

DESCRIPTION

A solenoid-operated, two-way, poppet-type, normally open, screw-in, hydraulic cartridge valve.

OPERATION

When de-energized, INSV10-23 allows bidirectional flow from ② to ①. With the sensor option, the neutral sensor will signal OFF or LOW. When energized, the valve's poppet closes to block flow from ② to ①. In this mode, the cartridge allows free reverse flow from ① to ② after overcoming the solenoid force (requires 3.4 to 10.3 bar / 50 to 150 psi). With the sensor option, the neutral sensor will signal ON or HIGH.

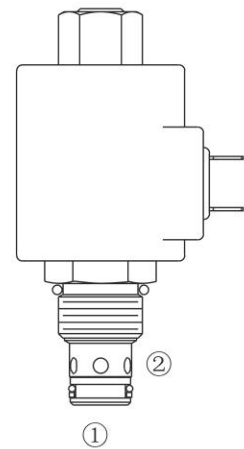
Operation of Manual Override Option: To override, push and hold override button.

FEATURES

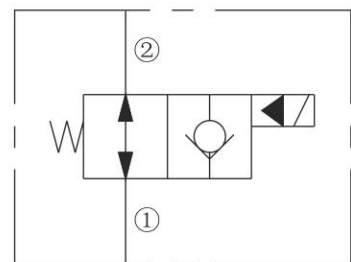
- Continuous-duty rated solenoid.
- Hardened seat for long life and low leakage.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Manual Override Options.
- Optional waterproof E-Coils rated up to IP69K.
- Unitized, molded coil design.
- Industry common cavity.

RATINGS

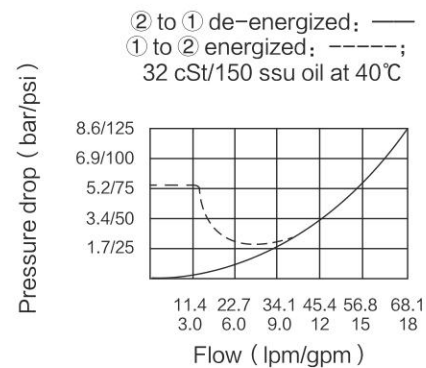
Operating Pressure: 207 bar (3000 psi)
Proof Pressure: 345 bar (5000 psi)
Flow: See Performance Chart
Internal Leakage: 0.15 cc/minute (3 drops/minute) max. at 207 bar (3000 psi)
Temperature: -40°C to 120°C, with Buna N seals
Coil Duty Rating: Continuous from 85% to 115% of nominal voltage
Response Time: First indication of change of state with 100% voltage supplied at 80% of nominal flow rating: Energized: 80msec.; De-energized: 30 msec.
 Response Time with Sensor: 158 ms pull-in, 57 ms drop-out
Initial Coil Current Draw at 20°C :
Standard Coil: Standard Coil: 1.67 amps at 12 VDC; 0.18 amps at 115 VAC (full wave rectified).
E-Coil: 1.7 amps at 12 VDC; 0.85 amps at 24 VDC
Minimum Pull-in Voltage: 85% of nominal at 207 bar (3000 psi)
Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 ssu)
Cavity: T10-2B; See bottom of this catalog.



