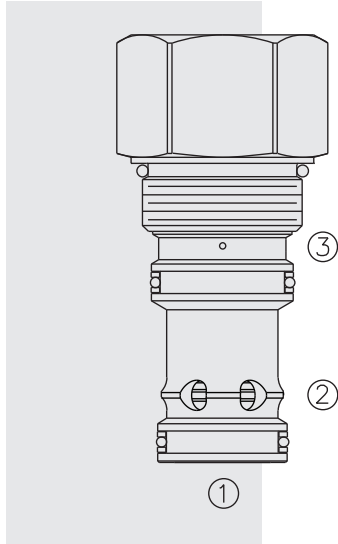


# EP20-S35 Piloted Spool-Type Logic Element



## DESCRIPTION

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

## OPERATION

The EP20-S35 is a spring-biased blocking valve which will shift to allow full flow from 1 to 2 only when pressure at 1 exceeds the cumulative pressure of 3, plus the bias spring pressure value.

With no pressure at 3, flow will be allowed from 1 to 2 once the bias spring force is overcome with pressure at 1.

## FEATURES

- Multiple function/application potential.
- Several bias springs available.
- Low pressure drop.
- Industry common cavity.

## RATINGS

**Pressure Rating:** 345 bar (5000 psi). Polyurethane seals are recommended for operation over 240 bar (3500 psi).

**Flow Rating:** See Performance Chart

**Internal Leakage:** 197 ml/minute (12 cu. in./minute) max. at 345 bar (5000 psi)

**Bias Spring Pressure Options:** 1.4 bar (20 psi); 5.5 bar (80 psi); 11.0 bar (160 psi)

**Temperature:** -40 to 100°C (-40 to 212°F) with standard Buna seals; -26 to 204°C (-15 to 400°F) with fluorocarbon seals; -54 to 107°C (-65 to 225°F) with polyurethane 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

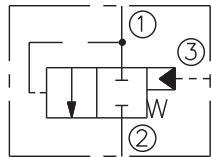
**Installation:** No restrictions; See page 9.020.1

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

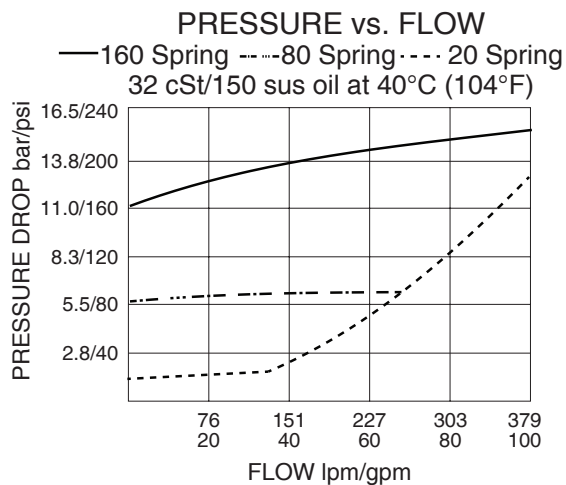
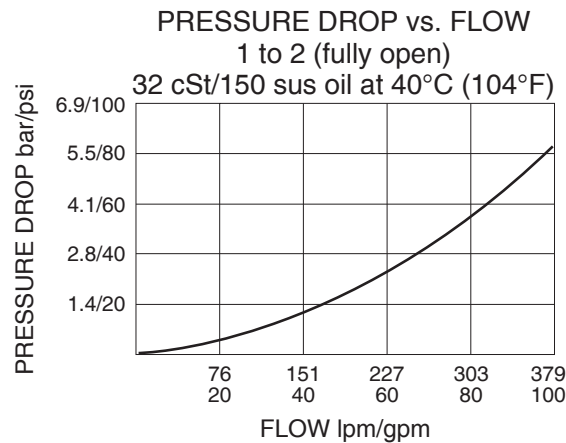
**Cavity Tool:** CT20-S3xx; See page 8.600.1

