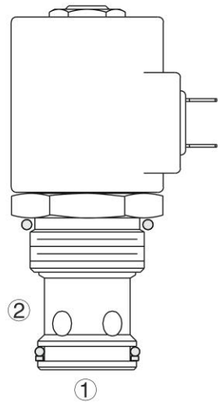
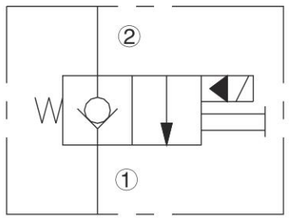
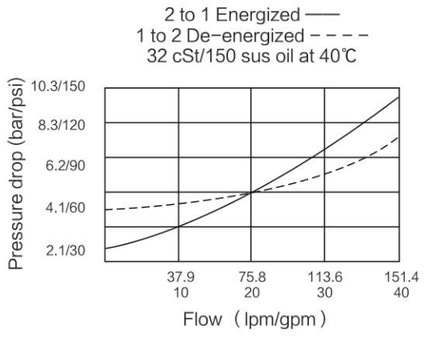


ISO SYMBOL



PERFORMANCE (Cartridge Only)



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, the INSV16-20 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. If this path is required, see model INSV16-22,

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.

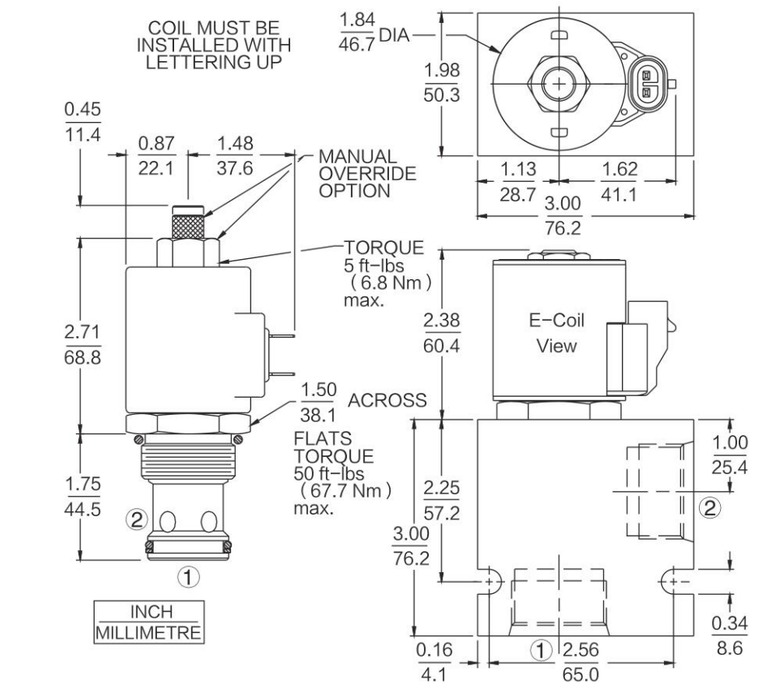
FEATURES

- 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.
- Industry common cavity.

RATINGS

Operating Pressure: 207 bar (3000 psi)
Proof Pressure: 390 bar (5700 psi)
Flow: See Performance Chart
Internal Leakage: 0.15 cc/minute (3 drops/minute) max. at 207 bar (3000 psi)
Temperature: -40 to 120° C with standard Buna seals
Coil Duty Rating: Continuous from 85% to 115% of nominal voltage Initial
Coil Current Draw at 20℃ : 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 sus)
Installation: No restrictions
Cavity: T16-2A,See bottom of this catalog.

DIMENSIONS



MATERIALS

Cartridge: Weight: 0.31 kg. (0.69 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-up standard.
Standard Ported Body: Weight: 0.57 kg. (1.25 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ.
Standard Coil: Weight: 0.27 kg. (0.60 lbs.); Unitized thermoplastic encapsulated, Class H high temperature magnetwire.
E-Coil: Weight: 0.41 kg. (0.9 lbs.); Fully encapsulated with rugged external metal shell. Rated up to IP69K with integral connectors.

TO ORDER

INSV16-20 - - - -

Option
None (Blank)
Manual Override M
Manual Override Y
Manual Override J

Porting
Cartridge Only 0
SAE 12 12T
SAE 16 16T
3/4 in. BSP* 6B
1 in. BSP* 8B
*BSP Body;U.K. Mfr. Only

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
EG Deutsch DT04-2P (IP69K Rated)
EY Metri-Pack® 150 (IP69K Rated)
Coils with internal diode are available. Consult factory.