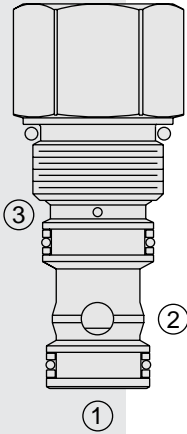


# EP20-S38 Piloted Poppet-Type Logic Element



## DESCRIPTION

A poppet-type, screw-in, cartridge-style, hydraulic directional element, with multi-function potential when used with other directional, pressure, or flow control devices.

## OPERATION

The EP20-S38 is a spring-biased poppet valve which will block ① to ② or ② to ① until pressure at ① or ② exceeds the cumulative pressure at ③ and bias spring. With no pressure at ③, flow will be allowed from ① to ② or ② to ① once the bias spring force is overcome with pressure at ① or ②. When the element is in the closed state, the ratio of areas ① and ② is 1:1, and the ratio of areas ① or ② to ③ is 1:2.

## FEATURES

- Multiple function/application potential.
- Low pressure drop.
- Industry common cavity.

## RATINGS

**Maximum Operating Pressure:** Cartridge Only: Ports ① & ②, 241 bar (3500 psi)

**Flow:** See Performance Chart

**Internal Leakage:** 0.6 cc/minute (12 drops/minute) max. at 241 bar (3500 psi)

**Bias Spring Pressure Options:** 2.8 bar (40 psi); 11.0 bar (160 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 sus); See Temperature and Oil Viscosity, page 9.060.1

**Installation:** No restrictions; See page 9.020.1

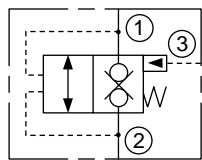
**Cavity:** VC20-S3; See page 9.120.1

**Cavity Tool:** CT20-S3xx; See page 8.600.1

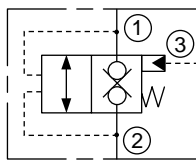
**Seal Kit:** SK20-S3x-MM; See page 8.650.1

## SYMBOLS

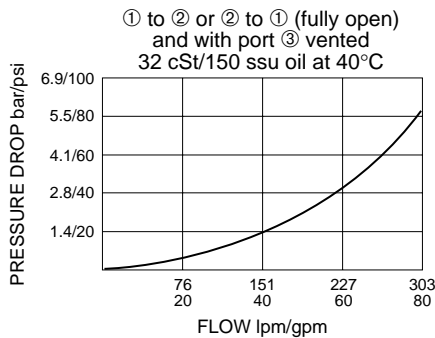
### USASI:



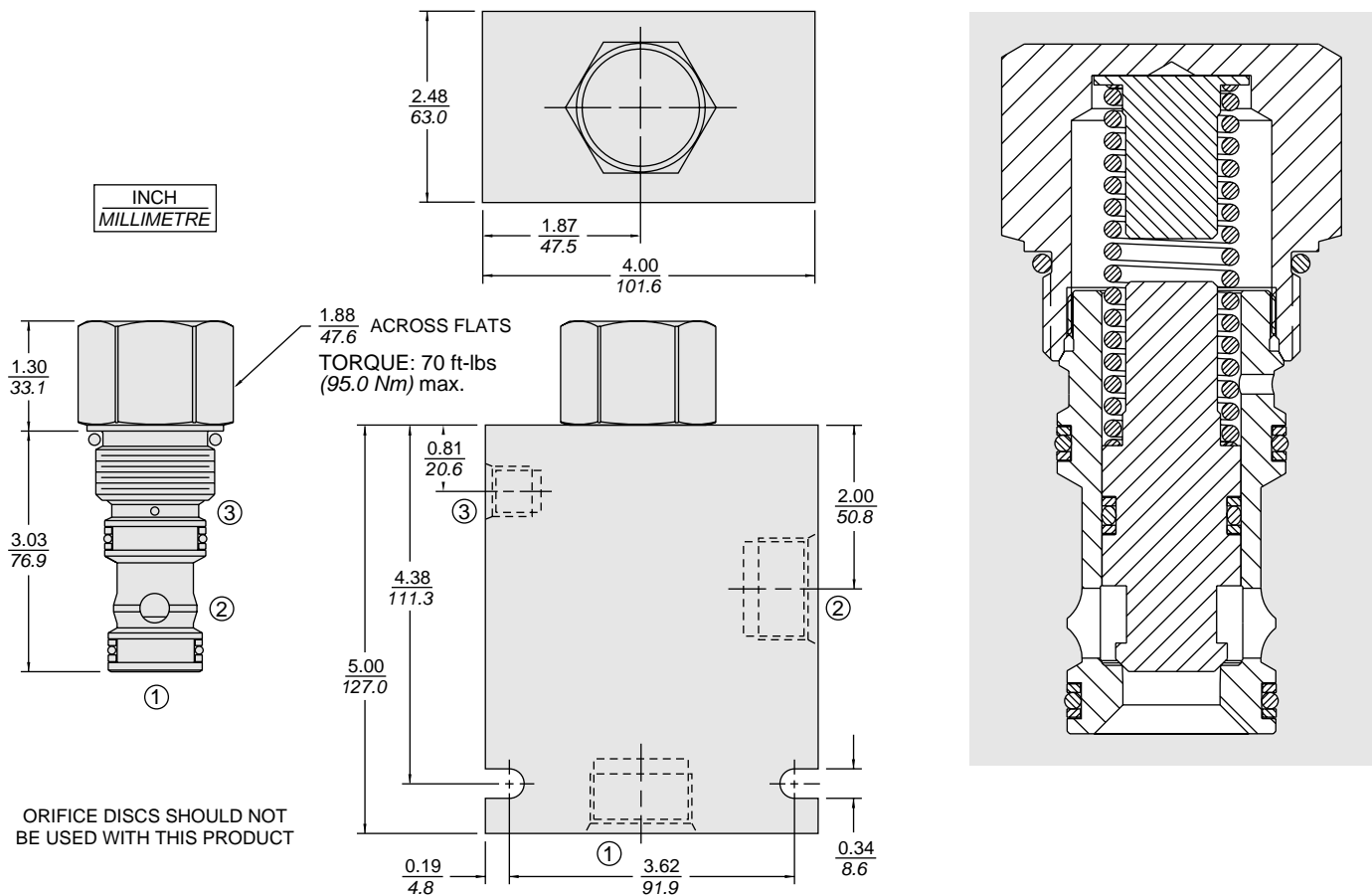
### ISO:



## PERFORMANCE (Cartridge Only)



**DIMENSIONS**



**MATERIALS**

**Cartridge:** Weight: 0.82 kg. (1.8 lbs.)  
Steel with hardened work surfaces.  
Zinc-plated exposed surfaces.  
Buna N O-rings and polyester elastomer back-ups standard.

**Standard Ported Body:** Weight:  
1.65 kg. (3.65 lbs.) Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies can be made available; dimensions may differ.  
See page 8.020.1.

**TO ORDER**

