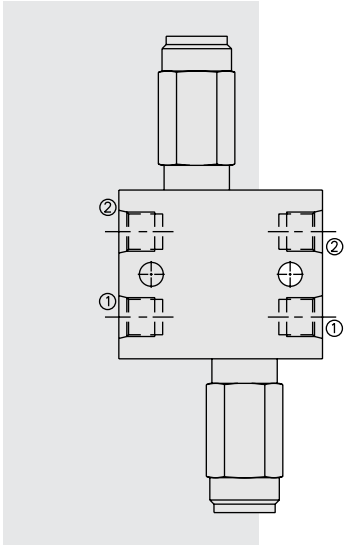


# CRV08-20 Cross-Over Relief, Direct-Acting Poppet



## DESCRIPTION

The **CRV08-20** cross-port relief uses two RV08-20 cartridges in an in-line plumbed housing. It is typically used to protect a hydraulic cylinder or motor from load-induced pressure surges. The cartridges used are screw-in, direct-acting, poppet-type valves, intended for use in lower flow circuits, requiring low internal leakage.

## OPERATION

The CRV08-20 manifold allows flow to pass through the separated ① to ② passages at low pressure loss. If pressure in either passage exceeds the valve setting, flow will cross over to the opposite passage.

Note: Back-pressure at the outlet port of the relief cartridges will increase the nominal setting of the valve on a 1:1 basis (i.e. 6.9 bar/100 psi back-pressure increases the nominal setting by 6.9 bar/100 psi).

See catalog page 6.010.1 for cartridge specifications.

## FEATURES

- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Optional spring ranges to 228 bar (3300 psi).
- Rapid response to pressure changes.
- Compact size.

## RATINGS

**Operating Pressure:** 228 bar (3300 psi)

**Flow:** The Performance Chart illustrates flow handling capacity at max. 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.

**Internal Leakage:** 0.25 cc/minute (5 drops/minute) max. to 75% of nominal setting

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

**Reseat Pressure:** Nominal 80% of crack pressure

### Standard Spring Ranges:

- 3.4 to 34.5 bar (50 to 500 psi);
- 3.4 to 62.0 bar (50 to 900 psi);
- 6.9 to 124 bar (100 to 1800 psi);
- 6.9 to 227.5 bar (100 to 3300 psi)

**Temperature:** -40 to 120°C with standard Buna 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

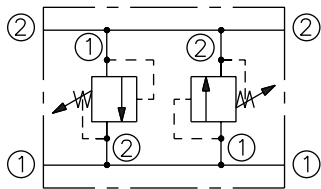
**Installation:** No restrictions; See page 9.020.1

