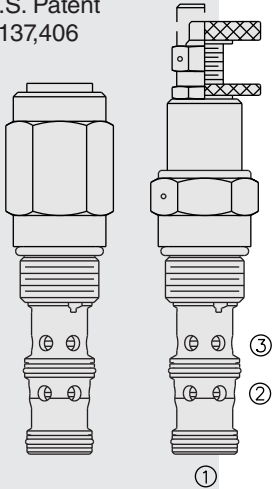


PR12-36 Pressure Reducing/Relieving, Pilot-Operated

U.S. Patent
7,137,406



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

- Can be ordered factory preset or with a wide range of adjustment options.
- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Optional spring ranges to 207 bar (3000 psi).

RATINGS

Maximum Operating Pressure: Ports 1 and 2: 241 bar (3500 psi);
Port 3: 103 bar (1500 psi) NOTE: Tank pressure is additive to operating pressure.

Proof Pressure: 517 bar (7500 psi)

Burst Pressure: 1034 bar (15000 psi)

Flow Rating: 189 lpm (50 gpm)

Maximum Pilot Flow and Leakage: 0.170 lpm (0.45 gpm) with maximum adjustment setting and with inlet pressure at 241 bar (3500 psi)

Temperature: -40 to 100°C (-40 to 212°F) with standard Buna seals;
-24 to 204°C (-15 to 400°F) with fluorocarbon seals;
-54 to 107°C (-65 to 225°F) with polyurethane seals

Filtration: 10 microns or better recommended. See page 9.010.1

Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 sus); See Temperature and Oil Viscosity, page 9.060.1

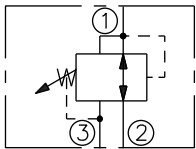
Installation: No restrictions; See page 9.020.1

Cavity: VC12-3; See page 9.112.1

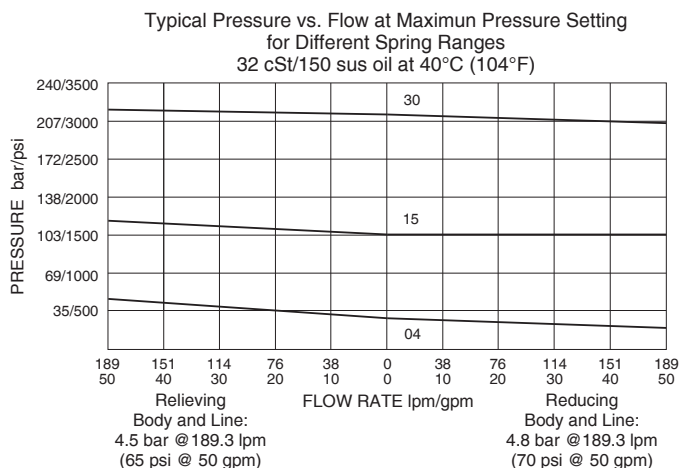
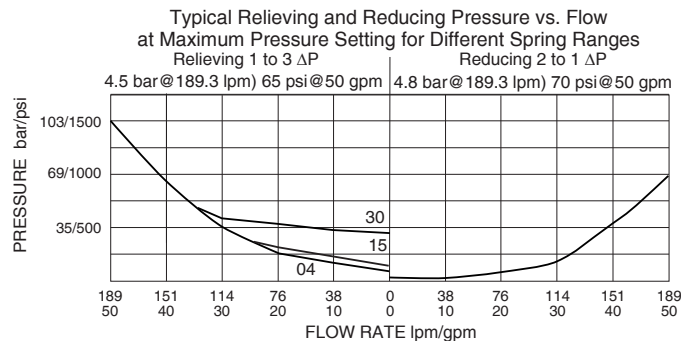
Cavity Tool: CT12-3XX; See page 8.600.1

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

ISO SYMBOL

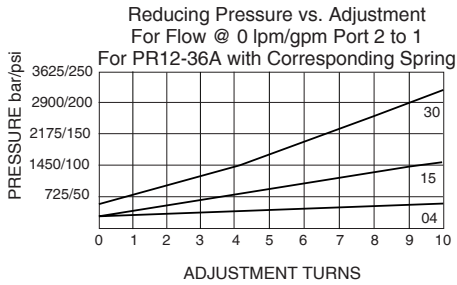


PERFORMANCE (Cartridge Only)



