

DESCRIPTION

A screw-in, cartridge-style, direct-acting, poppet-type, hydraulic relief valve intended for lower flow circuits requiring low internal leakage..

OPERATION

The INRV08-20 , blocks flow from ① to ② until sufficient pressure is present at ① to force the spring-opposed poppet from its seat.
 Note: The INRV08-20 may be used in cross-over relief applications (back pressure on ②) 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 spring ranges to 248 bar (3600 psi)
- Rapid response to pressure changes.
- Compact size.

RATINGS

Operating Pressure:248 bar (3600 psi)
Flow:The Performance Chart illustrates fl ow handling capacity at maximum setting for each spring range option. Pressure rise will vary with spring (range) and with setting within range due to fl ow forces. Consult factory for specific flow characteristic values.
Internal Leakage:
 0.25 ml/minute (5 drops/minute) max. to 75% of nominal setting
Crack Pressure Defined:
 Bar (psi) evident at 0.95 lpm (0.25 gpm)
Standard Spring Ranges:
 Due to manufacturing tolerances, it may be possible to adjust the valve either lower or higher than the nominal ratings shown below.
Reseat Pressure:Nominal 80% of crack pressure

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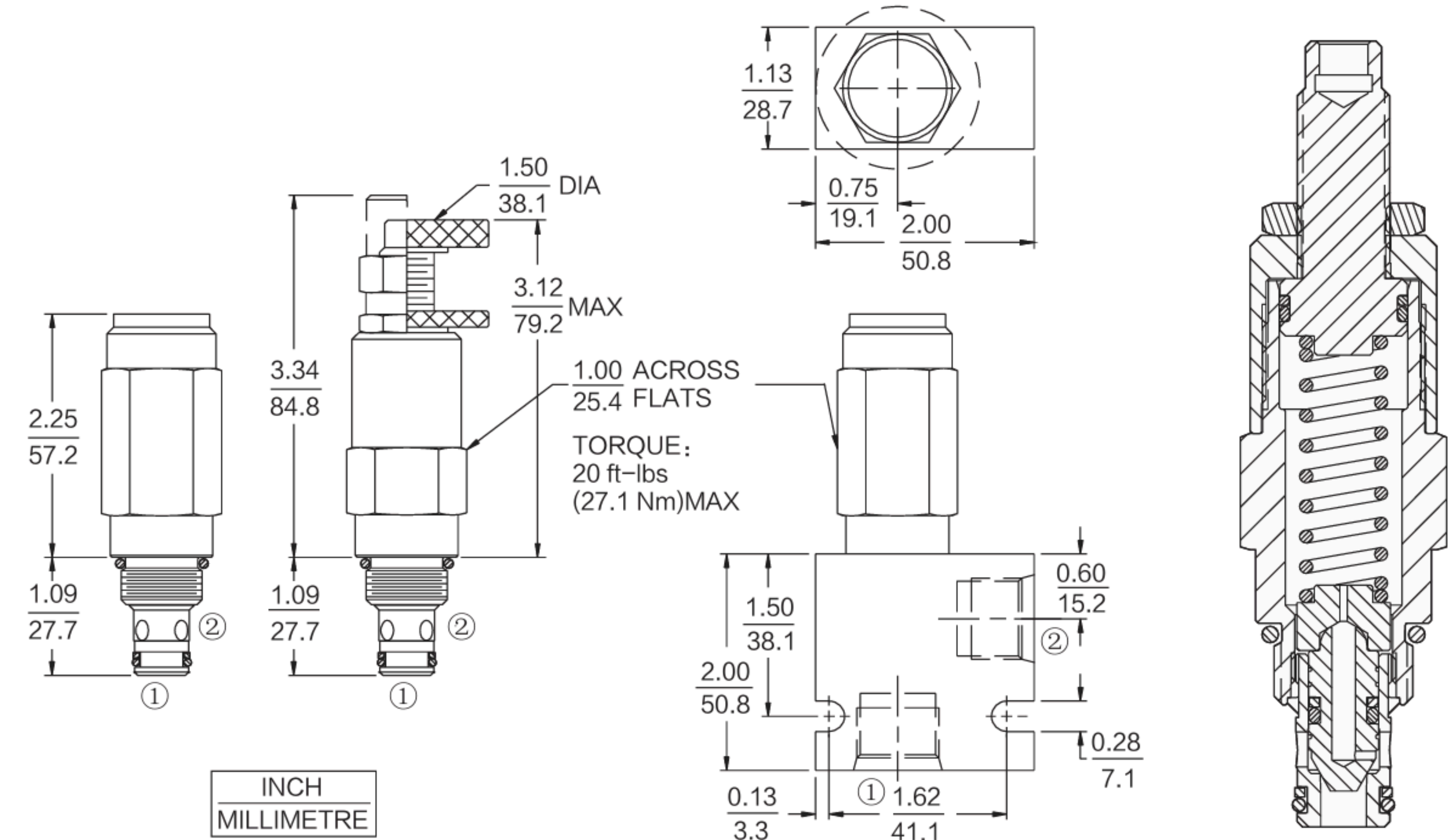
Standard Spring Ranges:
 Due to manufacturing tolerances, it may be possible to adjust the valve either lower or higher than the nominal ratings shown below.

