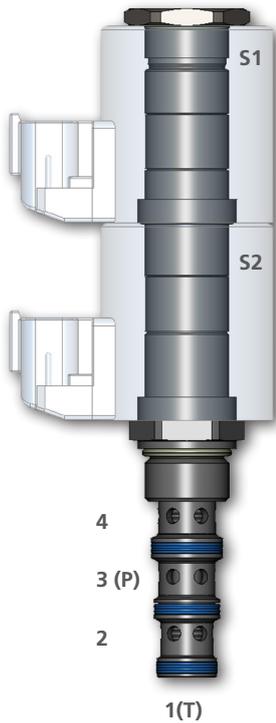


4/3 Directional Valve, Solenoid Operated, Spool Type, Direct Acting

SD2E-A4/H3

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



Technical Features

- › Hardened precision parts
- › High flow capacity relative to size and valve type
- › High transmitted hydraulic power
- › Ports 2,3,4 may be fully pressurized
- › Four optional spools available
- › Interchangeable coil C19B* among SD*-A*/H* product line
- › Surface of the valve is zinc coated with corrosion protection 520 h in NSS acc. to ISO 9227

Functional Description

4-way, 3-position spool type directional valve with 3/4-16 UNF connection thread, operated by dual solenoids, designed for installation into A4 (C-8-4) chambers of the block. The valve controls the flow direction of the fluid, changes the direction of the hydraulic cylinder piston rod or stops it.

Model Code	3Z11	3Y11	3H11	3C11
Symbol				

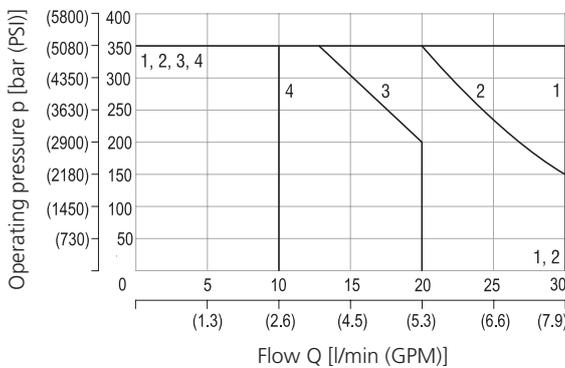
Technical Data

Valve size / Cartridge cavity		3/4-16 UNF-2A / A4 (C-8-4)
Max. flow	l/min (GPM)	30 (8)
Max. operating pressure in Ports 2, 3, 4	bar (PSI)	350 (5100)
Max. operating pressure in Port 1	bar (PSI)	250 (3600)
Max. internal leakage in the direction 4→1 (v=32 mm ² /s)	cm ³ /min	≤ 35 at 250 bar
Fluid temperature range (HNBR)	°C (°F)	-30 ... +80 (-22 ... +176)
Fluid temperature range (FPM)	°C (°F)	-20 ... +80 (-4 ... +176)
Ambient temperature range	°C (°F)	-30 ... +80 (-22 ... +176)
Fluid viscosity range	mm ² s ⁻¹	10 ... 500
Weight without coil	kg (lbs)	0.30 (0.66)
Datasheet		Type
General information	HA 0060	Products and operating conditions
Coil types	HA 8007	C19B*
Valve bodies In-line mounted	HA 0018	SB-A4*
Cavity details / Form tools	HA 0019	SMT-A4*
Spare parts	HA 8010	

Characteristics measured at v = 32 mm²/s (156 SUS)

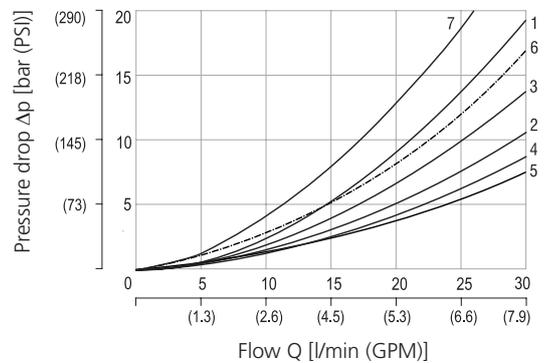
Operating limits

Oil 80 °C (176 °F) / Ambient temperature 50 °C (122 °F)
Voltage U_N -10% (21.6 V DC)



