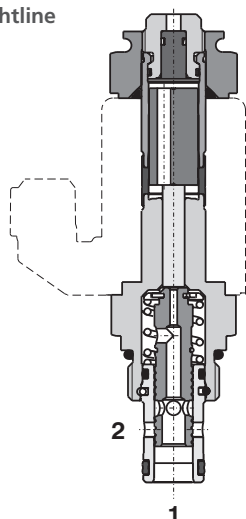


2/2 Directional Valve, Solenoid Operated, Spool Type, Direct Acting

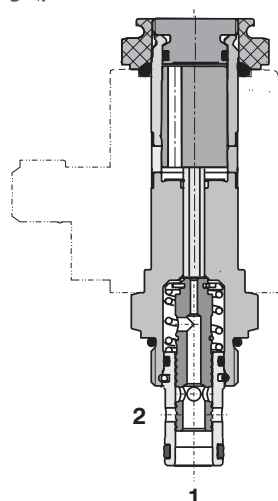
SD2E-A2

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

Lightline



High performance



Technical Features

- › Hardened precision parts
- › High flow capacity
- › High transmitted hydraulic power
- › Wide range of manual overrides available
- › All ports may be fully pressurized
- › Variety of optional spools available
- › 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-way, 2-position high pressure, bi-directional spool valve in the form of a screw-in cartridge. The valve is used mainly to direct flow to actuators.

Model Code	2I11	2I12
Symbol		

Technical Data

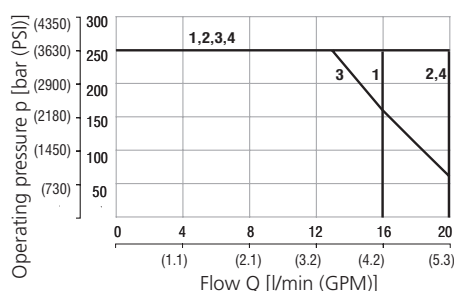
Valve size / Cartridge cavity		3/4-16 UNF-2A / A2 (C-8-2)	
		Lightline	High performance
Max. flow	l/min (GPM)	20 (5.3)	30 (8)
Max. operating pressure	bar (PSI)	250 (3600)	350 (5100)
Max. internal leakage in the direction 2→1 ($v=32 \text{ mm}^2/\text{s}$)	cm^3/min	≤ 35 at 250 bar	
Fluid temperature range (NBR)	$^{\circ}\text{C}$ ($^{\circ}\text{F}$)	-30...60 (-22...140)	-30...80 (-22...176)
Fluid temperature range (FPM)	$^{\circ}\text{C}$ ($^{\circ}\text{F}$)	-20...60 (-4...140)	-20...80 (-4...176)
Ambient temperature range	$^{\circ}\text{C}$ ($^{\circ}\text{F}$)	-30...50 (-22...122)	-30...80 (-22...176)
Fluid viscosity range	mm^2/s	10 ... 500	
Weight without coil	kg (lbs)	0.14 (0.31)	0.20 (0.44)

		Datasheet	Type
General information		HA 0060	Products and operating conditions
Coil types		HA 8007	C14B* C19B*
Valve bodies	In-line mounted	HA 0018	SB-A2*
	Sandwich mounted	HA 0028	SB-A2*
Cavity details / Form tools		HA 0019	SMT-A2*
Spare parts		HA 8010	

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

Operating limits - Lightline

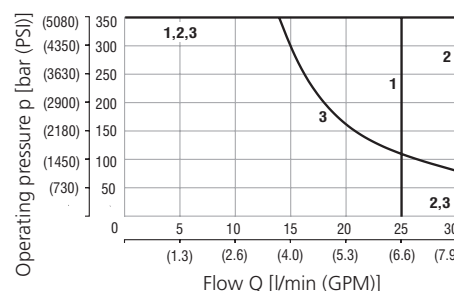
Oil 60 $^{\circ}\text{C}$ (140 $^{\circ}\text{F}$) / Ambient temperature
50 $^{\circ}\text{C}$ (122 $^{\circ}\text{F}$) / Voltage U_N -10% (21.6 V DC)



	Model	Connection
1	2I12	2→1
2	2I12	1→2
3	2I11	1→2
4	2I11	2→1

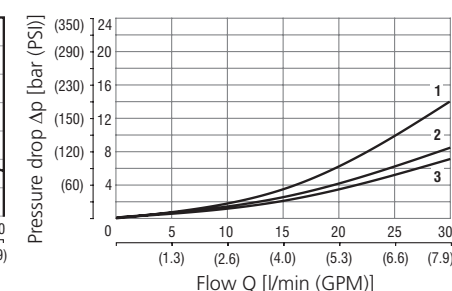
Operating limits - High performance

Oil 80 $^{\circ}\text{C}$ (176 $^{\circ}\text{F}$) / Ambient temperature
50 $^{\circ}\text{C}$ (122 $^{\circ}\text{F}$) / Voltage U_N -10% (21.6 V DC)



	Model	Connection
1	2I12	2→1
2	2I12	1→2
2	2I11	2→1
3	2I11	1→2

Pressure drop related to flow rate
- Lightline, High performance

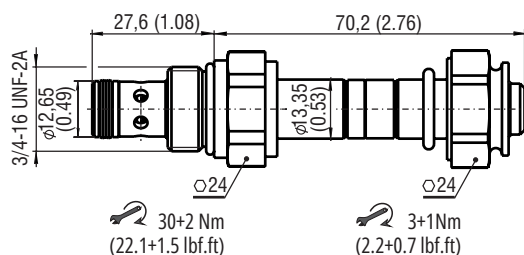


	Model	Connection
1	2I12	1→2
1	2I12	2→1
2	2I11	1→2
3	2I11	2→1

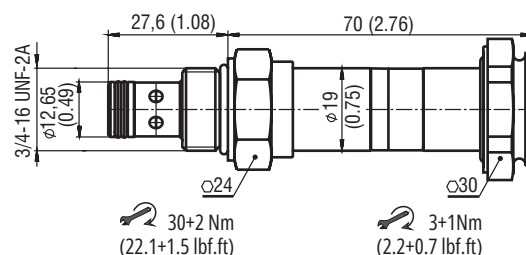
For operating limits under conditions and flow directions other than shown contact our technical support.

Dimensions in millimeters (inches)

Lightline



High performance



Manual Override in millimeters (inches)

No Designation - standard	Designation M2 - rubber boot protected	Designation M4 - hand screw (only for High performance)	Designation M5 - socket head screw, size 2.5	Designation M9 - without manual override
 L ~ 70,2 (2.63) H ~ 70,0 (2.76)	 L ~ 81,7 (3.22) H ~ 81,5 (3.21)	 H ~ 89,6 (3.53)	 L ~ 77,2 (3.04) H ~ 77,6 (3.06)	 L ~ 67,2 (2.65) H ~ 70,0 (2.76)

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

2/2 directional valve, solenoid operated, spool type, direct acting		SD2E-A2 /		Surface treatment	
Valve cavity 3/4-16 UNF (C-8-2)				A zinc-coated (ZnCr-3), ISO 9227 (240 h)	
Model Lightline High performance				B zinc-coated (ZnNi), ISO 9227 (520 h)	
Functional symbol				No designation	
 				V	
2I11				Seals NBR FPM (Viton)	
2I12				Manual override standard rubber boot protected hand screw (only for High performance) socket head screw without manual override	
				No designation	
				M2	
				M4	
				M5	
				M9	