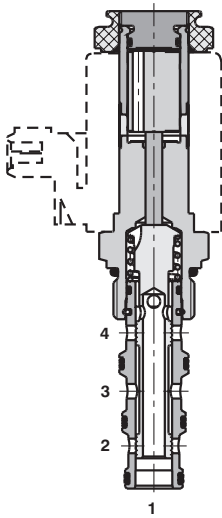


4/2 Directional Valve, Solenoid Operated, Spool Type, Direct Acting

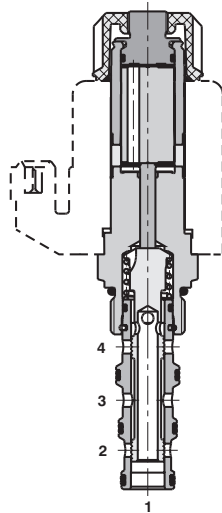
SD2E-B4

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	2X21
Symbol			

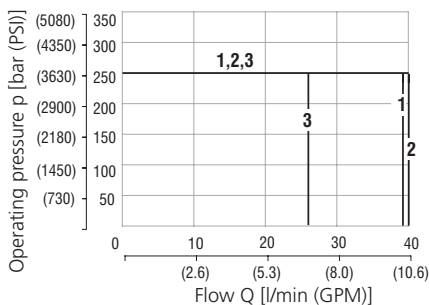
Technical Data

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	
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	In-line mounted	C 8007	
	Sandwich mounted	SB_0018 SB-04(06)_0028	
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

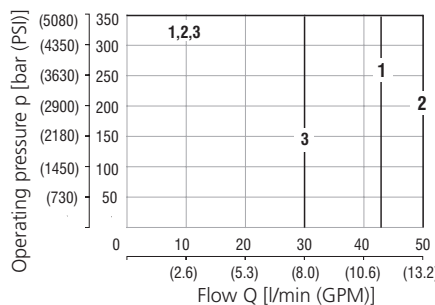
Oil 60 °C (140 °F) / Ambient temperature
50 °C (122 °F) / Voltage U_n -10% (21.6 VDC)



Model	Connection
1 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

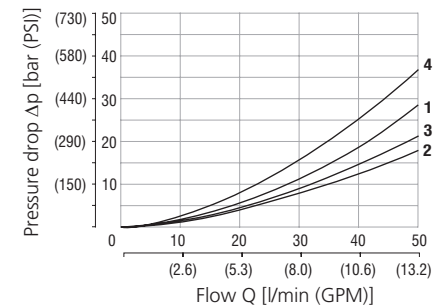
Oil 80 °C (176 °F) / Ambient temperature
50 °C (122 °F) / Voltage U_n -10% (21.6 VDC)



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

Pressure drop related to flow rate

- Lightline, High performance

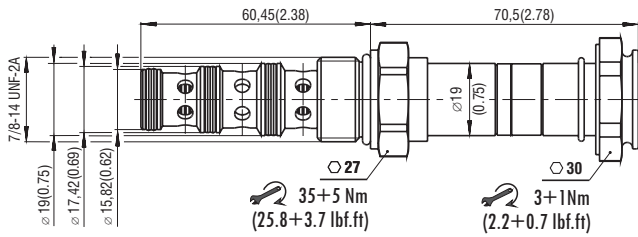


Model	Connection
1 2Z11	3→2
1 2Z11	4→1
3 2Z51 - only for L	3→4
3 2Z51 - only for L	2→1
2 2Z51 - only for H	3→4
3 2Z51 - only for H	2→1
3 2X21	3→2
4 2X21	4→1
3 2X21 Q_{max} 50 l/min	3→4
2 2X21 Q_{max} 40 l/min	2→1

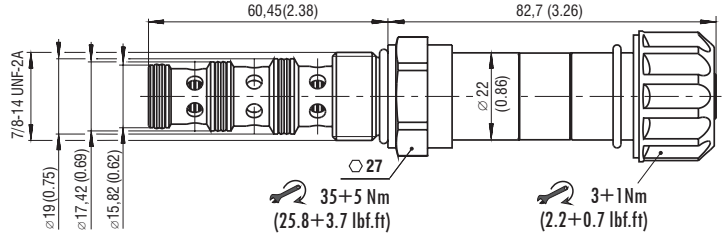
For operating limits under conditions and flow directions other than shown contact our technical support.

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 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

SD2E-B4 / -

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

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

Model
Lightline **L**
High performance **H**

Functional symbol

	2Z11
	2Z51
	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)

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

No designation
M2
M5
M9