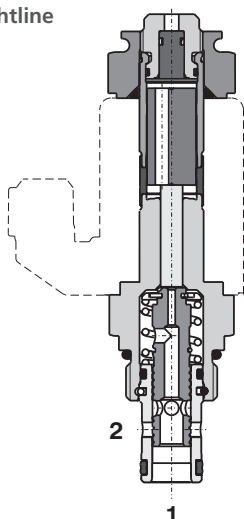


2/2 Directional Valve, Solenoid Operated, Spool Type, Direct Acting

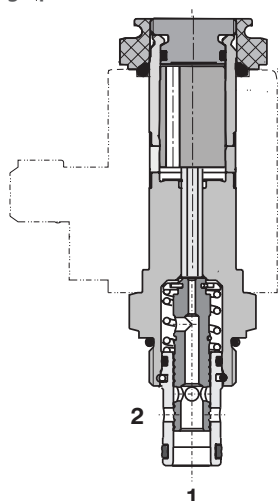
SD2E-A2

3/4-16 UNF • Q_{max} 30 l/min (8 GPM) • p_{max} 350 bar (5100 PSI)

Lightline



High performance



Technical Features

- › Hardened precision parts
- › High flow capacity
- › High transmitted hydraulic power
- › Wide range of manual overrides available
- › All ports may be fully pressurized
- › Variety of optional spools available
- › Coil interchangeability among SD*-A* product line
- › Standard version zinc-coated with surface protection acc. to ISO 9227 (240 h salt spray)

Functional Description

2-way, 2-position high pressure, bi-directional spool valve in the form of a screw-in cartridge. The valve is used mainly to direct flow to actuators.

| | | |
|------------|------|------|
| Model Code | 2111 | 2112 |
| Symbol | | |

Technical Data

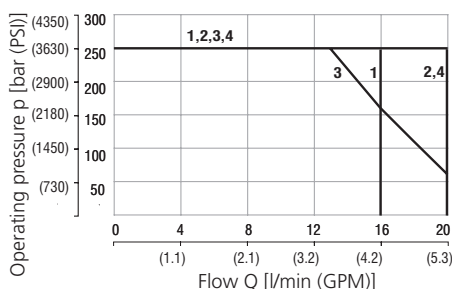
| Valve size / Cartridge cavity | | 3/4-16 UNF-2A / A2 (C-8-2) | |
|-------------------------------|-------------|----------------------------|----------------------|
| | | Lightline | High performance |
| Max. flow | l/min (GPM) | 20 (5.3) | 30 (7.9) |
| Max. operating pressure | bar (PSI) | 250 (3630) | 350 (5080) |
| Fluid temperature range (NBR) | °C (°F) | -30...60 (-22...140) | -30...80 (-22...176) |
| Fluid temperature range (FPM) | °C (°F) | -20...60 (-4...140) | -20...80 (-4...176) |
| Ambient temperature range | °C (°F) | -30...50 (-22...122) | -30...80 (-22...176) |
| Supply voltage tolerance | % | DC ± 10 | AC, DC: ± 15 |
| Max. switching frequency | 1/h | 15 000 | |
| Weight without coil | kg (lbs) | 0.14 (0.31) | 0.20 (0.44) |

| | | Datasheet | Type |
|-----------------------------|------------------|----------------|-----------------------------------|
| General information | | GI_0060 | Products and operating conditions |
| Coil types | | C_8007 | C14B* C19B* |
| Valve bodies | In-line mounted | SB_0018 | SB-A2* |
| | Sandwich mounted | SB-04(06)_0028 | SB-*A2* |
| Cavity details / Form tools | | SMT_0019 | SMT-A2* |
| Spare parts | | SP_8010 | |

Characteristics measured at v = 32 mm²/s (156 SUS)

