

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.

OPERATION

The INRV16-26 blocks flow from ① to ② until sufficient pressure is present at ① to force the piloting relief off its seat, allowing the main (second stage) spool to shift, opening ① to ②.

The cartridge offers smooth transition in response to load changes in demanding hydraulic circuits.

NOTE:

The INRV16-26 cannot be used in cross-over relief applications.

FEATURES

- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Hardened spool and cage for long life.
- Optional spring ranges to 240 bar (3500 psi) .
- Fast, smooth response to pressure surges.

RATINGS

Operating Pressure:240 bar (3500 psi)

Flow:See Performance Chart

Internal Leakage:

115 cc/minute (7 cu. in./minute) max. for pressure settings below 138bar (2000 psi); 197 cc/minute (30 cu. in./minute) for pressure settings of 138 bar (2000 psi) or higher.

Crack Pressure Defined:

bar (psi) evident at 0.95 lpm (0.25 gpm) attained

Reseat Pressure: Nominal 90% of crack pressure

Standard Spring Ranges:

03: 9.66 ~ 20.70 bar (140 ~ 300 psi)

06: 15.87 ~ 41.41 bar (230 ~ 600 psi)

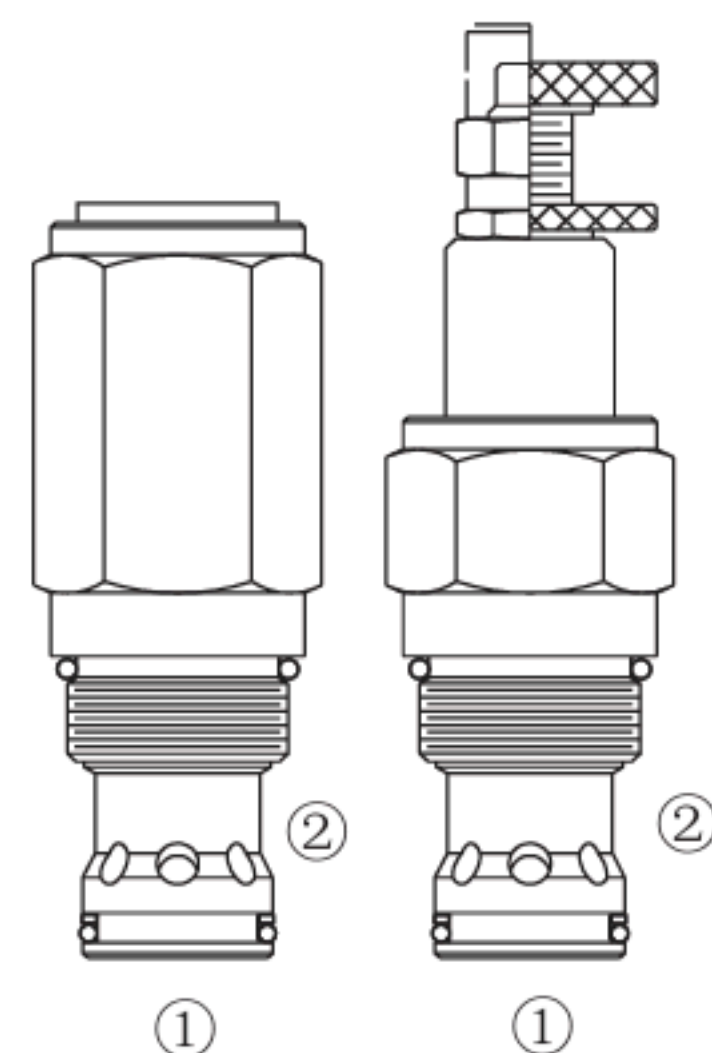
15: 36.63 ~ 103.52 bar (530 ~ 1500 psi)

35: 82.82 ~ 241.55 bar (1200 ~ 3500 psi)

