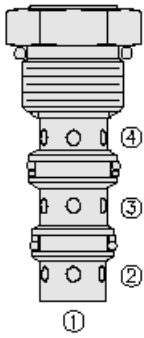




## Overview



### Description

The **HS10-42** is a screw-in, cartridge style, spool type, closed in transition, 2-position, 3-way hot oil shuttle valve for use with general purpose hydraulic fluids. The valve **CAN** be utilized on hydrostatic transmissions to direct charge pump oil to a heat exchanger or to tank.

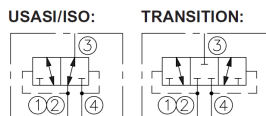
### Operation

With internal piloting at port 1, 2 or 4, the s10-42 will direct oil flow from the port opposite of the port piloted to port 3, thus removing oil from the low-pressure side for cooling or filtration purposes. The valve is springless, relying solely on the internal pilot pressure signal to shift to either side. Flow paths are closed in transition.

### Features

- Hardened parts for long life.
- Industry-common cavity.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating                      207 bar (3000 psi)

### Flow Ratings

Flow rating                              See graph  
Maximum internal leakage            115 ml/min (7 in<sup>3</sup>/min)      - **Note:** AT 207 bar (3000 psi)

### 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 polyurethane and urethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 90 °C (-40 to 194 °F)	

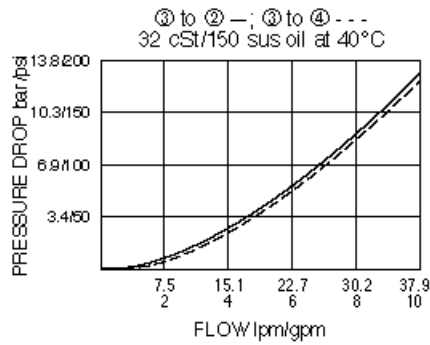
## Operating Parameters

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

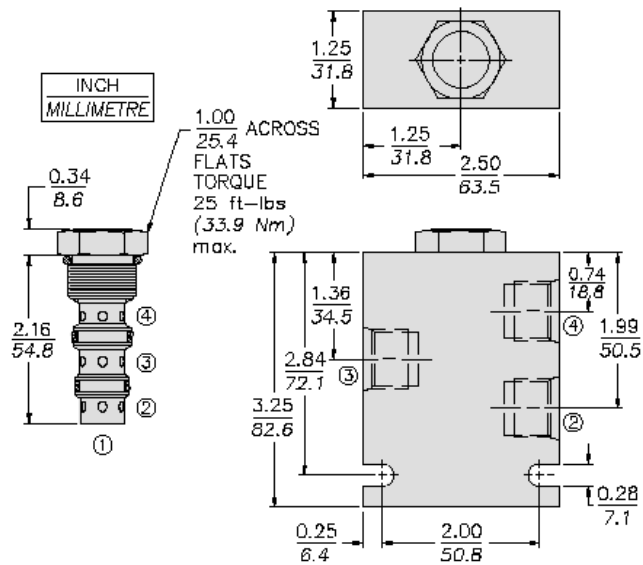
## Properties

Unit weight	0.11 kg (0.25 lb)
Internal wetted surface area	106 cm <sup>2</sup> (16.4 in <sup>2</sup> )

## Performance



## Dimensions



## Installation Specifications

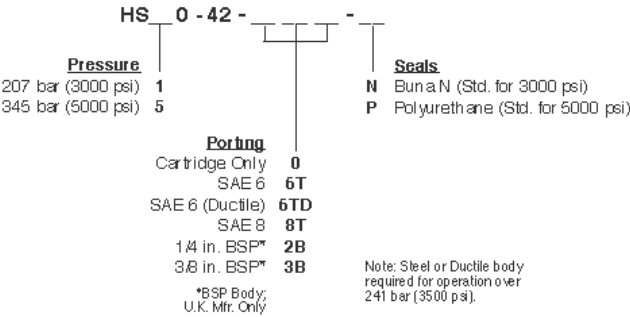
Cavity	VC10-4
Cartridge installation torque	32.5 to 35.3 N-m (24 to 26 ft-lb)
Maximum allowable torque	67.8 N-m (50 ft-lb)
Orientation restriction	None

## Accessories

Seal kit	SK10-4N-MM	- <b>Note:</b> Buna N
	SK10-4V-MM	- <b>Note:</b> Fluorocarbon
	Sp10-4p-mm	- <b>Note:</b> Polyurethane
	SK10-4U-O0	- <b>Note:</b> Urethane



Order Code



Model Options

HS10-42-H-J

H Line Body

CODE	DESCRIPTION
0	No Body
6T	Aluminum SAE 6
8T	Aluminum SAE 8
6TD	Ductile Iron SAE 6

J Seal

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane
U	PPDI Urethane