

DESCRIPTION

A screw-in, cartridge-style, direct-acting, differential area, poppet-type hydraulic relief valve for use as a pressure limiting device in more demanding hydraulic circuits, requiring low hysteresis and low internal leakage.

OPERATION

The INRV10-22 Due to manufacturing tolerances, it may be possible to adjust the valve either lower or higher than the nominal ratings shown below.

NOTE: INRV10-22 may be used in cross-over relief applications (back pressure on ①) 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.
- Hardened spool and cage for long life.
- Optional spring ranges to 241 bar (3500 psi) .
- Smooth response to pressure surges.
- Industry common cavity.

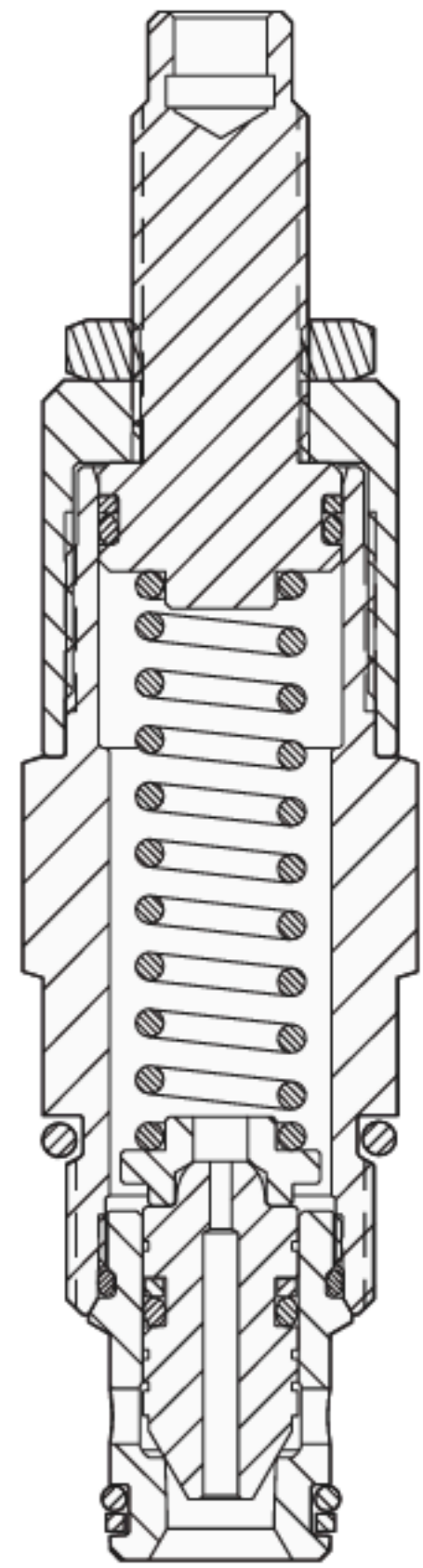
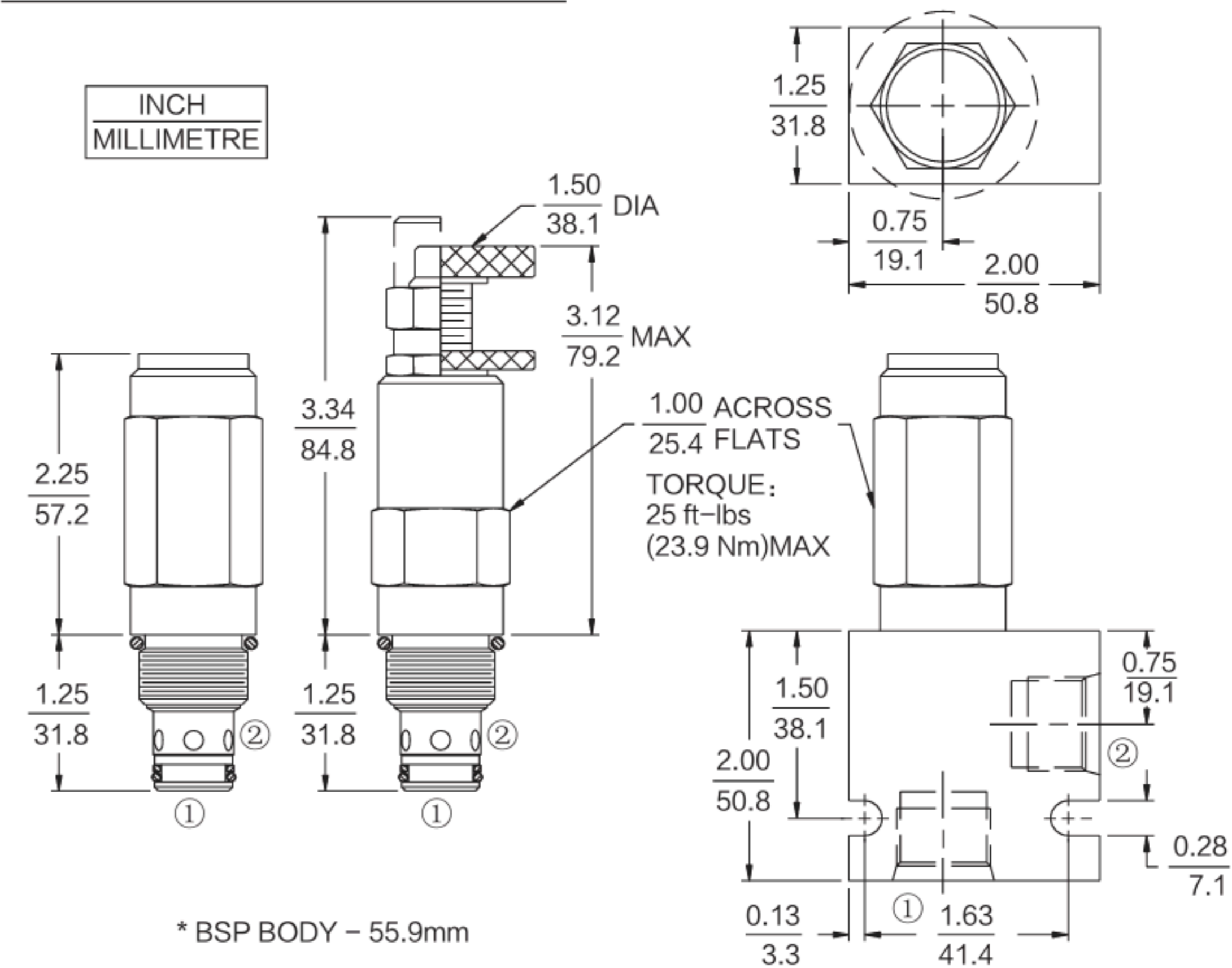
RATINGS

