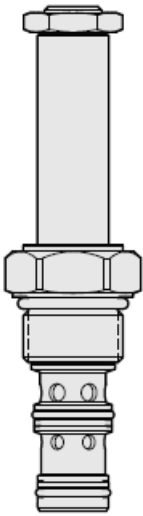




Overview



**Description**

The HSPEC10-34X is a high pressure, proportional solenoid-operated, poppet type, restrictive type, pressure compensated, normally closed flow control, screw-in hydraulic cartridge valve with built-in damping and load holding features.

**Operation**

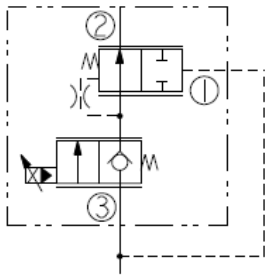
With inlet at port 3 the valve will regulate flow out of port 2 regardless of load pressure with flow rate proportional to current applied to the solenoid. Port 1 must be connected to port 3 to provide load sense function for the compensator. When de-energized, the valve blocks flow from port 3 to port 2 while allowing free flow in opposite direction.

Note: Do not use an orifice disc with this product.

**Features**

- Industry-common cavity.
- Continuous-duty rated coils.
- Reduced manifold space claim.
- Efficient wet-armature construction.
- Optional waterproof E-Coils rated up to IP69K.
- Patented high-strength solenoid tube
- All HyPerformance<sup>®</sup> valves are tested to the rigorous standards of 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	34 lpm (9 gpm)
Maximum internal leakage	7 drops/min - <b>Note:</b> With 350 bar (5075 psi) at port 3
Hysteresis	5.7 lpm (1.50 gpm) - <b>Note:</b> Maximum

**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 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 (0.43 lb)	- <b>Note:</b> HSPEC10-34 without coil and nut
	0.20 kg (0.45 lb)	- <b>Note:</b> HSPEC10-34T without coil and nut
Internal wetted surface area	186.8 cm <sup>2</sup> (28.95 in <sup>2</sup> )	- <b>Note:</b> HSPEC10-34
	191.2 cm <sup>2</sup> (29.64 in <sup>2</sup> )	- <b>Note:</b> HSPEC10-34T

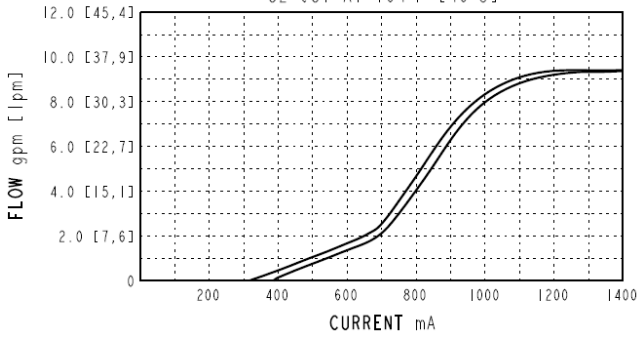
**Electrical Parameters**

Note	With size 10 E-series coil	
Maximum control current	1300 mA	- <b>Note:</b> Coil 12 V
	650 mA	- <b>Note:</b> Coil 24 V
Threshold current	300 to 500 mA	- <b>Note:</b> 12 V coil
	150 to 250 mA	- <b>Note:</b> 24 V coil
Dither PWM frequency	100 to 200 Hz	

**Performance**

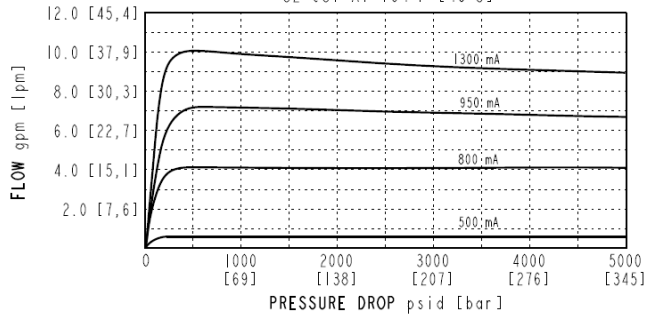
**FLOW VS CURRENT**

5075 psi [350 bar] INLET PRESSURE AT PORT 3  
(METER-OUT MODE)  
12V COIL, 100 Hz PWM  
32 cSt AT 104°F [40°C]



