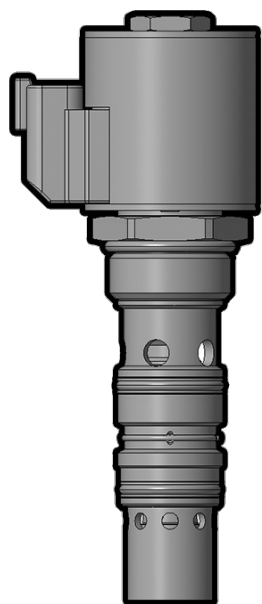




## Overview



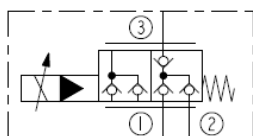
### Description

This SPCL16-30 Valve is a solenoid-operated, 3 port, normally closed, poppet-type, proportional, screw-in hydraulic cartridge valve, designed for low leakage, blocking and load-holding applications. When energized, the poppet lifts to allow flow from port 3 to ports 1 and 2, flow at port 2 is typical for load sensing applications and includes a check valve for isolation.

### Features

- Industry-common cavity.
- Continuous-duty rated coils.
- Efficient wet-armature construction.
- Optional waterproof E-Coils rated up to IP69K.
- Reduce manifold space claim.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	2.4 to 250 bar (35 to 3625 psi)
Proof pressure	345 bar (5000 psi)
Burst pressure	779 bar (11300 psi)

### Flow Ratings

Flow rating	- <b>Note:</b> See performance graphs	
Maximum internal leakage	5 drops/min	- <b>Note:</b> For ports 1 and 3, at 250 bar (3625 psi)
	15 drops/min	- <b>Note:</b> For port 2, at 250 bar (3625 psi)
Hysteresis percent	10 %	- <b>Note:</b> Of max flow (at max control current)

### 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 Viton 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)	

## 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



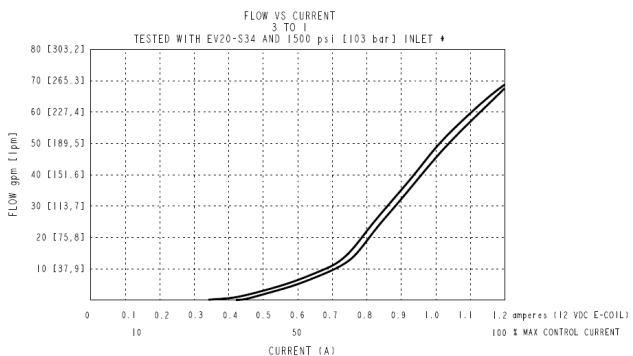
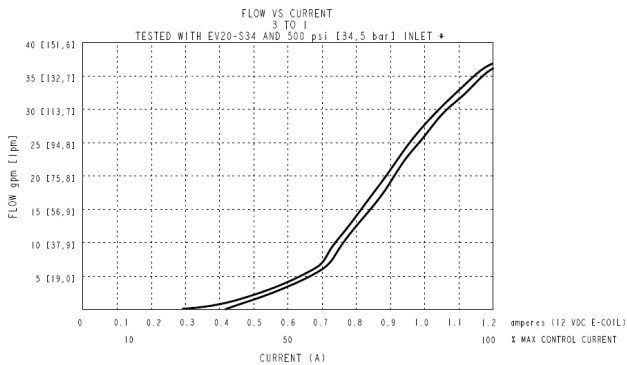
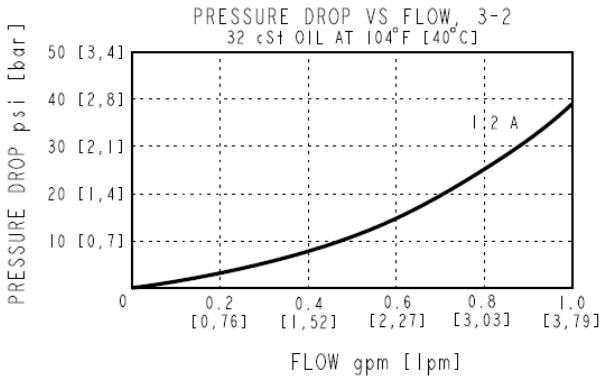
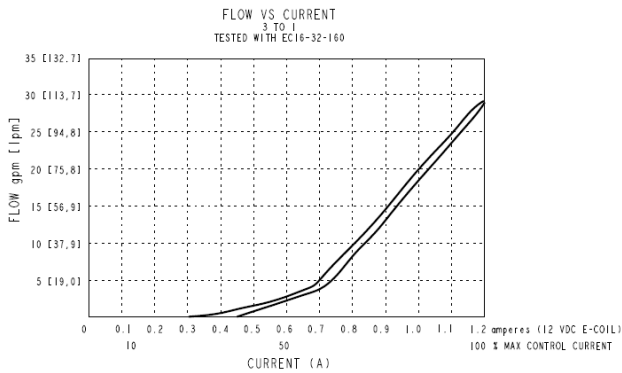
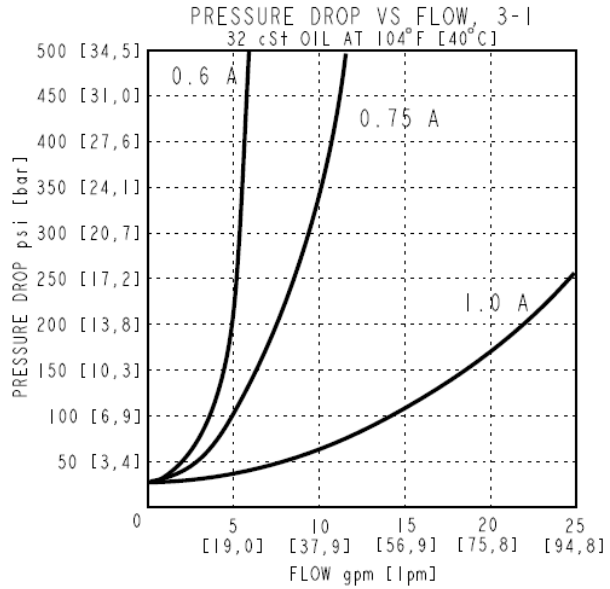
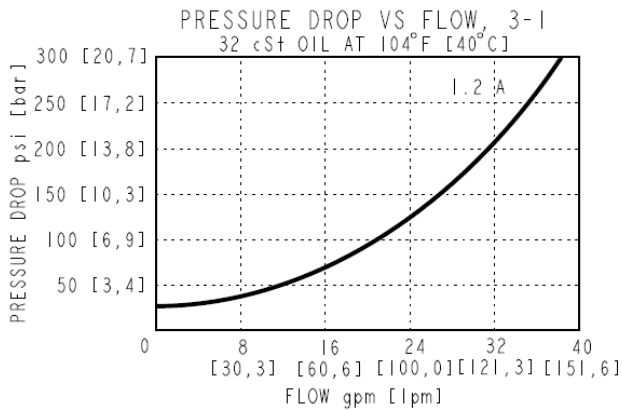
## Properties

