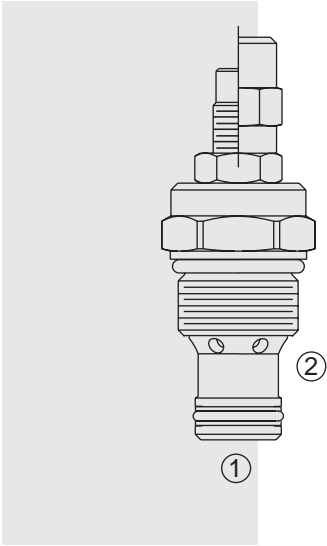


# FLOW CONTROLS

## FR50-28 Regulator, Pressure-Compensated,



### DESCRIPTION

A screw-in, cartridge-style, adjustable, pressure-compensated, restrictive-type hydraulic flow regulating valve.

### OPERATION

The **FR50-28** maintains a constant flow rate out of ② regardless of load pressure changes in the circuit downstream of ② or upstream of ①.

The regulated flow increases from closed to fully open with counter-clockwise rotation of the adjustment screw. The valve will maintain the set flow regardless of pressure variations on the regulated or inlet port. Reverse flow from ② to ① bypasses the control orifice.

### FEATURES

- Hardened parts for long life.
- Quiet, modulated response.
- Cost-effective cavity.

### RATINGS

**Operating Pressure:** 345 bar (5000 psi)

**Flow Rating:** 0.8–34 lpm (0.2–9.0 gpm)

**Flow Maintenance:** ±10% through full pressure range

**Internal Leakage** ① to ②: 35 ml/minute (2.5 cu. in./minute) at 345 bar (5000 psi)

**Temperature:** -40 to 120°C

**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

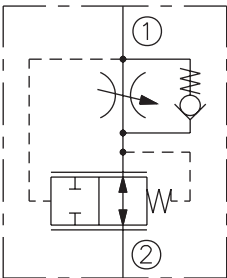
**Cavity:** VC10-2; See page 9.110.1

**Cavity Tool:** CT10-2XX; See page 8.600.1

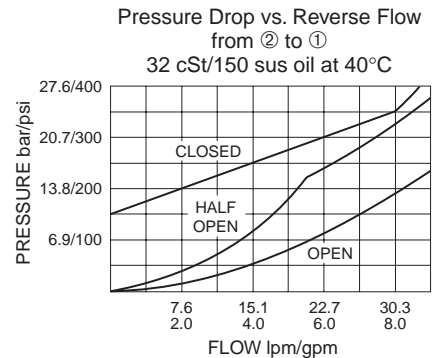
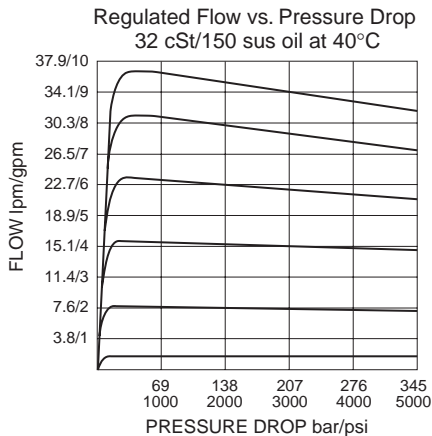
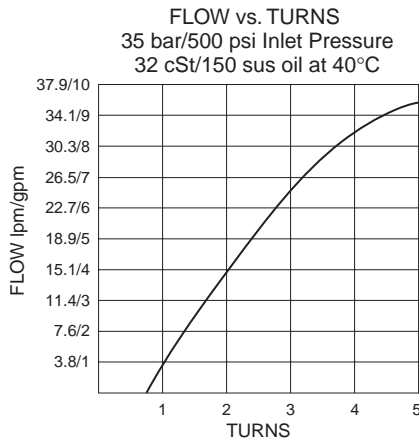
**Seal Kit:** SK10-2X-M; See page 8.650.1

### SYMBOLS

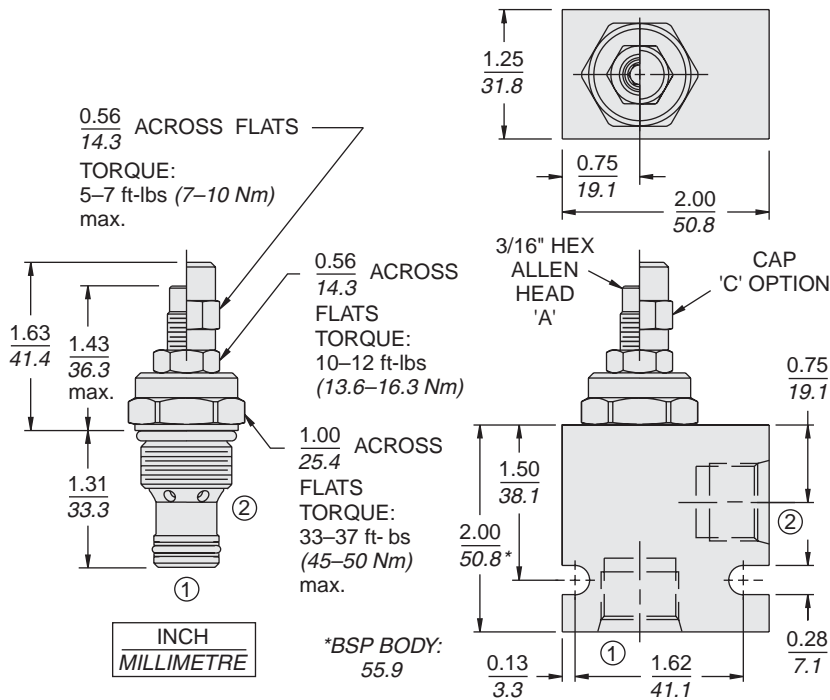
#### USASI/ISO:



### PERFORMANCE



## DIMENSIONS



## MATERIALS

**Cartridge:** Weight: 0.14 kg. (0.31 lbs.)  
 Steel with hardened work surfaces.  
 Zinc-plated exposed surfaces.  
 Buna N O-rings and polyester elastomer back-ups standard.

**Standard Ported Body:** Weight: 0.16 kg. (0.35 lbs.) Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.010.1

## TO ORDER

### FR50-28

**Adjustment Option**  
 3/16" Hex Allen Head **A**  
 Option 'A' w/Cover Cap **C**

**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

**Flow Setting**  
 (Blank) Factory Set at 1.5–2.0 gpm

**Setting in gpm**  
 Specify; For example:  
**5.5** 5.5 gpm etc.

**Setting in lpm**  
 Specify; For example:  
**M20** 20 lpm etc.

**Seals**  
**N** Buna N (Std.)  
**V** Fluorocarbon  
**P** Polyurethane (required for operation over 241 bar/3500 psi)