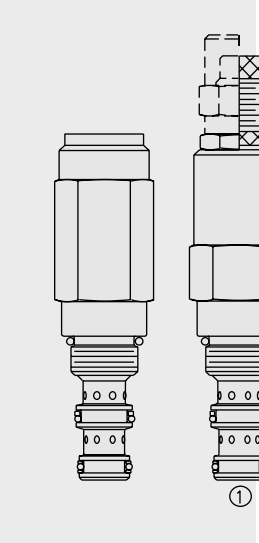
PR58-38 Pressure Reducing/Relieving Spool Valve



DESCRIPTION

A screw-in, cartridge-style, direct-acting, spool-type, hydraulic pressure reducing/relieving valve, with internal pilot and internal spring-chamber drain. It is designed to act as a pressure regulating valve for secondary circuits. Internal damping makes this valve particularly suitable for use in circuits with unstable input flows in demanding applications requiring enhanced stability.

OPERATION

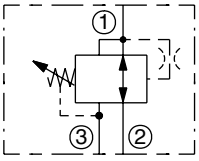
In its steady state, the **PR58-38** allows flow to pass bidirectionally from port ② to port ①, with the spring chamber constantly drained at port ③. Upon attainment of a predetermined pressure at ①, the spool shifts to block flow at ②, thereby regulating pressure at ①. In this mode, the valve will also relieve from port ① to port ③, at a user-specified value over the set reducing pressure. Tank port pressure is additive to the pressure setting at a ratio of 1:1.

FEATURES

- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Optional spring ranges to 220 bar (3200 psi).
- Hardened parts for long life.
- Industry common cavity.

SYMBOLS

USASI/ISO:



RATINGS

Maximum Operating Pressure: 345 bar (5000 psi)

Regulated Pressure Range: 10.3–220.6 bar (150–3200 psi)

Maximum Rated Flow: 18.9 lpm (5 gpm); See performance chart

Maximum Internal Leakage to Port ③: 82 ml/minute (5.0 cu. in./minute)

Temperature: -40 to 120°C with Buna N seals; -35 to 204°C with Fluorocarbon 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 sus)

Installation: No restrictions; See page 9.020.1

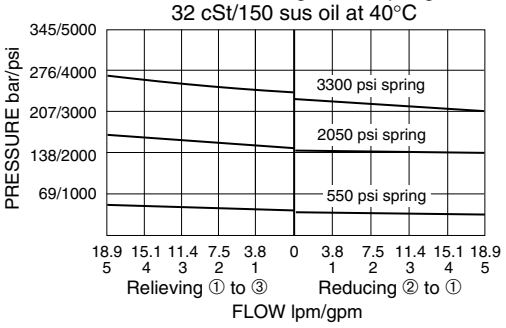
Cavity: VC08-3; See page 9.108.1

Cavity Tool: CT08-3XX; See page 8.600.1

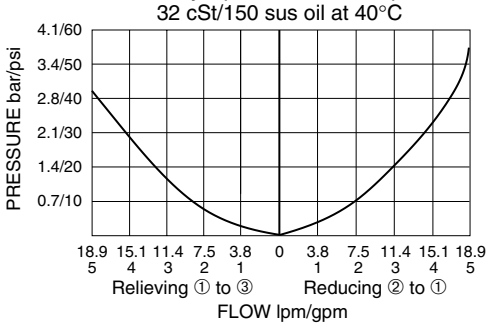
Seal Kit: SK08-3X-BM; See page 8.650.1

PERFORMANCE (Cartridge Only)

Typical Relieving and Reducing Pressure vs. Flow
Maximum Setting for All Springs
32 cSt/150 sus oil at 40°C

