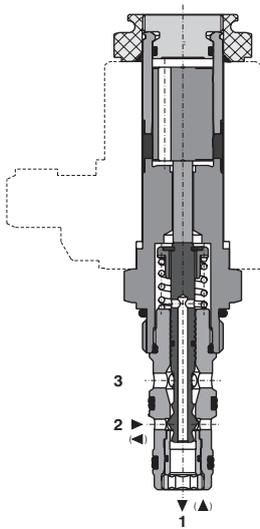


3/2 Directional Valve, Solenoid Operated, Poppet Type, Direct Acting

SD1E-A3

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

2S7



Technical Features

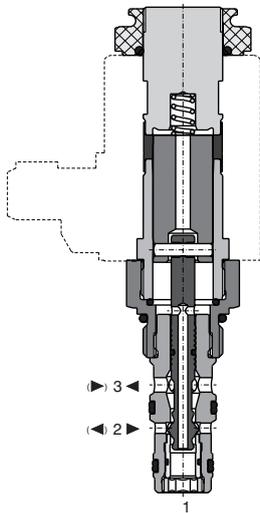
- › Hardened precision parts
- › High flow capacity and leak-free closing (up to 3 drops per minute)
- › High transmitted hydraulic power up to 350 bar
- › Wide range of manual overrides available
- › All ports may be fully pressurized
- › Coil interchangeability among SD*-A*/H product line
- › In the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

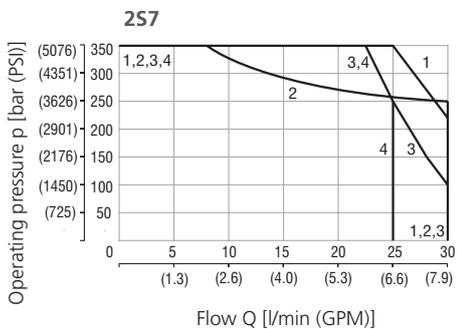
Valve size / Cartridge cavity	3/4-16 UNF-2A / A3 (C-8-3)		
Max. flow	l/min (GPM)	30 (7.9)	
Max. operating pressure	bar (PSI)	350 (5100)	
Max. internal leakage in the direction 3→1 ($v=32$ mm ² /s)	cm ³ /min	≤ 0.25 at 250 bar	
Fluid temperature range (NBR)	°C (°F)	-30...80 (-22...176)	
Fluid temperature range (FPM)	°C (°F)	-20...80 (-4...176)	
Ambient temperature range	°C (°F)	-30...80 (-22...176)	
Fluid viscosity range	mm ² s ⁻¹	10 ... 500	
Weight without coil	2S7	0.21 (0.45)	
	2S8	0.22 (0.47)	
	Datasheet	Type	
General information	HA 0060	Products and operating conditions	
Coil types	HA 8007	C 19B*	
Valve bodies	In-line mounted	HA 0018	SB-A3*
	Sandwich mounted	HA 0028	SB-*A3*
Cavity details / Form tools	HA 0019	SMT-A3*	
Spare parts	HA 8010		

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

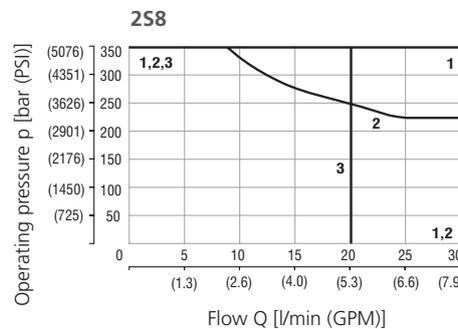
Operating limits

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

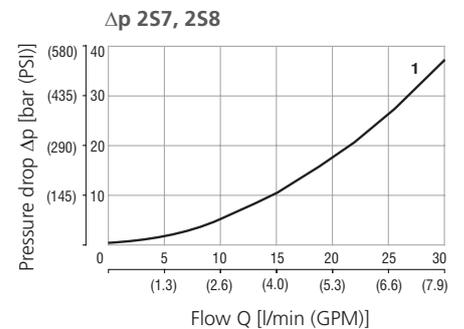
Pressure drop related to flow rate



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



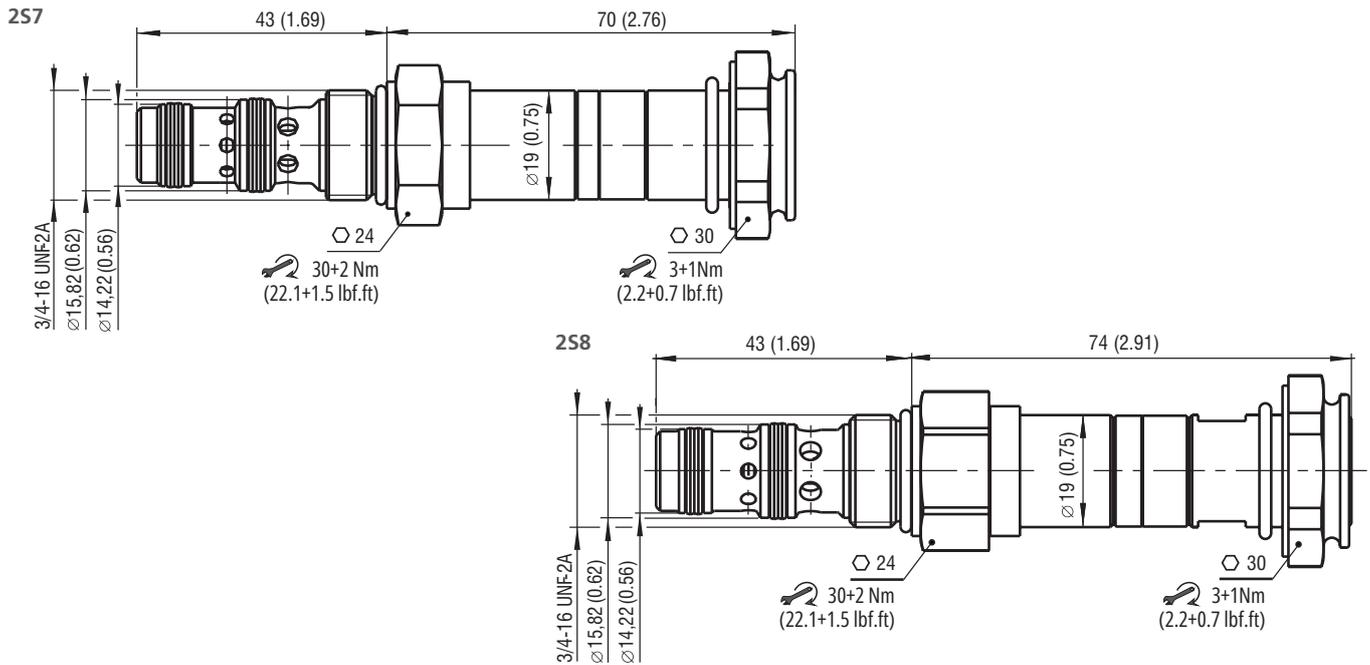
	Model	Connection
1	2S8	1→2, 3→2
2	2S8	2→3
3	2S8	2→1



	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
Designation M9 - without manual override - for 2S7	Designation M9 - without manual override - for 2S8		Designation M5 - for 2S8 - socket head screw, size 2.5

In case of solenoid malfunction or power failure, the valve poppet 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, direct acting

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

Model
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

NBR

FPM (Viton)

No designation

V

Manual override

No designation standard (operated by pin)

M2 rubber boot protected

M4 hand screw

M5 socket head screw

M9 without manual override