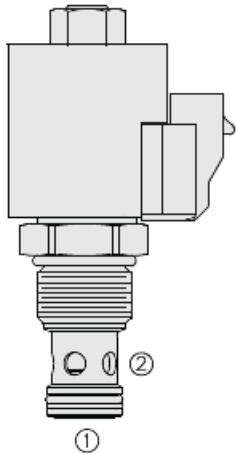
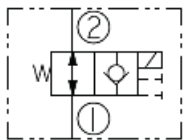




Overview



Symbol



Description

The HSV12-23X 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 HSV12-23X 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

- Bi-directional operation.
- 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.
- Waterproof E-Coils rated up to IP69K.
- Corrosion-resistant plating.
- Unitized, molded coil design.
- Cost effective cavity.
- 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 (10000 psi)	
Burst pressure	1380 bar (20000 psi)	

Flow Ratings

Flow rating	113.6 lpm (30 gpm)
Maximum internal leakage	7 drops/min - Note: With at port 2 350 bar (5075 psi)

Other Ratings

Cycle life	One million cycles
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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 90 °C (-40 to 194 °F)	

Operating Parameters

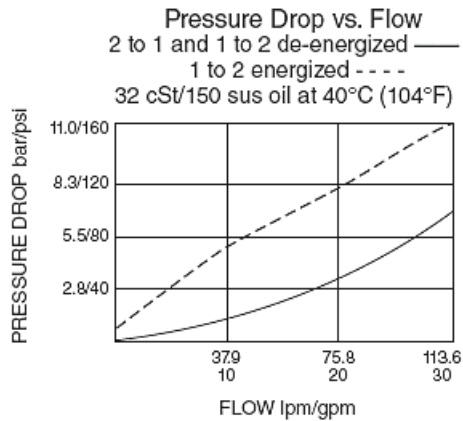
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

Properties

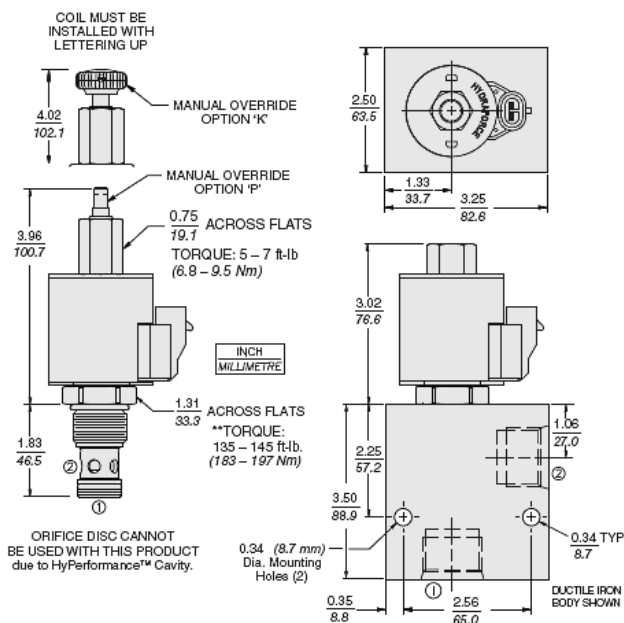
Unit weight	0.29 kg (0.63 lb)	- Note: Without coil and nut
Internal wetted surface area	205 cm ² (31.8 in ²)	- Note: HSV12-23
	207 cm ² (32.1 in ²)	- Note: Hsv12-23p/23k



Performance



Dimensions



Materials

Materials

Cartridge: Weight: (without coil and nut) 0.2 kg (0.6 lb) Steel with hardened work surfaces. Urethane seals without back-up rings standard.

Standard Ported Body: Weight: 2.6 kg (1.1 lb) H₂E-series ductile iron. Rated to 35 bar (507 psi).

10-Size E-Coil: Weight: 0.4 kg (0. lb); Fully encapsulated with rugged external metal shell. Rated up to IP69K with integral connectors.

Installation Specifications

Cavity	Hvc12-2	
Cartridge installation torque	183 to 196 N-m (135 to 145 ft-lb) 122 to 136 N-m (90 to 100 ft-lb)	- Note: Steel/ductile iron cavity - Note: Aluminum cavity
Orientation restriction	None	

Accessories

Seal kit	SK12-2N-T SK12-2V-T SK12-2U-O	- Note: Buna N - Note: Fluorocarbon - Note: Urethane
Housings		
Coils		

Order Code



POSITION	CODE	DESCRIPTION
		HSV12-23E-H-J-L
E		Manual Override
E	BLANK	NONE
E	K	Momentary Push Override, Knob
E	P	Momentary Push Override, Button
H		Line Body
H	0	No Body
H	12HT	Ductile Iron SAE 12
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	U	PPDI Urethane
L		Coil
L	0	No Coil
L	10EL	10 VDC, E-Coil, Dual Lead Wires
L	10ER	10 VDC, E-Coil, Deutsch
L	10ER/Z	10 VDC, E-Coil, Deutsch with Zener Diode
L	12EG	12 VDC, E-Coil, DIN 43650
L	12EJ	12 VDC, E-Coil, AMP Jr.
L	12EL	12 VDC, E-Coil, Dual Lead Wires, 18 inches long
L	12EL/36	12 VDC, E-Coil, Dual Lead Wires, 36 inches long
L	12EL/W/Z	12 VDC, E-Coil, Dual Lead Wires with WeatherPak and Zener Diode
L	12EL/Z	12 VDC, E-Coil, Dual Lead Wires with Zener Diode
L	12ER	12 VDC, E-Coil, Deutsch
L	12ER/Z	12 VDC, E-Coil, Deutsch with Zener Diode
L	12EY	12 VDC, E-Coil, Metri-Pack 150
L	12EY/Z	12 VDC, E-Coil, Metri-Pack 150 with Zener Diode
L	20ER	20 VDC, E-Coil, Deutsch
L	24EG	24 VDC, E-Coil, DIN 43650
L	24EJ	24 VDC, E-Coil, AMP Jr.
L	24EL	24 VDC, E-Coil, Dual Lead Wires, 18 inches long
L	24EL/36	24 VDC, E-Coil, Dual Lead Wires, 36 inches long
L	24EL/W/Z	24 VDC, E-Coil, Dual Lead Wires with WeatherPak and Zener Diode
L	24ER	24 VDC, E-Coil, Deutsch
L	24ER/Z	24 VDC, E-Coil, Deutsch with Zener Diode
L	24EY	24 VDC, E-Coil, Metri-Pack 150
L	24EY/Z	24 VDC, E-Coil, Metri-Pack 150 with Zener Diode