Reseat Pressure:Nominal 80% of crack pressure

Spring Model Code	Nominal Factory Rating	Max Solid Adjustment
5	3.35–34.48 bar (50–500 psi)	48.28 bar (700 psi)
9	6.90–75.86 bar (100–1100 psi)	103.45 bar (1500 psi)
18	17.24–158.62 bar (250–2300 psi)	200 bar (2900 psi)
33	17.24–248.28 bar (250–3600 psi)	303.45 bar (4400 psi)

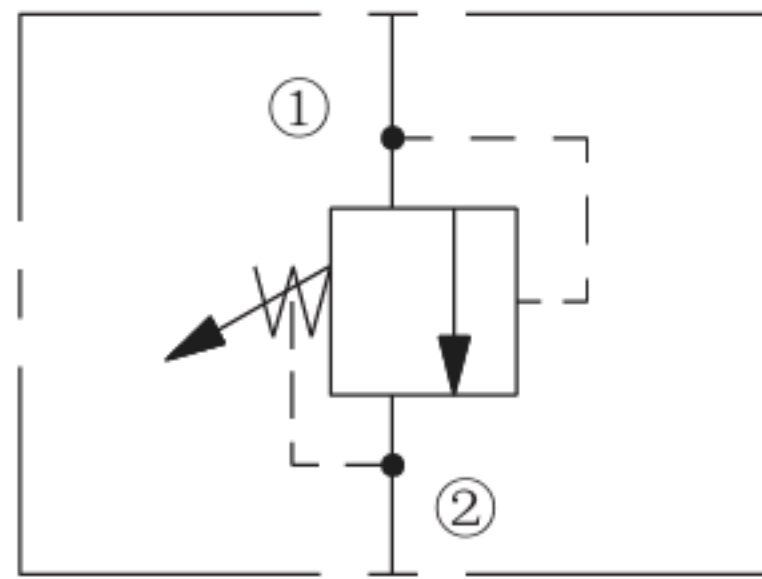
Temperature:–40°C ~ 120°C
Fluids:Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 ssu);
Cavity:T08–2A ; See bottom of this catalog.

