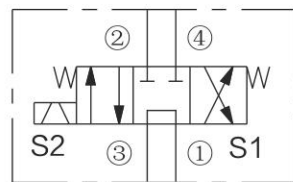
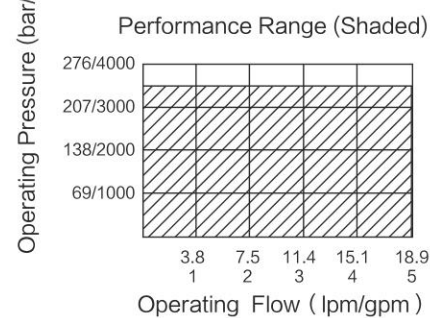
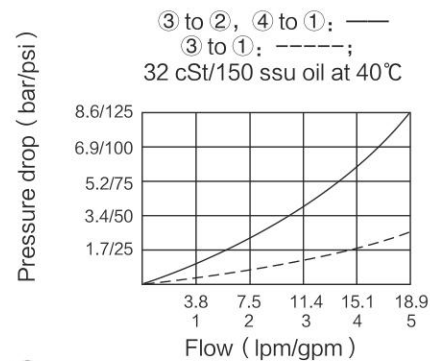


ISO SYMBOL



PERFORMANCE (Cartridge Only)



DESCRIPTION

A solenoid-operated, four-way, three-position, direct-acting, spool-type, tandem center, screw-in hydraulic cartridge valve.

OPERATION

When de-energized, INSV10-47A blocks cylinder ports, while allowing flow from ③ to ①. When coil S1 is energized, flow is allowed from ③ to ②, and from ④ to ①. When coil S2 is energized, flow is allowed from ③ to ④, and from ② 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.

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

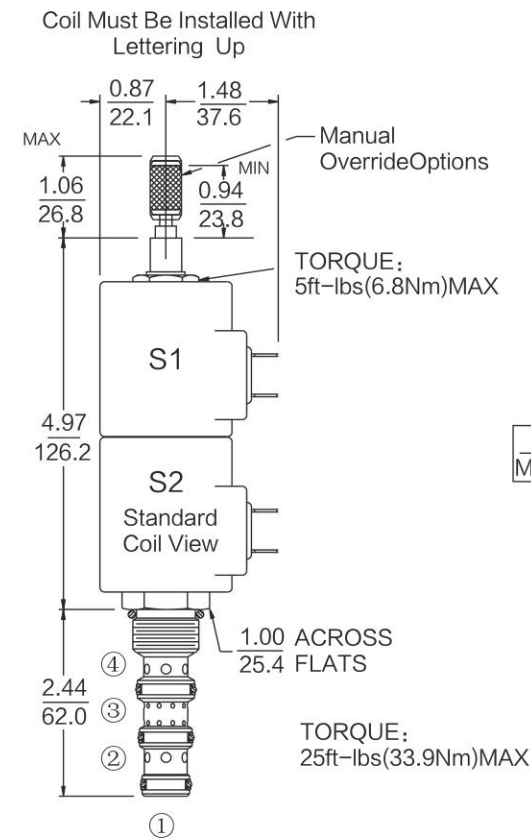
FEATURES

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

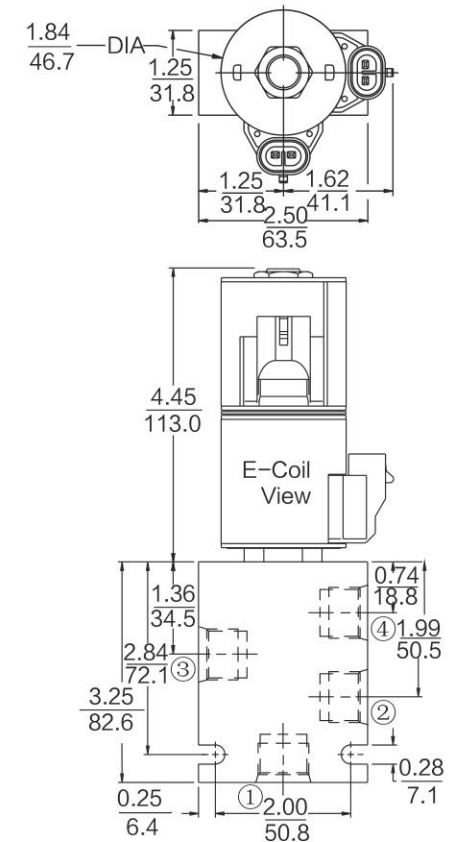
RATINGS

Operating Pressure: 240 bar (3500 psi)
Proof Pressure: 390 bar (5700 psi)
Flow: MAX 19 lpm (5 gpm)
Internal Leakage: 328 ml/minute (20 cu. in./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 85% voltage supplied at 100% of nominal flow rating: Energized: 100 ms; De-energized: 50 ms.
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: T10-4A; See bottom of this catalog.

DIMENSIONS



INCH
MILLIMETRE



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

| 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 | | |
| | | 12 12 VDC | DL Leadwires (2) | | |
| | | 24 24 VDC | DLW Leads w/ Weatherpak® Connectors | | |
| | | 36 36 VDC | DR Deutsch DT04-2P | | |
| | | 48 48 VDC | | | |
| | | 24 24 VAC | | | |
| | | 115 115 VAC | | | |
| | | 230 230 VAC | | | |
| | | | | | |
| Porting | | E-Coil | | Termination (VDC) E-Coil | |
| Cartridge Only | 0 | 10 10 VDC | ER Deutsch DT04-2P (IP69K Rated) | | |
| SAE 6 | 6T | 12 12 VDC | EL Leadwires (2) | | |
| SAE 8 | 8T | 20 20 VDC | EY Metri-Pack® 150 (IP69K Rated) | | |
| 1/4 in. BSP* | 2B | 24 24 VDC | | | |
| 3/8 in. BSP* | 3B | | | | |
| Seals | | | | | |
| Buna N (Std.) | N | | | | |
| Fluorocarbon | V | | | | |