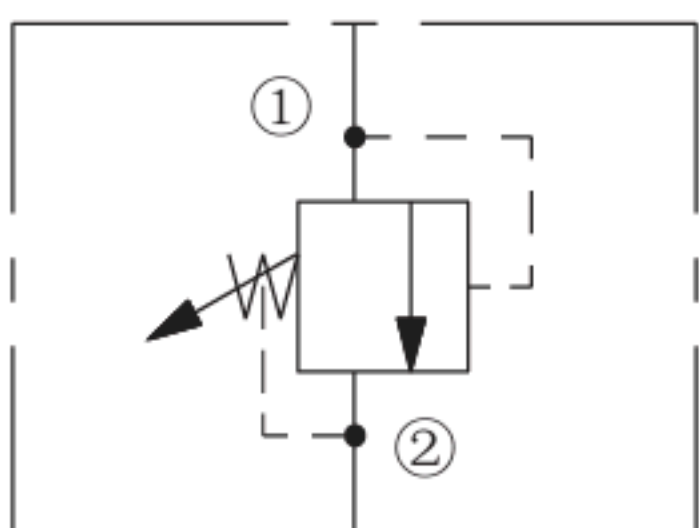
Temperature:-40°C ~ 120°C

Fluids:Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 ssu)

Cavity: T16-2A ; See bottom of this catalog.

