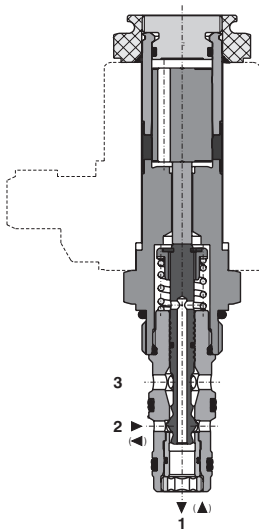


3/2 Directional Valve, Solenoid Operated, Poppet Type, Blocking, Direct Acting

SD1E-A3

3/4-16 UNF • Q_{max} 30 l/min (8 GPM) • p_{max} 350 bar (5100 PSI)

2S7



Technical Features

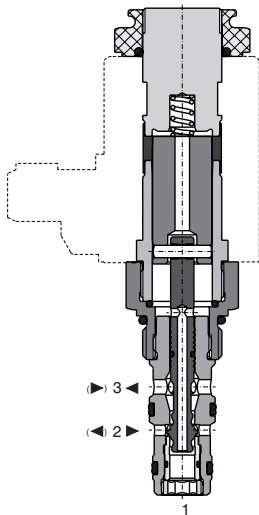
- › Hardened precision parts
- › High flow capacity and leak-free closing (up to 3 drops per minute)
- › High transmitted hydraulic power up to 350 bar
- › Wide range of manual overrides available
- › All ports may be fully pressurized
- › Coil interchangeability among SD*-A*/H product line
- › In the standard version, the valve is zinc-coated for 240 h protection acc. to ISO 9227

Functional Description

3-way, 2 positions, high pressure direct acting 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 both directions.

Model Code	2S7	2S8
Symbol		

2S8



Technical Data

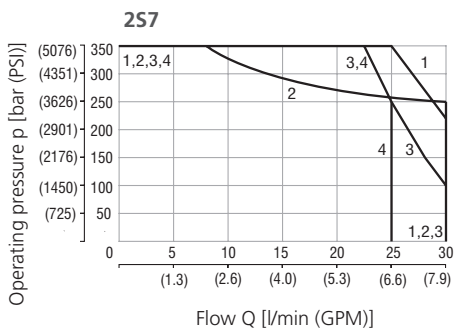
Valve size / Cartridge cavity	3/4-16 UNF-2A / A3 (C-8-3)	
Max. flow	l/min (GPM)	30 (7.9)
Max. operating pressure	bar (PSI)	350 (5080)
Fluid temperature range (NBR)	°C (°F)	-30...80 (-22...176)
Fluid temperature range (FPM)	°C (°F)	-20...80 (-4...176)
Ambient temperature range	°C (°F)	-30...80 (-22...176)
Supply voltage tolerance	%	AC, DC: ± 15
Max. switching frequency	1/h	15 000
Weight without coil	2S7	0.21 (0.45)
	2S8	0.22 (0.47)
General information		Datasheet
Coil types		GI_0060
Valve bodies		SB_0018
Cavity details / Form tools		SB-04(06)_0028
Spare parts		SMT_0019
		SP_8010
Type		Products and operating conditions
Type		C 19B*
Type		SB-A3*
Type		SB-*A3*
Type		SMT-A3*

