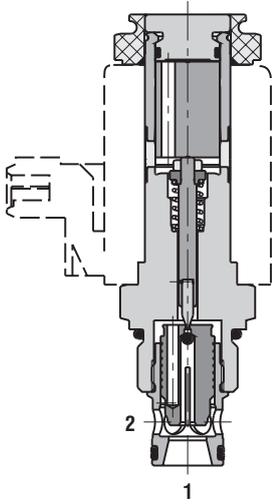


2/2 Directional Valve, Solenoid Operated, Poppet Type, Piloted

SD3E-B2

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

Normally Open



Technical Features

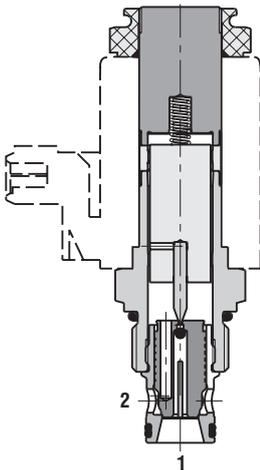
- › Hardened precision parts
- › High flow capacity and leak-free closing
- › High transmitted hydraulic power up to 420 bar
- › Normally open and normally closed version
- › Wide range of manual overrides available
- › All ports may be fully pressurized
- › Coil interchangeability among SD*- B* product 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

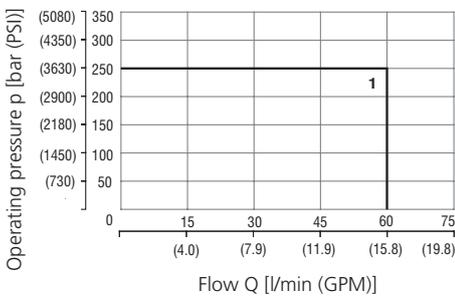
Valve size / Cartridge cavity		7/8-14 UNF-2A / B2 (C-10-2)	
		Lightline	High performance
Max. flow	l/min (GPM)	60 (15.9)	75 (19.8)
Max. operating pressure	bar (PSI)	250 (3600)	420 (6100)
Max. internal leakage in the direction 2→1 ($v=32$ mm ² /s)	cm ³ /min	≤ 0.25 at 250 bar	
Fluid temperature range (NBR)	°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)
Fluid viscosity range	mm ² s ⁻¹	10 ... 500	
Weight without coil	kg (lbs)	0.23 (0.51)	0.30 (0.66)

		Datasheet	Type
General information		HA 0060	Products and operating conditions
Coil types		HA 8007	C19B* C22B*
Valve bodies	In-line mounted	HA 0018	SB-B2*
	Sandwich mounted	HA 0028	SB-*B2*
Cavity details / Form tools		HA 0019	SMT-B2*
Spare parts		HA 8010	

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

Operating limits - Lightline

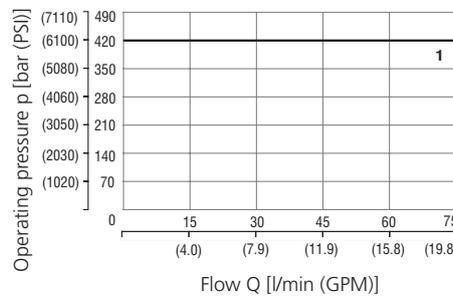
Oil 60 °C (140 °F) / Ambient temperature
50 °C (122 °F) / Voltage U_N -10% (21.6 V DC)



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

Operating limits - High performance

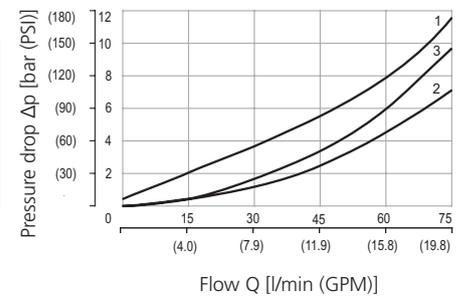
Oil 80 °C (176 °F) / Ambient temperature
50 °C (122 °F) / Voltage U_N -10% (21.6 V DC)



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

Pressure drop related to flow rate

- Lightline, High performance

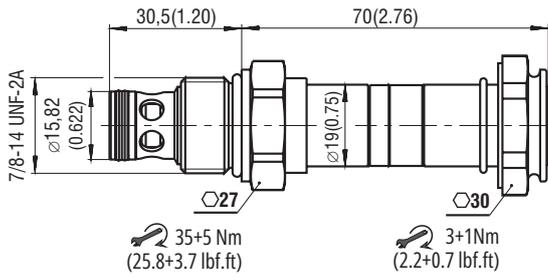


	Model	Connection	Solenoid
1	2L2	1→2	off
2	2L2	2→1	on
2	2L2	1→2	on
2	2O2	1→2	off
3	2O2	2→1	off

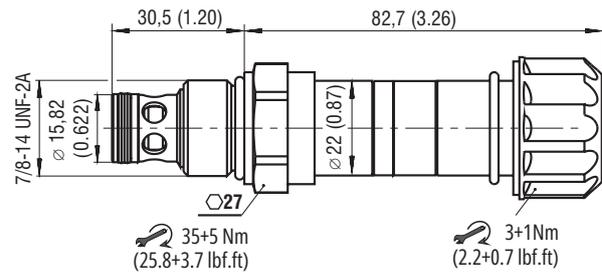
For operating limits under conditions and flow directions other than shown contact our technical support.

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 valve spool 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

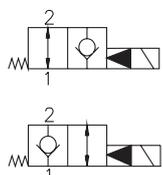
SD3E-B2 / -

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

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

Model
Lightline L
High performance H

Functional symbol



2O2

2L2

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

No designation V

Seals
NBR
FPM (Viton)

No designation
M2
M5
M9

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