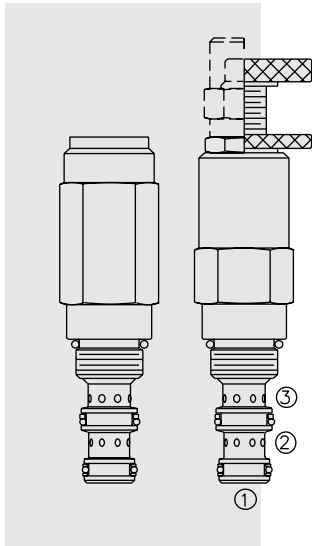


# CR08-38 Bi-Directional Relief Valve, Vented



## 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.

## 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

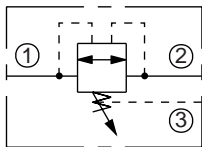
**Cavity:** VC08-3; See page 9.108.1

**Cavity Tool:** CT08-3XX; See page 8.600.1

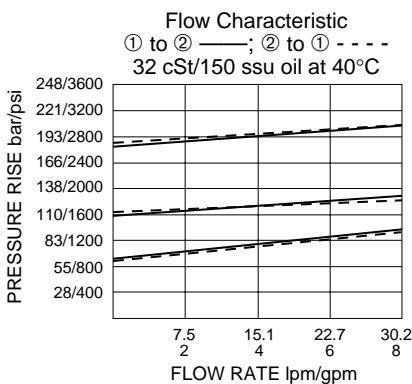
**Seal Kit:** SK08-3X-BM; See page 8.650.1

## SYMBOLS

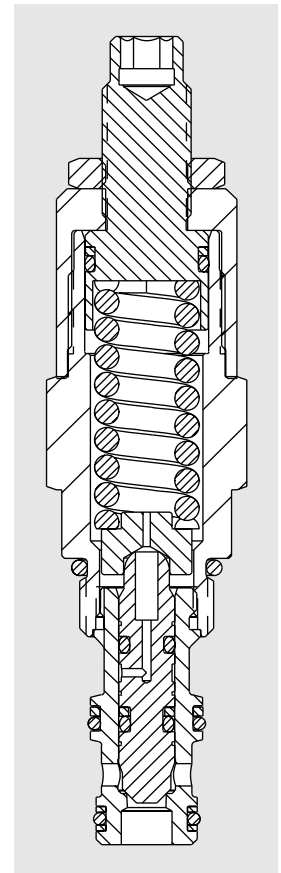
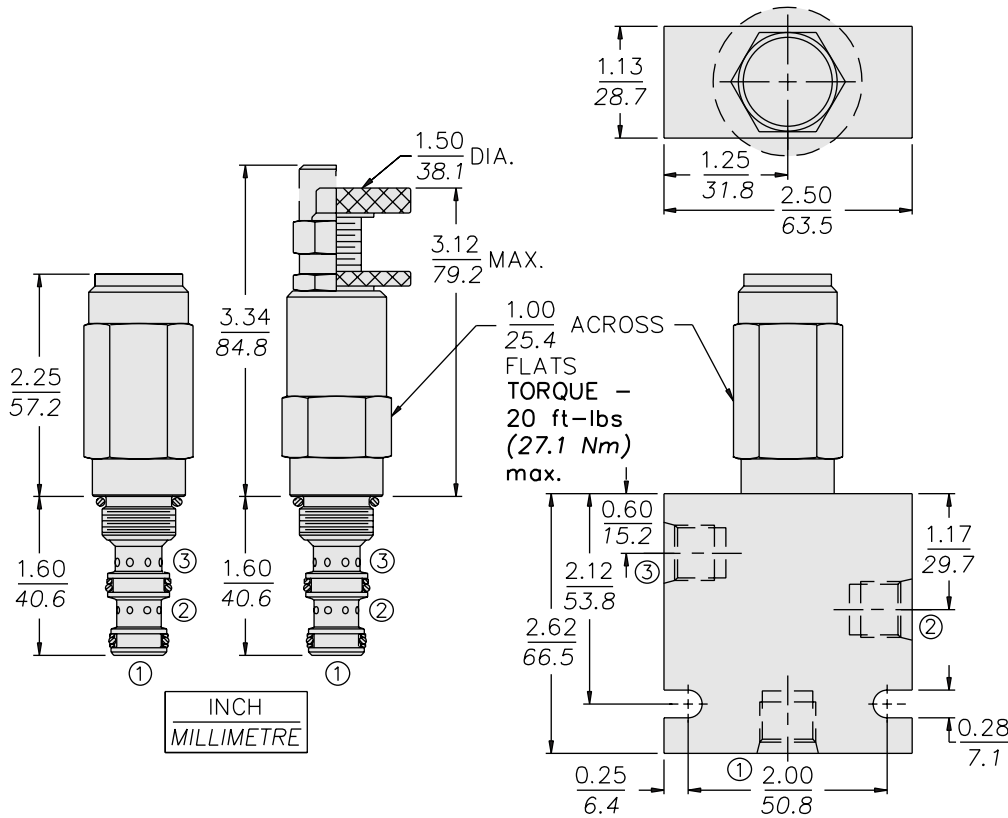
### USASI/ISO:



## 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** - - - /

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

<sup>†</sup>Adjustable valves will be preset to approx. 50% of spring max. potential, unless specified.