Operating limits - Lightline

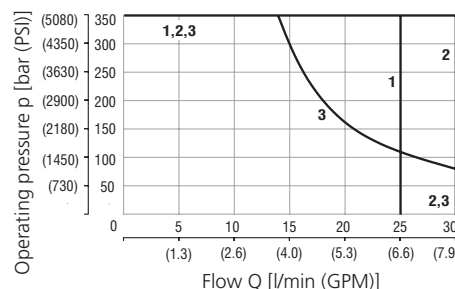
Oil 60 °C (140 °F) / Ambient temperature
50 °C (122 °F) / Voltage U_n -10% (21.6 V DC)



| | Model | Connection |
|---|-------|------------|
| 1 | 2112 | 2→1 |
| 2 | 2112 | 1→2 |
| 3 | 2111 | 1→2 |
| 4 | 2111 | 2→1 |

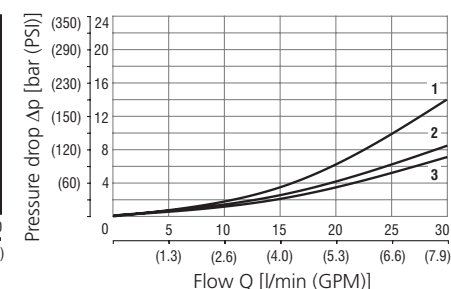
Operating limits - High performance

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



| | Model | Connection |
|---|-------|------------|
| 1 | 2112 | 2→1 |
| 2 | 2112 | 1→2 |
| 2 | 2111 | 2→1 |
| 3 | 2111 | 1→2 |

Pressure drop related to flow rate
- Lightline, High performance

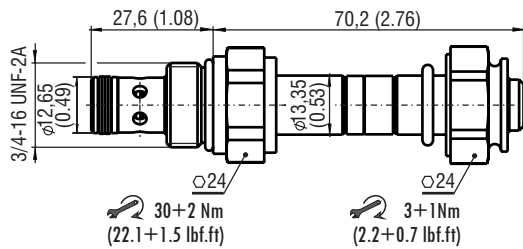


| | Model | Connection |
|---|-------|------------|
| 1 | 2112 | 1→2 |
| 1 | 2112 | 2→1 |
| 2 | 2111 | 1→2 |
| 3 | 2111 | 2→1 |

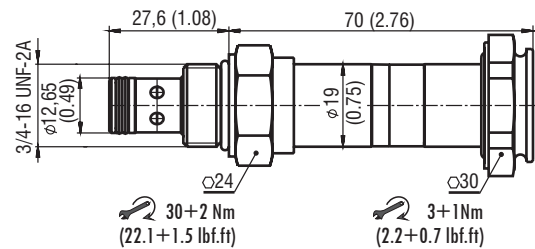
For operating limits under conditions and flow directions other than shown contact our technical support.

Dimensions in millimeters (inches)

Lightline



High performance



Manual Override in millimeters (inches)

| No Designation - standard | Designation M2 - rubber boot protected | Designation M4 - hand screw (only for High performance) | Designation M5 - socket head screw, size 2.5 | Designation M9 - without manual override |
|--|--|---|--|---|
| <p>L ~ 70,2 (2.63) H ~ 70,0 (2.76)</p> | <p>L ~ 81,7 (3.22) H ~ 81,5 (3.21)</p> | <p>H ~ 89,6 (3.53)</p> | <p>L ~ 77,2 (3.04) H ~ 77,6 (3.06)</p> | <p>L ~ 67,2 (2.65) H ~ 70,0 (2.76)</p> |

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 T does not exceed 25 bar (363 PSI). For alternative manual overrides contact our technical support.

Ordering Code

SD2E-A2 / -

2/2 directional valve, solenoid operated, spool type, direct acting

Valve cavity
3/4-16 UNF (C-8-2)

Lightline
High performance

Functional symbol

2I11
 2I12

Surface treatment
A zinc-coated (ZnCr-3), ISO 9227 (240 h)
B zinc-coated (ZnNi), ISO 9227 (520 h)

Seals
 No designation
V NBR
 FPM (Viton)

Manual override
 No designation
M2 standard
M4 rubber boot protected
M5 hand screw (only for High performance)
M9 socket head screw
 without manual override