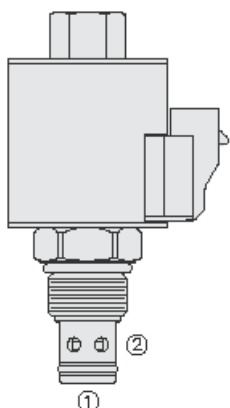
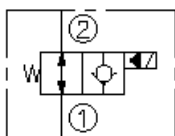




Overview



Symbol



Description

The HSV10-23X is a high pressure 2-way, piloted, poppet-type, normally open screw in hydraulic cartridge valve designed for low leakage in load holding applications.

Operation

When de-energized, the HSV10-23X allows flow bi-directionally. When energized, the valve's poppet closes on its seat, blocking flow from ports 2-1. In this mode the cartridge will allow flow from ports 1-2 after overcoming the actuator and spring forces (see performance graph).

Manual Override Operation

To shift the valve manually, push and hold down manual override button/knob.

note: the manual override feature is intended for emergency use, not for continuous-duty operation.

Features

- Continuous-duty rated coil.
- Hardened seat for long life and low leakage.
- Optional coil voltages and terminations.
- Efficient wet-armature construction.
- Cartridges are voltage interchangeable.
- Waterproof E-Coils rated up to IP69K.
- Unitized, molded coil design.
- 960 hour salt-spray rated solenoid tubes and coils.
- All HyPerformance products are tested to the rigorous standards of the NFPA specification T2.6.1
- All HyPerformance valves are tested at a verification level of 90% and an assurance of 99%.

Ratings

Pressure Ratings

| | | |
|-----------------|----------------------|-------------------------------|
| Pressure rating | 350 bar (5075 psi) | - Note: 10% cycle life |
| | 420 bar (6090 psi) | |
| Proof pressure | 690 bar (10000 psi) | |
| Burst pressure | 1380 bar (20000 psi) | |

Flow Ratings

| | | |
|--------------------------|-------------------|--|
| Flow rating | 75.7 lpm (20 gpm) | |
| Maximum internal leakage | 5 drops/min | - Note: With 350 bar (5075 psi) at port 2 |

Other Ratings

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

Temperature Ratings

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

Operating Parameters

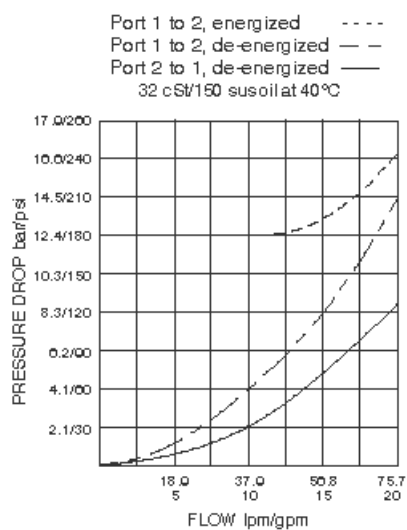
| | |
|---------------------------------------|--|
| Fluids | Mineral based or synthetic hydraulic fluid with lubricating properties |
| Fluid viscosity range | 7.4 to 420 cSt |
| Maximum operating contamination level | 18/16/13 per ISO 4406 |



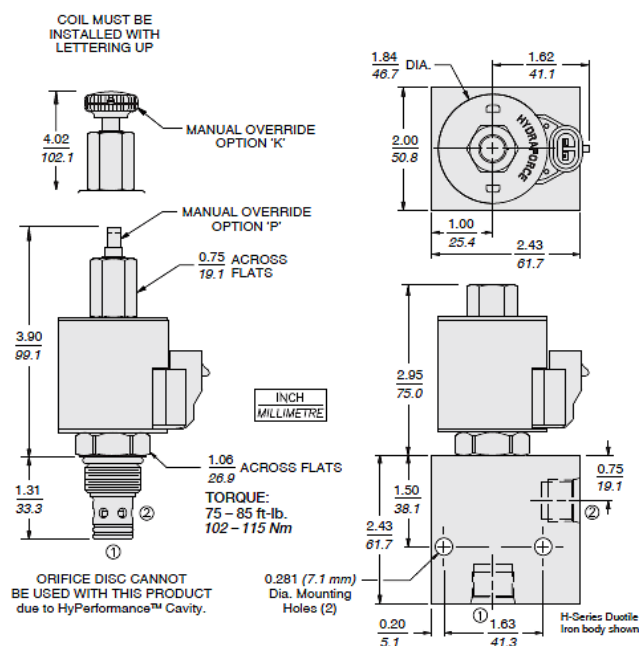
Properties

| | | |
|------------------------------|---|-------------------------------------|
| Unit weight | 0.19 kg (0.42 lb) | - Note: Without coil and nut |
| Internal wetted surface area | 157 cm ² (24.3 in ²) | - Note: HSV10-23 |
| | 159 cm ² (24.6 in ²) | - Note: Hsv10-23p/23k |

