



2.28

30SD10-31 TYPE

Solenoid Directional Valve

Rated pressure (bar / psi)	207 / 3000
Peak flow (L/min / gpm)	22.7 / 6

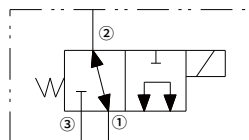
Features

- Continuous-duty rated coil
- Efficient wet-armature construction
- Cartridges are voltage interchangeable
- Optional waterproof E-Coils rated up to IP69K
- All ports may be fully pressurized
- Industry common cavity
- Hardened parts for long life and low leakage

Contents

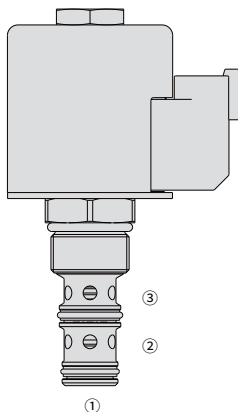
Description	02
Operation	02
Ordering code	02
Materials	02
Technical data	03
Performance	03
Dimensions	04

Symbol



Description

A solenoid-operated, 3-way, direct-acting, spool-type, screw-in hydraulic cartridge valve.

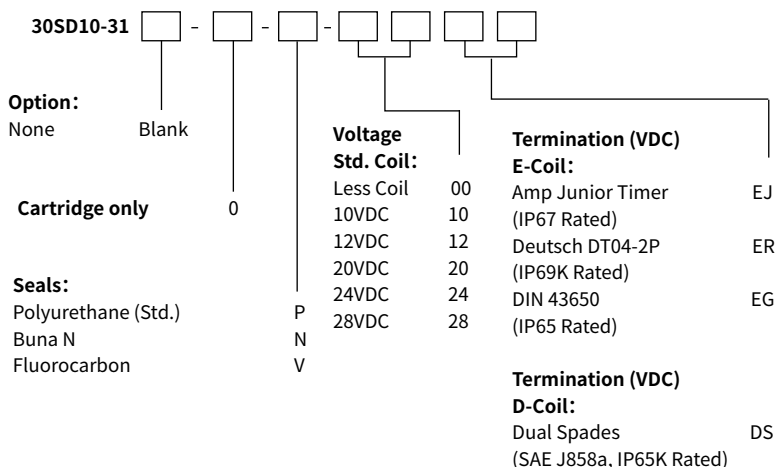


Operation

When de-energized, the valve allows flow from ② to ① , while blocking flow at ③ .

When energized, the valve shifts to open from ① to ③ , while blocking at ② .

Ordering Code



Materials

Cartridge:

Weight: 0.14 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.

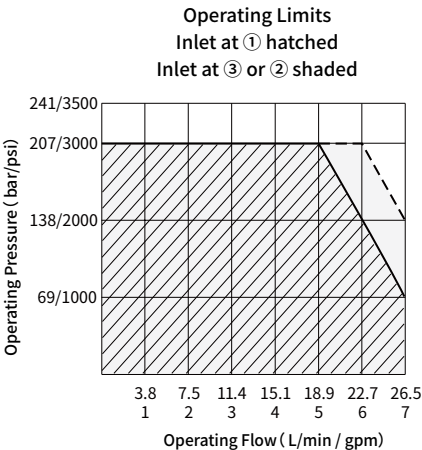
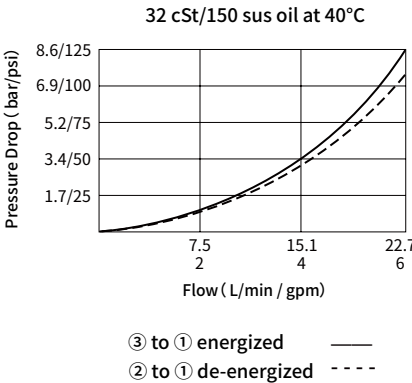
E-Coil:

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

Technical Data

Rated pressure		207 bar (3000 psi)
Peak flow		22.7 L/min (6 gpm)
Internal leakage		≤ 164 mL/min @ 207 bar
Coil duty rating		Continuous from 85% to 115% of nominal voltage
Response time		First indication of change of state with 100% voltage supplied at 80% of nominal flow rating: Energized: 60 msec. ; De-energized: 10 msec.
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 207 bar
Cavity		VC10-3 (See technical reference)
Fluid		Mineral-based or synthetics with lubricating properties
Viscosity range		7.4 to 420 mm ² /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 20/18/14, and level 17/15/13 is recommended to prolong the service life

Performance (Cartridge Only)



Dimensions