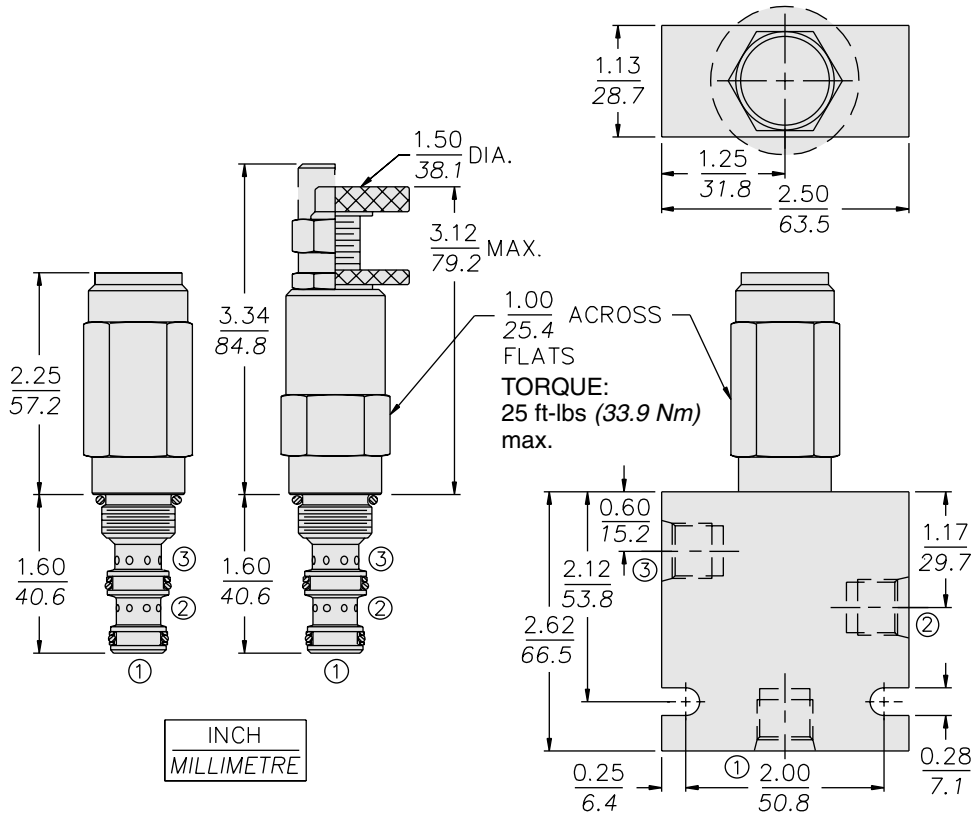


Fully Open Pressure Drop
32 cSt/150 sus oil at 40°C



Damped, Direct-Acting PR58-38

DIMENSIONS



MATERIALS

Cartridge: Weight: 0.27 kg. (0.59 lbs.) maximum (some models may weigh less); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and TFE back-ups standard. Anodized aluminum knob.

Standard Ported Body: Weight: 0.27 kg. (0.60 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 241 bar (3500 psi); See page 8.008.1. **Steel (code S) and Ductile Iron (code D) bodies are required for operation over 240 bar (3500 psi)**, dimensions may differ; consult factory.

Note: Orifice Disc should not be used with this valve.

TO ORDER

PR58-38__ - ___ ___ ___ - ___ - ___ / ___ ___ ___ ___

Ajustment 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 6	**6TD**
SAE 6	**6TS**
1/4 in. BSP*	**2B**
1/4 in. BSP*	**2BD**
1/4 in. BSP*	**2BS**
3/8 in. BSP*	**3B**
3/8 in. BSP*	**3BD**
3/8 in. BSP*	**3BS**

*BSP Body; U.K. Mfr Only

Seals

Buna N (Std.)	**N**
Fluorocarbon	**V**
Polyurethane	**P**

Note: Polyurethane seals are required for operation over 241 bar (3500 psi).

Spring Range

05	10.3 to 37.9 bar (150 to 550 psi)
20	34.5 to 141.4 bar (500 to 2050 psi)
32	55.2 to 220.6 bar (800 to 3200 psi)

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

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:
10.0	1000 psi
23.5	2350 psi