.30 lbs.)
Steel with hardened work surfaces.
Zinc-plated exposed surfaces.
Buna N O-rings and TFE back-ups standard. Anodized aluminum knob.

Standard Ported Body: Weight: 0.27 kg. (0.60 lbs.) Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.008.1

Note: Orifice Disc should not be used with this valve.

TO ORDER

CR08-38 - - - /

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|--|---|
| <p>Adjustment Option</p> <p>1/4 in. Hex Allen Head A</p> <p>1-1/2 in. Dia. Alum. Knobs B</p> <p>Option A with Cover Cap C</p> <p>Factory Preset Non-Adj. F</p> <p>Factory Preset; Hidden Adj. H</p> <p>Option C w/ Lockwire Holes L</p> | <p>Setting in bar[†]</p> <p>(Blank) for Adjustable, or Specify, for example:</p> <p>M25 25 bar</p> <p>M100 100 bar</p> <p>Setting in psi[†]</p> <p>(Blank) for Adjustable, or Specify, for example:</p> <p>10.0 1000 psi</p> <p>23.5 2350 psi</p> |
| <p>Porting</p> <p>Cartridge Only 0</p> <p>SAE 6 6T</p> <p>1/4 in. BSP* 2B</p> <p>3/8 in. BSP* 3B</p> | <p>Spring Range</p> <p>30 68 to 205 bar (1000 to 3000 psi)</p> |
| <p>Seals</p> <p>Buna N (Std.) N</p> <p>Fluorocarbon V</p> | |

*BSP Body; U.K. Mfr Only

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