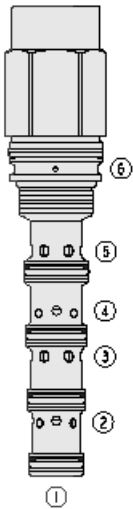




Overview



Description

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

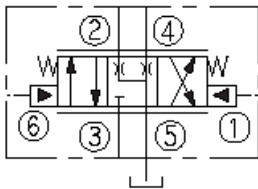
Operation

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[®] 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)	- Note: Ports 2, 3, 4 (work)
	420 bar (6090 psi)	- Note: (10% cycle life)
	35 bar (500 psi)	- Note: Ports 1, 6 (pilot)
	69 bar (1000 psi)	- Note: 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 ³ /min)	- Note: 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)	- 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 90 °C (-40 to 194 °F)	

Operating Parameters

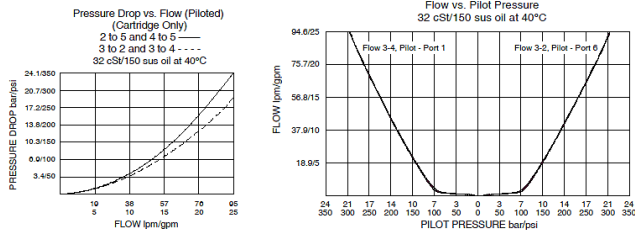
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406



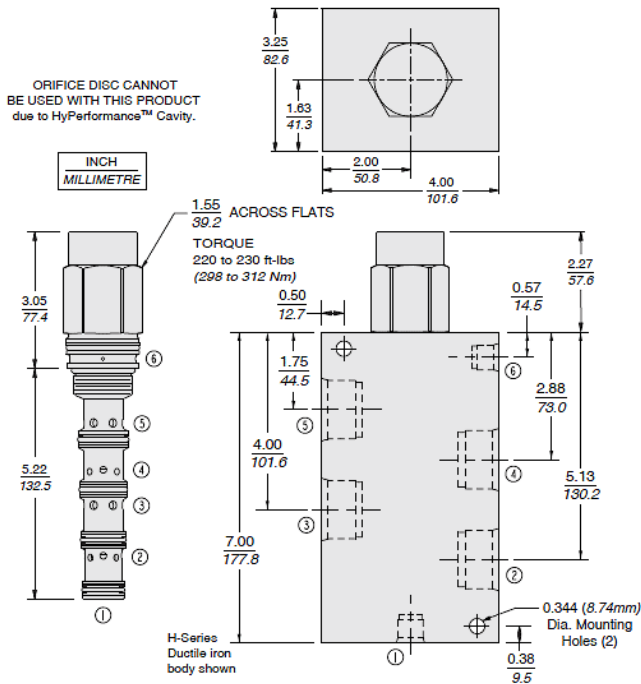
Properties

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

Performance



Dimensions



Installation Specifications

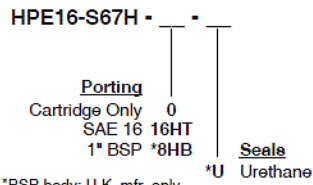
Cavity	HVC16-s6	
Cartridge installation torque	298 to 311 N-m (220 to 230 ft-lb) 237 to 250 N-m (175 to 185 ft-lb)	- Note: Steel/ductile iron cavity - Note: Aluminum cavity
Orientation restriction	None	

Accessories

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



Order Code



*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