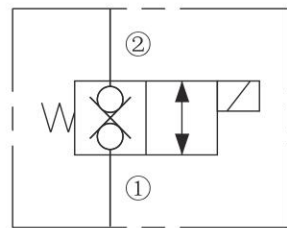
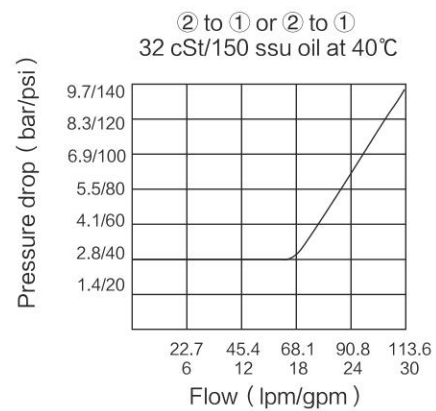


ISO SYMBOL



PERFORMANCE (Cartridge Only)



DESCRIPTION

A solenoid-operated, two-way, normally closed, internally piloted, poppet-type, bi-directional blocking, screw-in hydraulic cartridge valve, designed for low leakage in load-holding applications.

OPERATION

When de-energized, INSV12-28 blocks flow in both directions. When energized, the valve's poppet opens on its seat, allowing flow from ② to ① or ① to ②.

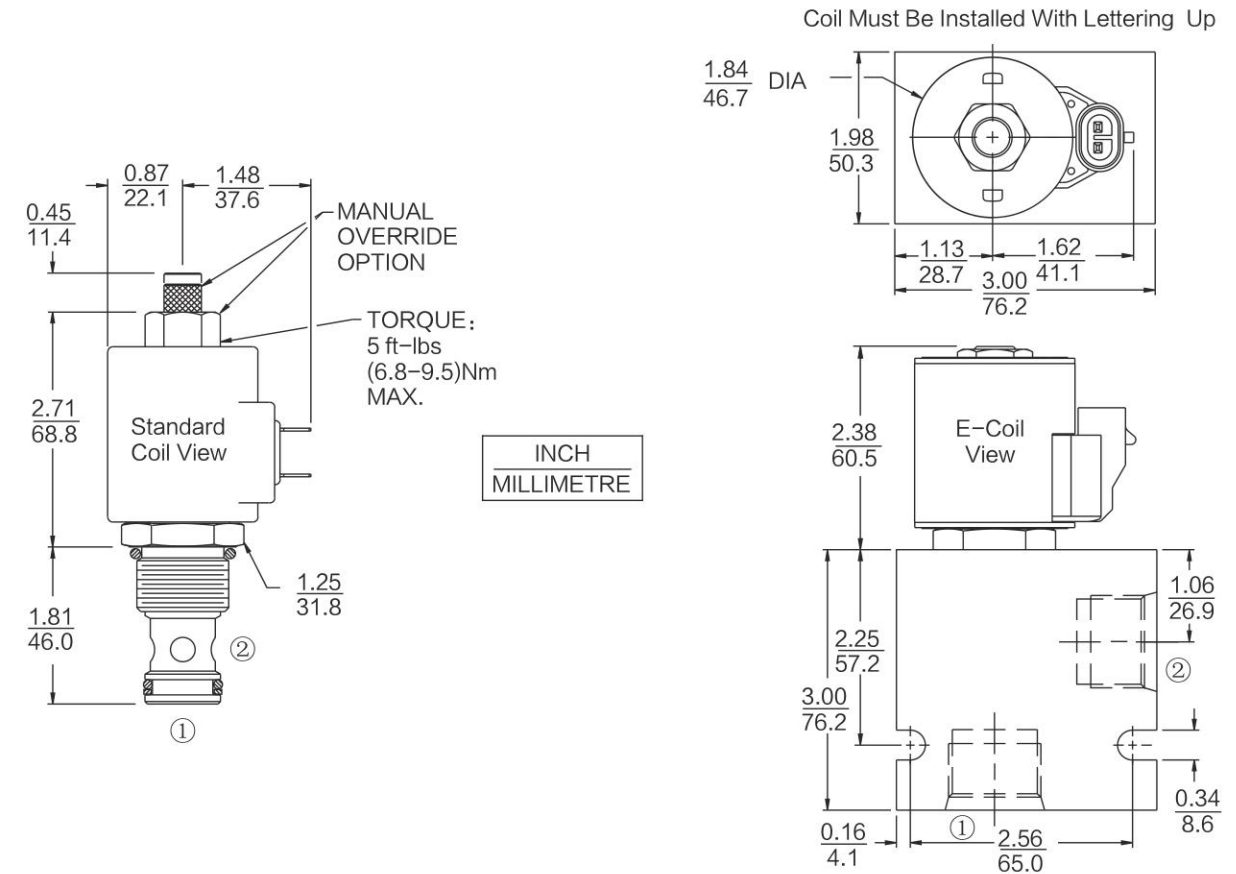
FEATURES

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

RATINGS

**Operating Pressure:** 240 bar (3500 psi)  
**Flow:** 113.6 lpm (30 gpm)  
**Internal Leakage:** 7 drops per minute maximum at 240 bar (3500 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: 40 msec.; De-energized: 32 msec.  
**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 240 bar (3500 psi)  
**Fluids:** Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 ssu)  
**Cavity:** T12-2A; See bottom of this catalog.

DIMENSIONS



MATERIALS

**Cartridge:** Weight: 0.25kg ( 0.55lbs )  
 Steel with hardened work surfaces.  
 Zinc-plated exposed surfaces;  
 Buna N O-rings and back-ups standard.  
**Standard Ported Body:** Weight: 0.57kg ( 1.25lbs ) ; 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
Manual Override M	10 10 VDC†	DG DIN 43650
Manual Override Y	12 12 VDC	DL Leadwires (2)
Manual Override J	24 24 VDC	DL/W Leads w/ Weatherpak® Connectors
	36 36 VDC	DR Deutsch DT04-2P
	48 48 VDC	
	24 24 VAC	<b>Termination (VAC) Std. Coil</b>
	115 115 VAC	AG DIN 43650
	230 230 VAC	AP 1/2 in. Conduit
		<b>Termination (VDC) E-Coil</b>
<b>Porting</b>		ER Deutsch DT04-2P ( IP69K Rated )
Cartridge Only 0		EL Leadwires (2)
SAE 10 10T		EY Metri-Pack® 150 ( IP69K Rated )
SAE 12 12T		
SAE 16 16T		
3/4 in. BSP* 6B		
1 in. BSP* 8B		
<b>Seals</b>	<b>E-Coil</b>	
Buna N (Std.) N	10 10 VDC	
Fluorocarbon V	12 12 VDC	
	20 20 VDC	
	24 24 VDC	