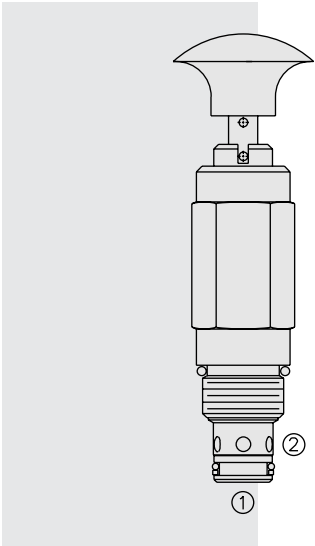


## MP10-22 Manual, Spring Return, Pull-to-Open



### DESCRIPTION

A manual, 2-way, normally closed, pull-to-open, spring-return, screw-in, hydraulic cartridge, system unloading valve for higher tank pressure applications.

### OPERATION

The **MP10-22** blocks flow from ② to ① until an operator pulls the shaft outward. The bias spring allows for up to 27.6 bar (400 psi) back-pressure at ① before the valve will open.

When passing high flow rates, a combination of the differential pressure across the valve (flowing ② to ①) and ② downstream back-pressure may require the operator to push the shaft to close.

**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 27.6 bar (400 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:** 14.1 kg. (31 lbs.) installed; 16.3 kg. (36 lbs.) to travel 3.18 mm (0.125 in.); 17.3 kg. (39 lbs.) to detent

**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

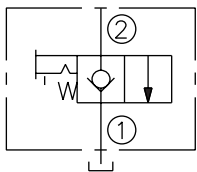
**Cavity:** VC10-2; See page 9.110.1

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

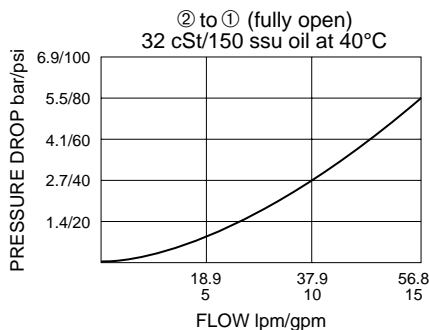
**Seal Kit:** SK10-2X-T; See page 8.650.1

### SYMBOLS

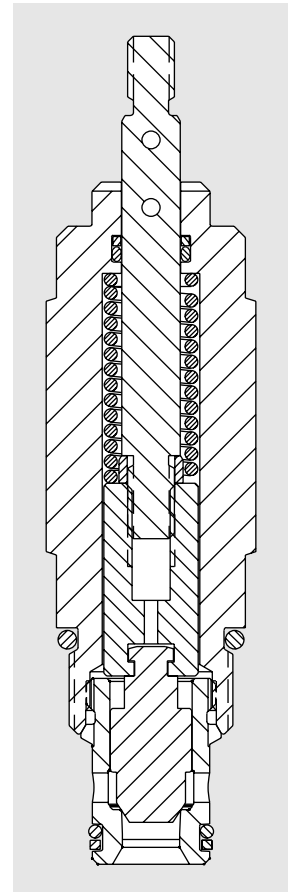
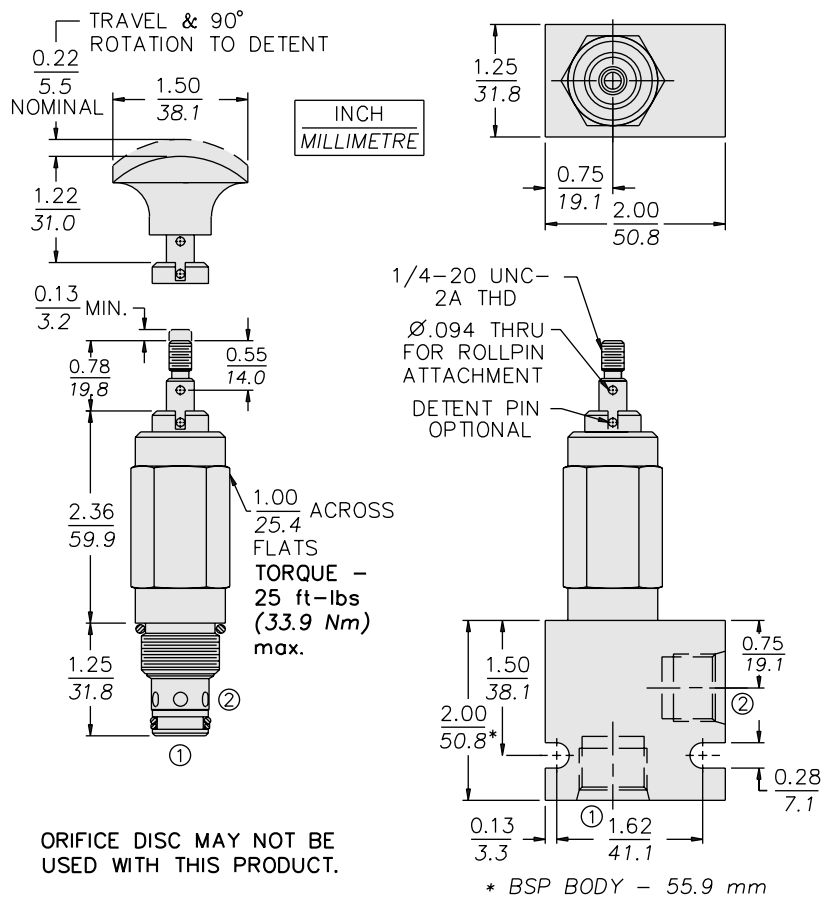
#### USASI/ISO:



### PERFORMANCE (Cartridge Only)



**DIMENSIONS**



**MATERIALS**

**Cartridge:** Weight: 0.23 kg. (0.50 lbs.)  
Steel with hardened work surfaces.  
Zinc-plated exposed surfaces.  
Buna N O-rings and polyester elastomer back-up standard.  
Plastic knob optional.

**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**

<b>MP10-22</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		
	Red Plastic Knob/ Spring Return	J		
	Red Plastic Knob/ Lock Position Pin	L		
			<b>Porting</b>	
			0 CartridgeOnly	
			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