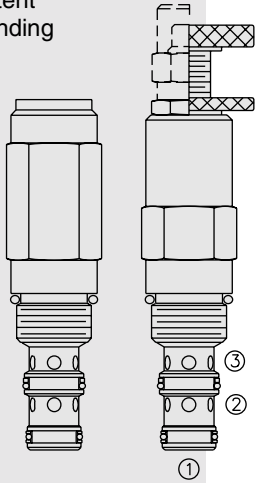


# PRESSURE CONTROLS

## PR10-36 Pressure Reducing/Relieving, Pilot-Operated

Patent Pending



### DESCRIPTION

A screw-in, cartridge-style, pilot-operated, spool-type, hydraulic pressure reducing/relieving valve with internal pilot and internal spring chamber drain, designed to act as a pressure-regulating device for secondary circuits.

### OPERATION

In its steady state, the **PR10-36** allows flow to pass bidirectionally from ② to ①, with the spring chamber constantly drained at ③.

On attainment of a pre-determined pressure at ①, the cartridge shifts to restrict input flow at ②, thereby regulating pressure at ①. In this mode, the valve will also relieve ① to ③.

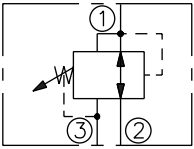
Deadband (from reducing to relieving) pressure rise over reduced pressure setting:  
Non-flow condition: approximately 0.55 bar (8 psi); with flow: approximately 2.1 bar (30 psi).

### FEATURES

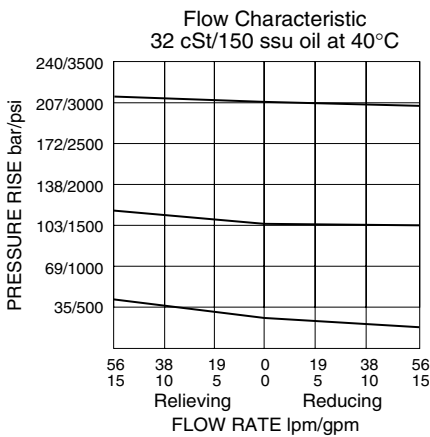
- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Optional spring ranges to 207 bar (3000 psi).
- Hardened spool and cage for long life.
- Industry common cavity.

### SYMBOLS

#### USASI/ISO:



### PERFORMANCE (Cartridge Only)



### RATINGS

**Operating Pressure:** 210 bar (3000 psi)

**Proof Pressure:** 390 bar (5700 psi)

**Flow:** See Performance Chart

**Pilot Orifice:** Pilot-operated through 0.51 mm (0.020 inch) hole

**Standard Spring Ranges (Reducing Function):**

6.9 to 27.6 bar (100 to 400 psi);

10.3 to 103 bar (150 to 1500 psi);

27.6 to 207 bar (400 to 3000 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 ssu)

