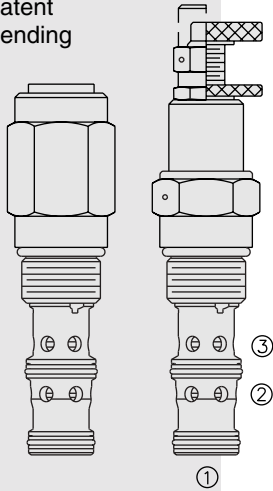


# PRESSURE CONTROLS

## PR12-36 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 in secondary circuits.

### OPERATION

In its steady state, the **PR12-36** 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 spool shifts to restrict input flow from port ②, thereby regulating pressure at ①. In this mode, the valve will also relieve ① to ③.

Flow Path: Reducing: ② to ①; Relieving: ① to ③.

### FEATURES

- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Optional spring ranges to 207 bar (3000 psi).

### RATINGS

**Operating Pressure:** Ports ① and ②: 276 bar (4000 psi)

**Maximum Tank Pressure:** Port ③: 69 bar (1000 psi)

**Flow:** See Performance Chart

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

Code 04: 6.9 to 27.6 bar (100 to 400 psi);

Code 15: 6.9 to 103 bar (100 to 1500 psi);

Code 30: 12.1 to 207 bar (175 to 3000 psi)

**Maximum Pilot Flow and Leakage:** 0.49 lpm (0.13 gpm) with max. control current and with inlet pressure at 276 bar (4000 psi) at regulated flow of 3.8 lpm (1 gpm).

**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

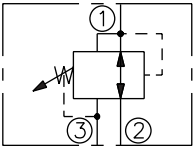
**Cavity:** VC12-3; See page 9.110.1

**Cavity Tool:** CT12-3XX; See page 8.600.1

**Seal Kit:** SK12-3X-BM; See page 8.650.1

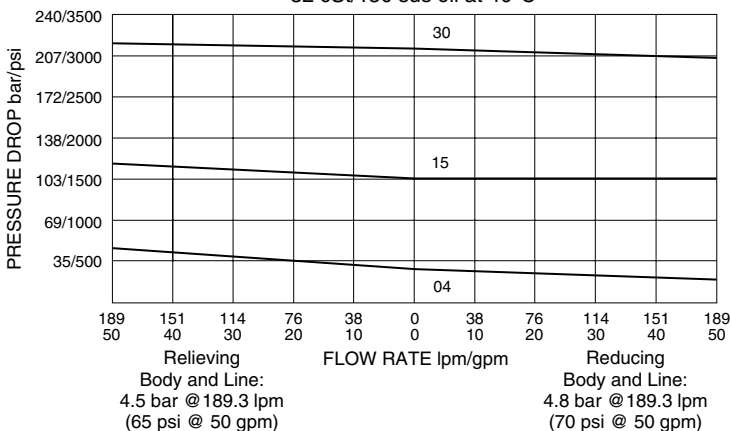
### SYMBOL

USASI/ISO:



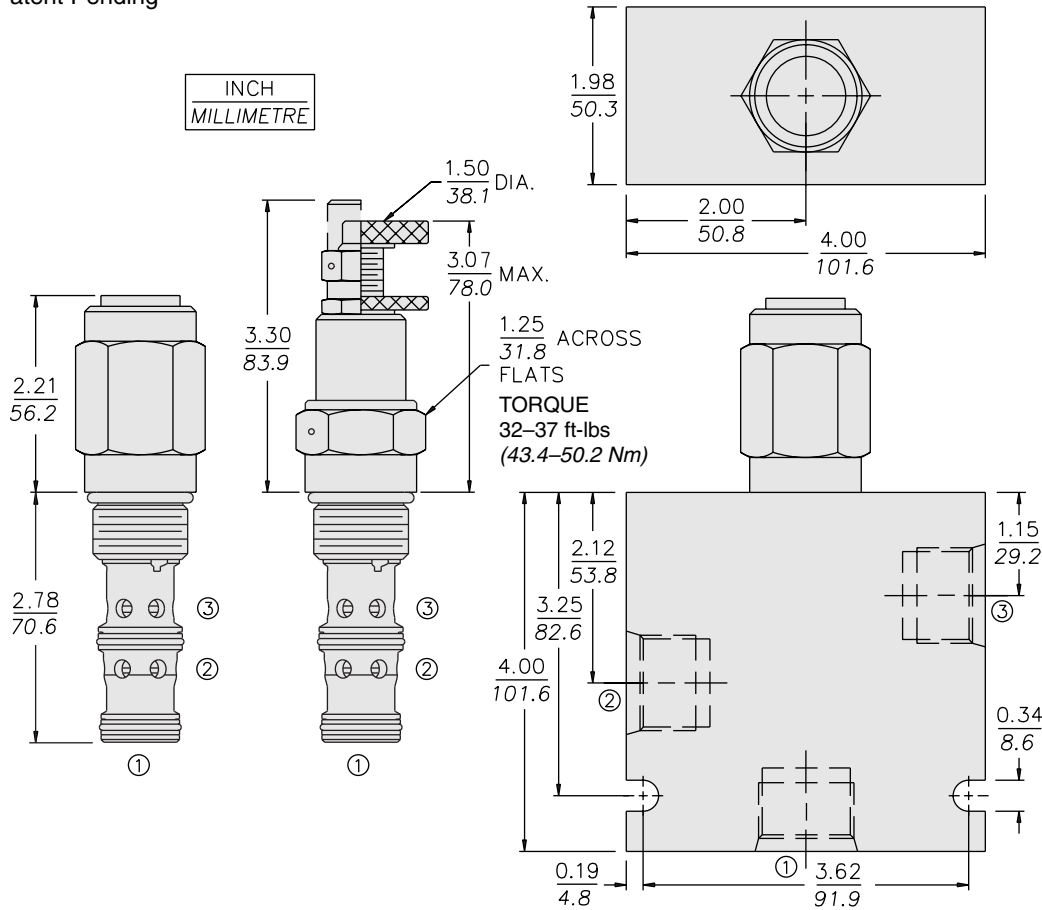
### PERFORMANCE (Cartridge Only)

Typical Pressure vs. Flow at Maximum Pressure Setting  
for Different Spring Ranges  
32 cSt/150 sus oil at 40°C



## DIMENSIONS

Patent Pending



## MATERIALS

**Cartridge:** Weight: 0.39 kg. (0.85 lbs.) with "A" adjustment and "30" spring; 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: 1.13 kg. (2.5 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi); See page 8.012.1. Steel and ductile iron available; dimensions may differ; consult factory.

## TO ORDER

### PR12-36

#### 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. **H**
- (See page 6.003.1) **H**
- Option C w/ Lockwire Holes **L**

#### Porting

- Cartridge Only **0**
- SAE 8 **8T**
- SAE 10 **10T**
- SAE 12 **12T**
- 1/2 in. BSP\* **4B**
- 3/4 in. BSP\* **6B**

\*BSP Body;  
U.K. Mfr. Only

#### Seals

- Buna N (Std.) **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

- 4** 6.9 to 27.6 bar (100 to 400 psi)
- 15** 6.9 to 103 bar (100 to 1500 psi)
- 30** 12.1 to 207 bar (175 to 3000 psi)

†Adjustable valves will be preset to approx. 50% of spring max. potential.