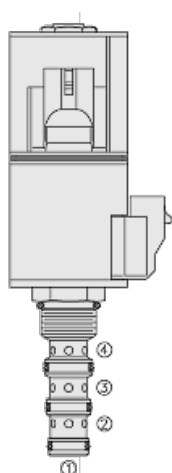
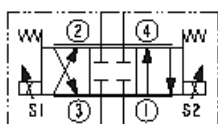




Overview



Symbol



Description

The HSP10-47CX is a high pressure, proportional, 4 port, 3 position, spool type, screw-in, cartridge style, hydraulic solenoid valve.

Operation

When de-energized, the HSP10-47CX blocks all ports. When s1 coil is energized, flow is allowed from 3 to 4, and from 2 to 1. When s2 coil is energized, flow is allowed from port 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 4.

Manual Override Operation

For normal valve operation (neutral) the manual override pin must be seated in the center detent groove (id groove on knob is in-line with top of coil nut). To shift the valve manually from neutral to activate coil s1 function the knob is pushed down slightly and rotated 90° counterclockwise and pulled. To detent in this position rotate the knob an additional 90° counterclockwise to lock in the upper detent groove. To shift manually from neutral to activate coil s2 function the knob is push down all the way. To detent in this position rotate the knob 90° clockwise to lock in the lower detent groove. The manual override feature is intended for emergency use, not for continuous operation.

Features

- Industry-common cavity.
- Continuous-duty rated coil.
- Efficient wet-armature construction.
- Waterproof E-Coils rated up to IP69K.
- Patented high strength solenoid tube
- 960 hour salt-spray rated solenoid tubes.
- All HyPerformance products are tested to NFPA specification T2.6.1.
- and are tested at a verification level of 90% and an assurance of 99%

Ratings

Pressure Ratings

| | | |
|-----------------|--|-------------------------------|
| Pressure rating | 350 bar (5075 psi) 420 bar (6090 psi) | - Note: 10% cycle life |
| Proof pressure | 690 bar (10.000 psi) | |
| Burst pressure | 1380 bar (20.000 psi) | |

Flow Ratings

| | | |
|--------------------------|--------------------------------------|--|
| Maximum internal leakage | 164 ml/min (10 in ³ /min) | - Note: Port 3-1 at de-energized 350 bar (5075 psi) |
| Hysteresis per cent | 10 % | - Note: Of flow rating between 3.8 to 20.8 lpm (1.0 to 5.5 gpm) |

Other Ratings

| | |
|------------|--------------------|
| Cycle life | One million cycles |
|------------|--------------------|

Temperature Ratings

| | | |
|-----------------------------|---|--|
| Operating fluid temperature | -40 to 100 °C (-40 to 212 °F) -26 to 204 °C (-15 to 400 °F) -54 to 107 °C (-65 to 225 °F) | - Note: With buna N seals - Note: With fluorocarbon seals - Note: With urethane seals |
| Storage temperature | -40 to 70 °C (-40 to 160 °F) | |
| Ambient temperature | -40 to 90 °C (-40 to 194 °F) | |

Operating Parameters

| | |
|---------------------------------------|--|
| Fluids | Mineral based or synthetic hydraulic fluid with lubricating properties |
| Fluid viscosity range | 7.4 to 420 cSt |
| Maximum operating contamination level | 18/16/13 per ISO 4406 |

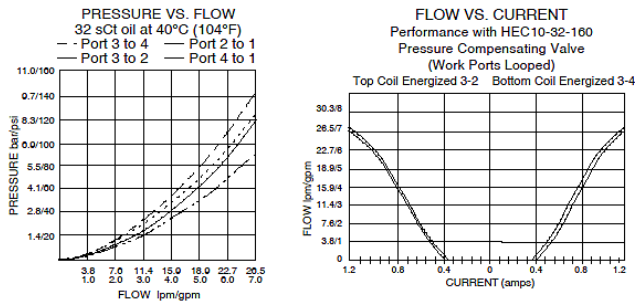
Properties

| | | |
|------------------------------|--|-------------------------------------|
| Unit weight | 0.28 kg (0.61 lb) | - Note: Without coil and nut |
| Internal wetted surface area | 245 cm ² (37.97 in ²) | |

