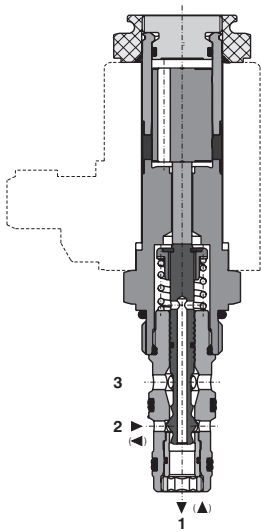


3/2 Directional Valve, Solenoid Operated, Poppet Type, Blocking, Direct Acting

SD1E-A3

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

2S7



Technical Features

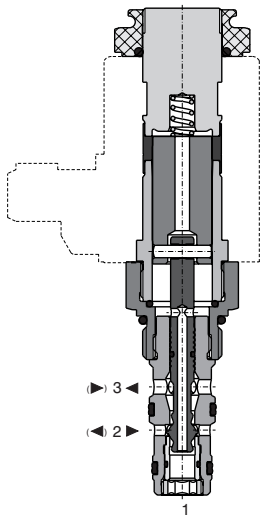
- › Hardened precision parts
- › High flow capacity and leak-free closing (up to 3 drops per minute)
- › High transmitted hydraulic power up to 350 bar
- › Wide range of manual overrides available
- › All ports may be fully pressurized
- › Coil interchangeability among SD*-A*/H product line
- › In the 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

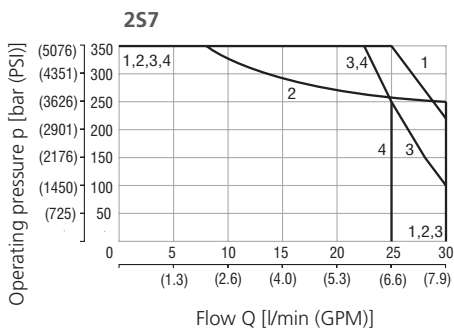
Valve size / Cartridge cavity	3/4-16 UNF-2A / A3 (C-8-3)	
Max. flow	l/min (GPM)	30 (7.9)
Max. operating pressure	bar (PSI)	350 (5080)
Fluid temperature range (NBR)	°C (°F)	-30...80 (-22...176)
Fluid temperature range (FPM)	°C (°F)	-20...80 (-4...176)
Ambient temperature range	°C (°F)	-30...80 (-22...176)
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
		Type
		Products and operating conditions
		C 19B*
		SB-A3*
		SB-*A3*
		SMT-A3*

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

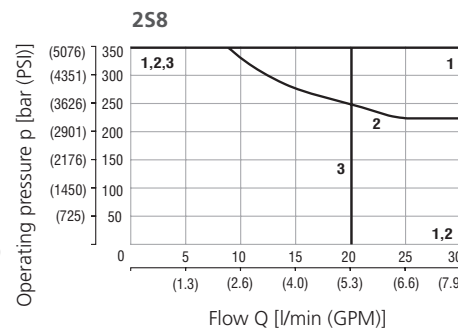
Operating limits

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

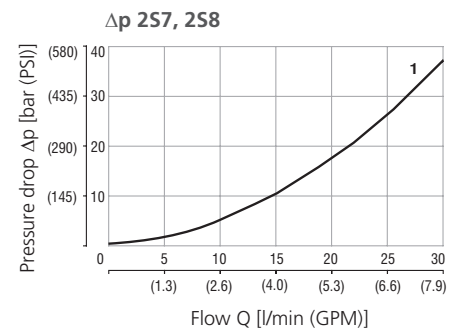
Pressure drop related to flow rate



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



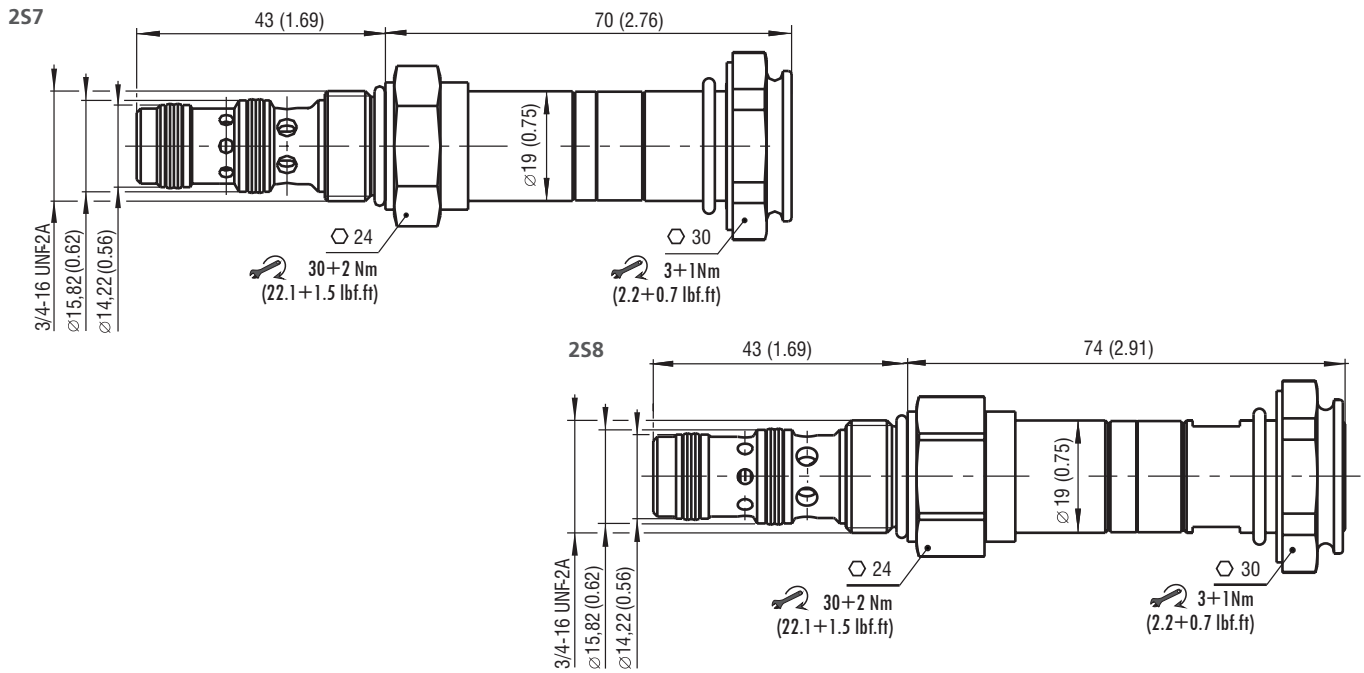
	Model	Connection
1	2S8	1→2, 3→2
2	2S8	2→3
3	2S8	2→1



	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 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

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
V NBR
FPM (Viton)

Manual override
No designation
M2 standard (operated by pin)
M4 rubber boot protected
M5 hand screw
M9 socket head screw
without manual override