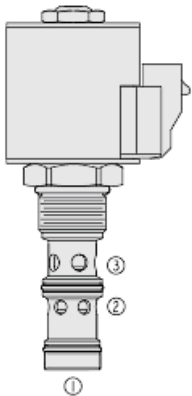




Overview



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

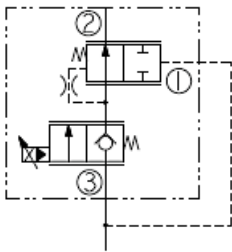
Operation

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[®] 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)	- Note: 10% cycle life
	420 bar (6090 psi)	
Proof pressure	690 bar (10000 psi)	
Burst pressure	1380 bar (20000 psi)	

Flow Ratings

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

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 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

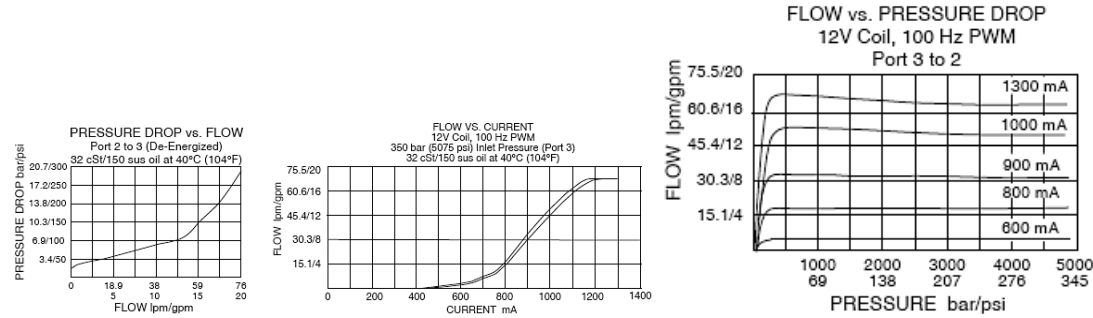
Unit weight	0.32 kg (0.70 lb)	- Note: Without coil and nut HSPEC12-34 HSPEC12-34A
	0.33 kg (0.72 lb)	- Note: HSPEC12-34T hspec12-34at
Internal wetted surface area	313.4 cm ² (48.57 in ²)	- Note: HSPEC12-34, HSPEC12-34A
	317.8 cm ² (49.26 in ²)	- Note: Hspec12-34t, hspec12-34at



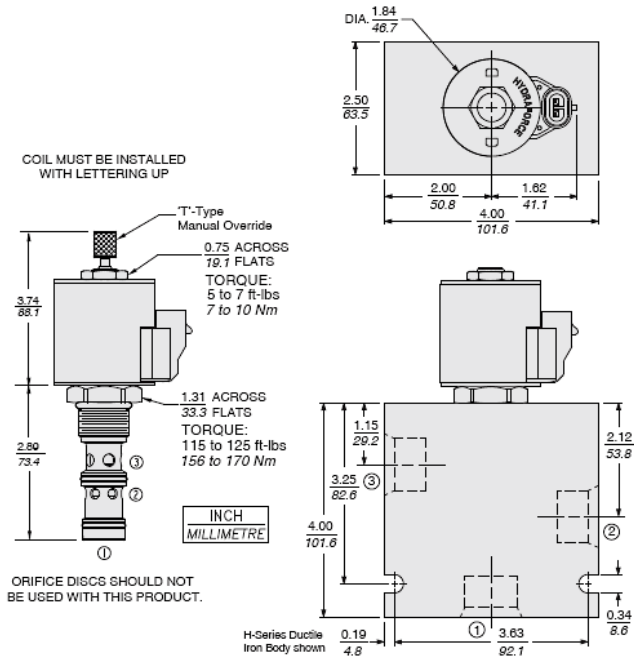
Electrical Parameters

Note	With size 10 e-series coil	
Maximum control current	1300 mA	- Note: Coil 12 V
	650 mA	- Note: Coil 24 V
Threshold current	200 to 550 mA	- Note: Coil 12 V
	100 to 275 mA	- Note: Coil 24 V
Dither PWM frequency	100 to 200 Hz	

Performance



Dimensions



Materials

Materials

Cartridge: Weight: (without coil and nut): 0.32 kg (0.70 lb); With Manual Override: 0.33 kg (0.72 lb) Steel with hardened work surfaces. Zinc-plated exposed surfaces. PPDU urethane seals without back-up rings standard.

E-Coil: Weight: 0.41 kg (0.9 lb); Fully encapsulated with rugged external metal shell. Rated up to IP69K with integral connectors.

Ported Body: Weight: 4.05 kg (8.93 lb) H-series ductile iron standard. Rated to 345 bar (5000 psi).

Installation Specifications

Cavity	Hvc12-3	
Cartridge installation torque	156 to 170 N-m (115 to 125 ft-lb) 122 to 136 N-m (90 to 100 ft-lb)	- Note: Steel/ductile iron cavity - Note: Aluminum cavity
Coil nut torque	7 to 10 N-m (5 to 7 ft-lb)	
Orientation restriction	None	



Accessories

Seal kit	Hsk12-3n-tb	- Note: Buna N
	SK12-3V-TB	- Note: Fluorocarbon
	SK12-3U-OO	- Note: Urethane
Housings		
Coils		



Order Code

POSITION	CODE	DESCRIPTION
		HSPEC12-34DE-H-JL
D		Poppet Metering
D	A	Linear Poppet Metering
D	BLANK	Standard Poppet Metering
E		Manual Override
E	BLANK	NONE
E	T	Variable Position Override, Red Knurled Knob
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	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	12ER	12 VDC, E-Coil, Deutsch
L	12EY	12 VDC, E-Coil, Metri-Pack 150
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	24ER	24 VDC, E-Coil, Deutsch
L	24EY	24 VDC, E-Coil, Metri-Pack 150

HSPEC12-34 -

