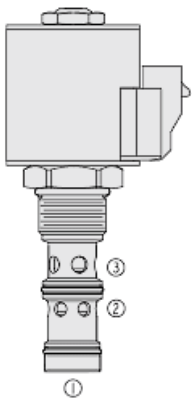




## Overview



### Description

The hspec12-34xx 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.

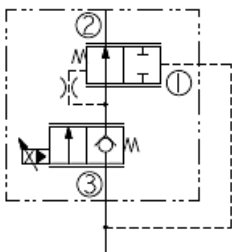
### Operation

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.

### 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) 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	60 lpm (16.0 gpm) 64 lpm (17.0 gpm)	- <b>Note:</b> Standard metering - <b>Note:</b> Linear metering
Maximum internal leakage	8 drops/min	- <b>Note:</b> Port 3 to 2 with at port 3 350 bar (5075 psi)
Hysteresis flow	lpm (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

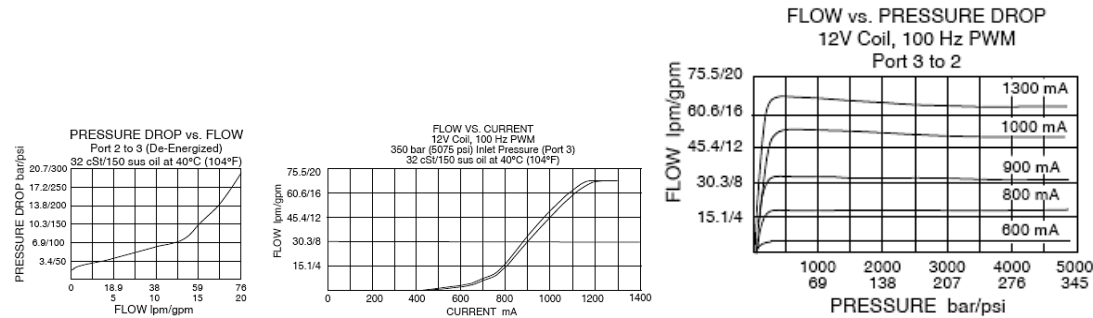
Unit weight	0.32 kg (0.70 lb)	- <b>Note:</b> Without coil and nut HSPEC12-34 HSPEC12-34A
	0.33 kg (0.72 lb)	- <b>Note:</b> HSPEC12-34T hspec12-34at
Internal wetted surface area	313.4 cm <sup>2</sup> (48.57 in <sup>2</sup> )	- <b>Note:</b> HSPEC12-34, HSPEC12-34A
	317.8 cm <sup>2</sup> (49.26 in <sup>2</sup> )	- <b>Note:</b> Hspec12-34t, hspec12-34at



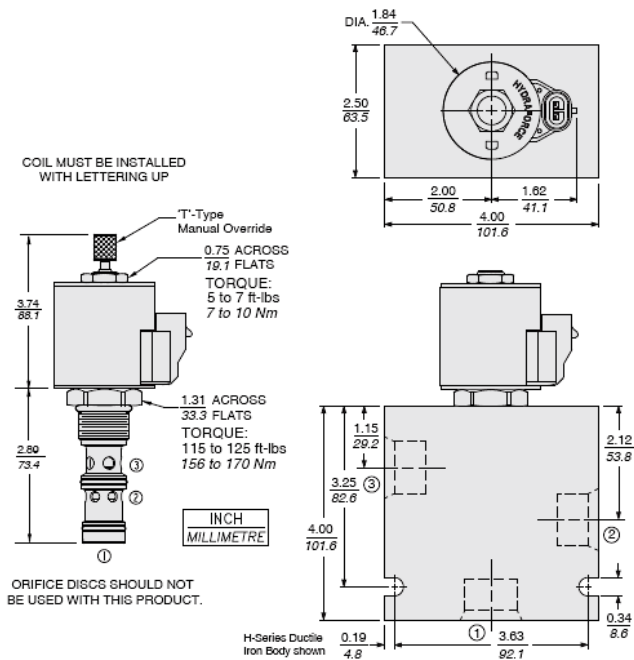
## Electrical Parameters

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	200 to 550 mA	- <b>Note:</b> Coil 12 V
	100 to 275 mA	- <b>Note:</b> Coil 24 V
Dither PWM frequency	100 to 200 Hz	

## Performance



## Dimensions



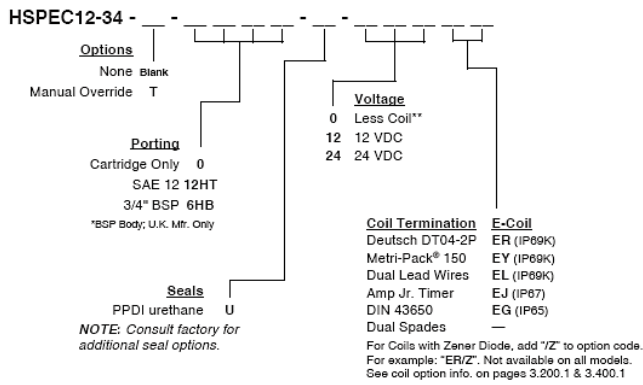
## Installation Specifications

Cavity	HVC12-3	
Cartridge installation torque	156 to 170 N-m (115 to 125 ft-lb)	- <b>Note:</b> Steel/ductile iron cavity
	122 to 136 N-m (90 to 100 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	Hsk12-3n-tb	- <b>Note:</b> Buna N
	SK12-3V-TB	- <b>Note:</b> Fluorocarbon
	SK12-3U-OO	- <b>Note:</b> Urethane

## Order Code



**Model Options**

**HSPEC12-34DE-H-J-L**

**D Poppet Metering**

CODE	DESCRIPTION
A	Linear Poppet Metering
BLANK	Standard Poppet Metering

**E Manual Override**

CODE	DESCRIPTION
BLANK	NONE
T	Variable Position Override, Red Knurled Knob

**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
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
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



CODE	DESCRIPTION
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