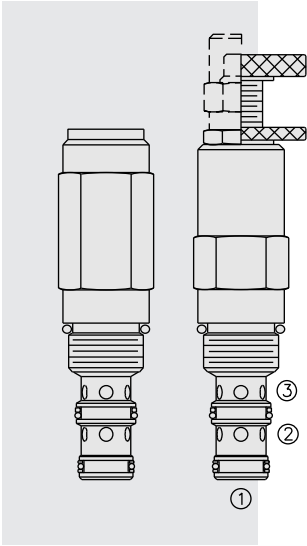


# PR50-38 Pressure Reducing/Relieving Spool Valve



## 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

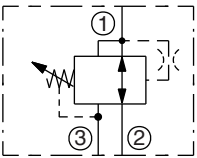
In its steady state, the **PR50-38** allows flow to pass bidirectionally from port 2 to port 1, with the spring chamber constantly drained at port 3. Upon attainment of a predetermined pressure at 1, the spool shifts to block flow at 2, thereby regulating pressure at 1. In this mode, the valve will also relieve from port 1 to port 3, at a variable 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 227.5 bar (3300 psi).
- Hardened parts for long life.
- Industry common cavity.

## SYMBOLS

### USASI/ISO:



## RATINGS

**Maximum Rated Pressure at Supply Port:** 345 bar (5000 psi)

**Regulated Pressure Range:** 10.3 to 227.5 bar (150 to 3300 psi)

**Maximum Rated Flow:** See Performance Chart

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

**Temperature:** -40 to 120°C with standard Buna 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); See Temperature and Oil Viscosity, page 9.060.1

**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

## PERFORMANCE (Cartridge Only)

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