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

**Cavity:** VC10-3; See page 9.110.1

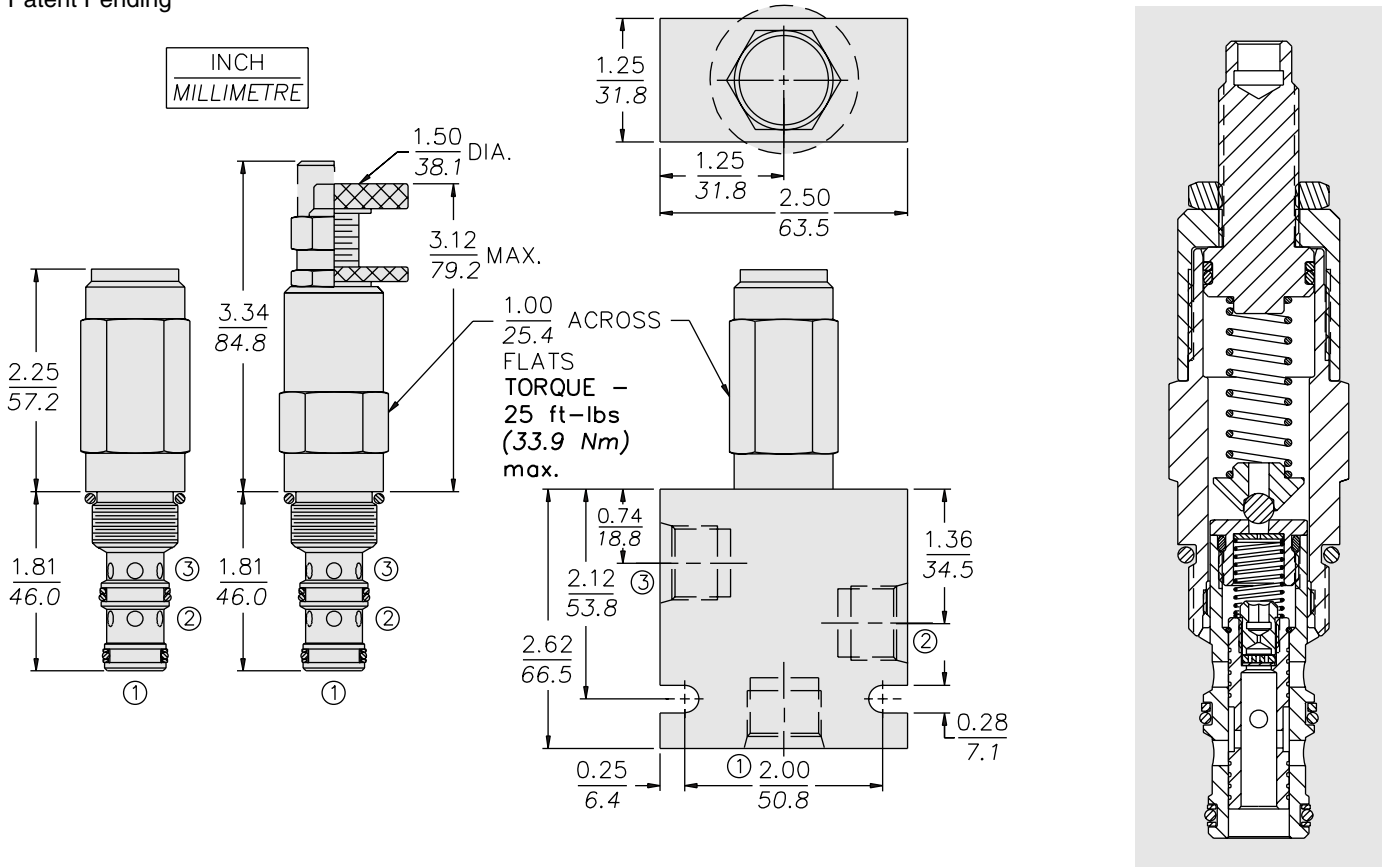
**Cavity Tool:** CT10-3XX; See page 8.600.1

**Seal Kit:** SK10-3X-BM; See page 8.650.1

# PR10-36

## DIMENSIONS

Patent Pending



## MATERIALS

**Cartridge:** Weight: 0.27 kg. (0.60 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer 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 240 bar (3500 psi); see page 8.010.1. Ductile iron and steel bodies available; dimensions may differ; consult factory.

## TO ORDER

### PR10-36

**Adjustment Option**  
 1/4 in. Hex Allen Head **A**  
 1-1/2 in. Dia. Alum. Knob **B**  
 Option A w/Cover Cap **C**  
 Factory Preset Non-Adj. **F**  
 Factory Preset  
 Hidden Adj.  
 (See page 6.003.1) **H**  
 Option C w/  
 Lockwire Holes **L**

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

\*BSP Body;  
 U.K. Mfr Only

**Seals**  
 Buna N (Std.) **N**  
 Fluorocarbon **V**

**Setting in bar<sup>†</sup>**  
 (Blank) for Adjustable, or  
 Specify, for example:  
**M25** 25 bar  
**M100** 100 bar

**Setting in psi<sup>†</sup>**  
 (Blank) for Adjustable, or  
 Specify, for example:  
**9.0** 900 psi  
**23.5** 2350 psi

**Spring Range**  
**4** 6.9 to 27.6 bar  
 (100 to 400 psi)  
**15** 10.3 to 103 bar  
 (150 to 1500 psi)  
**30** 27.6 to 207 bar  
 (400 to 3000 psi)

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