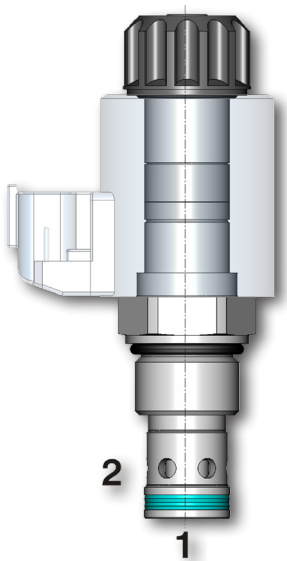


2/2 Directional Valve, Solenoid Operated, Poppet Type, Piloted

SD3E-C2*S5(S6) 1-1/16-12 UN • Q_{max} 150 l/min (40 GPM) • p_{max} 350 bar (5100 PSI)



Technical Features

- › Hardened precision parts
- › High flow capacity and high tightness of poppet in the seat
- › High transmitted hydraulic power, max. pressure 350 bar
- › Normally open and normally closed version
- › Wide range of manual overrides available
- › All ports may be fully pressurized
- › Coil interchangeability among SD*- C/H* product line
- › In the standard version, the valve is zinc-coated (520 h corrosion protection in NSS acc. to ISO 9227)

Functional Description

2-way, 2-position pilot operated poppet valve in form of a screw-in cartridge. The valve is used mainly for on-off bi-directional control of flow to actuators with leak-free closing in both directions.

| Model Code | 2S5 | 2S6 |
|------------|-----|-----|
| Symbol | | |

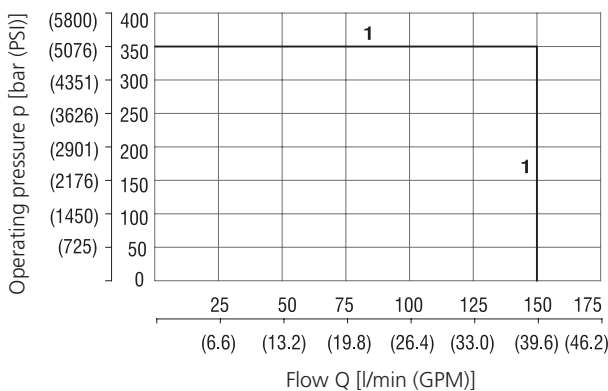
Technical Data

| Valve size / Cartridge cavity | | 1-1/16-12 UN / C2 (VC12-2) | |
|---|----------------------|----------------------------|-----------------------------------|
| | | High performance | |
| Max. flow | l/min (GPM) | 150 (39.6) | |
| Max. operating pressure | bar (PSI) | 350 (5080) | |
| Fluid temperature range (NBR) | °C (°F) | -30...80 (-22...176) | |
| Fluid temperature range (FPM) | °C (°F) | -20...80 (-4...176) | |
| Ambient temperature range | °C (°F) | -30...80 (-22...176) | |
| Max. inner leakage of closed valve at kinematic viscosity 32 mm ² /s | cm ³ /min | 0.7 | |
| Supply voltage tolerance | % | AC, DC: ± 15 | |
| Max. switching frequency | 1/h | 7 000 | |
| Weight without coil | kg (lbs) | 0.40 (0.88) | |
| | | Datasheet | Type |
| General information | | GI_0060 | Products and operating conditions |
| Coil types | | C_8007 | C22B* |
| Valve bodies | In-line mounted | SB_0018 | SB-C2* |
| | Sandwich mounted | SB-04(06,10)_0028 | on request |
| Cavity details / Form tools | SMT_0019 | SMT-C2* | |
| Spare parts | SP_8010 | | |

Characteristics measured at $v = 32 \text{ mm}^2/\text{s}$ (156 SUS)

Operating limits - High performance

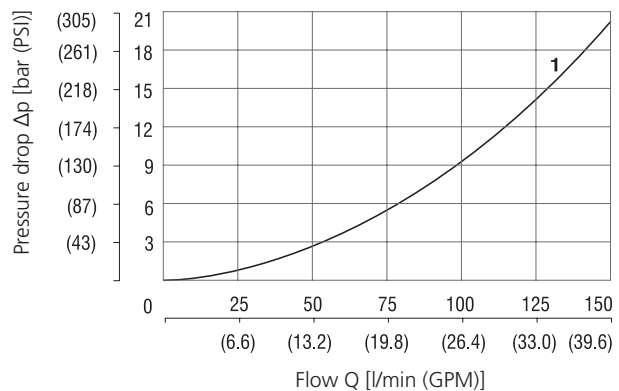
Oil 80 °C (176 °F) / Ambient temperature
50 °C (122 °F) / Voltage U_n -10% (21.6 V DC)



| | Model | Connection |
|---|-------|------------|
| 1 | 2S5 | 1→2, 2→1 |
| 1 | 2S6 | 1→2, 2→1 |

Pressure drop related to flow rate

- High performance

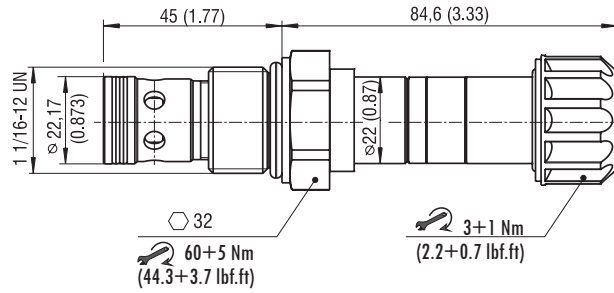


| | Model | Connection | Solenoid |
|---|-------|------------|----------|
| 1 | 2S5 | 1→2, 2→1 | on |
| 1 | 2S6 | 1→2, 2→1 | off |

For operating limits under conditions other than shown contact the technical support.

Dimensions in millimeters (inches)

High performance



Manual Override in millimeters (inches)

| No designation - for 2S6 - standard | Designation M2 for 2S6 - rubber boot protected | Designation M5 - for 2S6 - socket head screw, hex. 2.5 | Designation M9 - for 2S6 - without manual override |
|--|---|---|---|
| 84,6 (3.33) | 99,2 (3.91) | 86,8 (3.42) | 84,7 (3.33) |
| | | Designation M5 - for 2S5 - socket head screw, hex. 2.5 | Designation M9 - for 2S5 - without manual override |
| | | 95,6 (3.76) | 84,6 (3.33) |

In case of solenoid malfunction or power failure, the spool of the valve can be shifted by manual override as long as the pressure in port 1 does not exceed 25 bar (363 PSI). For alternative manual overrides contact our technical support.

Ordering Code

SD3E - C2 / H **- B**

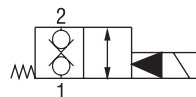
2/2 directional valve, solenoid operated, poppet type, piloted

Valve cavity
1-1/16-12 UN (VC12-2)

Model
High performance

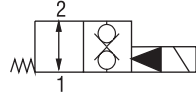
Functional symbol

normally closed (NC), blocking



2S5

normally open (NO), blocking



2S6

Surface treatment
zinc-coated (ZnNi), ISO 9227 (520 h)

No designation
V

Seals
NBR
FPM (Viton)

No designation
M2
M5
M9

Manual override
standard for 2S6
rubber boot protected for 2S6
socket head screw (hex. 2.5)
without manual override