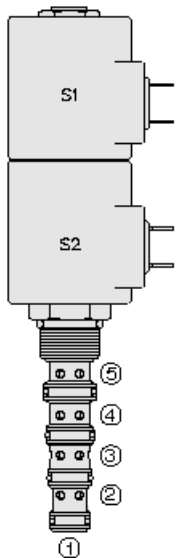




## Overview



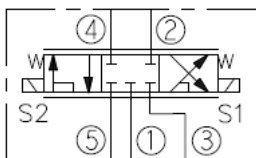
### Description

This valve is a direct - acting 3 position, 5 port proportional directional control. With port 1 as a load sense port it is a screw in cartridge type for use with general purpose hydraulic fluids

### Features

- Fast response time.
- Integral load sensing.
- Hardened precision spool and cage for long life.
- Optional coil voltages and terminations
- Cartridges are voltage interchangeable.
- Optional waterproof E-Coils rated up to IP69K.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	250 bar (3625 psi)
Proof pressure	345 bar (5000 psi)
Burst pressure	779 bar (11300 psi)

### Flow Ratings

Flow rating	22.7 lpm (6.0 gpm)
Maximum internal leakage	1016 ml/min (62 in <sup>3</sup> /min) - <b>Note:</b> 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 seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

### Other Ratings

Corrosion protection	960 hr salt spray per ASTM b117
Response	41 ms - <b>Note:</b> S1 nominal, pull-in
	6 ms - <b>Note:</b> S1 nominal, drop-out
	30 ms - <b>Note:</b> S2 nominal, pull-in
	4 ms - <b>Note:</b> S2 nominal, drop-out

## Operating Parameters

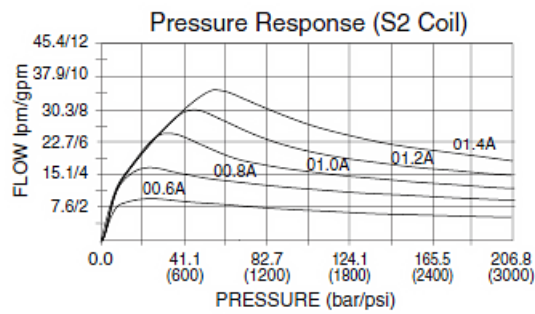
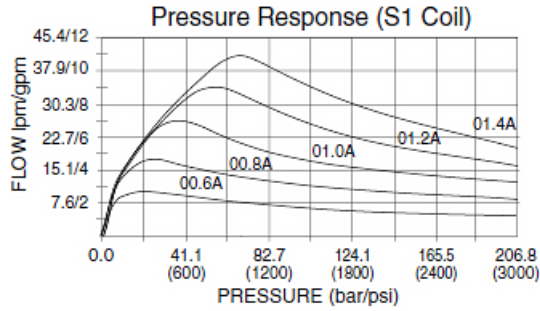
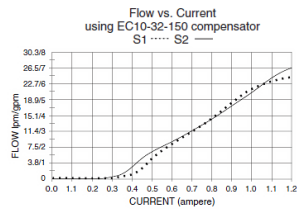
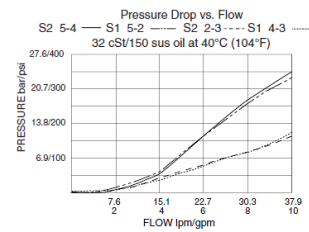
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406



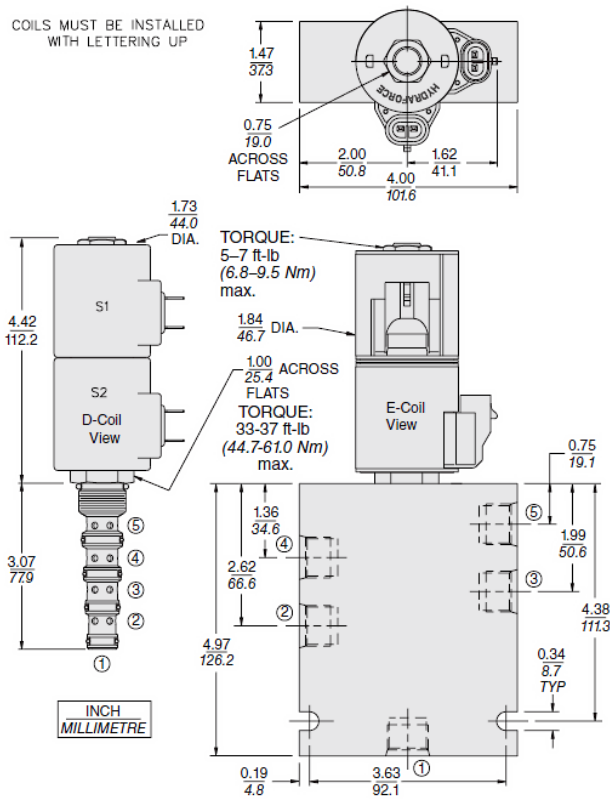
Properties

Unit weight	0.29 kg (0.64 lb)
Internal wetted surface area	268 cm <sup>2</sup> (41.5 in <sup>2</sup> )

