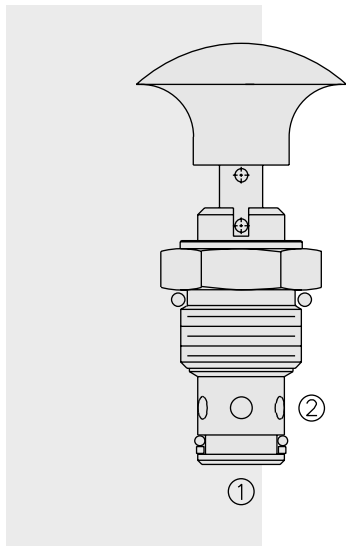


# DIRECTIONAL VALVES

## MP10-20 Manual, Spring Return, Pull-to-Open



### DESCRIPTION

A manual, 2-way, pull-to-open, screw-in hydraulic directional valve.

### OPERATION

The MP10-20 blocks flow from ② to ① until an operator pulls the shaft outward.

The bias spring allows for up to 12.4 bar (180 psi) back-pressure at ① before the valve will open.

**Note: Pressure at port ① will directly act on the spool and spring. Port ① is intended to be a tank port only.**

A unique 90° rotational lock is optional for positive “open” position holding. The valve resets to spring return-to-close with a 90° turn from the locked-open position.

### FEATURES

- Hardened seat for long life and low leakage.
- Remains closed to 12.4 bar (180 psi) back-pressure.
- Optional rotational lock position.
- Industry common cavity.

### RATINGS

**Operating Pressure:** 207 bar (3000 psi)

**Proof Pressure:** 350 bar (5075 psi)

**Flow:** See Performance Chart

**Internal Leakage ② to ①:** 0.25 cc/minute (5 drops/minute) max. at 207 bar (3000 psi)

**Mechanical Pull Effort Required at Rated Pressure:** 7.3 kg. (16 lbs.)

**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 ssu)

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

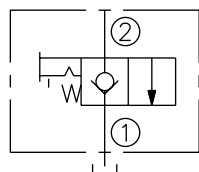
**Cavity:** VC10-2; See page 9.110.1

**Cavity Tool:** CT10-2XX; See page 8.600.1

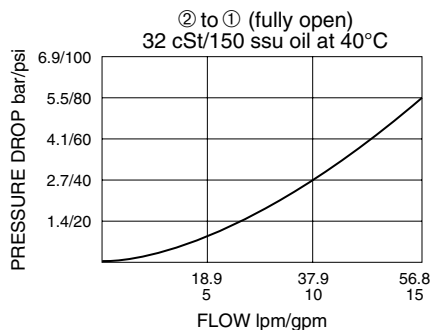
**Seal Kit:** SK10-2X-T; See page 8.650.1

### SYMBOLS

#### USASI/ISO:

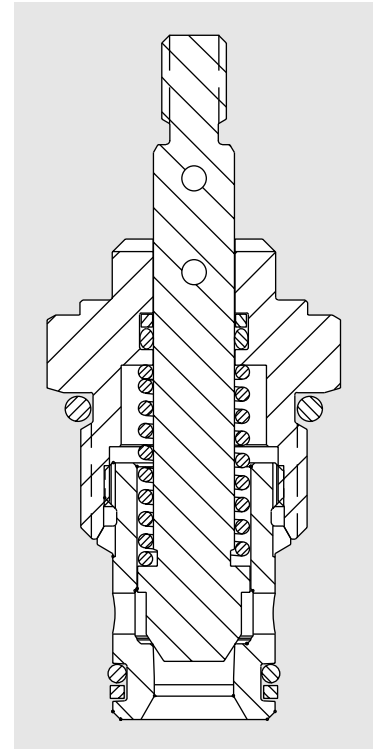
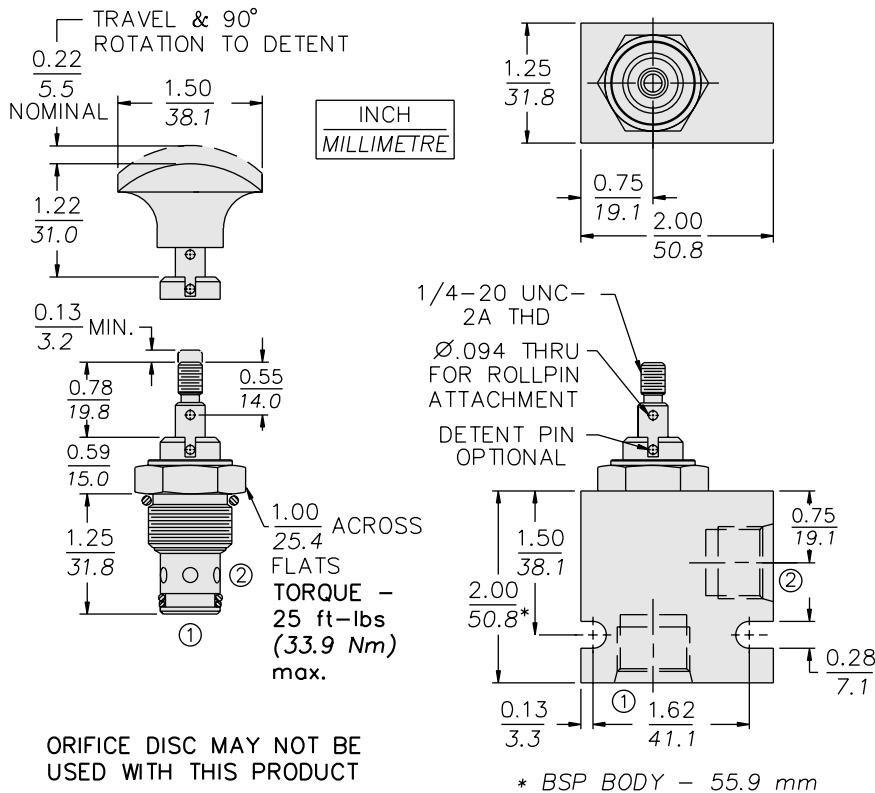


### PERFORMANCE (Cartridge Only)



# MP10-20

## DIMENSIONS



## MATERIALS

**Cartridge:** Weight: 0.11 kg. (0.25 lbs.); Steel with hardened work surfaces; Zinc-plated exposed surfaces; Buna N O-rings and polyester elastomer back-ups standard; Plastic knob optional.

**Standard Ported Body:** Weight: 0.16 kg. (0.35 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi); see page 8.010.1. Ductile iron and steel bodies available; dimensions may differ; consult factory.

## TO ORDER

<b>MP10-20</b>		-	-
	<b>Option</b>		<b>Seals</b>
	Threaded Shaft/ Spring Return	T	N Buna N (Std.)
	Threaded Shaft/ Lock Position Pin	R	V Fluorocarbon
	Black Plastic Knob/ Spring Return	K	
	Black Plastic Knob/ Lock Position Pin	D	<b>Porting</b>
	Red Plastic Knob/ Spring Return	J	0 Cartridge Only
	Red Plastic Knob/ Lock Position Pin	L	6T SAE 6
			8T SAE 8
			2B 1/4 in. BSP*
			3B 3/8 in. BSP*
			4B 1/2 in. BSP*

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