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# **35SD10-47B** TYPE Solenoid Directional Valve

Rated pressure (bar / psi) 240 / 3500 Peak flow (L/min / gpm) 22.7 / 6

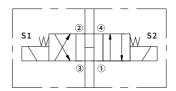
## **Features**

- · Continuous-duty rated coil
- · Cartridges are voltage interchangeable
- · Optional waterproof E-Coils rated up to IP69K
- · Efficient wet-armature construction
- · Industry common cavity
- · Hardened parts for long life

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# Symbol



## Description

A solenoid-operated, 4-way, 3-position, direct-acting, spool-type, open center, screwin hydraulic cartridge valve.

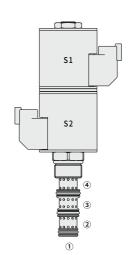
## Operation

When coil #1(S1) is energized, flow is allowed from  $\ \ \,$  3 to  $\ \ \,$  4 , and from  $\ \ \,$  2 to  $\ \ \,$  0 .

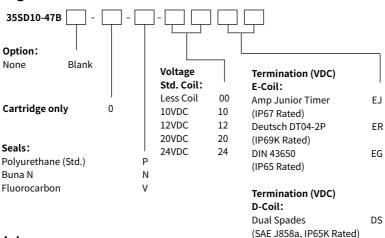
When coil #2(S2) is energized, flow is allowed from  $\ 3$  to  $\ 2$  , and from  $\ 4$  to  $\ 1$  .

In circuits where work port flows are unequal due to cylinder ratios, the higher return flow should be directed to port ②.

While ① may be fully pressurized, it is not intended for use as the valve's inlet.



## **Ordering Code**



### **Materials**

#### Cartridge:

Weight: 0.30 kg; Steel with hardened work surfaces. Zinc-plated exposed surfaces; Polyurethane (Std.) seal.

#### Standard Ported Body:

Anodized high-strength aluminum alloy, rated to 240 bar; Ductile iron and steel bodies available; Dimensions may differ, consult factory.

Standard Coil: Consult factory.

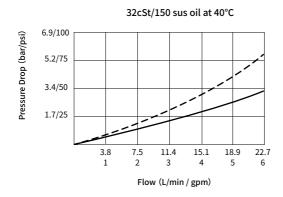
#### E-Coil:

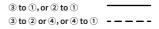
Weight: 0.41 kg; Perfect wound, fully encapsulated with rugged external metal shell; Rated up to IP69K with Deutsch sockets.

# **Technical Data**

Rated pressure		240 bar (3500 psi)	
Peak flow		22.7 L/min (6 gpm)	
Internal leakage		≤ 328 mL/min@240 bar	
Coil duty rating		Continuous from 85% to 115% of nominal voltage	
Initial coil current draw at 20°C	E-Coil	1.7 A at 12VDC; 0.85 A at 24VDC	
	D-Coil	1.67 A at 12VDC; 0.83 A at 24VDC	
Minimum pull-in voltage		85% of nominal at 240 bar	
Cavity		VC10-4 (See technical reference)	
Fluid		Mineral-based or synthetics with lubricating properties	
Viscosity range		7.4 to 420 mm <sup>2</sup> /s	
Temperature range		-54 to 107 °C (Polyurethane seals)	
		-40 to 100 °C (Buna N seals)	
		-26 to 204 °C (Fluorocarbon seals)	
Degree of fluid contamination		The minimum pollution level is ISO4406 level 18/16/13, and level 15/13/11 is recommended to prolong the service life	

## Performance (Cartridge Only)





# **Dimensions**

(Dimensions in mm)

