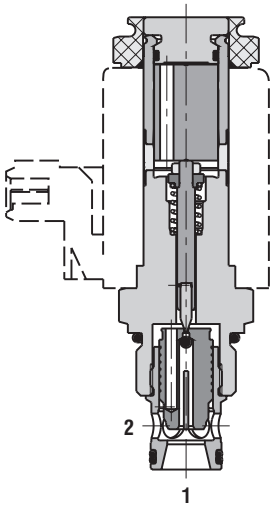
2/2 Directional Valve, Solenoid Operated, Poppet Type, Piloted

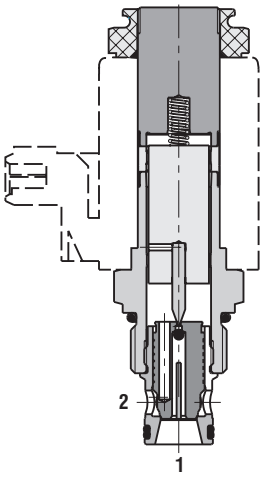
SD3E-B2

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

Normally Open



Normally Closed

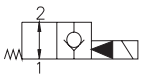
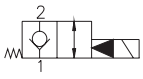


Technical Features

- 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		

Technical Data

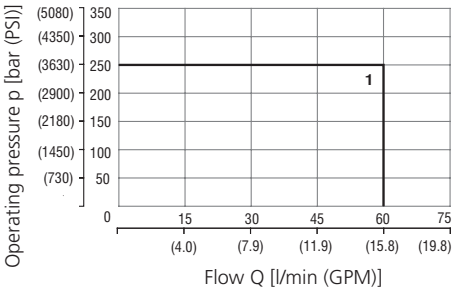
Valve size / Cartridge cavity		7/8-14 UNF-2A / B2 (C-10-2)	
		Lightline	High performance
Max. flow	l/min (GPM)	60 (15.9)	75 (19.8)
Max. operating pressure	bar (PSI)	250 (3630)	420 (6090)
Fluid temperature range (NBR)	°C (°F)	-30...60 (-22...140)	-30...80 (-22...176)
Fluid temperature range (FPM)	°C (°F)	-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 ν = 32 mm²/s (156 SUS)

Operating limits - Lightline

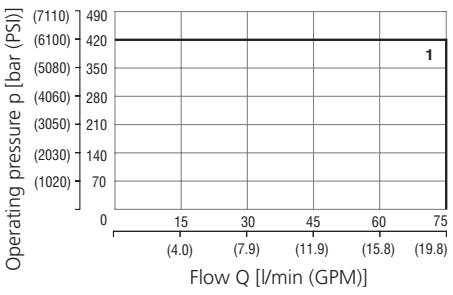
Oil 60 °C (140 °F) / Ambient temperature
50 °C (122 °F) / Voltage U_n -10% (21.6 V DC)



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

Operating limits - High performance

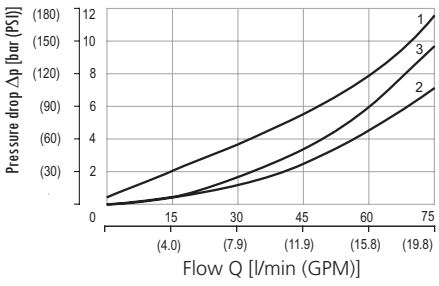
Oil 80 °C (176 °F) / Ambient temperature
50 °C (122 °F) / Voltage U_n -10% (21.6 V DC)



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

Pressure drop related to flow rate

- Lightline, High performance

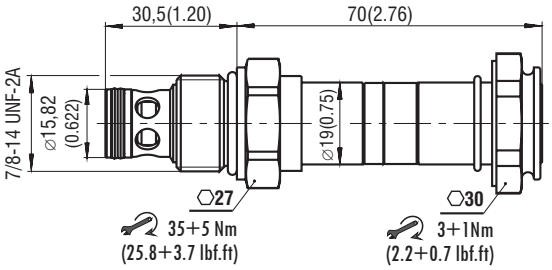


	Model	Connection	Solenoid
1	2L2	1→2	off
2	2L2	2→1	on
2	2L2	1→2	on
2	2O2	1→2	off
3	2O2	2→1	off

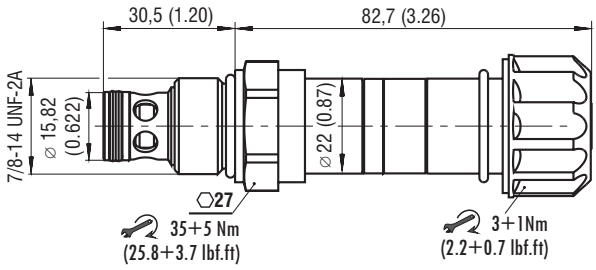
For operating limits under conditions and flow directions other than shown contact our technical support.

Dimensions in millimeters (inches)

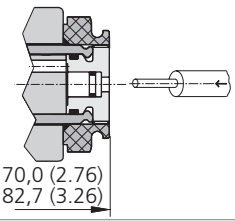
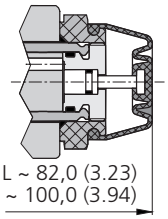
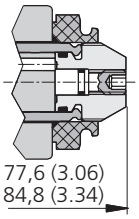
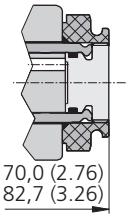
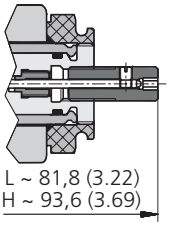
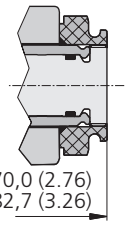
Lightline



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 under the condition that the pressure in the back line does not exceed 25 bar (363 PSI). For alternative manual overrides contact our technical support.

Ordering Code

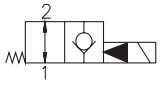
SD3E-B2 / ☐ ☐ ☐ ☐ - ☐

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

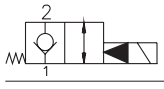
Valve cavity
7/8-14 UNF (C-10-2)

Lightline	**L**
High performance	**H**

Functional symbol



2O2



2L2

Manual override

No designation	standard for 2O2
M2	rubber boot protected
M5	socket head screw
M9	without manual override

Seals

No designation	NBR
V	FPM (Viton)

Surface treatment

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