



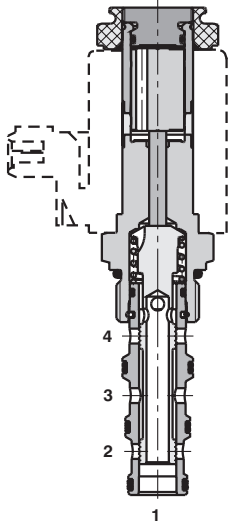
SD2E-B4

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



- 7/8-14 UNF
- Q_{\max} 60 l/min (16 GPM)
- p_{\max} 350 bar (5100 PSI)

Lightline



Technical Features

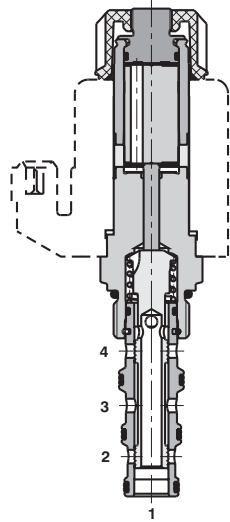
- › Hardened precision parts
- › High flow capacity
- › High transmitted hydraulic power
- › Wide range of manual overrides available
- › All ports may be fully pressurized
- › Variety of optional spools available
- › Coil interchangeability among SD*-B* product line
- › Standard version zinc-coated 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	ZZ11	ZZ51	2X21
Symbol			

High performance



Technical Data

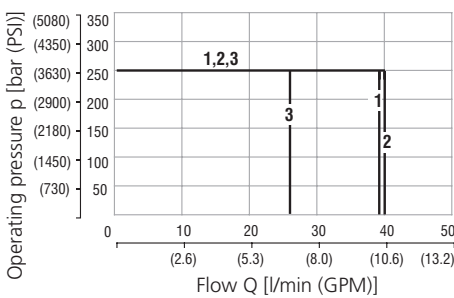
Valve size / Cartridge cavity		7/8-14 UNF-2A / B4	
		Lightline	High performance
Max. flow	l/min (GPM)	50 (13.2)	60 (15.9)
Max. operating pressure	bar (PSI)	250 (3630)	350 (5080)
Fluid temperature range	°C (°F)	-20...60 (-4...140)	-20...80 (-4...176)
Ambient temperature range	°C (°F)	-20...50 (-4...122)	-20...80 (-4...176)
Supply voltage tolerance	%	AC, DC: ± 10	AC, DC: ± 15
Max. switching frequency	1/h	15 000	
Mass without coil	kg (lbs)	0.25 (0.55)	0.32 (0.71)

		Datasheet	Type	
General information		GI_0060	Products and operating conditions	
Coil types		C_8007	C19B*	C22B*
Valve bodies	In-line mounted	SB_0018	SB-B4*	
	Sandwich mounted	SB-04(06)_0028	SB-*B4*	
Cavity details / Form tools		SMT_0019	SMT-B4*	
Spare parts		SP_8010		

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

Operating limits - Lightline

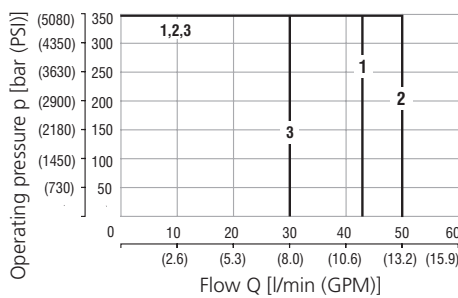
Oil 60 °C (140 °F) / Ambient temperature
50 °C (122 °F) / Voltage U_n -10% (21.6 VDC)



	Model	Connection
1	ZZ11	3→2, 4→1
2	ZZ51	3→4, 2→1
2	2X21	3→4, 2→1
3	2X21	3→2, 4→1

Operating limits - High performance

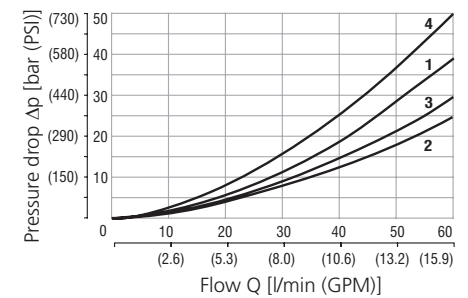
Oil 80 °C (176 °F) / Ambient temperature
50 °C (122 °F) / Voltage U_n -10% (21.6 VDC)



	Model	Connection
1	ZZ11	3→2, 4→1
2	ZZ51	3→4, 2→1
2	2X21	3→4, 2→1
3	2X21	3→2, 4→1

Pressure drop related to flow rate

- Lightline, High performance

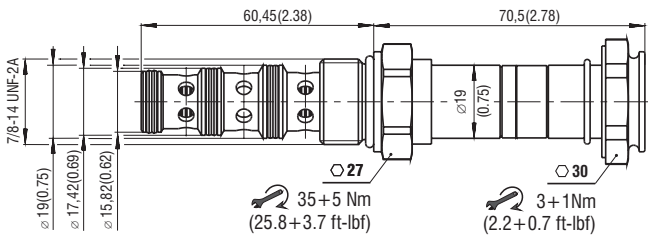


	Model	Connection
1	ZZ11	3→2
1	ZZ11	4→1
3	ZZ51 - only for L	3→4
3	ZZ51 - only for L	2→1
2	ZZ51 - only for H	3→4
3	ZZ51 - only for H	2→1
3	2X21	3→2
4	2X21	4→1
3	2X21 Q_{max} 50 l/min	3→4
2	2X21 Q_{max} 40 l/min	2→1

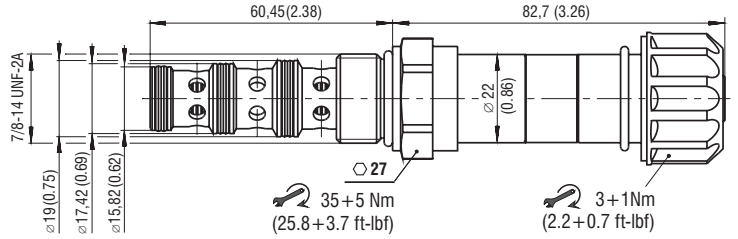
For operating limits under conditions and flow directions other than shown contact our technical support.

Dimensions in millimeters (inches)

Lightline



High performance



Manual Override in millimeters (inches)

No designation - standard	Designation M2 - rubber boot protected	Designation 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

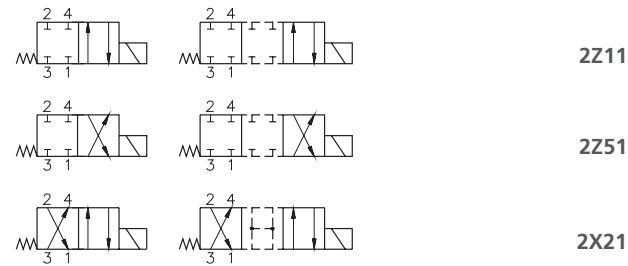
SD2E-B4 / -

4/2 directional valve, solenoid operated, spool-type, direct-acting, 7/8-14 UNF

Lightline
High performance

L
H

Model



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