	Model	Connection
1	3Z11	3→4, 2→1, 3→2, 4→1
1	3C11	3→2, 4→1
2	3Y11	3→4, 2→1, 3→2, 4→1
3	3H11	3→4, 2→1, 3→2, 4→1
4	3C11	3→4, 2→1

Pressure drop related to flow rate

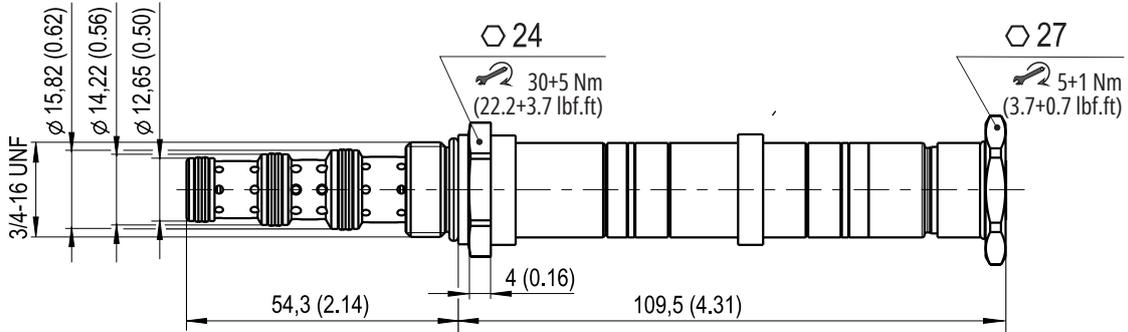
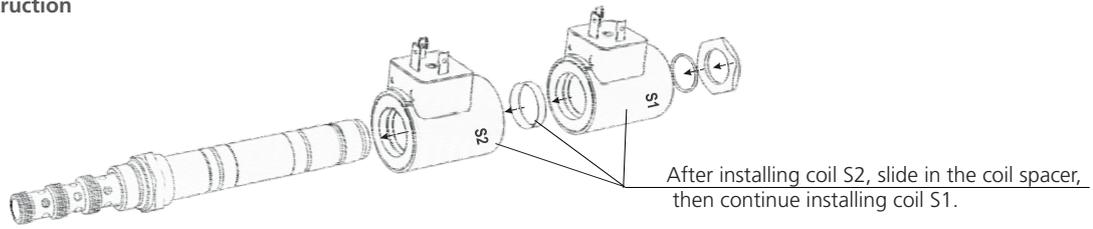


	Model	Connection	Model	Connection	
1	3Z11	3→2, 3→4	3	3Z11	4→1
1	3Y11	3→2, 3→4, 4→1	4	3Y11	2→1
1	3C11	2→1	5	3H11	2→1
2	3Z11	2→1	6	3H11	3→2, 3→4
2	3H11	4→1	6	3C11	4→1
2	3C11	3→1	7	3C11	3→2

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

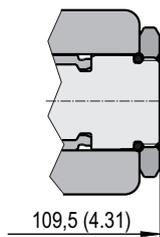
Dimensions in millimeters (inches)

Coils assembly instruction

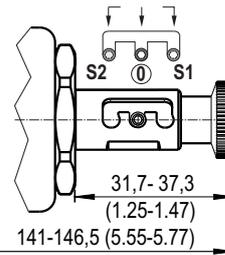


Manual Override in millimeters (inches)

Designation M9
- standard - without manual override



Designation M7
- handwheel with locking for both end positions



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 1(T) does not exceed 25 bar (363 PSI).

Ordering Code

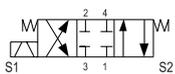
SD2E-A4 / H3 - **B**

4/3 directional valve, solenoid operated, spool type, direct acting

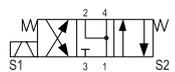
Valve cavity
3/4-16 UNF (C-8-4)

High performance, 3-position valve

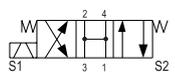
Functional symbol



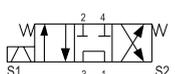
Z11



Y11



H11



C11

Surface treatment
zinc-coated (ZnNi), ISO 9227 (520 h)

No designation
V

Seals
HNBR
FPM (Viton)

Manual override
standard - without manual override
handwheel with locking

M9
M7

Coils are not included!
Order separately, see Coil datasheet C_8007.

Valve	Coil	Page
SD2E-A4/H*	C19	7