

DESCRIPTION

A solenoid-operated, 2-way, normally closed, poppet-type, screw-in hydraulic cartridge valve, designed to function as a load holding or blocking valve in applications requiring low internal leakage.

OPERATION

When de-energized, INSV12-20 acts as a check valve, allowing flow to pass from ① to ②, while blocking flow in the reverse direction. When energized, the poppet lifts to open the ② to ① flow path. In this mode, flow from ① to ② is severely restricted.

Operation of Manual Override Option: To override, push button in, twist counterclockwise 180° and release. In this position, the valve will remain open. To return to normal operation, push button in, twist clockwise 180° and release.

Override will be detented in this position.

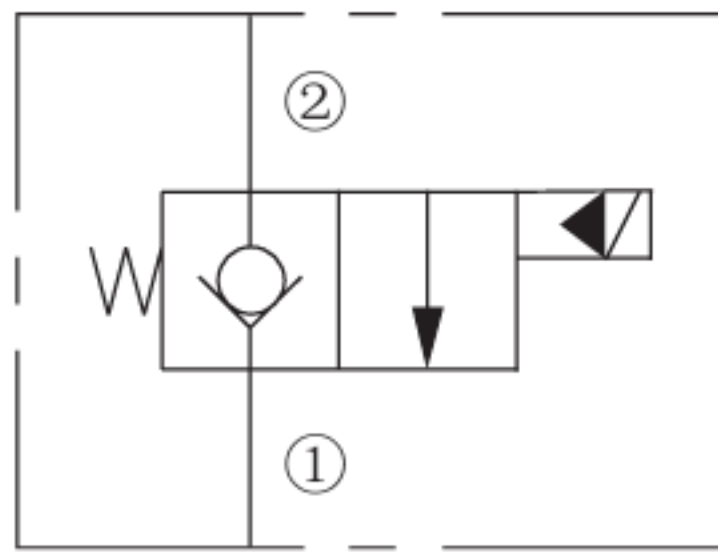
FEATURES

- 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 Option
- Optional waterproof E-Coils rated up to IP69K.
- Unitized, molded coil design.
- Cost effective cavity.

