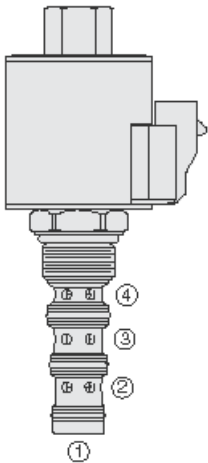




**Overview**



**Description**

The HSV10-40RX is a high pressure, spool type, screw-in, cartridge style, hydraulic solenoid valve.

**Operation**

The HSV10-40RX allows flow from ports 3 to 4 and from ports 2 to 1 when de-energized. When energized, the spool shifts to allow from ports 3 to 2 and from ports 4 to 1. Consult factory for applications where port 4 will be used as the inlet port.

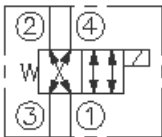
**Manual Override Operation**

For normal operation (de-energized) the manual override button must be fully rotated counter-clockwise. To shift the valve manually, rotate the manual override button clockwise. Note: the manual override features 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 NFPA specification T2.6.1 and are tested at a verification level of 90% and an assurance of 99%.

**Symbol**



**Ratings**

**Pressure Ratings**

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

**Flow Ratings**

Flow rating	See performance graph	
Maximum internal leakage	245 ml/min (15 in <sup>3</sup> /min)	- <b>Note:</b> Port 3 to port 1, at de-energized 350 bar (5075 psi)
	164 ml/min (10 in <sup>3</sup> /min)	- <b>Note:</b> At energized 350 bar (5075 psi)
	164 ml/min (10 in <sup>3</sup> /min)	- <b>Note:</b> Port 1 to port 3, at de-energized 350 bar (5075 psi)
	245 ml/min (15 in <sup>3</sup> /min)	- <b>Note:</b> At energized 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**

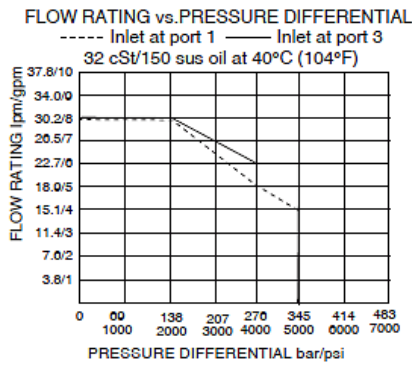
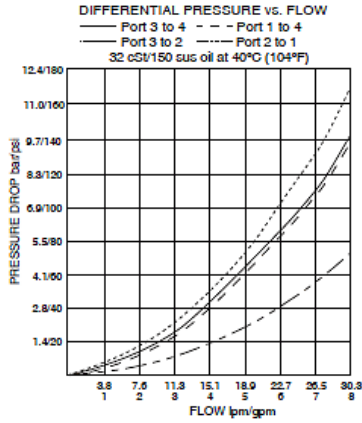
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406



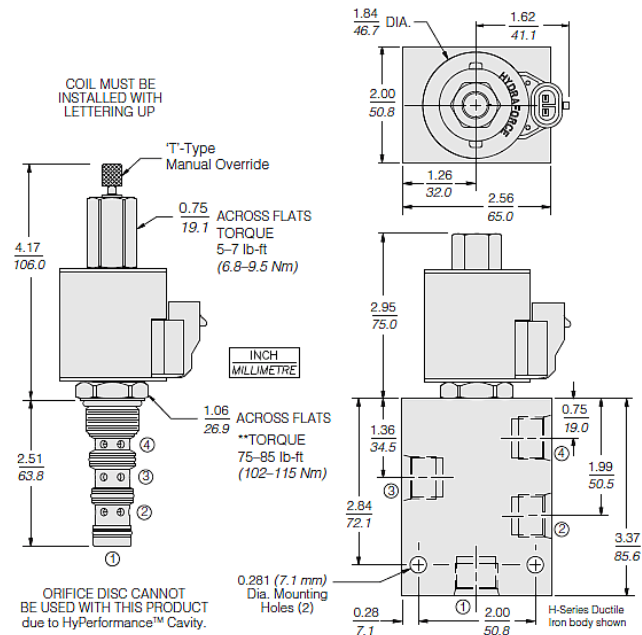
### Properties

Unit weight	0.21 kg (0.47 lb)	- <b>Note:</b> (without coil and nut)
Internal wetted surface area	208 cm <sup>2</sup> (32.2 in <sup>2</sup> )	- <b>Note:</b> HSV10-40R
	209 cm <sup>2</sup> (32.4 in <sup>2</sup> )	- <b>Note:</b> HSV10-40RT

### Performance



### Dimensions



\*\*Cartridge torque shown for ductile iron manifold. Torque 60-65 lb-ft (81-88 Nm) in aluminum. Aluminum housing is rated to 207 bar (3000 psi).



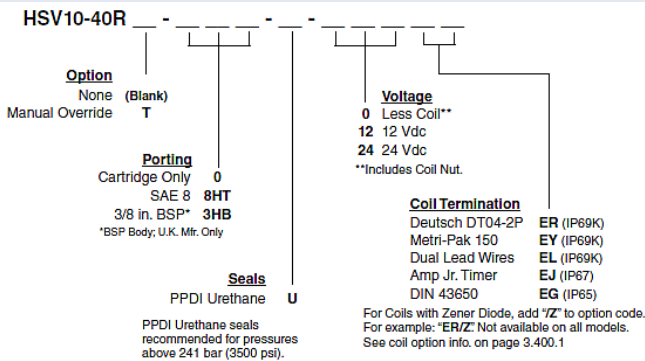
### Installation Specifications

Cavity	HVC10-4	
Cartridge installation torque	102 to 115 N-m (75 to 85 ft-lb)	- <b>Note:</b> Steel/ductile iron cavity
	81 to 88 N-m (60 to 65 ft-lb)	- <b>Note:</b> Aluminum cavity
Orientation restriction	None	

### Accessories

Seal kit	SK10-4N-MMM	- <b>Note:</b> Buna N
	SK10-4V-MMM	- <b>Note:</b> Fluorocarbon
	SK10-4U-OOO	- <b>Note:</b> Urethane
Housings		
Coils		

### Order Code



POSITION	CODE	DESCRIPTION
		HSV10-A40RE-H-J-L-M
A		Position Sensor Option
A	40R	Standard
A	P40R	Position Indicator Switch
E		Manual Override
E	BLANK	NONE
E	T	Variable Position Override, Red Knurled Knob
H		Line Body
H	0	No Body
H	8HT	Ductile Iron SAE 8
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



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