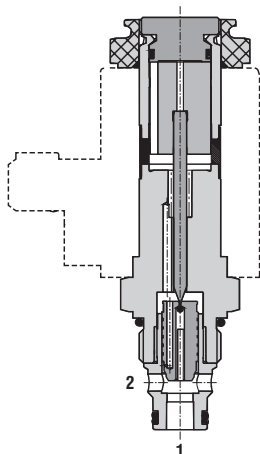


2/2 Directional Valve, Solenoid Operated, Poppet Type, Piloted

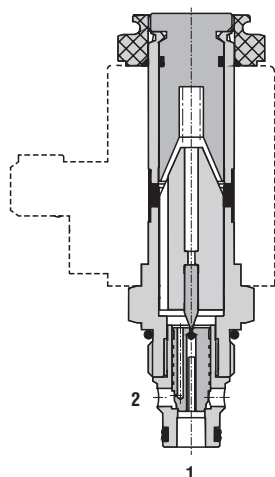
SD3E-A2

3/4-16 UNF • Q_{max} 30 l/min (8 GPM) • p_{max} 420 bar (6100 PSI)

Normally Open



Normally Closed



Technical Features

- › Hardened precision parts
- › High flow capacity and leak-free closing
- › High transmitted hydraulic power up to 420 bar
- › Lightline design 250 bar with reduced solenoid power for production cost saving
- › Normally open and normally closed version
- › Wide range of manual overrides available
- › All ports may be fully pressurized
- › 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, 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 one direction.

Model Code	2O2	2L2
Symbol		

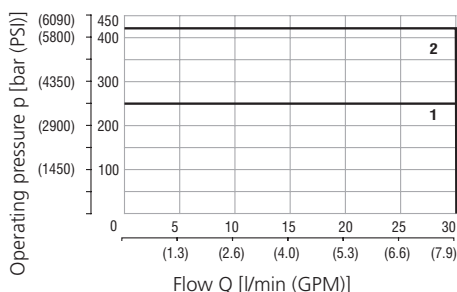
Technical Data

Valve size / Cartridge cavity		3/4-16 UNF-2A / A2 (C-8-2)	
		Lightline	High performance
Max. flow	l/min (GPM)	30 (7.9)	30 (7.9)
Max. operating pressure	bar (PSI)	250 (3630)	420 (6090)
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)	0.12 (0.26)	0.20 (0.44)
General information		Type	
Datasheet		Products and operating conditions	
GI_0060		C14B*	
Coil types		C19B*	
Valve bodies	In-line mounted	SB-A2*	
	Sandwich mounted	SB-*A2*	
Cavity details / Form tools		SMT-A2*	
SMT_0019			
Spare parts		SP_8010	

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

Operating limits - Lightline + High performance

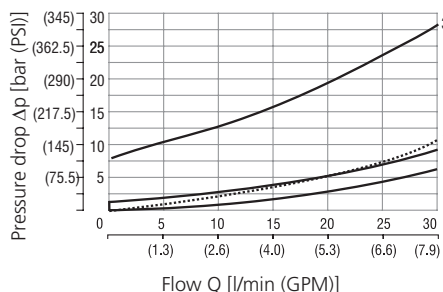
L - Oil 60 °C (140 °F) / Ambient temperature/
50 °C (122 °F) / Voltage U_n -10% (21.6 VDC)
HP - Oil 80 °C (176 °F) Ambient temperature
50 °C (122 °F) / Voltage U_n -10% (21.6 VDC)



Model	Connection
1 L2L2	1→2, 2→1
1 L2O2	1→2, 2→1
2 H2L2	1→2, 2→1
2 H2O2	1→2, 2→1

Pressure drop related to flow rate

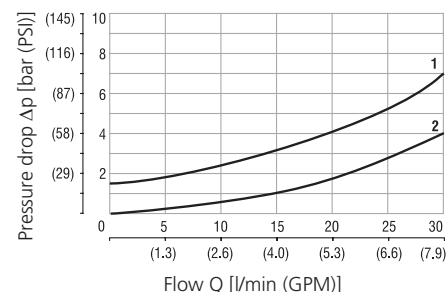
- Lightline



Model	Connection	Solenoid
1 L2L2	1→2	on
1 L2L2	2→1	on
1 L2O2	2→1	off
2 L2L2	1→2	off
3 L2O2	1→2	on
4 L2O2	1→2	off

Pressure drop related to flow rate

- High performance

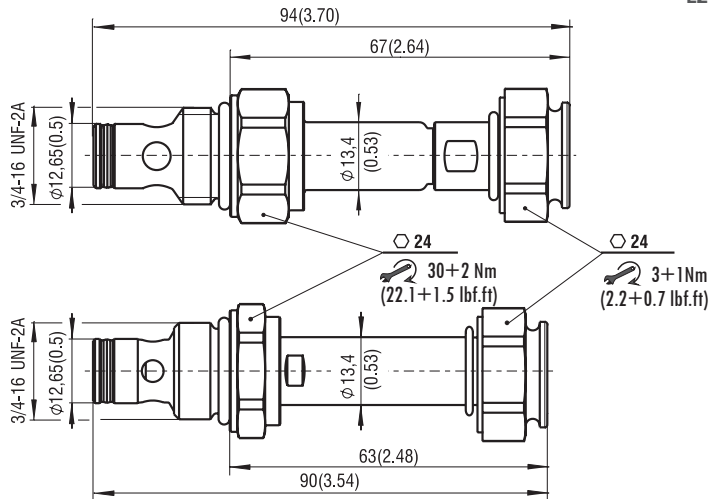


Model	Connection	Solenoid
1 H2L2	1→2	off
2 H2L2	1→2	on
2 H2L2	2→1	on
2 H2O2	1→2	off
2 H2O2	2→1	off
2 H2O2	1→2	on

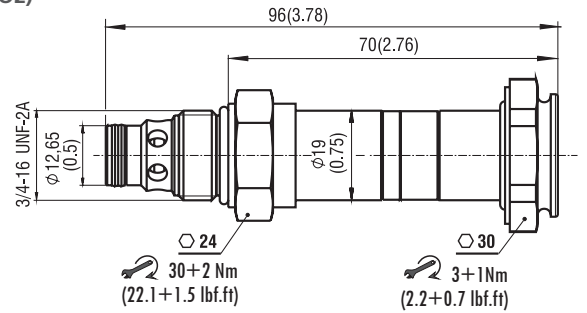
For operating limits under conditions and flow directions other than shown contact our technical support.

Dimensions in millimeters (inches)

Lightline L2



High performance L2 (O2)



O2

Manual Override in millimeters (inches)

No designation * - standard for 2O2	Designation M2 for 2O2 * - rubber boot protected	Designation M5 for 2O2 * - socket head screw, size 2.5	Designation M9 for 2O2 - without manual override
 ~ 70.0 (2.76)	 ~ 81.5 (3.21)	 ~ 77.6 (3.06)	 H ~70.0 (2.76) L ~90.0 (3.54)
*Only for High performance version	Designation M4 for 2L2 * - hand screw	Designation M5 for 2L2 * - socket head screw, size 2.5	Designation M9 for 2L2 - without manual override
	 ~88.8 (3.50)	 ~88.8 (3.50)	 H ~70.0 (2.76) L ~94.0 (3.70)

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

SD3E-A2 / -

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

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

Lightline
High performance

Functional symbol

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

*Only for High performance version

Seals
NBR
FPM (Viton)*

*Only for High performance version

Manual override
standard for 2O2*
rubber boot protected*
hand screw*
socket head screw*
without manual override

*Only for High performance version

No designation
V

No designation
M2
M4
M5
M9