DIMENSIONS

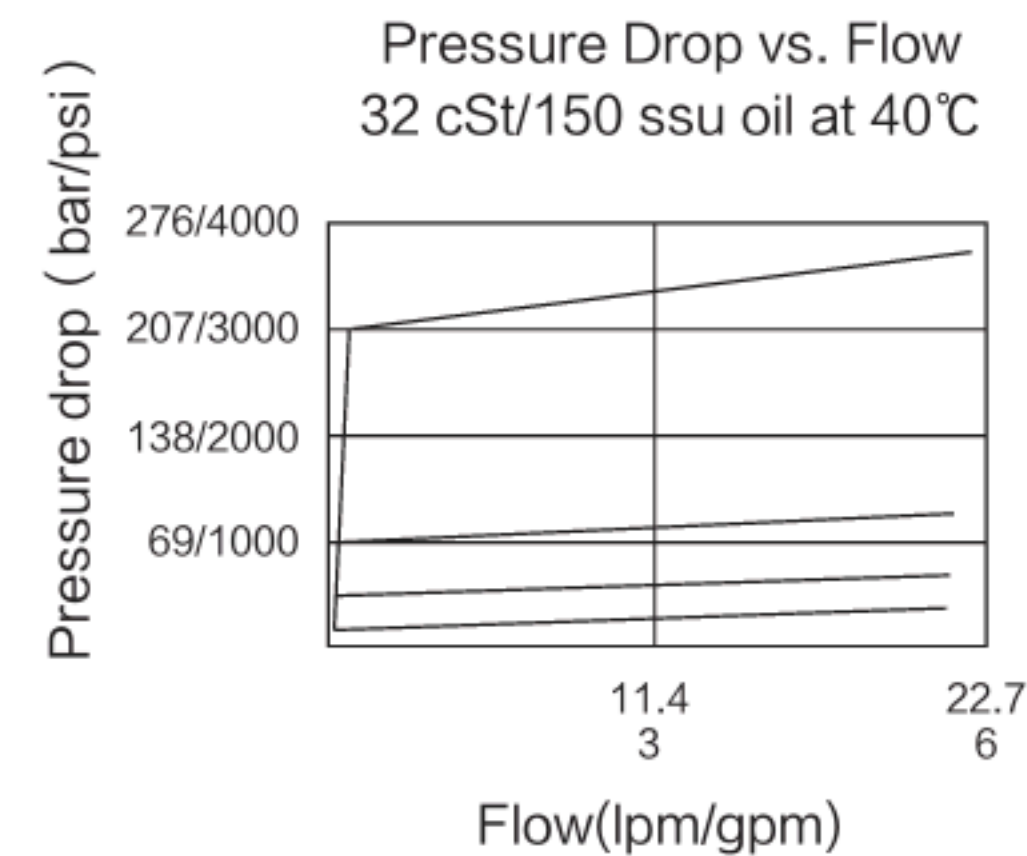


INCH
MILLIMETRE

ISO SYMBOL



PERFORMANCE (Cartridge Only)



MATERIALS

Cartridge: Weight:0.23kg (0.50 lbs) ; INRV08-20

Steel with hardened work surfaces.
 Zinc-plated exposed surfaces.
 Buna N O-rings and polyester standard. Anodized aluminum knobs and caps.

BODY:Weight:

0.16 kg (0.35lbs) ;
 Anodized highstrength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi) ;
 Ductile iron bodies available; dimensions may differ

TO ORDER

Adjustment Option	Porting	Seals	Pressure on Port Only:	Bidirectional Pressure	Setting in bar†	Setting in psi†	Spring Range
1/4 in. Hex Allen Head A	Cartridge Only 0	Buna N			(Blank) for Adjustable, or Specify, for example:	(Blank) for Adjustable, or Specify, for example:	5 3.45 ~ 34.48 bar (50 ~ 500 psi)
1-1/2 in. Dia. Alum Knobs B	SAE 4 4T	Fluorocarbon V			M25 25 bar	9.0 900 psi	9 6.90 ~ 75.86 bar (100 ~ 1100 psi)
Option A with Cover Cap C	SAE 6 6T				M100 100 bar	23.5 2350 psi	18 17.24 ~ 158.62 bar (250 ~ 2300 psi)
Factory Preset Non-Adj. F	SAE 8 8T						33 17.24 ~ 248.28 bar (250 ~ 3600 psi)
Factory Preset Hidden Adj. H	1/4 in. BSP* 2B						
Option C w/ Lockwire Holes L	3/8 in. BSP* 3B						
	1/2 in. BSP* 4B						

†Adjustable valves will be preset to approx. 50%