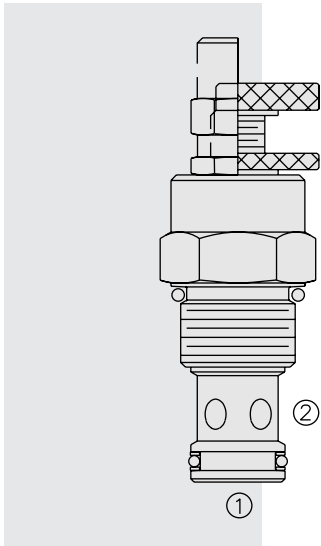


# FC12-20 Flow Control



## DESCRIPTION

A screw-in, cartridge-style, variable orifice, hydraulic flow control valve with reverse flow check.

## OPERATION

The **FC12-20** adjusts flow passage from ② to ① to full open with counterclockwise rotation.

The cartridge has a fully guided check which is spring-biased closed until sufficient pressure is applied at ① to open to ②.

## FEATURES

- Adjustments cannot be backed out of the valve.
- Desired settings may be locked down.
- Hardened parts for long life.
- Aluminum knob option.
- Positive shut-off.
- Linear adjustment.

## RATINGS

**Operating Pressure:** 240 bar (3500 psi)

**Flow:** See Performance Chart

**Internal Leakage:** 0.15 cc/minute (3 drops/minute) max. at 240 bar (3500 psi)

**Adjustment Torque:**

@ 6.9 bar (100 psi): 0.17 Nm (1.5 lb.-in.)

@ 207 bar (3000 psi): 16.9 Nm (150 lb.-in.)

**Standard Bias Spring at Crack:** 1.4 bar (20 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

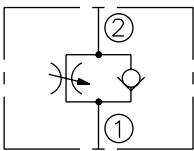
**Cavity:** VC12-2; See page 9.112.1

**Cavity Tool:** CT12-2XX; See page 8.600.1

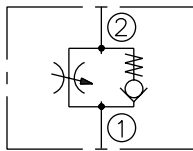
**Seal Kit:** SK12-2X-M; See page 8.650.1

