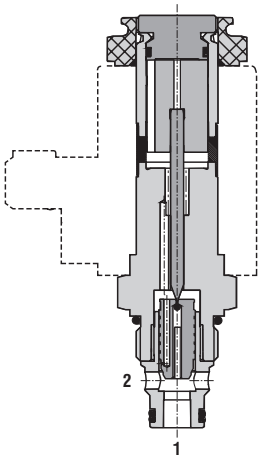
2/2 Directional Valve, Solenoid Operated, Poppet Type, Piloted

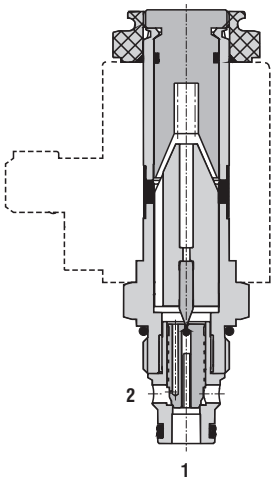
SD3E-A2

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

Normally Open



Normally Closed

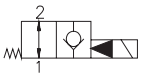
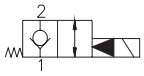


Technical Features

- 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

2/2 screw-in cartridge poppet valve, pilot operated. The one-directional valve with 3/4-16 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			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)
		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		

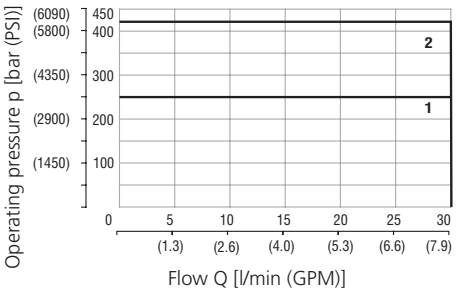
Characteristics measured at ν = 32 mm²/s (156 SUS)

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)

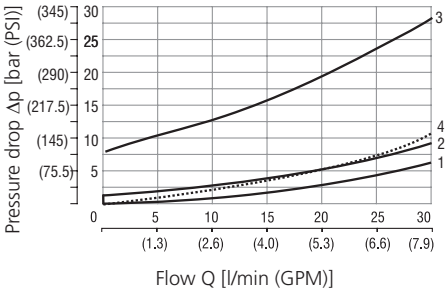
Pressure drop related to flow rate

- Lightline



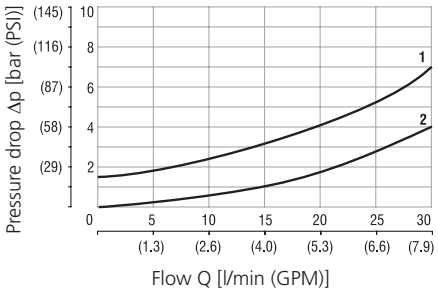
	Model	Connection
1	L2L2	1→2, 2→1
1	L2O2	1→2, 2→1
2	H2L2	1→2, 2→1
2	H2O2	1→2, 2→1

- High performance



	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

- High performance



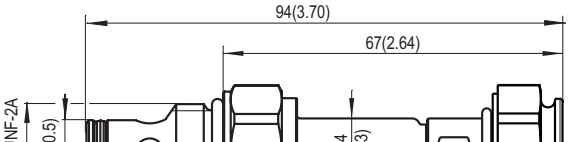
	Model	Connection	Solenoid
1	H2L2	1→2	off
2	H2L2	1→2	on
2	H2L2	2→1	on
2	H2O2	1→2	off
2	H2O2	2→1	off
2	H2O2	1→2	on

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

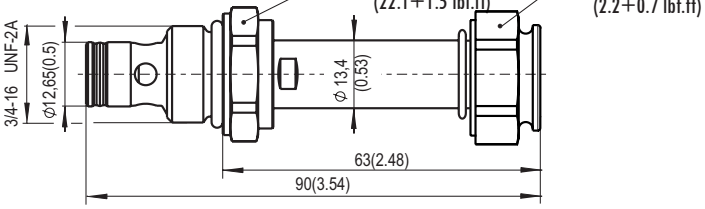
Dimensions in millimeters (inches)

Lightline

L2

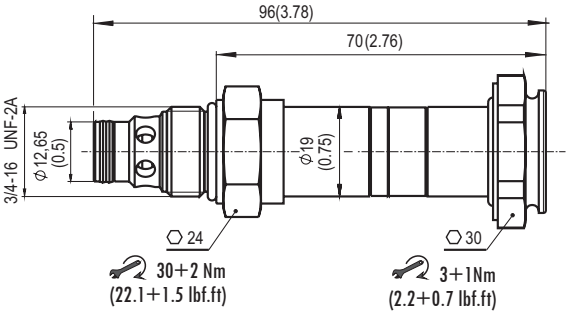


O2



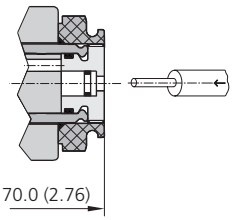
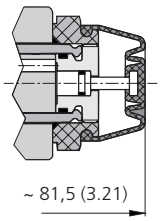
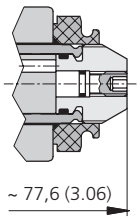
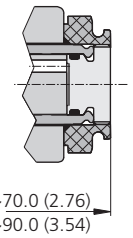
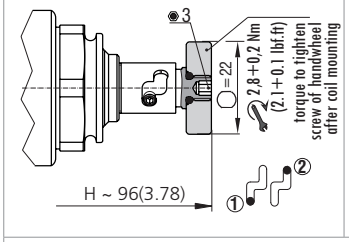
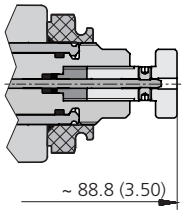
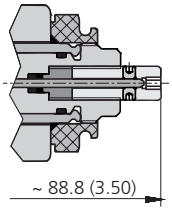
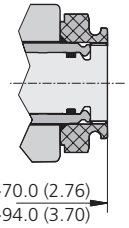
High performance

L2 (O2)



Manual Override in millimeters (inches)

*Only for High performance version

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
			
Designation M7 for 2L2*- removable handwheel with locking**	**Designation M4 for 2L2* - hand screw**	**Designation M5 for 2L2* - socket head screw, size 2.5**	**Designation M9 for 2L2 - without manual override**
			

****Basic position 1** of the M7 manual override
Spool of valve is operated by solenoid.

****Position 2** of the M7 manual override
Spool of the valve is shifted by handwheel and locked in this position.

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

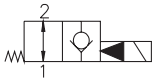
SD3E-A2 / ☐ ☐ ☐ ☐ - ☐

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

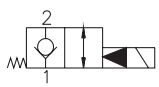
Valve cavity
3/4-16 UNF (C-8-2)

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)*

Seals

No designation	NBR
V	FPM (Viton)*

Manual override

No designation	standard for 2O2*
M2	rubber boot protected*
M4	hand screw*
M5	socket head screw*
M7	removable handwheel with locking*
M9	without manual override

*Only for High performance version