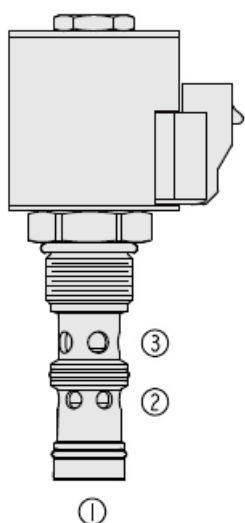
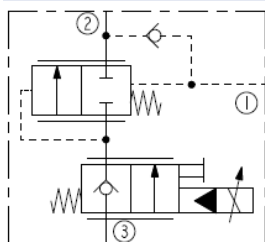




## Overview



### Symbol



### Description

A proportional solenoid-operated, 3-way, normally closed flow control, screw-in hydraulic cartridge valve intended for post-compensated applications with load sense systems. In post-compensated systems the load sense (port 1) of each HSPEC12-32 valve is connected to highest load which maintains flow sharing when flow demand exceeds flow supply. Pressure compensation value of the valve defined as pressure difference between inlet and load sense ports is provided by appropriate setup of a pump load sense control or by additional pressure compensator valve, one for the whole system, in case if the pump is non-adjustable.

### Operation

When de-energized, the HSPEC12-32XX blocks flow from port 3 to port 2. The valve will regulate flow out of port 2 regardless of load pressure with flow rate proportional to current applied to the solenoid.

### Features

- Integral post-compensator.
- Integral load-sense.
- Reduced manifold space claim.
- Continuous-duty rated coils.
- Optional "A" type linear metering poppet.
- Manual override option.
- E-Coils rated up to IP69K.
- Flow sharing possible
- 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%

## 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	56.8 lpm (15.0 gpm) bar (160 psi) 68.1 lpm (18.0 gpm) bar (160 psi)	<b>- Note:</b> HSPEC12-32/32T (at compensation value 11 bar (160 psi)) <b>- Note:</b> HSPEC12-32A/32AT (at compensation value 11 bar (160 psi))
Maximum internal leakage	7 drops/min 3 or 1	<b>- Note:</b> Port 3 to 2 or port 1 to 2 with 350 bar (5075 psi) at port 3 or 1

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F) -26 to 204 °C (-15 to 400 °F) -54 to 107 °C (-65 to 225 °F)	<b>- Note:</b> With buna N seals <b>- Note:</b> With fluorocarbon seals <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

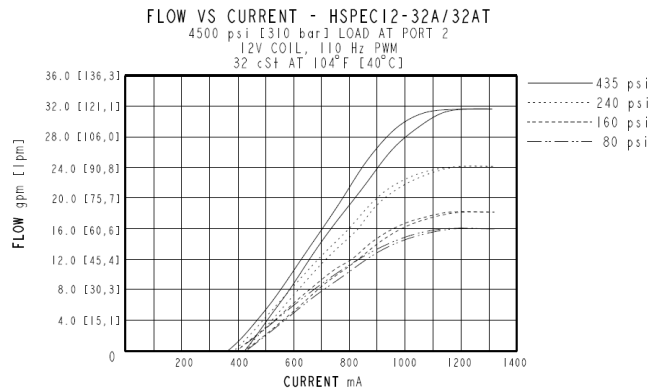
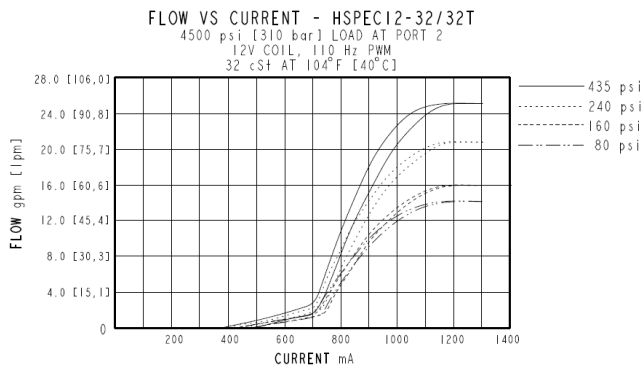
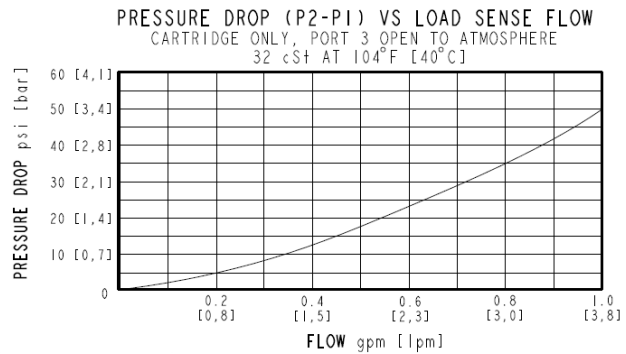
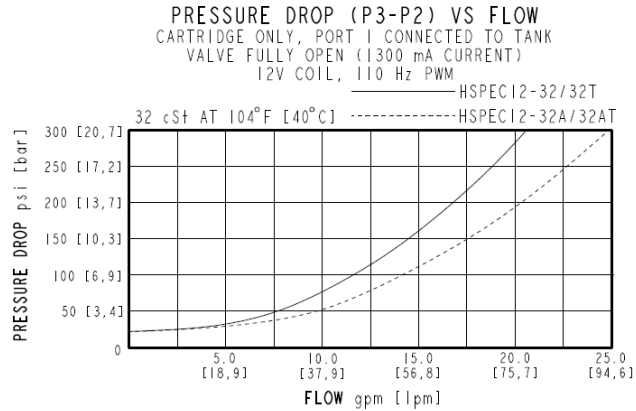
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406



