

DESCRIPTION

A screw-in, cartridge-style, pilot-operated (two-stage), spool-type hydraulic relief valve, intended for use as a pressure limiting device in demanding hydraulic circuits which require fast response and low hysteresis, low leakage and low pressure overshoot.

OPERATION

The INRV10-23 blocks flow from ① to ② until sufficient pressure is present at ① to force the piloting relief off its seat, allowing the main spool to shift, opening ① to ②.

NOTE:

The INRV10-23 may be used in cross-over relief applications, however, it is not recommended for use as in parallel cross-over relief or anti-cavitation applications. Consult factory for proper flow path connections.

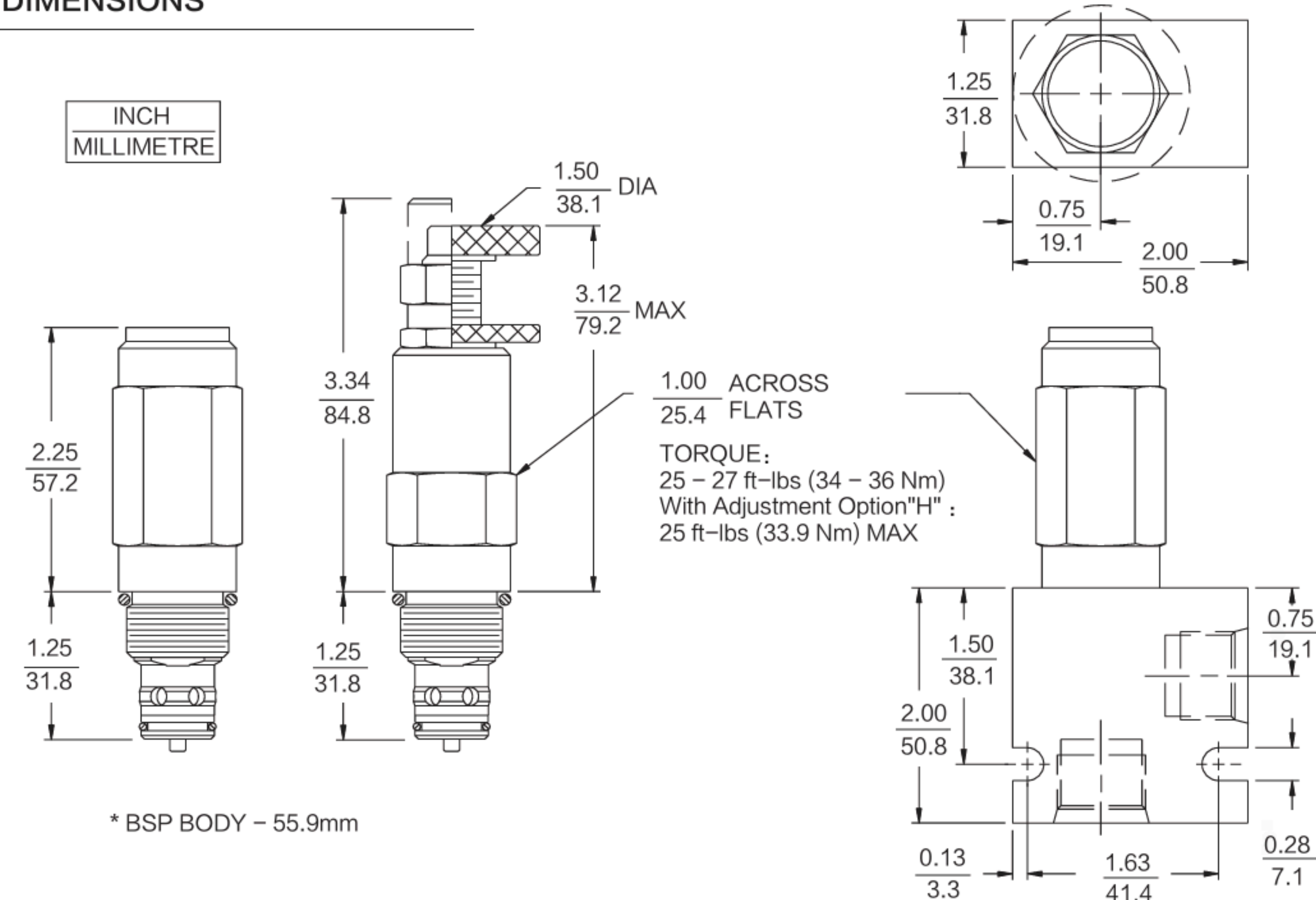
FEATURES

- Adjustments cannot be backed out of the valve.
- Hardened spool and cage for long life.
- Fast, smooth response to pressure surges.
- Industry common cavity.

RATINGS

- Operating Pressure:** 20.7 ~ 240 bar (300 ~ 3500 psi)
- Flow:** 7.6 ~ 113.6 lpm (2 ~ 30 gpm)
- Internal Leakage:** 0.5 ml/minute (5 drops/minute) max. to 80% of nominal setting
- Crack Pressure Defined:** Setting Pressure Defined: bar (psi) evident at 7.6 lpm (2.0 gpm) attained
- Reseat Pressure:** Nominal 90% of crack pressure
- Pressure Rise:** 0.15 bar/lpm (8 psi/gpm), at 240 bar (3500 psi)
- Temperature:** -54°C ~ 135°C (-65 ~ 275° F) (with Buna N seals)
- 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



MATERIALS

Cartridge: Weight: 0.25kg (0.55 lbs) ; INRV10-23

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

TO ORDER

- Adjustment Option**
- 1/4 in. Hex Allen Head A
 - 1-1/2 in. Dia. Alum. Knobs B
 - Option A with Cover Cap C
 - Factory Preset Non-Adj. F
 - Factory Preset Hidden Adj. H
 - Option C w/Lockwire Holes L

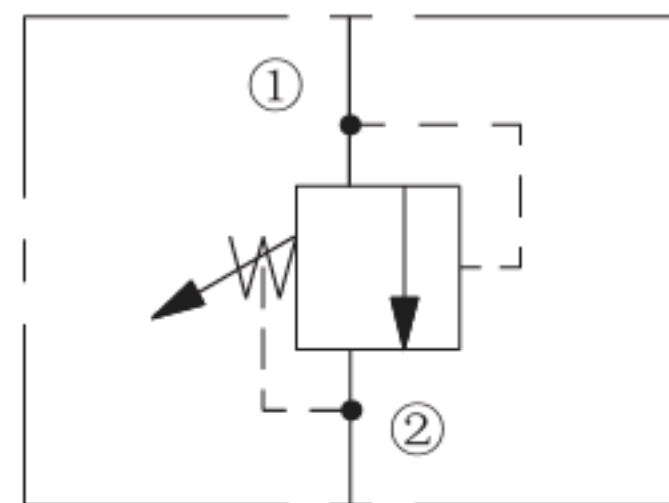
- Porting**
- Cartridge Only 0
 - SAE 6 6T
 - SAE 8 8T
 - 3/8 in. BSP* 3B
 - 1/2 in. BSP* 4B

- Seals**
- Pressure on Port Only:**
- Buna N
 - Fluorocarbon V

- Setting in bar†**
- (Blank) for Adjustable, or Specify, for example: M21 21 bar
 - M100 100 bar
- Setting in psi†**
- (Blank) for Adjustable, or Specify, for example: 3.0 300 psi
 - 23.5 2350 psi
- Spring Range**
- 35 20.7 to 241.4 bar (300 to 3500 psi)

†Adjustable valves will be preset to approx. 50%

ISO SYMBOL



PERFORMANCE (Cartridge Only)