**Seal Kit:** SK08-2X-M (for cross-over relief application) (2 required)

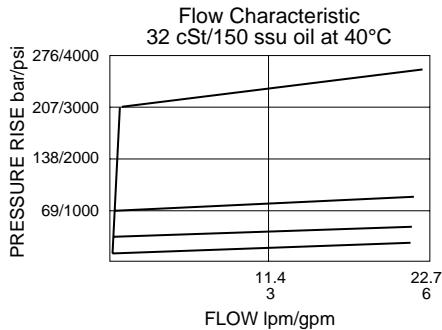
**Body Part Number:** 7070160

## SYMBOLS

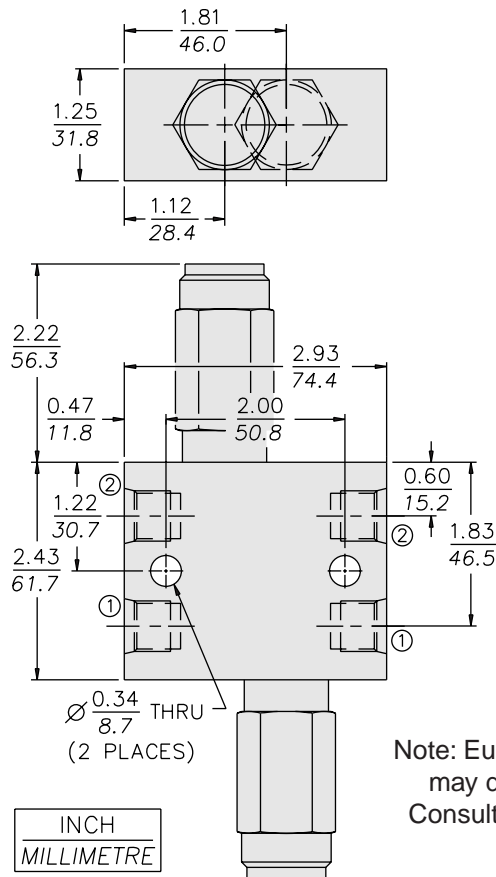
### USASI/ISO:



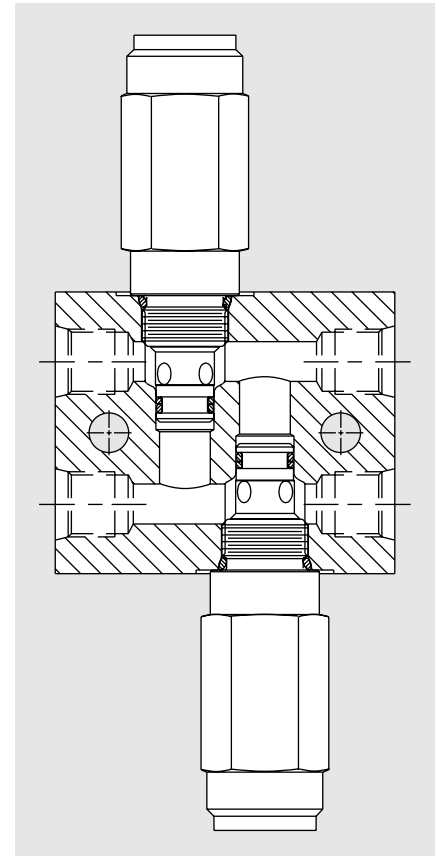
## PERFORMANCE (Cartridge Only)



## DIMENSIONS



Note: European manufactured version may differ in design/dimensions. Consult HydraForce Hydraulics Ltd.



## MATERIALS

**Cartridges:** (2 Required) Weight: 0.23 kg. (0.50 lbs.) Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and Fluorocarbon back-ups standard. Anodized aluminum knobs and caps.

**Standard Ported Body:** Weight: 0.36 kg. (0.80 lbs.) Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi).

## TO ORDER

<b>CRV08-20 - 6T - - / - /</b>		
<p><b>Adjustment Option</b></p> <p><b>A</b> 1/4 in. Hex Allen Head</p> <p><b>B</b> 1-1/2 in. Dia. Alum. Knob</p> <p><b>C</b> Option A w/ Cover Cap</p> <p><b>F</b> Factory Preset Non-Adj.</p> <p><b>H</b> Factory Preset Hidden Adj.</p> <p><b>L</b> Option C w/ Lockwire Holes</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>9.0</b> 900 psi</p> <p><b>23.5</b> 2350 psi</p>	<p><b>Repeat</b> to supply setting group if both valves are not to be set at the same pressures.</p>
<p><b>Porting</b></p> <p><b>6T</b> SAE 6</p>	<p><b>Seals</b></p> <p><b>Bidirectional Pressure:</b></p> <p><b>NC</b> Buna N</p> <p><b>VC</b> Fluorocarbon</p>	<p><b>Spring Range</b></p> <p><b>5</b> 3.4 to 34.5 bar (50 to 500 psi)</p> <p><b>9</b> 3.4 to 62.0 bar (50 to 900 psi)</p> <p><b>18</b> 6.9 to 124 bar (100 to 1800 psi)</p> <p><b>33</b> 6.9 to 227.5 bar (100 to 3300 psi)</p>

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