Performance



Dimensions



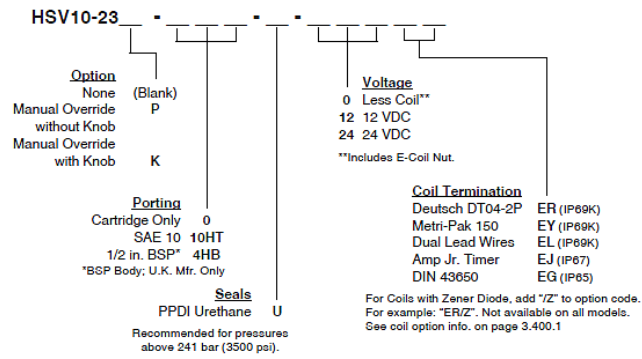
Installation Specifications

| | | |
|-------------------------------|---------------------------------|--|
| Cavity | HVC10-2 | |
| Cartridge installation torque | 102 to 115 N-m (75 to 85 ft-lb) | - Note: Steel/ductile iron cavity |
| | 81 to 88 N-m (60 to 65 ft-lb) | - Note: Aluminum cavity |
| Orientation restriction | None | |

Accessories

| | | |
|----------|-----------|-----------------------------|
| Seal kit | SK10-2N-M | - Note: Buna N |
| | SK10-2V-M | - Note: Fluorocarbon |
| | SK10-2U-0 | - Note: Urethane |

Order Code



Model Options

HSV10-A23AE-H-J-L-M

A Position Sensor Option

| CODE | DESCRIPTION |
|------|--|
| 23 | Standard |
| P23A | Position Indicator Switch with Restricted Flow |

E Manual Override

| CODE | DESCRIPTION |
|-------|---------------------------------|
| BLANK | NONE |
| K | Momentary Push Override, Knob |
| P | Momentary Push Override, Button |

H Line Body

| CODE | DESCRIPTION |
|------|-------------|
| 0 | No Body |

J Seal

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

L Coil

| CODE | DESCRIPTION |
|----------|---|
| 0 | No Coil |
| 10EL | 10 VDC, E-Coil, Dual Lead Wires |
| 10ER | 10 VDC, E-Coil, Deutsch |
| 10ER/Z | 10 VDC, E-Coil, Deutsch with Zener Diode |
| 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 |
| 12EL/W/Z | 12 VDC, E-Coil, Dual Lead Wires with WeatherPak and Zener Diode |
| 12EL/Z | 12 VDC, E-Coil, Dual Lead Wires with Zener Diode |
| 12ER | 12 VDC, E-Coil, Deutsch |
| 12ER/Z | 12 VDC, E-Coil, Deutsch with Zener Diode |
| 12EY | 12 VDC, E-Coil, Metri-Pack 150 |



| CODE | DESCRIPTION |
|----------|---|
| 12EY/Z | 12 VDC, E-Coil, Metri-Pack 150 with Zener Diode |
| 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 |
| 24EL/36 | 24 VDC, E-Coil, Dual Lead Wires, 36 inches long |
| 24EL/W/Z | 24 VDC, E-Coil, Dual Lead Wires with WeatherPak and Zener Diode |
| 24ER | 24 VDC, E-Coil, Deutsch |
| 24ER/Z | 24 VDC, E-Coil, Deutsch with Zener Diode |
| 24EY | 24 VDC, E-Coil, Metri-Pack 150 |
| 24EY/Z | 24 VDC, E-Coil, Metri-Pack 150 with Zener Diode |

M Position Sensor Termination

| CODE | DESCRIPTION |
|-------|---|
| BLANK | No Position Sensor |
| M3 | Neutral Sense, M12-4P, Dual Output NC/NO |
| N3 | Neutral Sense, DT04-4P, Dual Output NC/NO |