Performance



Dimensions





## Materials

### Materials

**Cartridge:** Weight: 0.29 kg (0.64 lb); Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N O-rings and back-ups standard.

**Standard Ported Body:** Weight: 1.16 kg (2.56 lb); Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi); Ductile iron bodies available; dimensions may differ.

**10-Size Standard D-Coil:** Weight each: 0.27 kg (0.60 lb); Unitized thermoplastic encapsulated, Class H high temperature magnet wire.

**10-Size E-Coil:** Weight: 0.41 kg (0.9 lb); Perfect wound, fully encapsulated with rugged external metal shell; Rated up to IP69K with integral connectors.

## Installation Specifications

Cavity	VC10-5
Cartridge installation torque	44.7 to 50.2 N-m (33 to 37 ft-lb) 61.0 N-m (45 ft-lb) - <b>Note:</b> Maximum
Coil nut torque	6.8 to 9.5 N-m (5 to 7 ft-lb)
Orientation restriction	None

## Accessories

Seal kit	SK10-5X-MMMM	- <b>Note:</b> X = seal option
Housings		
Coils		

## Order Code

POSITION	CODE	DESCRIPTION
		SP10-57F-H-J-L
H		Line Body
H	0	No Body
H	6T	Aluminum SAE 6
H	8T	Aluminum SAE 8
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane
J	U	PPDI Urethane
L		Coil
L	0	No Coil, D-Coil Spacer
L	0E	No Coil, E-Coil Spacer
L	10DG	10 VDC, D-Coil, DIN 43650
L	10DL	10 VDC, D-Coil, Dual Lead Wires
L	10DS	10 VDC, D-Coil, Dual Spade
L	10EL	10 VDC, E-Coil, Dual Lead Wires
L	10ER	10 VDC, E-Coil, Deutsch
L	12DG	12 VDC, D-Coil, DIN 43650
L	12DL	12 VDC, D-Coil, Dual Lead Wires, 18 inches long
L	12DL/36	12 VDC, D-Coil, Dual Lead Wires, 36 inches long
L	12DL/W	12 VDC, D-Coil, Dual Lead Wires with Weatherpak
L	12DR	12 VDC, D-Coil, Deutsch
L	12DS	12 VDC, D-Coil, Dual Spade



POSITION	CODE	DESCRIPTION
L	12EG	12 VDC, E-Coil, DIN 43650
L	12EJ	12 VDC, E-Coil, AMP Jr.
L	12EL	12 VDC, E-Coil, Dual Lead Wires, 18 inches long
L	12EL/36	12 VDC, E-Coil, Dual Lead Wires, 36 inches long
L	12ER	12 VDC, E-Coil, Deutsch
L	12EY	12 VDC, E-Coil, Metri-Pack 150
L	20DS	20 VDC, D-Coil, Dual Spade
L	20ER	20 VDC, E-Coil, Deutsch
L	24AG	24 VDC, D-Coil, DIN 43650
L	24AP	24 VDC, D-Coil, 1/2" Conduit and Dual Lead Wires
L	24DG	24 VDC, D-Coil, DIN 43650
L	24DL	24 VDC, D-Coil, Dual Lead Wires
L	24DL/W	24 VDC, D-Coil, Dual Lead Wires with Weatherpak
L	24DP	24 VDC, D-Coil, 1/2" Conduit and Dual Lead Wires
L	24DR	24 VDC, D-Coil, Deutsch
L	24DS	24 VDC, D-Coil, Dual Spade
L	24EG	24 VDC, E-Coil, DIN 43650
L	24EJ	24 VDC, E-Coil, AMP Jr.
L	24EL	24 VDC, E-Coil, Dual Lead Wires, 18 inches long
L	24EL/36	24 VDC, E-Coil, Dual Lead Wires, 36 inches long
L	24ER	24 VDC, E-Coil, Deutsch
L	24EY	24 VDC, E-Coil, Metri-Pack 150
L	36DS	36 VDC, D-Coil, Dual Spade

SP10-57F -