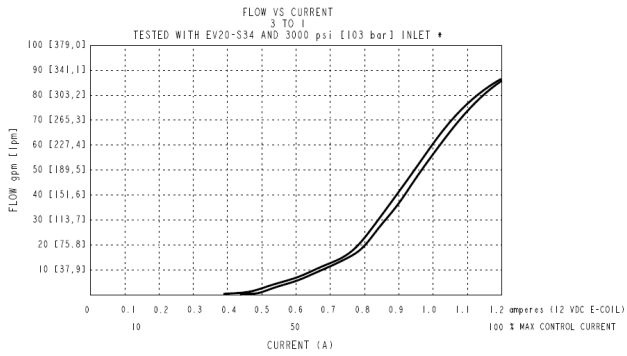
Unit weight	0.49 kg (1.09 lb)
Internal wetted surface area	356 cm <sup>2</sup> (55.2 in <sup>2</sup> )

## Electrical Parameters

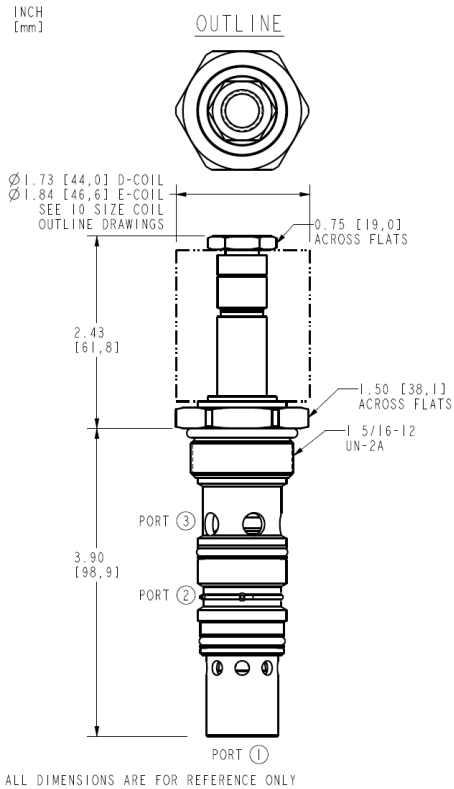
Valve inductance	173.3 mH	- Note: At 1.2 mA
Maximum control current	1.2 mA	
Threshold current	0.40 to 0.60 mA	
Dither PWM frequency	100 Hz	- Note: Recommended

## Performance





## Dimensions



## Installation Specifications

Cavity	VC16-3SPCL
Cartridge installation torque	129 to 142 N-m (95 to 105 ft-lb)
Coil nut torque	6.8 to 9.5 N-m (5 to 7 ft-lb)
Orientation restriction	None

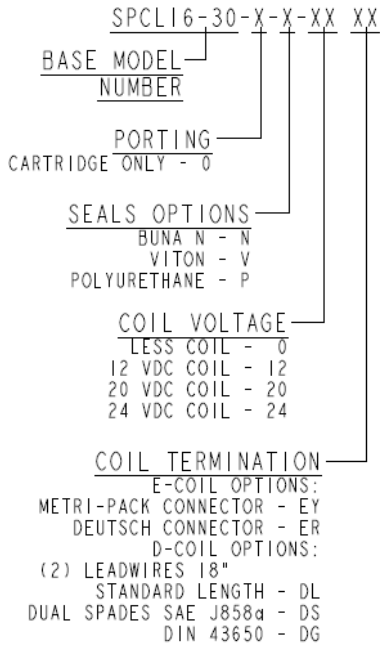
## Accessories

Seal kit	SK16-3X-MM	- <b>Note:</b> X = seal option
Housings		
Coils		

## Order Code



ORDERING INFORMATION



(CONSULT FACTORY OR CATALOG FOR OTHER AVAILABLE OPTIONS)

POSITION	CODE	DESCRIPTION
		SPCL16-30E-H-J-L
E		Manual Override
E	BLANK	NONE
E	M	Two Position Override, Red Knurled Knob
H		Line Body
H	0	No Body
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane
J	U	PPDI Urethane
L		Coil
L	0	No Coil
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
L	12EG	12 VDC, E-Coil, DIN 43650



POSITION	CODE	DESCRIPTION
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