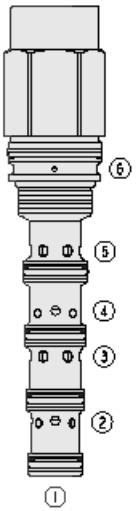




## Overview



### Description

The HPE16-S67H is a high pressure, screw-in, cartridge-style, proportional, spring-centered spool, pilot-operated, hydraulic directional valve

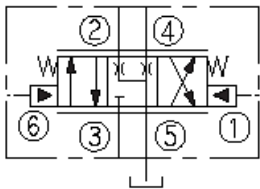
### Operation

In neutral position inlet port 3 is blocked and ports 2, 4 and 5 are communicating with each other. On remote pilot signal at port 1 the spool shifts proportionally to the applied pilot pressure to allow flow from port 3 to 4, thru a load such as a hydraulic cylinder or motor, and from port 2 to 5 and to tank. Port 5 is to be used as tank port only with maximum pressure of 1000 psi [69 bar]. On remote pilot signal at port 6 the spool shifts proportionally to the applied force in the opposite direction, thus reversing the flow direction. The spool is symmetrical and provides meter-in and meter-out control

### Features

- Hardened spool and cage for long life.
- Cost-effective cavity.
- Excellent metering characteristics.
- Good Linearity.
- All HyPerformance<sup>®</sup> products are tested to the rigorous standards of the 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> Ports 2, 3, 4 (work)
	420 bar (6090 psi)	- <b>Note:</b> (10% cycle life)
	35 bar (500 psi)	- <b>Note:</b> Ports 1, 6 (pilot)
	69 bar (1000 psi)	- <b>Note:</b> Port 5 (tank)
Proof pressure	690 bar (10000 psi)	
Burst pressure	1380 bar (20000 psi)	

### Flow Ratings

Flow rating	95 lpm (25 gpm)	
Maximum internal leakage	500 ml/min (30 in <sup>3</sup> /min)	- <b>Note:</b> At 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

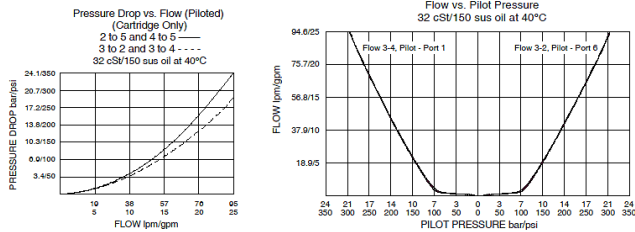
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406



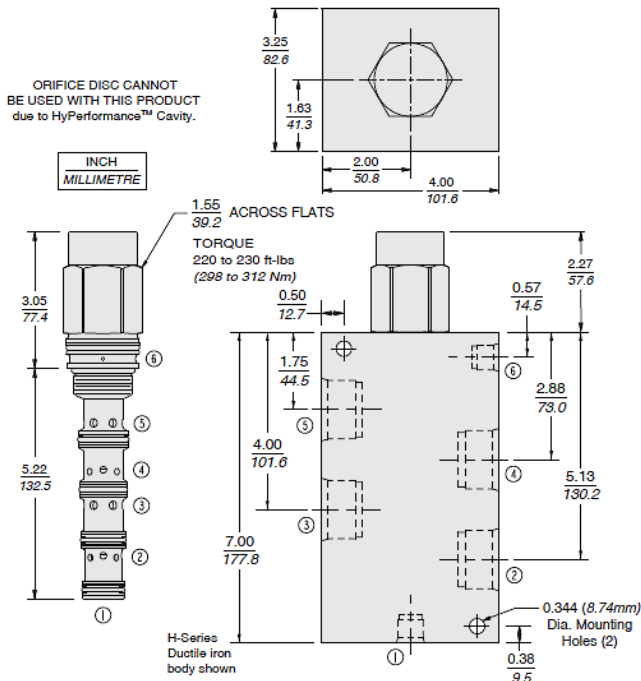
## Properties

Displacement per stroke	1.14 cm <sup>3</sup> (0.069 in <sup>3</sup> )	- <b>Note:</b> per stroke direction
Orifice diameter	0.79 mm (0.030 in)	- <b>Note:</b> Between ports 2 and 4 in neutral position
Unit weight	1.1 kg (2.4 lb)	
Internal wetted surface area	650 cm <sup>2</sup> (100 in <sup>2</sup> )	

## Performance



## Dimensions



## Materials

### Materials

**Cartridge:** Weight: 1.1 kg. (2.4 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Urethane seals without back-ups standard.

**Ported Body:** Weight: 9.13 kg. (20.14 lbs.) H-series ductile iron standard. Rated to 345 bar (5000 psi).

## Installation Specifications

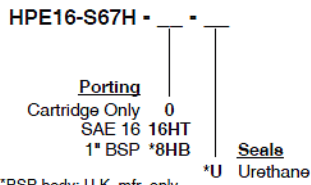
Cavity	Hvc16-s6	
Cartridge installation torque	298 to 311 N-m (220 to 230 ft-lb)	- <b>Note:</b> Steel/ductile iron cavity
	237 to 250 N-m (175 to 185 ft-lb)	- <b>Note:</b> Aluminum cavity
Orientation restriction	None	

## Accessories

Seal kit	Hsk16-s6n-bmmmm	- <b>Note:</b> Buna N
	Hsk16-s6v-bmmmm	- <b>Note:</b> Fluorocarbon
	Hsk16-s6u-ooooo	- <b>Note:</b> Urethane
Housings		



Order Code



\*BSP body; U.K. mfr. only

\*Urethane seals recommended for operating pressures above 241 bar (3500 psi)

NOTE: Consult factory for additional seal options.

POSITION	CODE	DESCRIPTION
		HPE16-S67H-H-J
H		Line Body
H	0	No Body
H	16HT	Ductile Iron SAE 16
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	U	PPDI Urethane