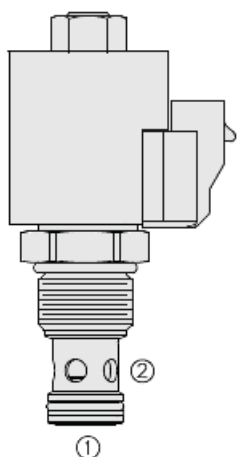
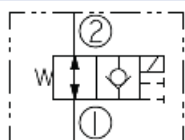




## Overview



### 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<sup>®</sup> 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)	<b>- Note:</b> 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 <b>- Note:</b> 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)	<b>- Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	<b>- Note:</b> With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	<b>- Note:</b> 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

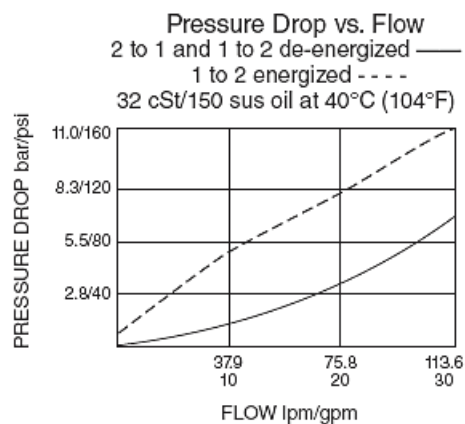
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406



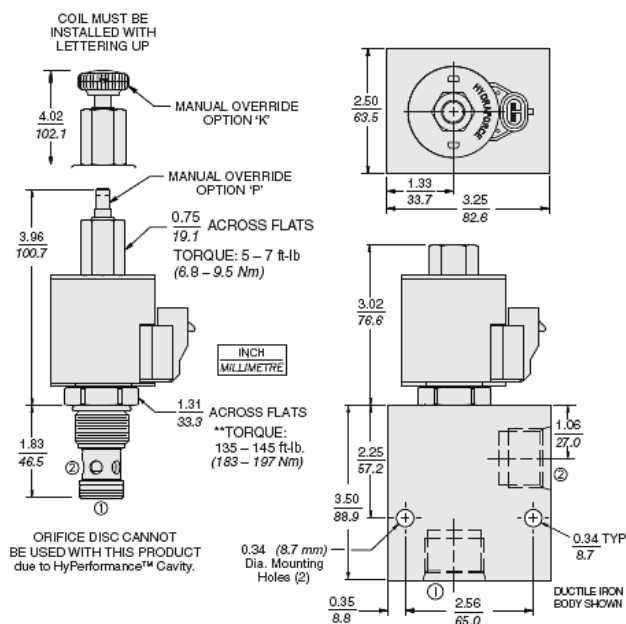
## Properties

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

## Performance



## Dimensions



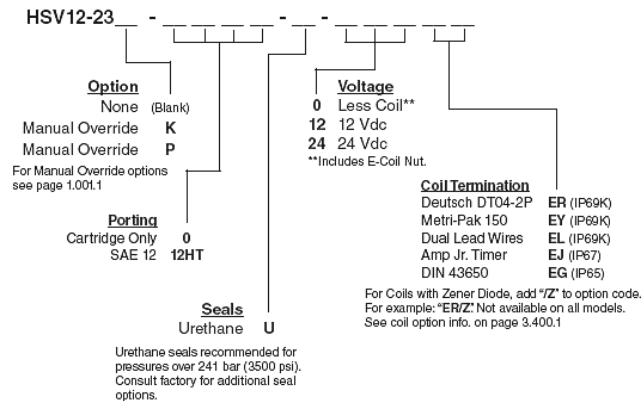
## Installation Specifications

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)	- <b>Note:</b> Steel/ductile iron cavity - <b>Note:</b> Aluminum cavity
Orientation restriction	None	

## Accessories

Seal kit	SK12-2N-T SK12-2V-T SK12-2U-O	- <b>Note:</b> Buna N - <b>Note:</b> Fluorocarbon - <b>Note:</b> Urethane
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## Order Code



Model Options

HSV12-23E-H-J-L

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
12HT	Ductile Iron SAE 12

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
12EY/Z	12 VDC, E-Coil, Metri-Pack 150 with Zener Diode
20ER	20 VDC, E-Coil, Deutsch



CODE	DESCRIPTION
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