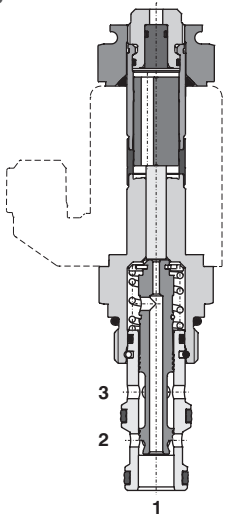


## 3/2 Directional Valve, Solenoid Operated, Spool Type, Direct Acting

### SD2E-A3

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

#### Lightline



#### Technical Features

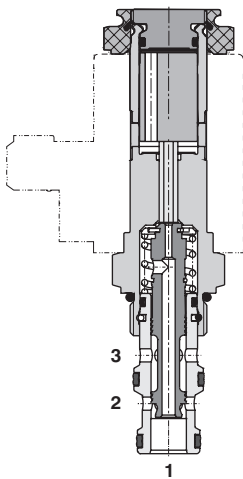
- › Hardened precision parts
- › High flow capacity
- › High transmitted hydraulic power
- › Wide range of manual overrides available
- › All ports may be fully pressurized
- › Variety of optional spools available
- › Coil interchangeability among SD\*-A\* product line
- › Standard version zinc-coated with surface protection acc. to ISO 9227 (240 h salt spray)

#### Functional Description

3-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	2D21	2D25	2D26	2D27, 2D31
Symbol				

#### High performance



#### Technical Data

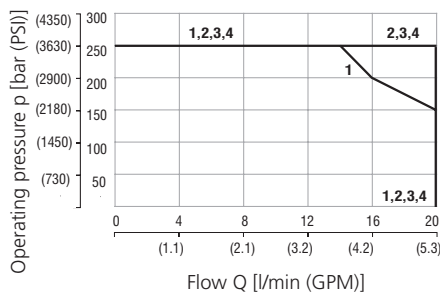
Valve size / Cartridge cavity		3/4-16 UNF-2A / A3 (C-8-3)	
		Lightline	High performance
Max. flow	l/min (GPM)	20 (5.3)	30 (7.9)
Max. operating pressure	bar (PSI)	250 (3630)	350 (5080)
Fluid temperature range (NBR)	°C (°F)	-30...60 (-22...140)	-30...80 (-22...176)
Fluid temperature range (FPM)	°C (°F)	-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)	0.14 (0.31)	0.20 (0.44)

General information		Type	
Datasheet		Products and operating conditions	
GI_0060		C14B* C19B*	
Coil types		C_8007	
Valve bodies	In-line mounted	SB_0018	SB-A3*
	Sandwich mounted	SB-04(06)_0028	SB-*A3*
Cavity details / Form tools		SMT_0019 SMT-A3*	
Spare parts		SP_8010	

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

#### Operating limits - Lightline

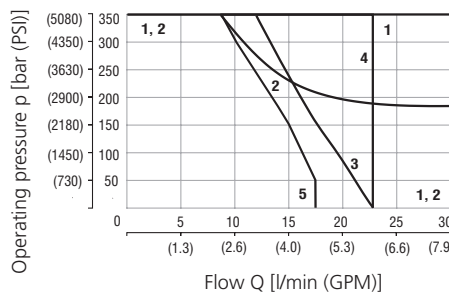
Oil 60 °C (140 °F) / Ambient temperature  
50 °C (122 °F) / Voltage  $U_n$  -10% (21.6 VDC)



	Model	Connection
1	2D26	3→2
2	2D26	2→1
3	2D25	3→2, 2→1
4	2D21	3→2, 2→1

#### Operating limits - High performance

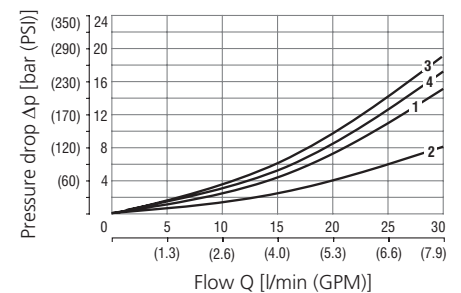
Oil 80 °C (176 °F) / Ambient temperature  
50 °C (122 °F) / Voltage  $U_n$  -10% (21.6 VDC)



	Model	Connection
1	2D21	3→2, 2→1
1	2D25	3→2, 2→1
1	2D31	3→1
2	2D26	3→2, 2→1
3	2D31	2→1
4	2D27	3→1
5	2D27	2→1

#### Pressure drop related to flow rate

- Lightline, High performance

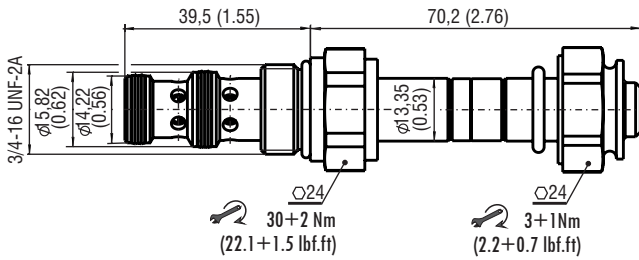


	Model	Connection
1	2D21	3→2
1	2D25	3→2
1	2D31	2→1
1	2D27	2→1
2	2D21	2→1
3	2D26	3→2
3	2D27	3→1
4	2D25	2→1
4	2D26	2→1
4	2D31	3→1

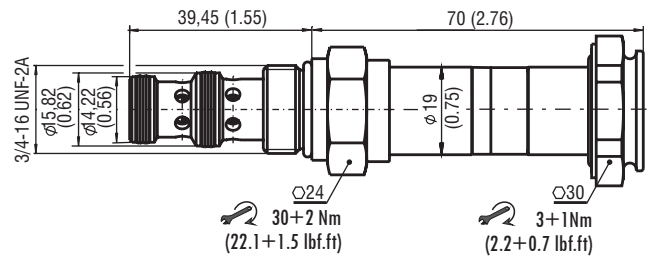
For operating limits under conditions and flow directions other than shown contact our technical support.

## 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 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

**SD2E-A3** /     -

**3/2 directional valve, solenoid operated, spool type, direct acting**

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

**Functional symbol**  
Lightline L  
High performance --> H

		<b>2D21</b>
		<b>2D25</b>
		<b>2D26</b>
		<b>2D27</b> only for H
		<b>2D31</b> only for H

**Surface treatment**

--> **A** zinc-coated (ZnCr-3), ISO 9227 (240 h)  
**B** zinc-coated (ZnNi), ISO 9227 (520 h)

**Seals**  
**V** NBR  
 FPM (Viton)

**Manual override**  
 standard  
 M2 rubber boot protected  
 M4 hand screw (only for High performance)  
 M5 socket head screw  
 M9 without manual override