Operating Pressure:241 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.
Pressure Rise: 0.34 bar/lpm (5 psi/gpm)
Internal Leakage: 0.25 cc/minute (5 drops/minute) max. to 85% of nominal setting
Crack Pressure Defined: bar (psi) evident at 0.95 lpm (0.25 gpm) attained
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.

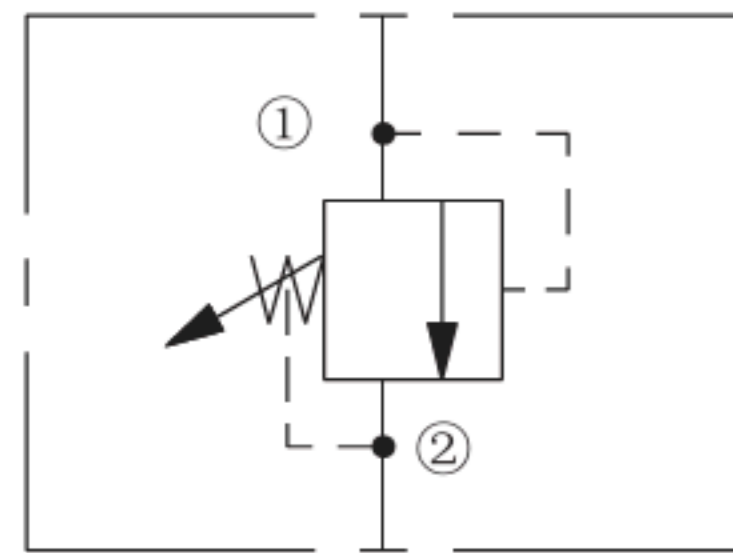
Spring Model Code	Nominal Factory Rating	Max Solid Adjustment
6	10.34–41.38 bar (150–600 psi)	55.17 bar (800 psi)
13	10.34–89.66 bar (150–1300 psi)	117.24 bar (1700 psi)
25	17.24–165.52 bar (250–2400 psi)	206.9 bar (3000 psi)
35	17.24–241.38 bar (250–3500 psi)	296.55 bar (4300 psi)

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:T10–2B ; See bottom of this catalog.