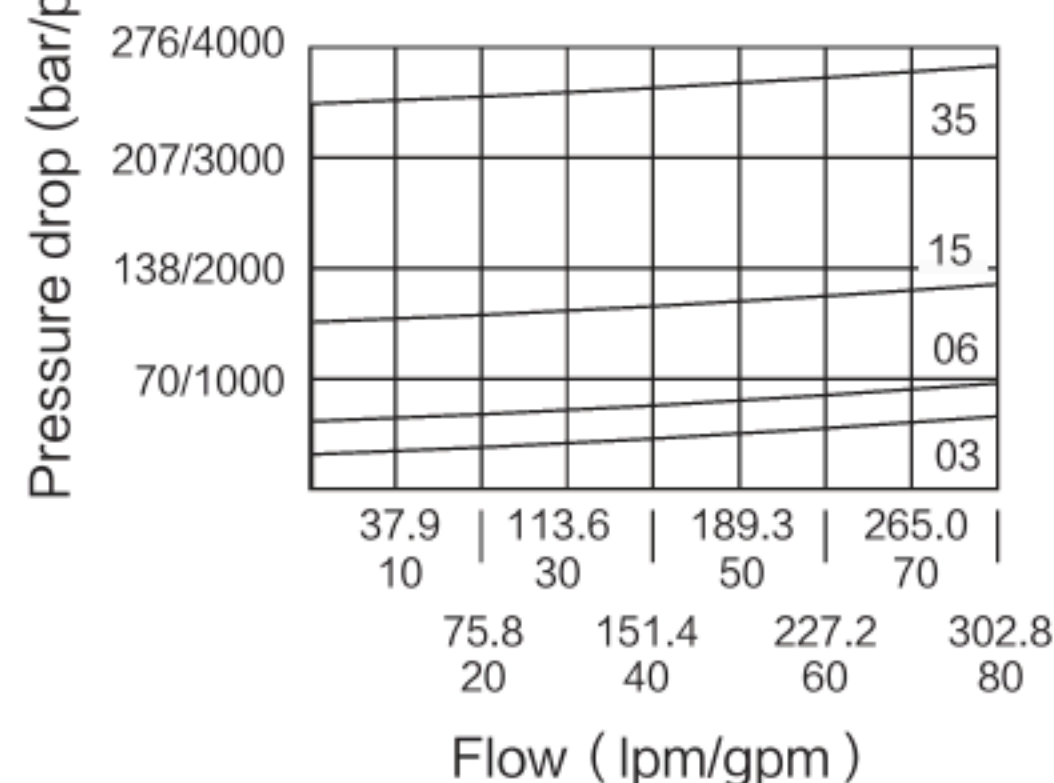


ISO SYMBOL

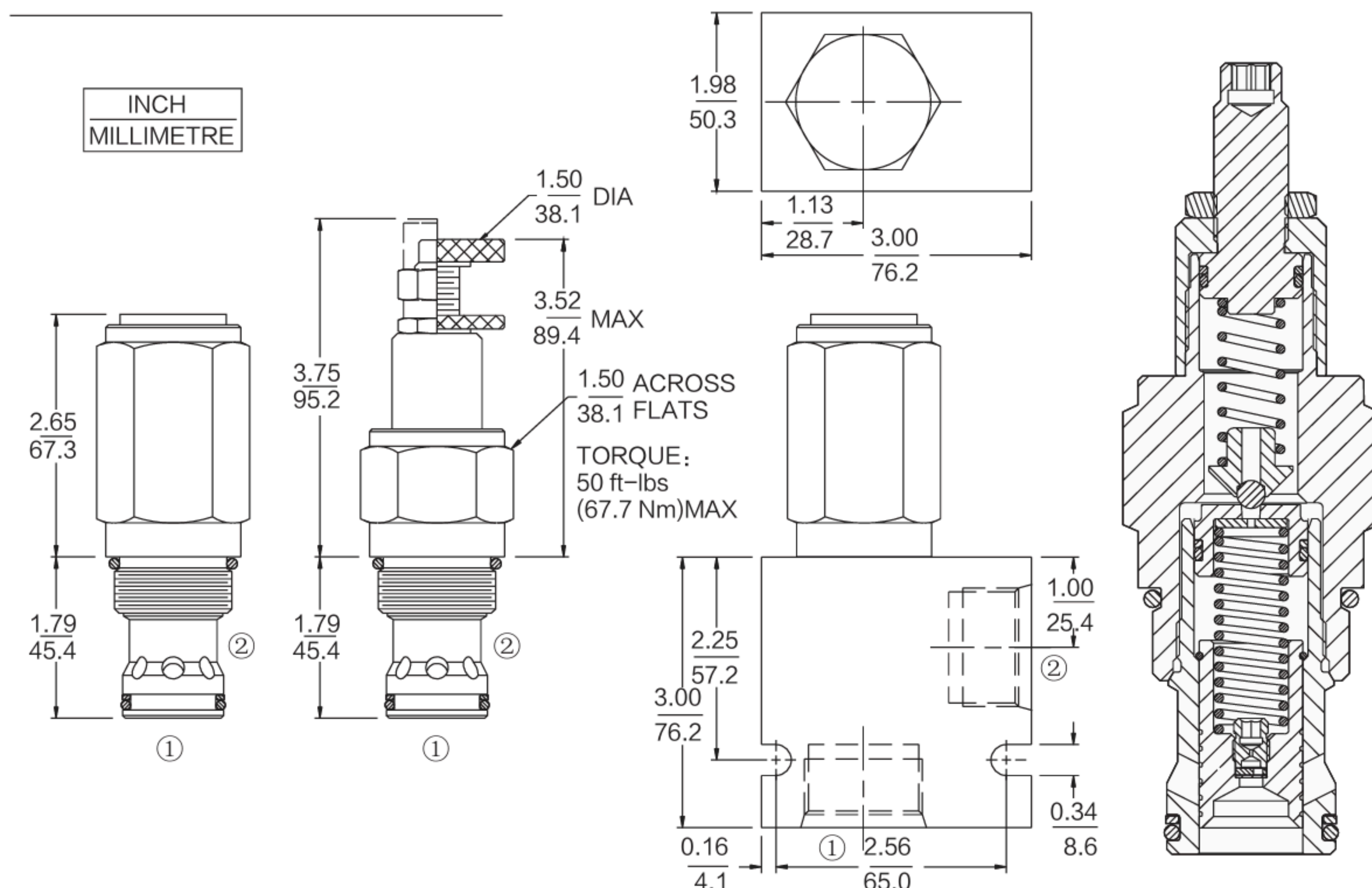


PERFORMANCE (Cartridge Only)

Flow Characteristic ① to ② for each Spring Range 32 cSt/150 ssu oil at 40°C



DIMENSIONS



MATERIALS

Cartridge: Weight:0.73kg (1.60 lbs) ; INRV16-26

Steel with hardened work surfaces.

Zinc-plated exposed surfaces.

Buna N O-rings and polyester elastomer back-up standard.

Anodized aluminum knobs.

BODY:Weight:0.57 kg (1.25lbs) ;

Anodized highstrength

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

Porting

- Cartridge Only 0
- SAE 12 12T
- SAE 16 16T
- 3/4 in. BSP* 6B
- 1 in. BSP* 8B

Seals Pressure on Port Only:

- Buna N
- Fluorocarbon V

Setting in bar†

(Blank) for Adjustable, or Specify, for example:

M25 25 bar

M100 100 bar

Setting in psi†

(Blank) for Adjustable, or Specify, for example:

9.0 900 psi

23.5 2350 psi

Spring Range

- 3 9.7 to 20.7 bar (140 to 300 psi)
- 6 15.9 to 41.4 bar (230 to 600 psi)
- 15 36.6 to 103.5 bar (530 to 1500 psi)
- 35 82.8 to 241.6 bar (1200 to 3500 psi)

†Adjustable valves will be preset to approx. 50%