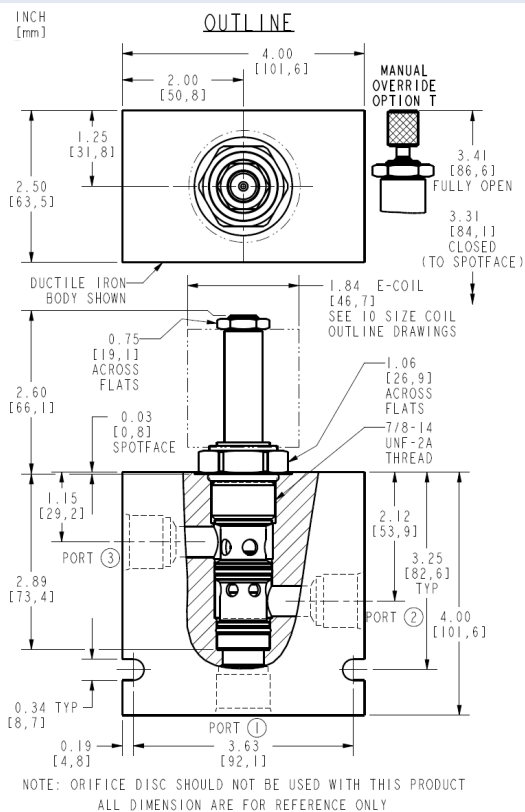
## Properties

Unit weight	0.32 kg (0.70 lb) 0.33 kg (0.72 lb)	- <b>Note:</b> HSPEC12-32X without coil and nut - <b>Note:</b> HSPEC12-32XT without coil and nut
Internal wetted surface area	267.3 cm <sup>2</sup> (41.43 in <sup>2</sup> ) 274.2 cm <sup>2</sup> (42.5 in <sup>2</sup> )	- <b>Note:</b> HSPEC12-32X - <b>Note:</b> HSPEC12-32XT

## Performance



## Dimensions





## 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)	- <b>Note:</b> Steel/ductile iron cavity - <b>Note:</b> Aluminum cavity
Coil nut torque	7 to 10 N-m (5 to 7 ft-lb)	
Orientation restriction	None	

## Accessories

Seal kit	SK12-3N-MM	- <b>Note:</b> Buna N
	SK12-3V-MM	- <b>Note:</b> Fluorocarbon
	SK12-3U-OO	- <b>Note:</b> Urethane

## Order Code

### ORDERING INFORMATION:

HSPEC12-32 X X-X-X-XX XX

#### BASE MODEL NUMBER

#### POPPET OPTION

STANDARD METERING - BLANK  
LINEAR METERING - A

#### OPTION(S)

NONE - BLANK  
MANUAL OVERRIDE - T

#### PORTING

CARTRIDGE ONLY - 0

#### SEALS

BUNA N - N  
FLUOROCARBON - V  
\*PPDI URETHANE - U

#### COIL VOLTAGE

LESS COIL - 00  
12 VDC COIL - 12  
24 VDC COIL - 24

#### COIL TERMINATIONS

METRI-PACK CONNECTOR - EY  
DEUTSCH CONNECTOR - ER  
DUAL LEADS - EL

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

### Model Options

#### HSPEC12-32DE-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
16HT	Ductile Iron SAE 16

##### 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
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