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

## ISO SYMBOL

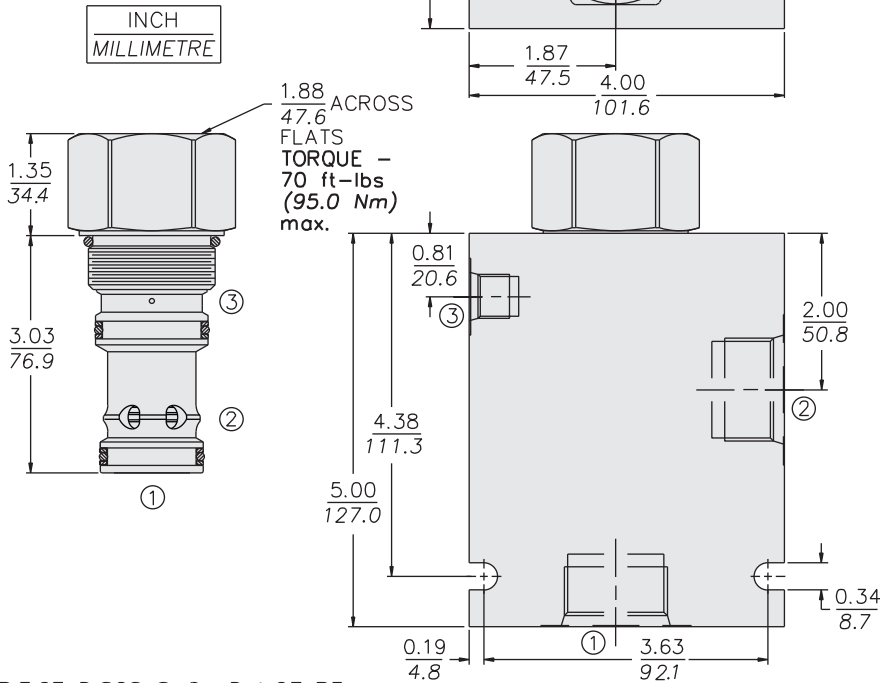


## PERFORMANCE (Cartridge Only)

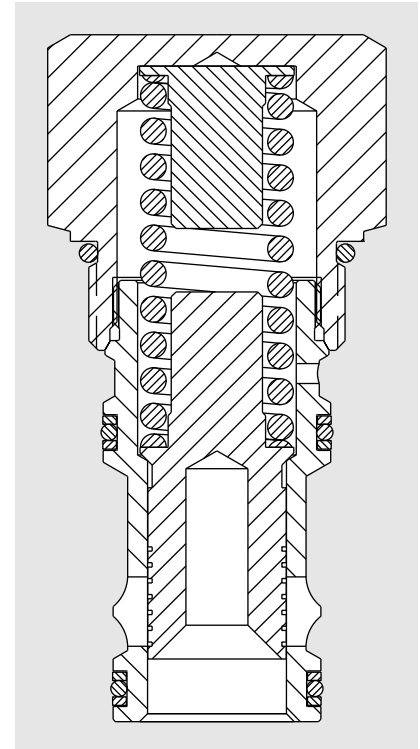


**DIMENSIONS**

ALUMINUM BODY SHOWN



1.88  
47.6 ACROSS  
FLATS  
TORQUE -  
70 ft-lbs  
(95.0 Nm)  
max.



ORIFICE DISCS SHOULD NOT BE USED WITH THIS PRODUCT.

**MATERIALS**

**Cartridge:** Weight: 0.77 kg. (1.7 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 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.020.1.

**TO ORDER**

EP20-S35 -

**Porting**  
Cartridge Only **0**  
SAE 16 w/SAE 6 Pilot Port **16T**

**Bias Spring**  
**20** 1.4 bar (20 psi)  
**80** 5.52 bar (80 psi)  
**160** 11.0 bar (160 psi)

**Seals**  
**N** Buna N (Std.)  
**V** Fluorocarbon  
**P** Polyurethane (for pressures over 240 bar/3500 psi)