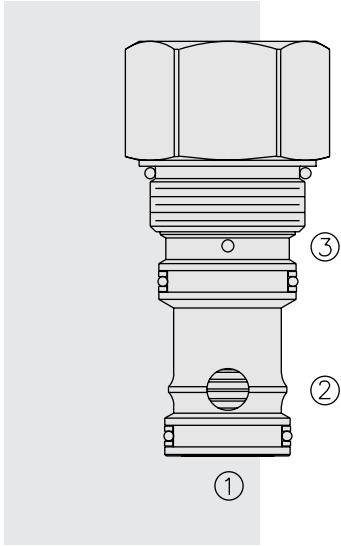


DIRECTIONAL VALVES

EV20-S34 Vented Spool-Type Logic Element



DESCRIPTION

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

OPERATION

The **EV20-S34** is a spring-biased blocking valve which will shift to allow full flow from ① to ② only when ③ is vented to create a pressure drop across the internal orifice which exceeds the pressure value of the selected bias spring force.

EV20-S34 is a vent-to-open directional valve.

FEATURES

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

RATINGS

Maximum Operating Pressure: Cartridge Only: Ports ① & ②: 345 bar (5000 psi).
Port ③: 320 bar (4600 psi); Polyurethane seals are recommended for 5000 psi operation. Aluminum bodies for this product are rated for 207 bar (3000 psi).

Flow: See Performance Chart

Internal Leakage: 1 l cc/minute (1 cu. in./minute) max. at 320 bar (4600 psi)

Bias Spring Pressure Options: 3.5 bar (50 psi); 5.5 bar (80 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

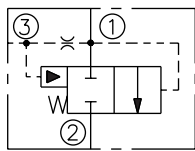
Cavity: VC20-S3; See page 9.120.1

Cavity Tool: CT20-S3xx; See page 8.600.1

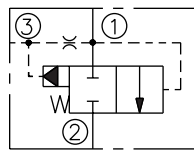
Seal Kit: SK20-S3x-MM; See page 8.650.1

SYMBOLS

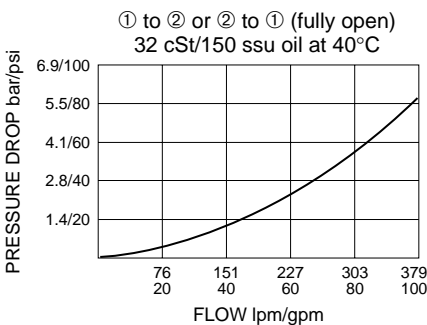
USASI:



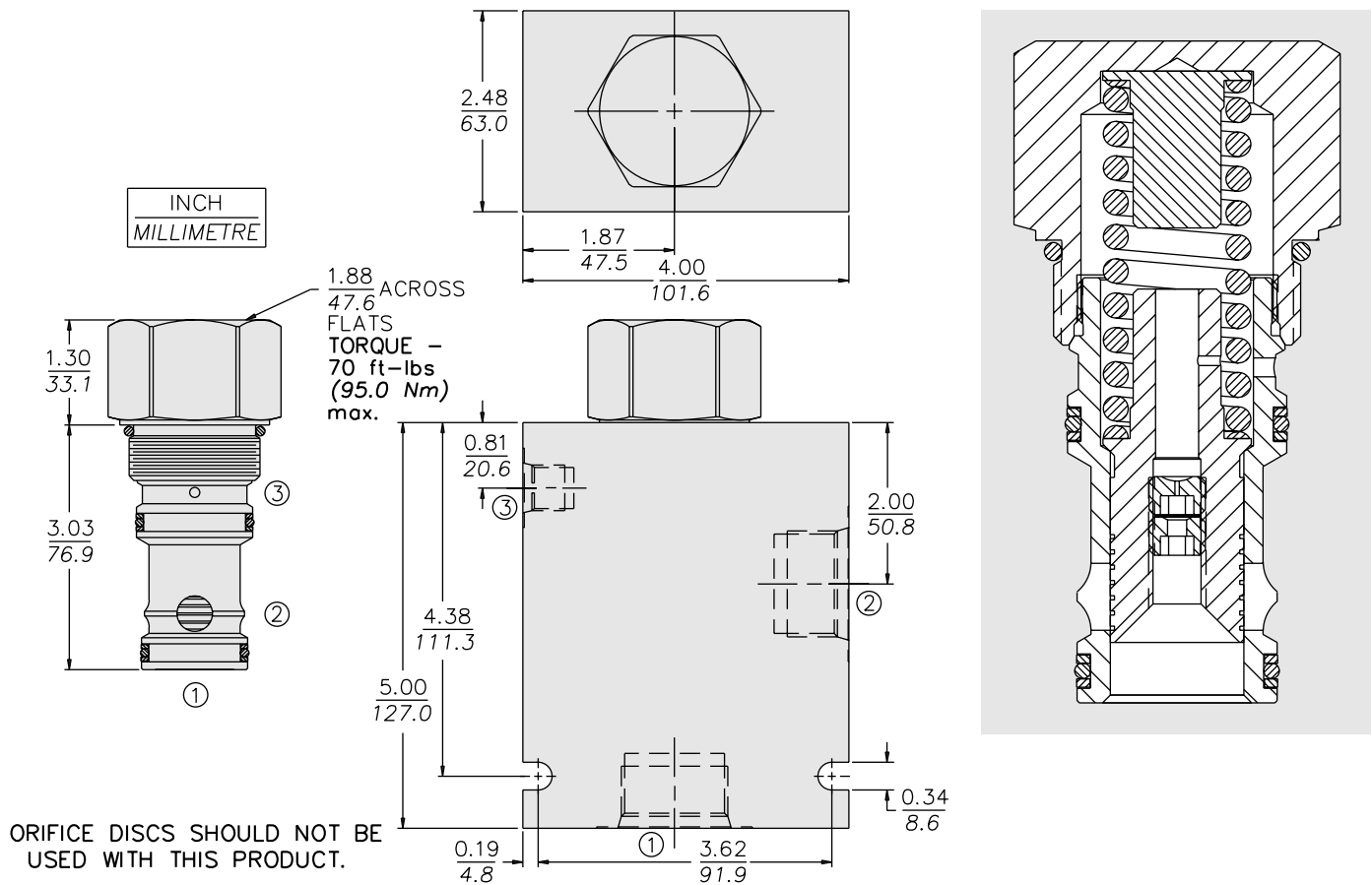
ISO:



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 available; dimensions
may differ. See page 8.020.1.

TO ORDER

EV20-S34 - - -

Porting		Bias Spring (Crack)
Cartridge Only	0	20 1.36 bar (20 psi)
SAE 16 w/SAE 6 Vent Port	16T	50 3.5 bar (50 psi)
		80 5.5 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)