ISO SYMBOL

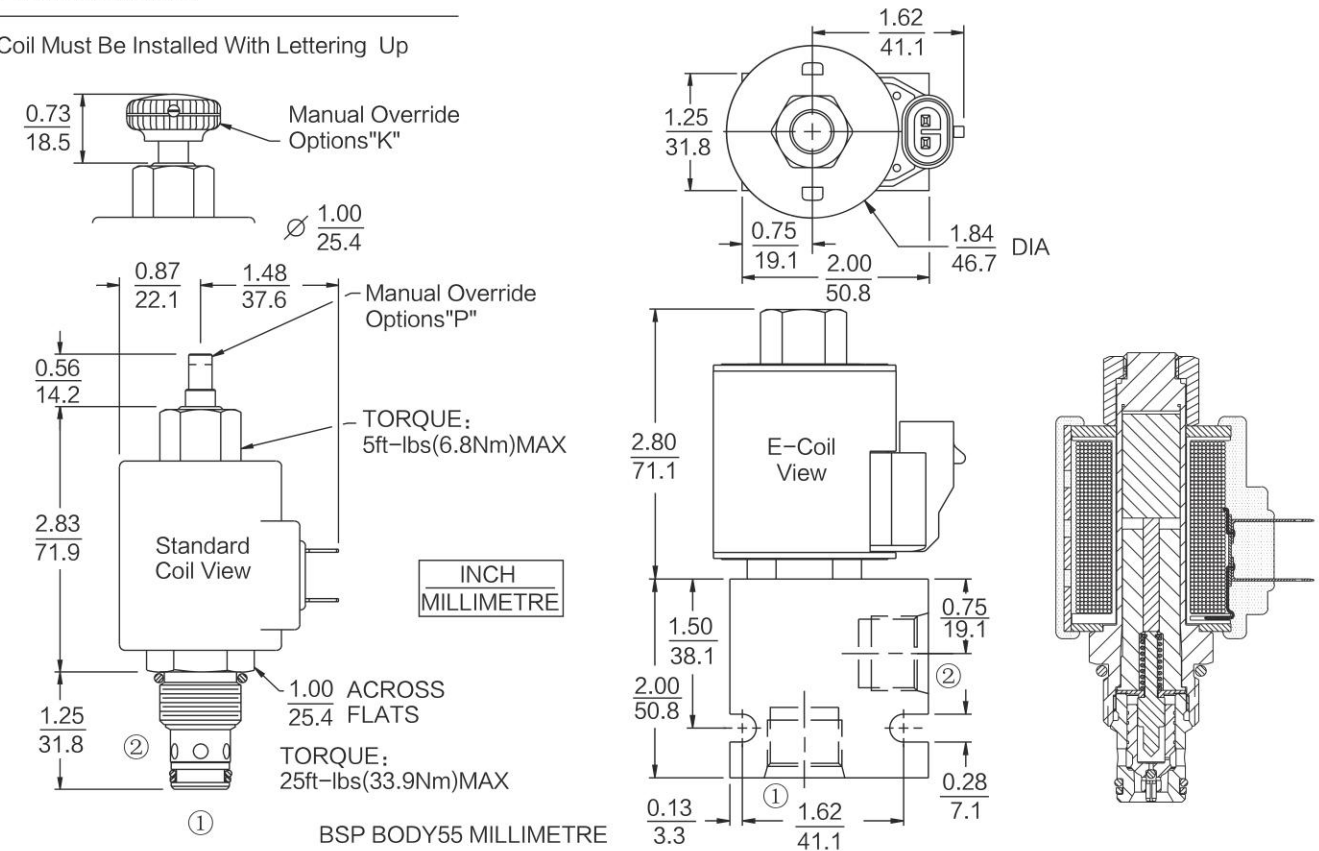


PERFORMANCE (Cartridge Only)



DIMENSIONS

Coil Must Be Installed With Lettering Up



MATERIALS

Cartridge: Weight: 0.16kg (0.35lbs)
 Steel with hardened work surfaces.
 Zinc-plated exposed surfaces;
 Buna N O-rings and back-ups standard.

Standard Ported Body: Weight: 0.16kg (0.35lbs) ; Anodized high strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi); Ductile iron bodies available; dimensions may differ.

Standard Coil: Weight: 0.27kg (0.60lbs) ; Unitized thermoplastic encapsulated, Class H high temperature magnet wire.

E-Coil: Weight: 0.41kg (0.9lbs) ; Fully encapsulated with rugged external metal shell. Rated up to IP69K with integral connectors.

TO ORDER

Options	Voltage Std. Coil	Termination (VDC) Std. Coil
None (Blank)	0 Less Coil**	DS Dual Spades
Screen S	10 10 VDC†	DG DIN 43650
Manual Override Without Knob P	12 12 VDC	DL Leadwires (2)
Manual Override Without Knob K	24 24 VDC	DL/W Leads w/ Weatherpak® Connectors
	36 36 VDC	DR Deutsch DT04-2P
	48 48 VDC	
	24 24 VAC	Termination (VAC) Std. Coil
	115 115 VAC	AG DIN 43650
	230 230 VAC	AP 1/2 in. Conduit
		Termination (VDC) E-Coil
		ER Deutsch DT04-2P (IP69K Rated)
		EL Leadwires (2)
		EY Metri-Pack® 150 (IP69K Rated)

Porting

Porting	Cartridge Only	Standard Coil	E-Coil
0	0	10	10
6T	6T	12	12
8T	8T	20	20
2B	2B	24	24
3B	3B		
4B	4B		

Seals

Seals	Cartridge Only	Standard Coil	E-Coil
N	N	10	10
V	V	12	12
		20	20
		24	24

**Includes Std. Coil Nut
 †DS, DW or DL terminations only.