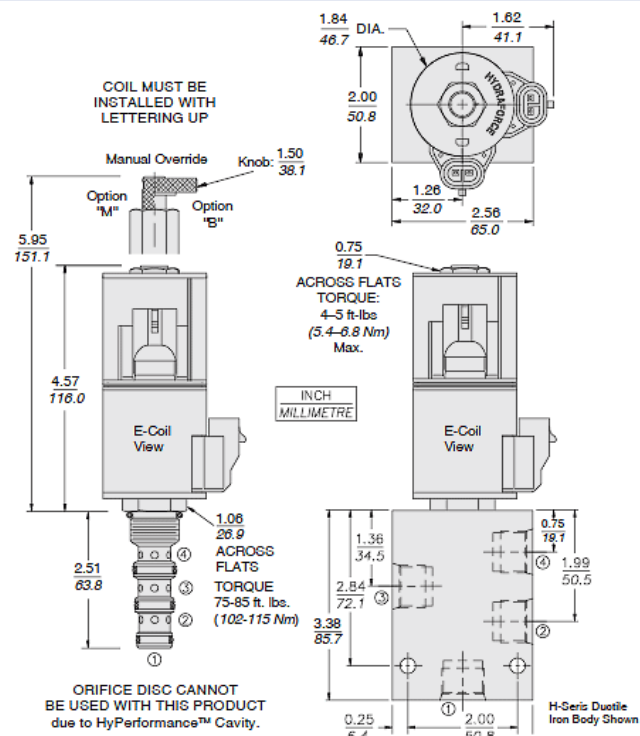
Electrical Parameters

| | | |
|-------------------------|--------|---|
| Maximum control current | 1.2 A | - Note: For coil 12 Vdc |
| Threshold current | 0.4 A | - Note: Nominal for coil s1 12 Vdc |
| | 0.4 A | - Note: Nominal for coil s2 12 Vdc |
| Dither PWM frequency | 100 Hz | |

Performance



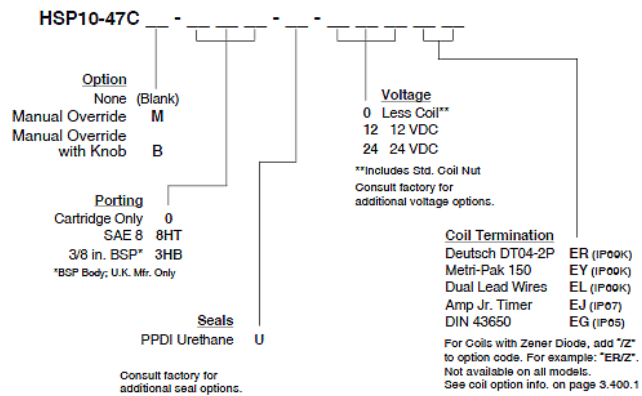
Dimensions



Accessories

| | | |
|----------|-------------|-----------------------------|
| Seal kit | SK10-4N-MMM | - Note: Buna N |
| | SK10-4V-MMM | - Note: Fluorocarbon |
| | SK10-4U-000 | - Note: Urethane |

Order Code



Model Options

HSP10-47CE-H-J-L

E Manual Override

| CODE | DESCRIPTION |
|-------|---|
| B | Momentary Push/Pull Override, 1.5" Diameter Aluminum Knob |
| BLANK | NONE |
| K | Three Position Override, 1.5" Diameter Aluminum Knob |
| M | Momentary Push/Pull Override, Red Knurled Knob |

H Line Body

| CODE | DESCRIPTION |
|------|--------------------|
| 0 | No Body |
| 8HT | Ductile Iron SAE 8 |

J Seal

| CODE | DESCRIPTION |
|------|---------------|
| N | Buna-N |
| V | Fluorocarbon |
| U | PPDI Urethane |

L Coil

| CODE | DESCRIPTION |
|---------|---|
| 0E | No Coil, E-Coil Spacer |
| 10EL | 10 VDC, E-Coil, Dual Lead Wires |
| 10ER | 10 VDC, E-Coil, Deutsch |
| 12EG | 12 VDC, E-Coil, DIN 43650 |
| 12EJ | 12 VDC, E-Coil, AMP Jr. |
| 12EL | 12 VDC, E-Coil, Dual Lead Wires, 18 inches long |
| 12EL/36 | 12 VDC, E-Coil, Dual Lead Wires, 36 inches long |
| 12ER | 12 VDC, E-Coil, Deutsch |
| 12EY | 12 VDC, E-Coil, Metri-Pack 150 |
| 20ER | 20 VDC, E-Coil, Deutsch |
| 24EG | 24 VDC, E-Coil, DIN 43650 |
| 24EJ | 24 VDC, E-Coil, AMP Jr. |
| 24EL | 24 VDC, E-Coil, Dual Lead Wires, 18 inches long |



| CODE | DESCRIPTION |
|---------|---|
| 24EL/36 | 24 VDC, E-Coil, Dual Lead Wires, 36 inches long |
| 24ER | 24 VDC, E-Coil, Deutsch |
| 24EY | 24 VDC, E-Coil, Metri-Pack 150 |