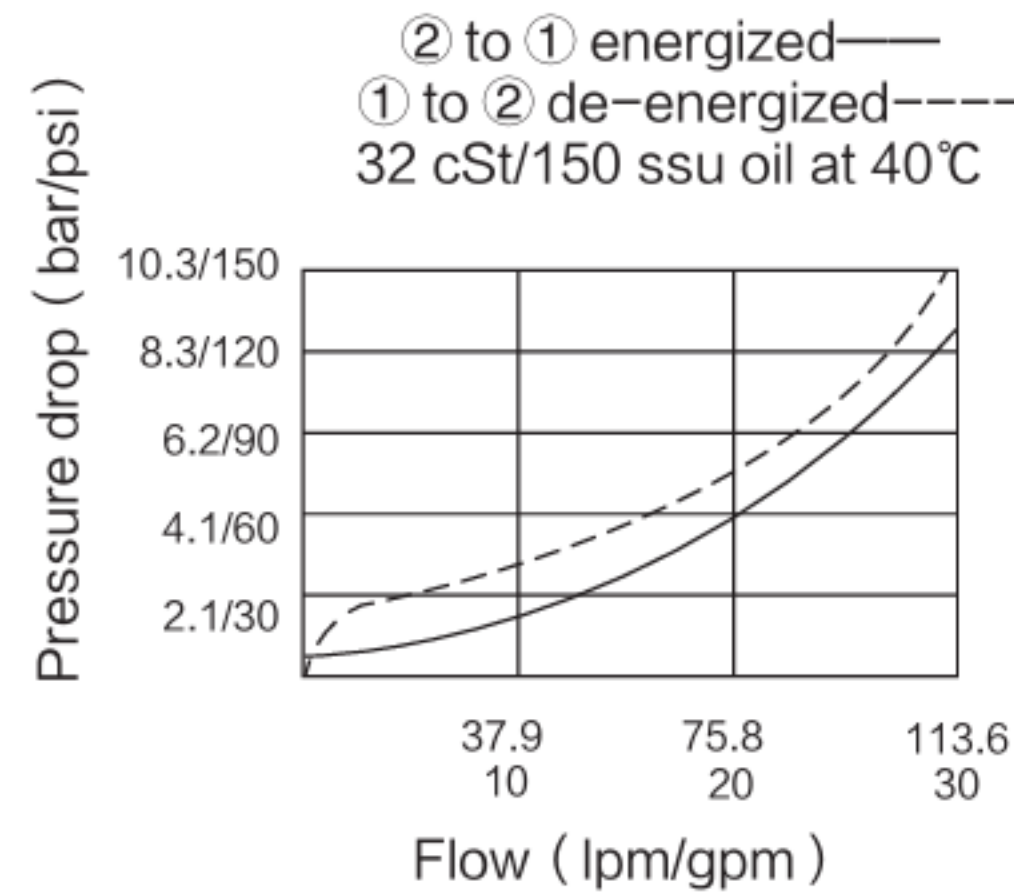
RATINGS

- Operating Pressure:** 240 bar (3500 psi)
- Proof Pressure:** 390 bar (5700 psi)
- Flow:** See Performance Chart
- Internal Leakage:** 0.15 cc/minute (3 drops/minute) max. 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: 80 msec.
- Initial Coil Current Draw at 20°C :**
- 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
- 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:** T12-2A; See bottom of this catalog.

