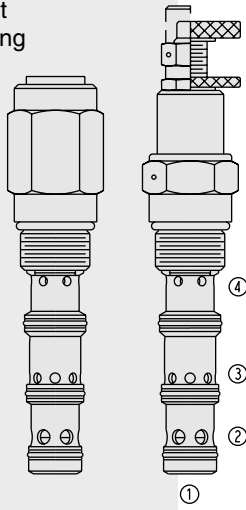


# PRESSURE CONTROLS

## FRRV12-41F Priority Flow Regulator . . .

Patent Pending



### DESCRIPTION

A screw-in, cartridge-style, multi-function valve which includes a fixed-compensated, priority-type flow regulator and an adjustable pressure relief valve in one cartridge.

### OPERATION

The **FRRV12-41F** maintains a constant flow rate from port ③ regardless of load pressure changes at priority port ③ or bypass port ②. When load pressure at ③ reaches the setting of the relief valve, flow is dumped over the relief at ④. The relief flow can be connected to tank or to the bypass flow.

### FEATURES

- Two valve functions in one, industry-common cavity.
- Adjustments cannot be backed out of the valve.
- Relief valve adjustments prohibit relief valve spring from going solid.
- Quiet, modulated response.
- Hardened parts for long life.

### RATINGS

**Maximum Operating Pressure:** 207 bar (3000 psi)

**Maximum System Pressure:** 276 bar (4000 psi)

**Priority Flow:** 45.4 lpm (12.0 gpm) maximum regulated

**Inlet Flow:** 75.7 lpm (20.0 gpm) maximum

**Relief Valve Pressure Setting Ranges:** 17 to 207 bar (250 to 3000 psi)

**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

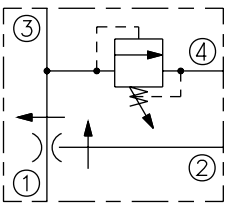
**Cavity:** VC12-4; See page 9.112.1

**Cavity Tool:** CT12-4XX; See page 8.600.1

**Seal Kit:** SK12-4X-MMM; See page 8.650.1

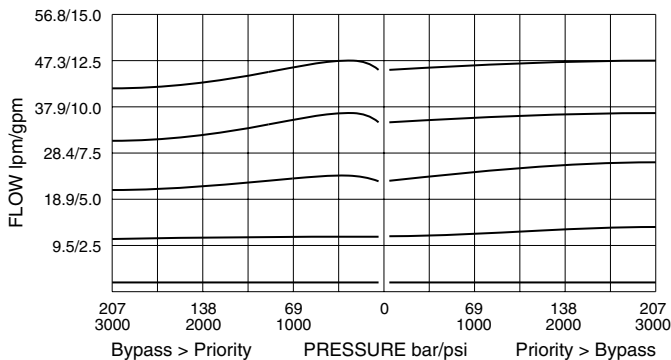
### SYMBOLS

#### USASI/ISO:

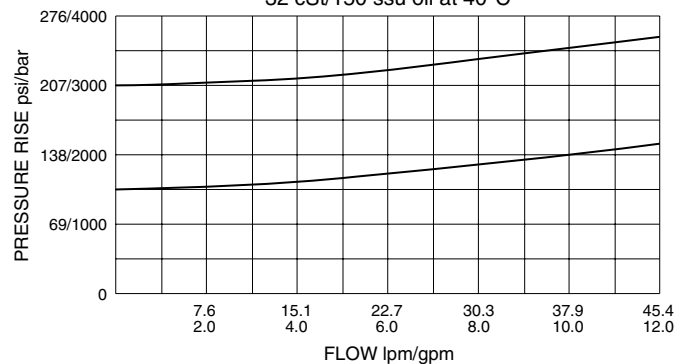


### PERFORMANCE (Cartridge Only)

Priority Flow vs. Load Pressure  
at 75.7 lpm/20.0 gpm Inlet Flow  
32 cSt/150 ssu oil at 40°C