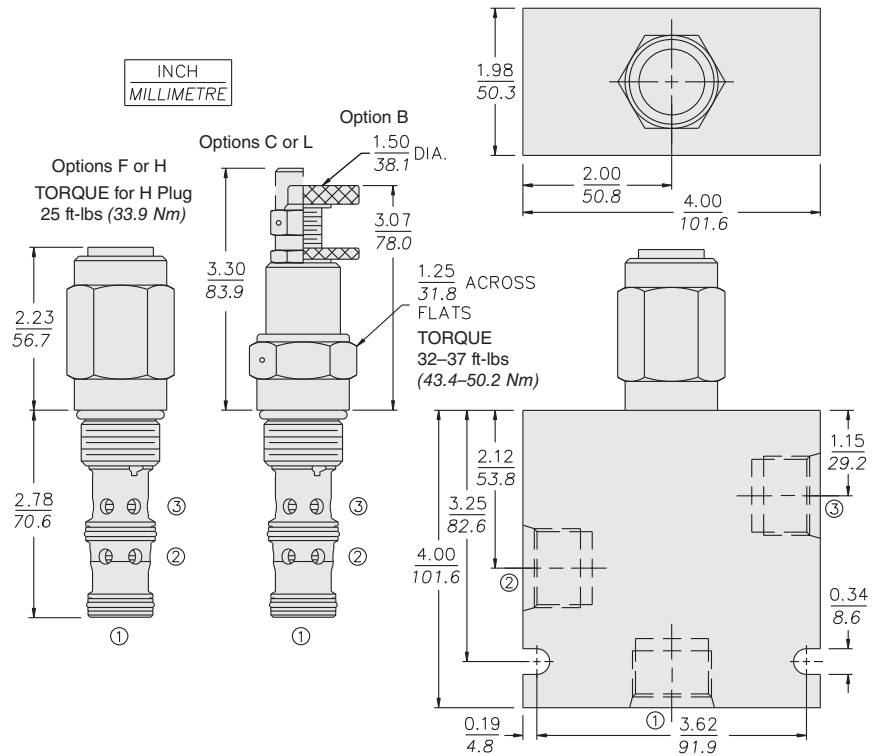
PR12-36

PERFORMANCE (Continued)



DIMENSIONS

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MATERIALS

Cartridge: Weight (varies with adjustment option) 0.41 to 0.46 kg. (0.90 to 1.01 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: 1.13 kg. (2.5 lbs.) Anodized high-strength aluminum alloy, rated to 207 bar (3000 psi). Ductile iron available; dimensions may differ. See page 8.012.1

TO ORDER

PR12-36 - - - /

<p>Adjustment Option</p> <p>1/4 in. Hex Allen Head A</p> <p>1-1/2 in. Dia. Alum. Knob B</p> <p>Option A w/Cover Cap C</p> <p>Factory Preset Non-Adj. F</p> <p>Factory Preset Hidden Adjustment. (See page 6.003.1) H</p> <p>Option C w/Lockwire Holes L</p>	<p>Porting</p> <p>Cartridge Only 0</p> <p>SAE 8 8T</p> <p>SAE 10 10T</p> <p>SAE 12 12T</p> <p>1/2 in. BSP* 4B</p> <p>3/4 in. BSP* 6B</p>	<p>Seals</p> <p>Buna N (Std.) N</p> <p>Fluorocarbon V</p> <p>Polyurethane P</p> <p>High Pressure Viton HV</p>	<p>Setting in bar[†]</p> <p>(Blank) for Adjustable, or Specify, for example:</p> <p>M25 25 bar</p> <p>M100 100 bar</p> <p>Setting in psi[†]</p> <p>(Blank) for Adjustable, or Specify, for example:</p> <p>9.0 900 psi</p> <p>23.5 2350 psi</p>	<p>Spring Range</p> <p>4 6.9 to 27.6 bar (100 to 400 psi)</p> <p>15 6.9 to 103 bar (100 to 1500 psi)</p> <p>30 20.7 to 207 bar (300 to 3000 psi)</p>
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*BSP Body; U.K. Mfr. Only

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