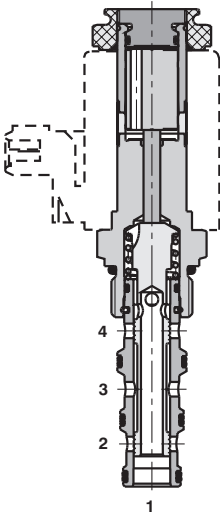


4/2 Directional Valve, Solenoid Operated, Spool Type, Direct Acting

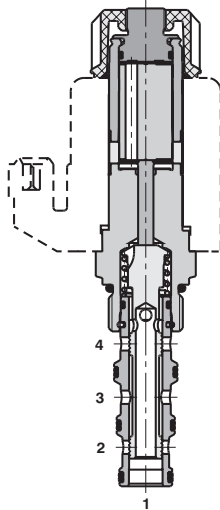
SD2E-B4

7/8-14 UNF • Q_{max} 50 l/min (13 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*-B* product line
- › Standard version zinc-coated with surface protection acc. to ISO 9227 (240 h salt spray)

Functional Description

4-way, 2-position high pressure directional spool valve in form of a screw-in cartridge. The valve is used mainly to direct flow to actuators.

Model Code	2Z11	2Z51	2X11	2X21
Symbol				

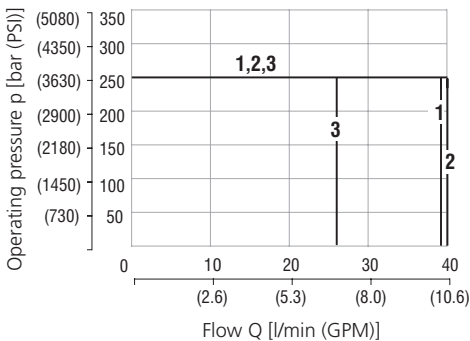
Technical Data

Valve size / Cartridge cavity		7/8-14 UNF-2A / B4 (C-10-4)	
		Lightline	High performance
Max. flow	l/min (GPM)	40 (10.6)	50 (13.2)
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	%	AC, DC: ± 10 AC, DC: ± 15	
Max. switching frequency	1/h	15 000	
Weight without coil	kg (lbs)	0.25 (0.55)	0.32 (0.71)
General information		Type	
Datasheet		Products and operating conditions	
GI_0060		C19B* C22B*	
Coil types	C_8007	SB-B4* SB-*B4*	
Valve bodies	In-line mounted SB_0018 Sandwich mounted SB-04(06)_0028	SMT-B4*	
Cavity details / Form tools	SMT_0019		
Spare parts	SP_8010		

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

Operating limits - Lightline

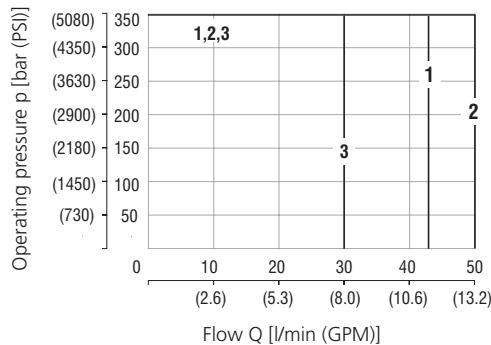
Oil 60 °C (140 °F) / Ambient temperature
50 °C (122 °F) / Voltage U_n -10% (21.6 VDC)



	Model	Connection
1	2Z11	3→2, 4→1
2	2Z51	3→4, 2→1
2	2X21	3→4, 2→1
3	2X21	3→2, 4→1

Operating limits - High performance

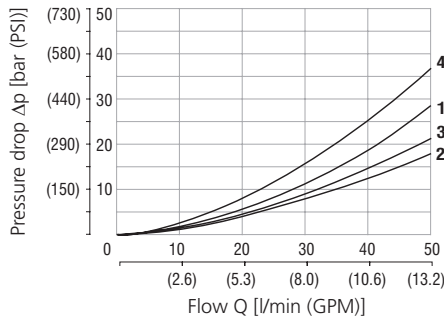
Oil 80 °C (176 °F) / Ambient temperature
50 °C (122 °F) / Voltage U_n -10% (21.6 VDC)



	Model	Connection
1	2Z11	3→2, 4→1
2	2Z51	3→4, 2→1
1	2X11	3→4, 2→1
1	2X11	3→2, 4→1
2	2X21	3→4, 2→1
3	2X21	3→2, 4→1

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

Pressure drop related to flow rate - Lightline, High performance

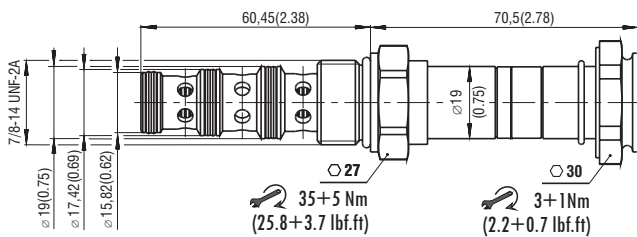


	Modell	Richtung		Modell	Richtung
1	ZZ11	3→2	4	2X11*	3→2
1	ZZ11	4→1	1	2X11* Q _{max} 50 l/min	3→4
3	ZZ51 - only for L	3→4	4	2X11* Q _{max} 35 l/min	4→1
3	ZZ51 - only for L	2→1	3	2X21	3→2
2	ZZ51*	3→4	4	2X21	4→1
3	ZZ51*	2→1	3	2X21 Q _{max} 50 l/min	3→4
4	2X11*	2→1	2	2X21 Q _{max} 40 l/min	2→1

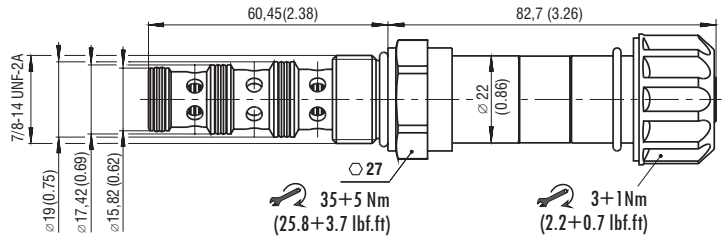
*only for H

Dimensions in millimeters (inches)

Lightline



High performance



Manual Override in millimeters (inches)

No designation - standard	Designation M2 - rubber boot protected	Designation M5 - socket head screw, size 2.5	Designation M9 - without manual override
<p>L ~ 70,5 (2.78) H ~ 82,7 (3.26)</p>	<p>L ~ 82,0 (3.23) H ~ 100,0 (3.94)</p>	<p>L ~ 78,1 (3.07) H ~ 84,8 (3.34)</p>	<p>L ~ 70,5 (2.78) H ~ 82,7 (3.26)</p>

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-B4 / -

4/2 directional valve, solenoid operated, spool type, direct acting

Valve cavity
7/8-14 UNF (C-10-4)

Lightline
High performance

Functional symbol

		ZZ11
		ZZ51
		2X11
		2X21

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

No designation
V

Seals
NBR
FPM (Viton)

No designation
M2
M5
M9

Manual override
standard
rubber boot protected
socket head screw
without manual override