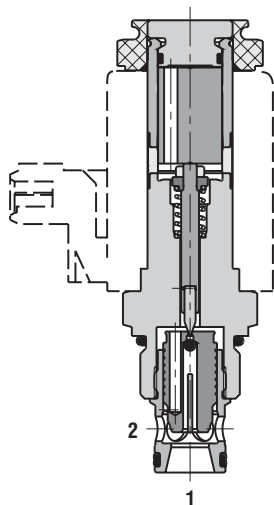


2/2 Directional Valve, Solenoid Operated, Poppet Type, Piloted

SD3E-B2

7/8-14 UNF • Q_{max} 75 l/min (20 GPM) • p_{max} 420 bar (6100 PSI)

Normally Open



Technical Features

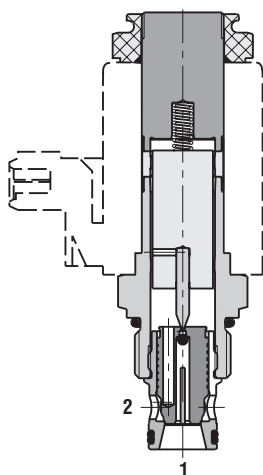
- › Hardened precision parts
- › High flow capacity and leak-free closing
- › High transmitted hydraulic power up to 420 bar
- › Normally open and normally closed version
- › Wide range of manual overrides available
- › All ports may be fully pressurized
- › Coil interchangeability among SD*- B* product line
- › Standard version zinc-coated with surface protection acc. to ISO 9227 (240 h salt spray)

Functional Description

2/2 screw-in cartridge poppet valve, pilot operated. The one-directional valve with 7/8-14 UNF connection thread is designed for on-off flow control with leak-free closing in 2 → 1 flow direction. In the opposite flow direction the valve is opened by fluid pressure.

Model Code	2O2	2L2
Symbol		

Normally Closed



Technical Data

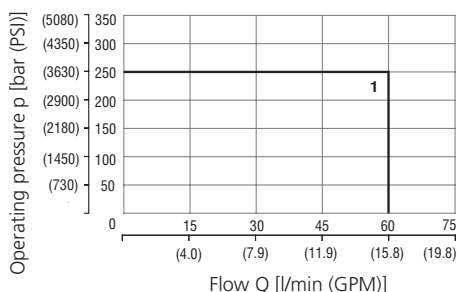
Valve size / Cartridge cavity		7/8-14 UNF-2A / B2 (C-10-2)	
		Lightline	High performance
Max. flow	l/min (GPM)	60 (15.9)	75 (19.8)
Max. operating pressure	bar (PSI)	250 (3630)	420 (6090)
Fluid temperature range (NBR)	°C (°F)	-30...60 (-22...140)	-30...80 (-22...176)
Fluid temperature range (FPM)	°C (°F)	-20...60 (-4...140)	-20...80 (-4...176)
Ambient temperature range	°C (°F)	-30...50 (-22...122)	-30...80 (-22...176)
Supply voltage tolerance	%	AC, DC: ± 10	AC, DC: ± 15
Max. switching frequency	1/h	15 000	
Weight without coil	kg (lbs)	0.23 (0.51)	0.30 (0.66)

		Datasheet	Type	
General information		GI_0060	Products and operating conditions	
Coil types		C_8007	C19B*	C22B*
Valve bodies	In-line mounted	SB_0018	SB-B2*	
	Sandwich mounted	SB-04(06)_0028	SB-*B2*	
Cavity details / Form tools		SMT_0019	SMT-B2*	
Spare parts		SP_8010		

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

Operating limits - Lightline

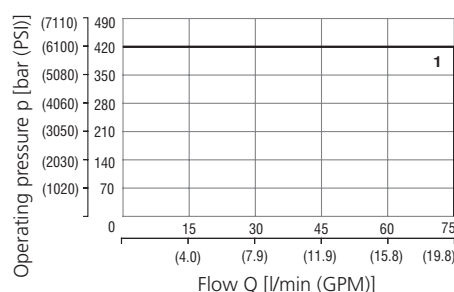
Oil 60 °C (140 °F) / Ambient temperature
50 °C (122 °F) / Voltage U_n -10% (21.6 V DC)



Model	Connection
1 2L2	1→2, 2→1
1 2O2	1→2, 2→1

Operating limits - High performance

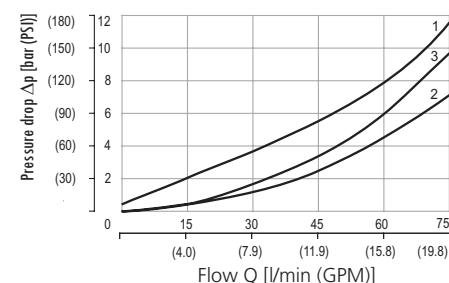
Oil 80 °C (176 °F) / Ambient temperature
50 °C (122 °F) / Voltage U_n -10% (21.6 V DC)



Model	Connection
1 2L2	1→2, 2→1
1 2O2	1→2, 2→1

Pressure drop related to flow rate

- Lightline, High performance

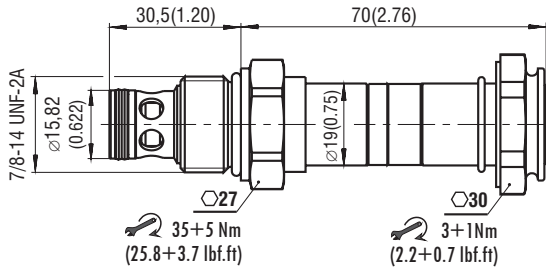


Model	Connection	Solenoid
1 2L2	1→2	off
2 2L2	2→1	on
2 2L2	1→2	on
2 2O2	1→2	off
3 2O2	2→1	off

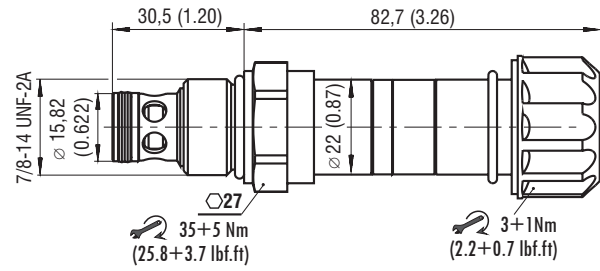
For operating limits under conditions and flow directions other than shown contact our technical support.

Dimensions in millimeters (inches)

Lightline



High performance



Manual Override in millimeters (inches)

No designation - for 2O2 - standard	Designation M2 for 2O2 - rubber boot protected	Designation M5 - for 2O2 - socket head screw, size 2.5 (normally opened, screw in by allen key)	Designation M9 - for 2O2 - without manual override
 L ~ 70,0 (2.76) H ~ 82,7 (3.26)	 L ~ 82,0 (3.23) H ~ 100,0 (3.94)	 L ~ 77,6 (3.06) H ~ 84,8 (3.34)	 L ~ 70,0 (2.76) H ~ 82,7 (3.26)
		Designation M5 - for 2L2 - socket head screw, size 2.5 (normally closed, unscrew by allen key or by hand)	Designation M9 - for 2L2 - without manual override
		 L ~ 81,8 (3.22) H ~ 93,6 (3.69)	 L ~ 70,0 (2.76) H ~ 82,7 (3.26)

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-B2 / -

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

Valve cavity
7/8-14 UNF (C-10-2)

Lightline
High performance

Functional symbol

2O2

2L2

Surface treatment

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

Seals
NBR
FPM (Viton)

No designation
V

No designation
M2
M5
M9

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