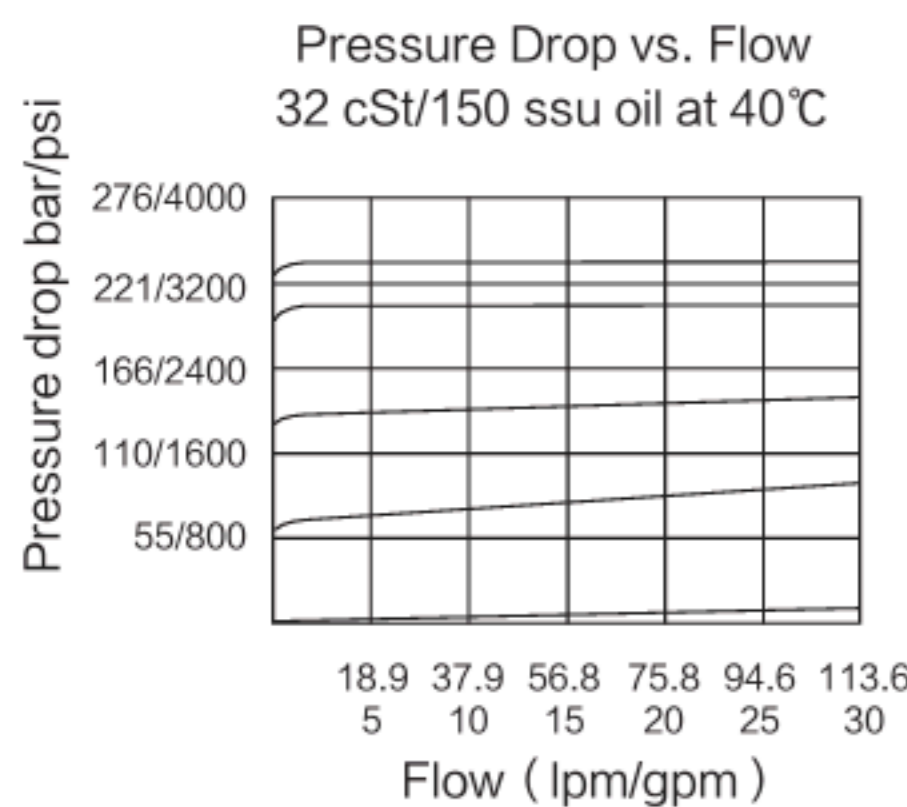
DIMENSIONS



ISO SYMBOL



PERFORMANCE (Cartridge Only)



MATERIALS

Cartridge: Weight:0.23kg (0.50 lbs) ; INRV10-22

Steel with hardened work surfaces.
 Zinc-plated exposed surfaces.
 Buna N O-rings and polyester elastomer back-ups standard.
 Anodized aluminum knobs.
 Optional polyurethane seals with Fluorocarbon back-up recommended for pressures over 240 bar (3500 psi).

BODY:Weight:0.15 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:	6 10.34 to 41.38 bar (150 to 600 psi)
1-1/2 in. Dia. Alum. Knobs B	SAE 6 6T	Fluorocarbon V			M25 25 bar	9.0 900 psi	13 10.34 to 89.66 bar (150 to 1300 psi)
Option A with Cover Cap C	SAE 8 8T				M100 100 bar	23.5 2350 psi	25 17.24 to 165.52 bar (250 to 2400 psi)
Factory Preset Non-Adj. F	1/4 in. BSP* 2B						35 17.24 to 241.38 bar (250 to 3500 psi)
Factory Preset Hidden Adj. H	3/8 in. BSP* 3B						
Option C w/ Lockwire Holes L	1/2 in. BSP* 4B						

†Adjustable valves will be preset to approx. 50%