Relief Pressure vs. Flow  
32 cSt/150 ssu oil at 40°C

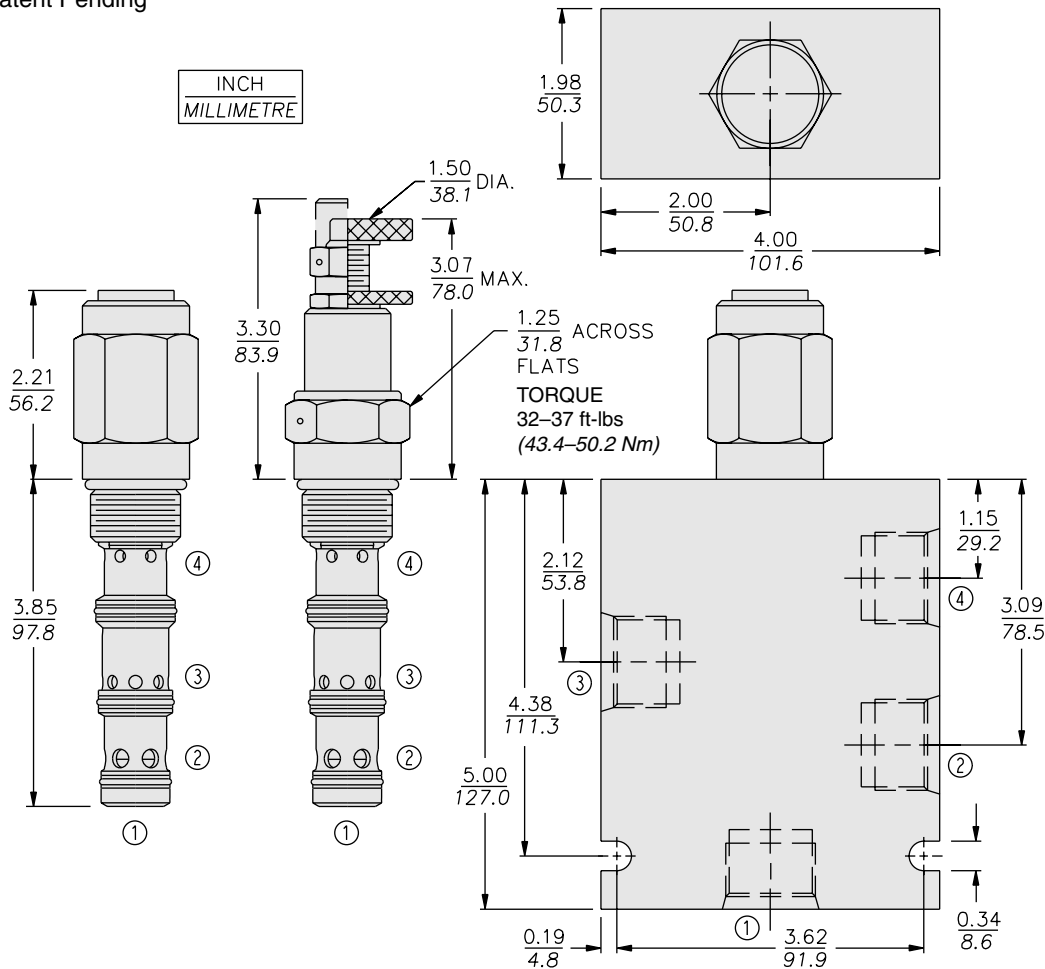


# with Built-In Relief Valve

# FRRV12-41F

## DIMENSIONS

Patent Pending



## MATERIALS

**Cartridge:** Weight: 0.43 to 0.48 kg. (0.95 to 1.05 lbs.) depending on option selected; 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: 1.50 kg. (3.30 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi); See page 8.010.1. Steel or Ductile Iron body required for operation over 241 bar (3500 psi), dimensions may differ; consult factory.

## TO ORDER

### FRRV12-41F

**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**  
 Option C w/Lockwire Holes **L**

See page 6.003.1 for adjustment option details.

**Porting**  
 Cartridge Only **0**  
 SAE 10 **10T**  
 SAE 12 **12T**

**Seals**  
 Buna N(Std.) **N**  
 Fluorocarbon **V**

**Pressure Setting**  
 Range: 17 to 207 bar  
**M100** 100 bar (example)  
 Range: 250 to 3000 psi  
**2000** 2000 psi (example)

**Priority Flow Setting**  
 Range: 1.0 to 19.0 lpm  
**M12.0** 12.0 lpm (example)  
 Range: 0.25 to 5.0 gpm  
**3.0** 3.0 gpm (example)