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

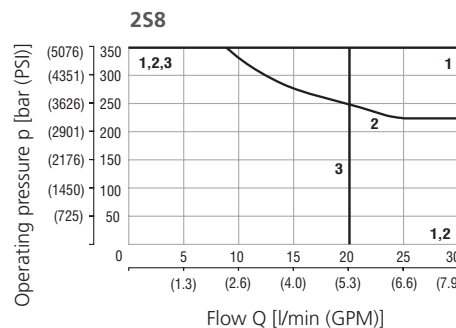
Operating limits

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

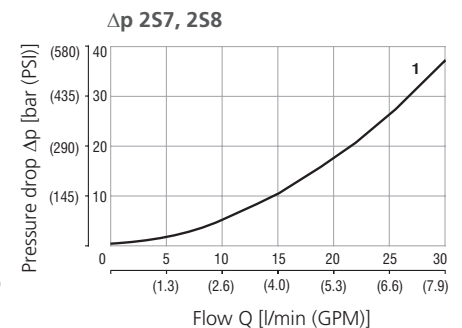
Pressure drop related to flow rate



	Model	Connection
1	2S7	2→1
2	2S7	2→3
3	2S7	3→2
4	2S7	1→2



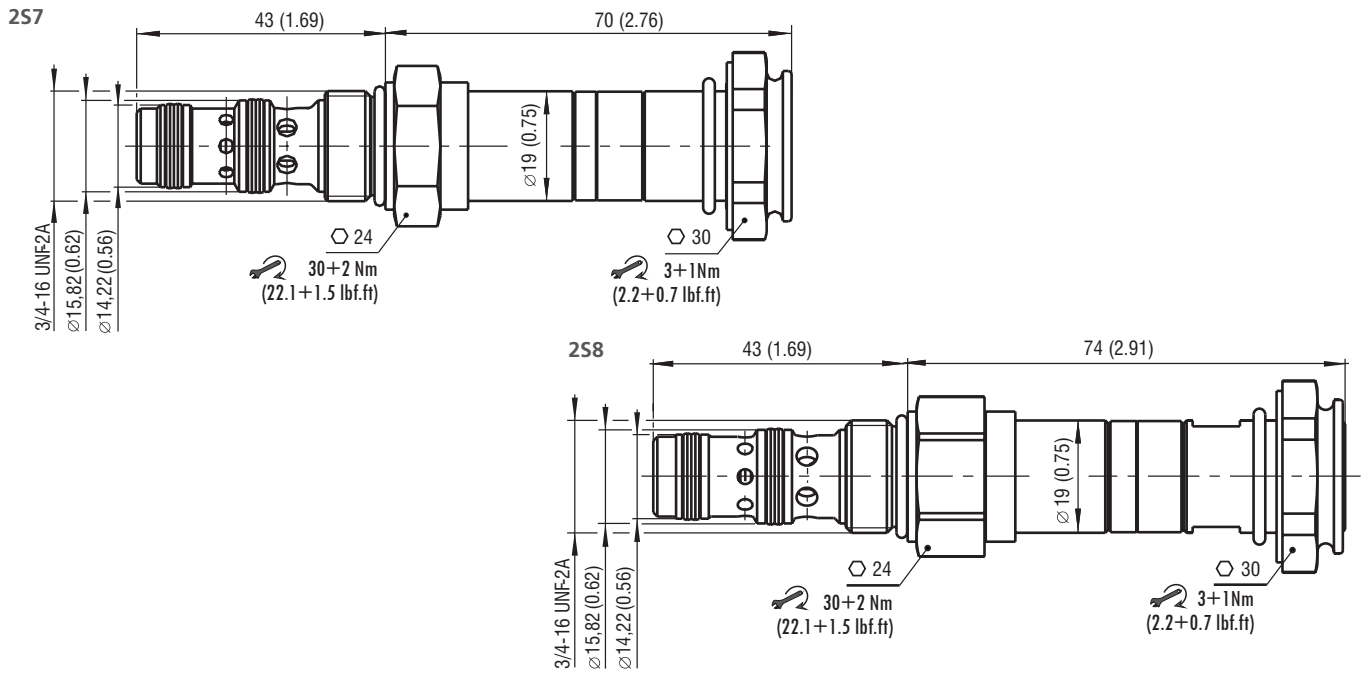
	Model	Connection
1	2S8	1→2, 3→2
2	2S8	2→3
3	2S8	2→1



	Model	Connection
1	2S7, 2S8	1→2*, 2→1, 2→3, 3→2

* max. 25 l/min (6.6 GPM)

Dimensions in millimeters (inches)



Manual Override in millimeters (inches)

No designation - for 2S7 - standard (operated by pin)	Designation M2 - for 2S7 - rubber boot protected	Designation M4 - for 2S7 - hand screw	Designation M5 - for 2S7 - socket head screw, size 2.5
 ~ 70 (2.76)	 ~ 81.5 (3.21)	 ~ 90 (3.54)	 ~ 77.5 (3.05)
Designation M9 - without manual override - for 2S7	Designation M5 - for 2S8 - socket head screw, size 2.5		
 ~ 70,0 (2.76)	 ~ 74,0 (2.91)		 ~ 85 (3.35)

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

SD1E-A3 / H [] [] [] - []

3/2 directional valve, solenoid operated, poppet type, blocking, direct acting,

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

High performance

Functional symbol

2S7

2S8

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 (operated by pin)
M2 rubber boot protected
M4 hand screw
M5 socket head screw
M9 without manual override