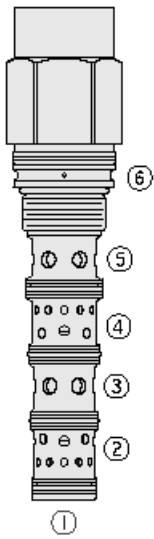




Overview



Description

The HPE42-S67D is a high pressure, screw-in, cartridge-style, proportional, spring-centered spool, pilot-operated, hydraulic directional valve.

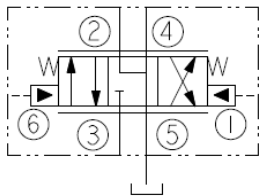
Operation

In neutral position inlet port 3 is blocked and ports 2, 4 and 5 are connected to 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 69 bar (1000 psi). 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	170 lpm (45 gpm)	
Maximum internal leakage	820 ml/min (50 in ³ /min)	- Note: At 350 bar (5075 psi)

Other Ratings

Cycle life	One million cycles
------------	--------------------

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	3.46 cm ³ (0.211 in ³)	- Note: per stroke direction
Unit weight	2.0 kg (4.5 lb)	
Internal wetted surface area	1065 cm ² (165 in ²)	

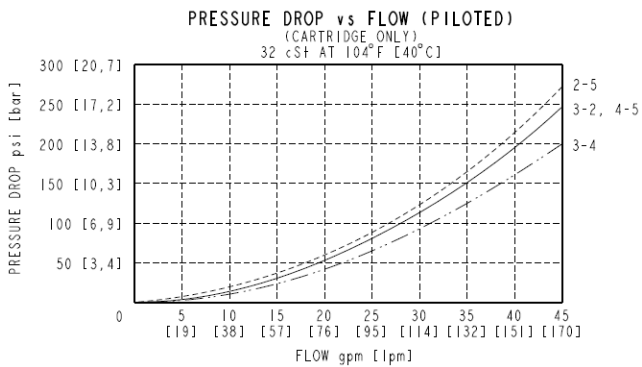
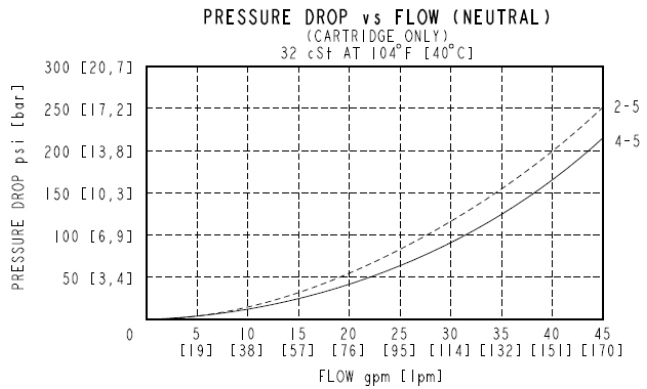
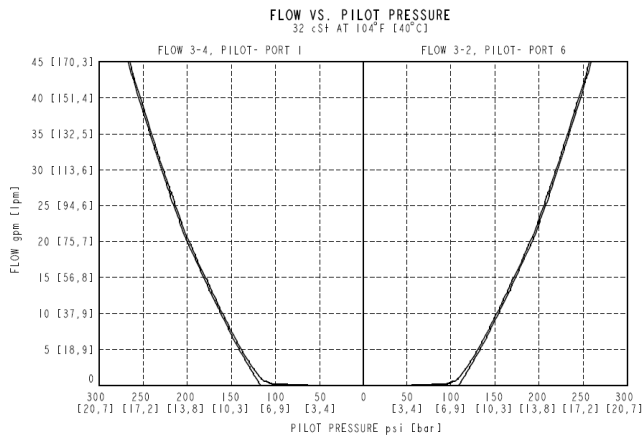
Installation Specifications

Cavity	HVC42-S6A	
Cartridge installation torque	394 to 420 N-m (290 to 310 ft-lb)	- Note: Steel/ductile iron cavity
	298 to 311 N-m (220 to 230 ft-lb)	- Note: Aluminum cavity
Orientation restriction	None	

Accessories

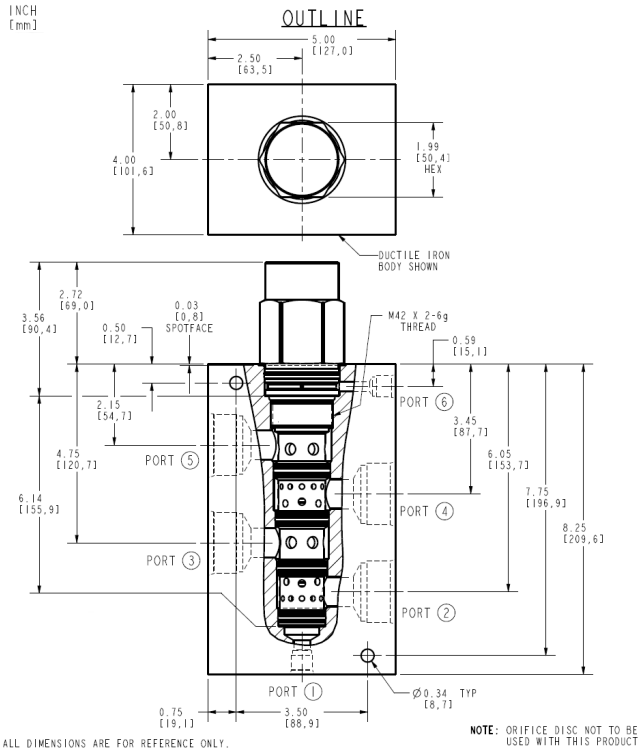
Seal kit	HSK42-S6N-BMMMM	- Note: Buna N
	HSK42-S6V-BMMMM	- Note: Fluorocarbon
	HSK42-S6U-OOOOO	- Note: Urethane
Housings		

Performance





Dimensions



Order Code

ORDERING INFORMATION

HPE42-S67D-X-X

BASE MODEL NUMBER

PORTING

CARTRIDGE ONLY - 0

SEALS

BUNA N - N

FLUOROCARBON - V

* PPDI URETHANE - U

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

POSITION	CODE	DESCRIPTION
		HPE42-S67D-H-J
H		Line Body
H	0	No Body
H	20HT	Ductile Iron SAE 20
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	U	PPDI Urethane