## SYMBOLS

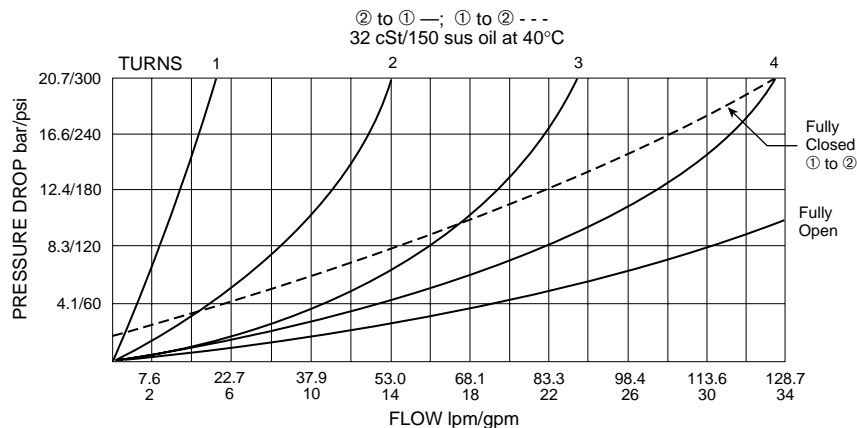
**USASI:**



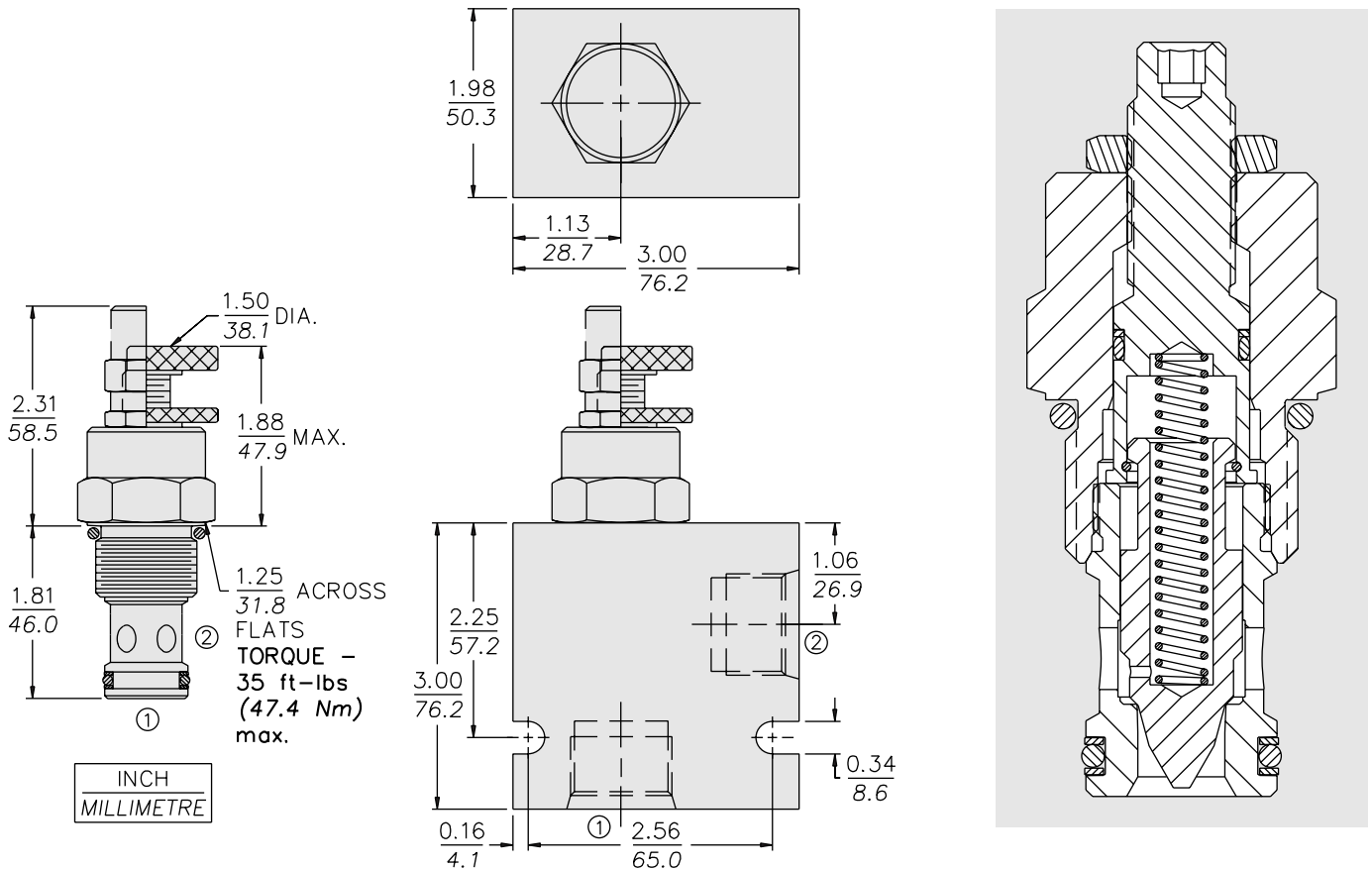
**ISO:**



## PERFORMANCE (Cartridge Only)



**DIMENSIONS**



**MATERIALS**

**Cartridge:** Weight: 0.20 kg. (0.45 lbs.)  
 Steel with hardened work surfaces.  
 Zinc-plated exposed surfaces.  
 Buna N O-rings and polyester elastomer back-up standard.

**Standard Ported Body:** Weight: 0.57 kg. (1.25 lbs.)  
 Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.012.1

**TO ORDER**

FC12-20 - - -

- Adjustment Option**
- A 1/4 in. Hex Allen Head
  - B 1-1/2 in. Dia. Alum. Knob
  - C Option A with Cover Cap
  - D Top Knob with Lock Nut
  - E Top Knob Only

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

- Porting**
- 0 Cartridge Only
  - 10T SAE 10
  - 12T SAE 12
  - 16T SAE 16
  - 4B 1/2 in. BSP\*
  - 6B 3/4 in. BSP\*
  - 8B 1 in. BSP\*

\*BSP Body; U.K. Mfr. Only