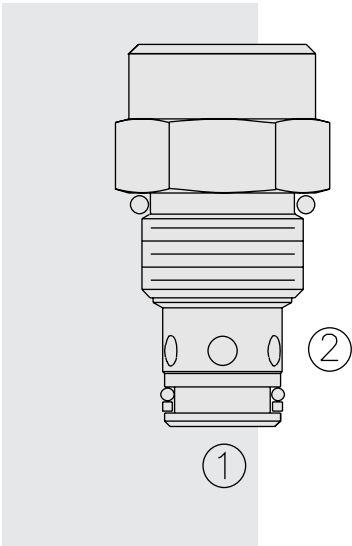


CV10-28 Check Valve with Thermal Relief



DESCRIPTION

A screw-in, cartridge-style, hydraulic check valve for use as a blocking or load-holding device. The cartridge incorporates a low flow thermal relief valve intended to prevent cylinder damage resulting from temperature-induced pressure intensification.

OPERATION

The CV10-28 allows flow from ① to ②, while blocking oil flow in the opposite direction. If the pressure at ② exceeds the thermal relief valve setting, a small amount of oil will be allowed to pass from ② to ①, preventing cylinder damage from pressure intensification.

NOTE: The relief valve feature is not intended for use in dynamic pressure limiting applications. Consult factory.

FEATURES

- Hardened seats for long life and low leakage.
- Industry common cavity.

RATINGS

Formula for Thermal Expansion: $\Delta P = 57.7 \times \Delta T$ (where ΔP is in psi; ΔT is in °F)

Proof Pressure: 390 bar (5700 psi)

Thermal Relief Setting: 348 ±38 bar (5050 ±550 psi)

Thermal Relief Reseat: 276 bar (4000 psi)

Flow: See Performance Chart

Internal Leakage: 0.25 cc/minute (5 drops/minute) max. at 240 bar (3500 psi)

Standard Check Bias Spring at Crack: 4.5 bar (65 psi)

Check ① to ② Crack Pressure Defined: Gauge bar (psi) evident at ① at 16.4 cc/minute (1 cu. in./minute) attained at ②

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

Installation: No restrictions; See page 9.020.1

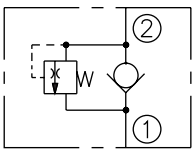
Cavity: VC10-2; See page 9.110.1

Cavity Tool: CT10-2XX; See page 8.600.1

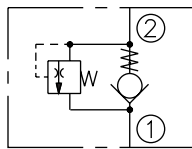
Seal Kit: SK10-2X-T; See page 8.650.1

SYMBOLS

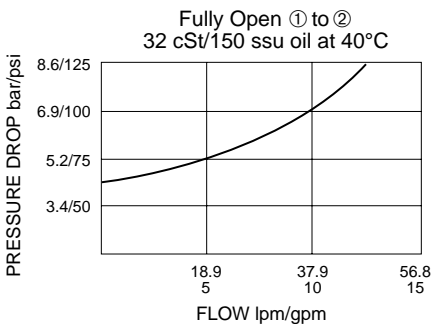
USASI:



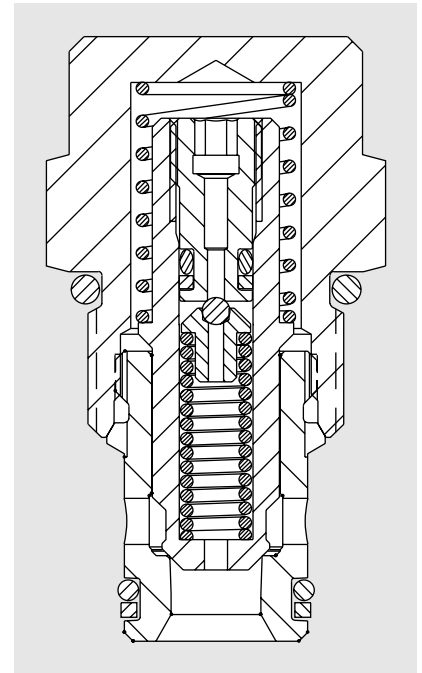
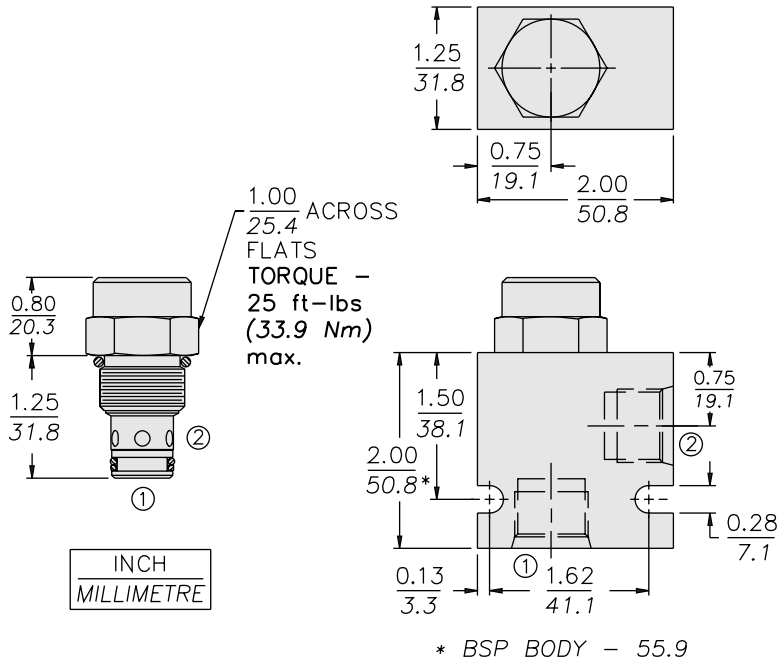
ISO:



PERFORMANCE (Cartridge Only)



DIMENSIONS



MATERIALS

Cartridge: Weight: 0.08 kg. (0.18 lbs.)
Steel with hardened work surfaces.
Zinc-plated exposed surfaces.
Buna N O-rings and polyester elastomer back-ups standard.

Standard Ported Body: Weight:
0.16 kg. (0.35 lbs.) Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.010.1.

TO ORDER