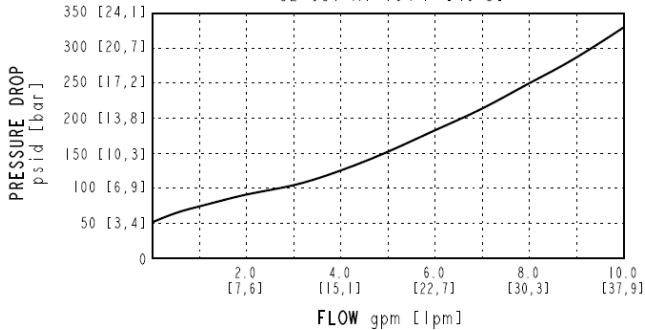
**FLOW VS PRESSURE DROP [P3-P2]**

(METER-OUT MODE)  
12V COIL, 100 Hz PWM  
32 cSt AT 104°F [40°C]



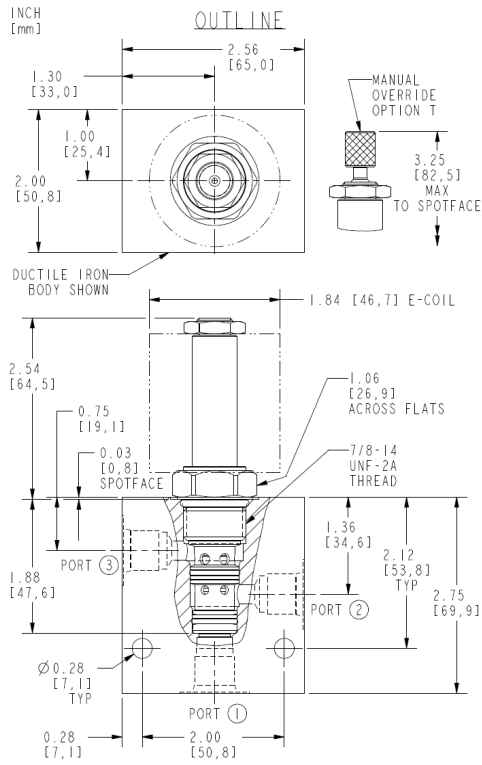
**PRESSURE DROP [P2-P3] VS FLOW**

(DE-ENERGIZED)  
32 cSt AT 104°F [40°C]





## Dimensions



NOTE: ORIFICE DISC SHOULD NOT BE USED WITH THIS PRODUCT  
ALL DIMENSIONS ARE FOR REFERENCE ONLY

## Installation Specifications

Cavity	HVC10-3	
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
Coil nut torque	7 to 10 N-m (5 to 7 ft-lb)	
Orientation restriction	None	

## Accessories

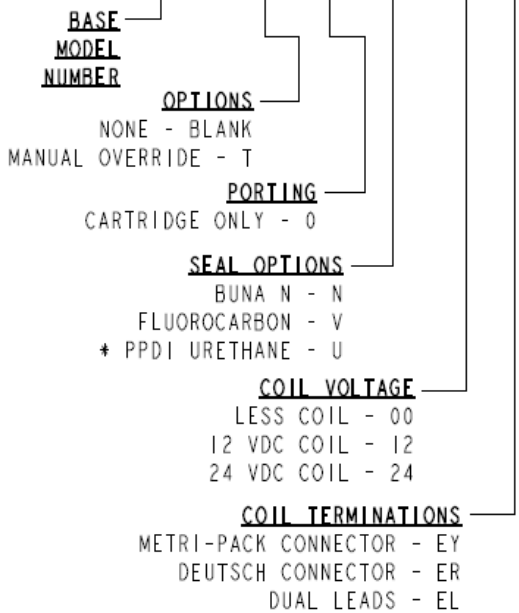
Seal kit	HSK10-3N-TB	- <b>Note:</b> Buna N
	SK10-3V-TB	- <b>Note:</b> Fluorocarbon
	SK10-3U-OO	- <b>Note:</b> Urethane

## Order Code



**ORDERING INFORMATION:**

**HSPEC10-34 X - X - X - XX XX**



\* URETHANE SEALS RECOMMENDED FOR OPERATING PRESSURES ABOVE 3500 psi [241 bar].

**Model Options**

**HSPEC10-34E-H-J-L**

**E Manual Override**

CODE	DESCRIPTION
BLANK	NONE
T	Variable Position 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
0	No Coil
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



CODE	DESCRIPTION
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
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