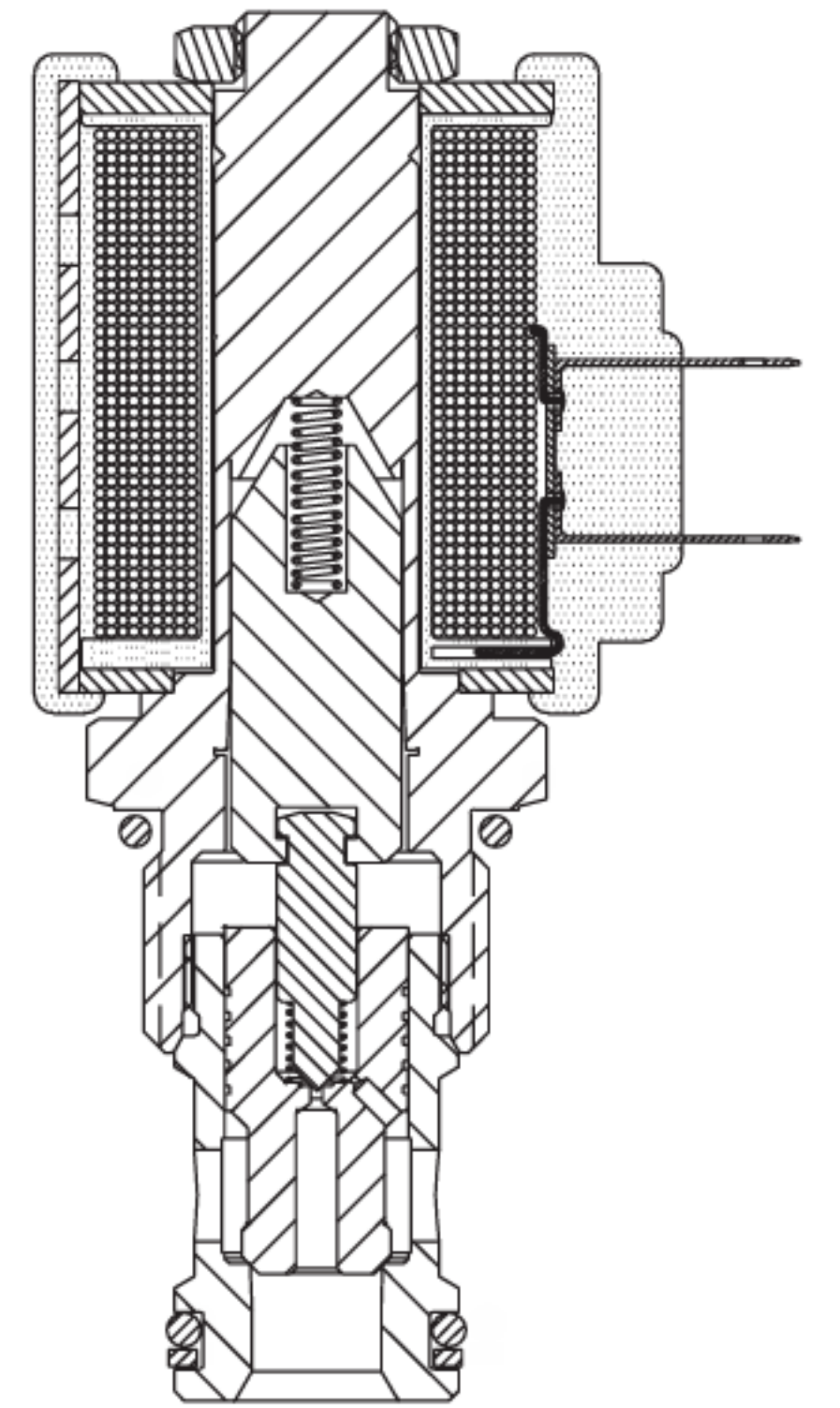
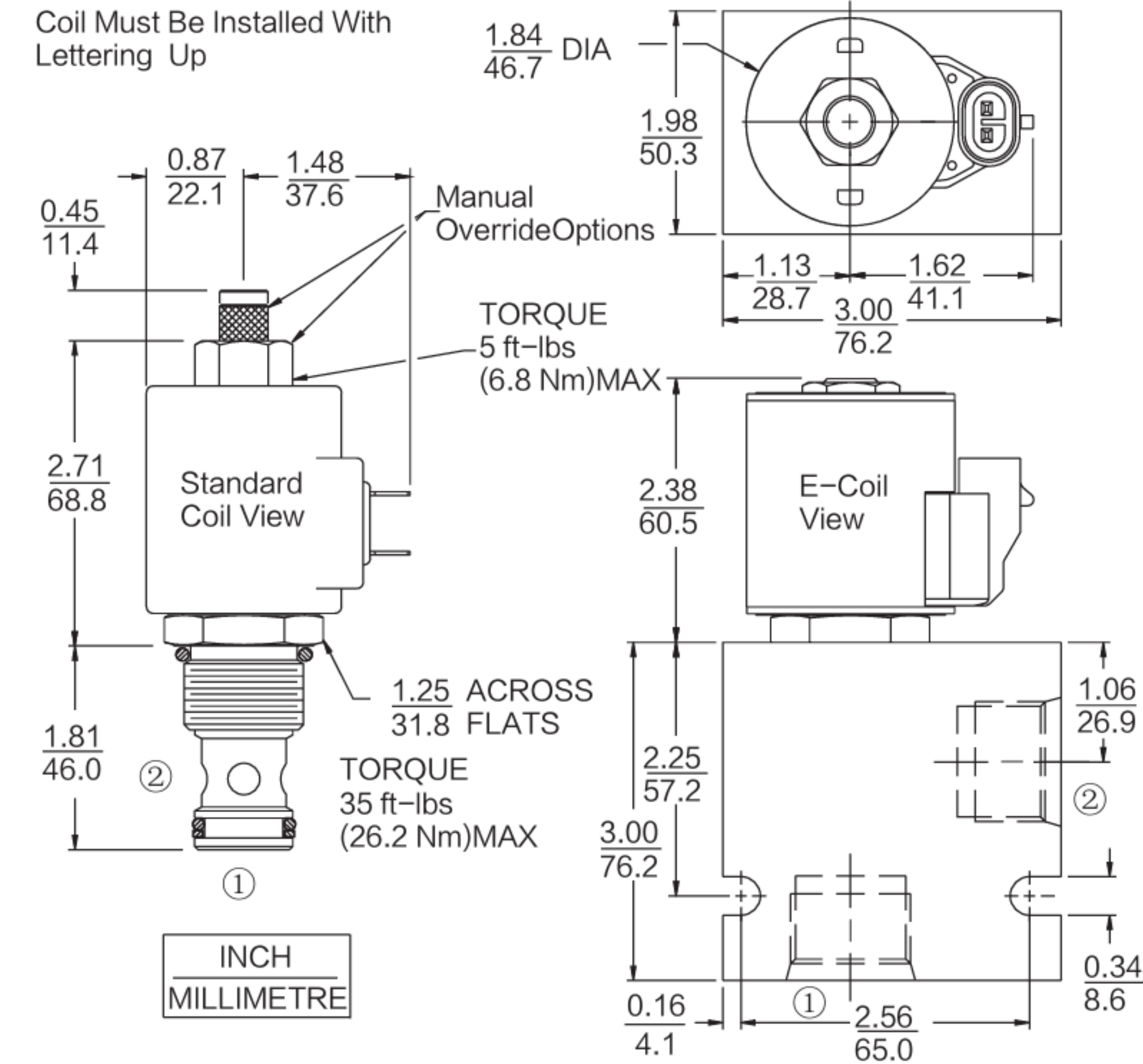
ISO SYMBOL



PERFORMANCE (Cartridge Only)



DIMENSIONS



MATERIALS

Cartridge: Weight: 0.25kg (0.55lbs) ; INSV12-20

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	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)

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

Coils with internal diode are