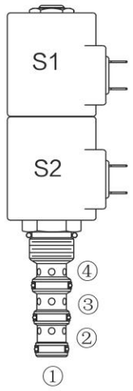
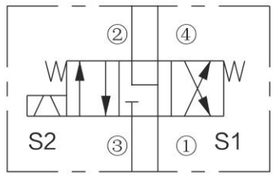
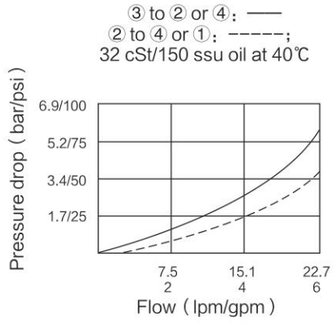


ISO SYMBOL



PERFORMANCE (Cartridge Only)



DESCRIPTION

A solenoid-operated, 4-way, 3-position, direct-acting, spool-type, motor spool, screw-in hydraulic cartridge valve.

OPERATION

When de-energized, INSV10-47D blocks flow to ③, while allowing flow from ② to ①,and from ④ to ①.

When coil #1 is energized, flow is allowed from ③ to ④, and from ② to ①.When coil #2 is energized, flow is allowed from ③ to ②, and from ④ to ①.

In circuits where work port flows are unequal due to cylinder ratios, the higher return flow should be directed to port ②.

Note: While 1 may be fully pressurized, it is not intended for use as the valve's inlet.

Operation of Manual Override Option: To override, push the knurled button to activate the coil #2 (S2) function, or pull the knob to activate the coil #1 (S1) function.

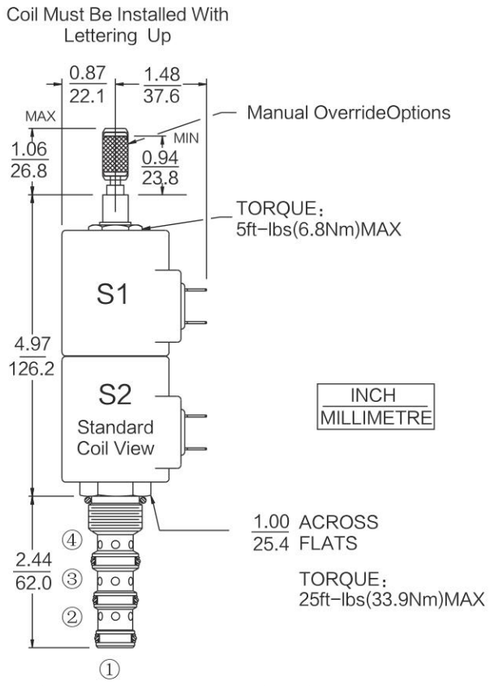
FEATURES

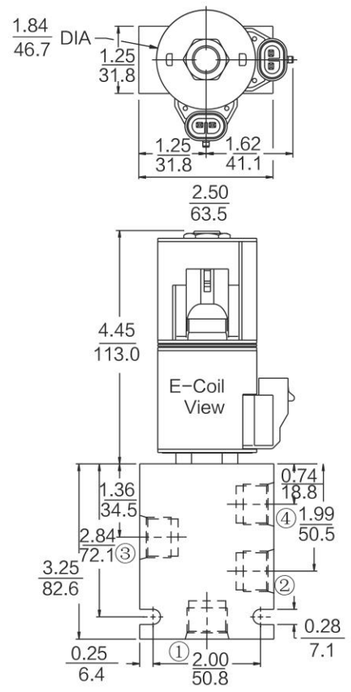
- Continuous-duty rated solenoid.
- Hardened precision spool and cage for long life.
- Optional coil voltages and terminations.
- Manual OverrideOptions.
- Optional waterproof E-Coils rated up to IP69K.
- Efficient wet-armature construction.
- All ports may be fully pressurized.
- Cartridges are voltage interchangeable.
- Unitized, molded coil design.
- Industry common cavity.

RATINGS

Operating Pressure:207 bar (3000 psi)
Proof Pressure: 390 bar (5700 psi)
Flow:MAX 23 lpm (6 gpm)
Internal Leakage:
328 ml/minute (20 cu. in./minute) max. at 207 bar (3000 psi)
Temperature:-40℃ to 120℃, with Buna N seals
Coil Duty Rating:
Continuous from 85% to 115% of nominal voltage
Initial Coil Current Draw at 20℃:
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:T10-4A; See bottom of this catalog.

DIMENSIONS





MATERIALS

Cartridge: Weight:0.30kg (0.65lbs); Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N O-rings and back-ups standard.

Standard Ported Body:Weight: 0.36kg (0.80lbs); Anodized、highstrength 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

INSV10-47D - - - -

Options
None (Blank)
Manual Override M
Manual Override T

Porting
Cartridge Only 0
SAE 6 6T
SAE 8 8T
1/4 in. BSP* 2B
3/8 in. BSP* 3B

Seals
Buna N (Std.) N
Fluorocarbon V

Voltage Std. Coil
0 Less Coil**
10 10 VDC†
12 12 VDC
24 24 VDC
36 36 VDC
48 48 VDC
24 24 VAC
115 115 VAC
230 230 VAC

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

E-Coil
10 10 VDC
12 12 VDC
20 20 VDC
24 24 VDC

Termination (VDC) Std. Coil
DS Dual Spades
DG DIN 43650
DL Leadwires (2)
DL/W Leads w/ Weatherpak® Connectors
DR Deutsch DT04-2P

Termination (VAC) Std. Coil
AG DIN 43650
AP 1/2 in.Conduit

Termination (VDC) E-Coil
ER Deutsch DT04-2P (IP69K Rated)
EL Leadwires (2)
EY Metri-Pack® 150 (IP69K Rated)

Coils with internal diode are available. Consult factory.