

Proximity switch SMTSO-8E

FESTO



Type code

001	Series	
SMTSO	Proximity sensor, magneto-inductive, welding field immune	
002	Design type	
8	For T-slot	
003	Sensor version	
E	Mounting with accessories	
004	Switching output	
NS	3-wire NPN N/O contact	
PS	3-wire PNP N/O contact	

005	Electrical connection	
M12	Plug M12, A-coded	
006	Display	
L	LED	
007	Nominal operating voltage	
1	24 V DC	

Datasheet

General technical data

Design	For T-slot
Mounting position	optional
Approval	RCM trademark
Based on standard	EN 60947-5-2
CE mark (see declaration of conformity) ¹⁾	To EU EMC Directive, In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC, To UK RoHS instructions
Instructions on use	Support / actuator-sensor overview "The right sensor for the actuator"
Note on materials	RoHS-compliant
Special characteristics	Welding field resistant, Resistant to welding spatter
LABS (PWIS) conformity	VDMA24364-B2-L

1) For information about the area of use, see the declaration of conformity at: www.festo.com/smtso-8e → Support/Downloads.

If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

Input signal, measuring element

Measured variable	Position
Measuring principle	Magneto-inductive
Ambient temperature	-25 ... 70°C

Switching output

Switching output	NPN, PNP
Switching element function	N/O contact
Repetition accuracy	0.2 mm
Switch-on time	38 ms
Switch-off time	20 ms
Max. output current	200 mA
Max. switching capacity DC	6 W
Max. switching frequency	14 Hz
Voltage drop	≤3 V
Off-state current	≤0.01 mA
Residual ripple	10%

Output, additional data

Short circuit current rating	yes
Overload protection	Yes

Electronics

Operational voltage range DC	10 ... 30 V
Reverse polarity protection	For all electrical connections

Electromechanics

Electrical connection 1, connection type	Plugs
Electrical connection 1, connector system	M12x1, A-coded to EN 61076-2-101
Electrical connection 1, type of mounting	Screw-type lock, Not rotatable
Electrical connection 1, compatible type of mounting	Compatible with rotatable screw-type lock
Electrical connection 1, number of connections/cores	3
Electrical connection 1, tightening torque	0.675 Nm
Connection outlet orientation	Lateral
Material electrical contact	Gold-plated brass

Datasheet

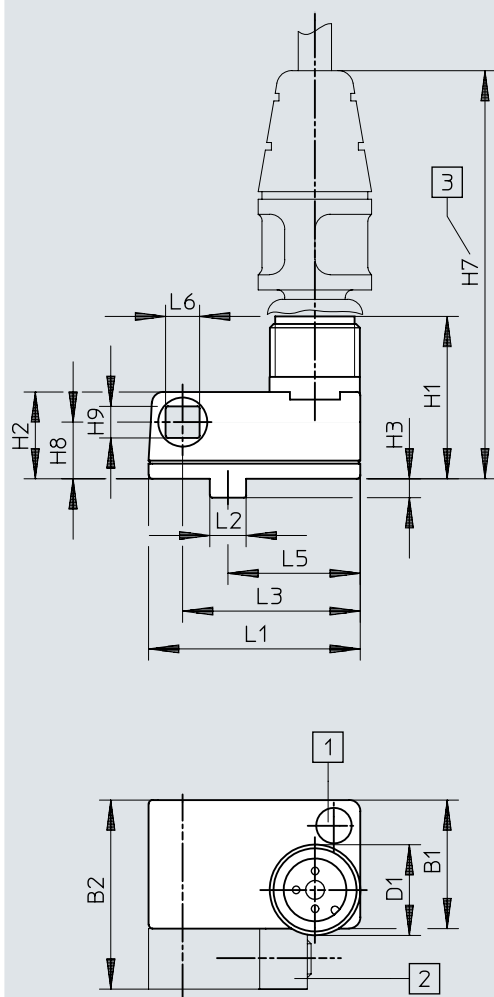
Mechanical components	
Type of mounting	Clamped in T-slot, With accessories, Insertable in the slot from above
Electrical connection 1, type of mounting	Screw-type lock, Not rotatable
Material housing	Wrought aluminium alloy, PA, PUR, TPE-U(PU), High-alloy stainless steel
Housing colour	Black
Product weight	10 ... 19 g

Display, operation	
Switching status indication	Yellow LED

Immission, emission	
Degree of protection	IP65, IP67
Immunity to magnetic fields	45 - 65 Hz, Alternating magnetic field

Dimensions

Dimensions – SMTSO-8E-...-M12-LED-24 – Plug M12x1

[Download CAD data](#) www.festo.com


- [1] Yellow LED
 [2] Mounting kit SMB-8E (included in the scope of delivery)
 [3] Installation space for connecting cable NEBU-M12G5



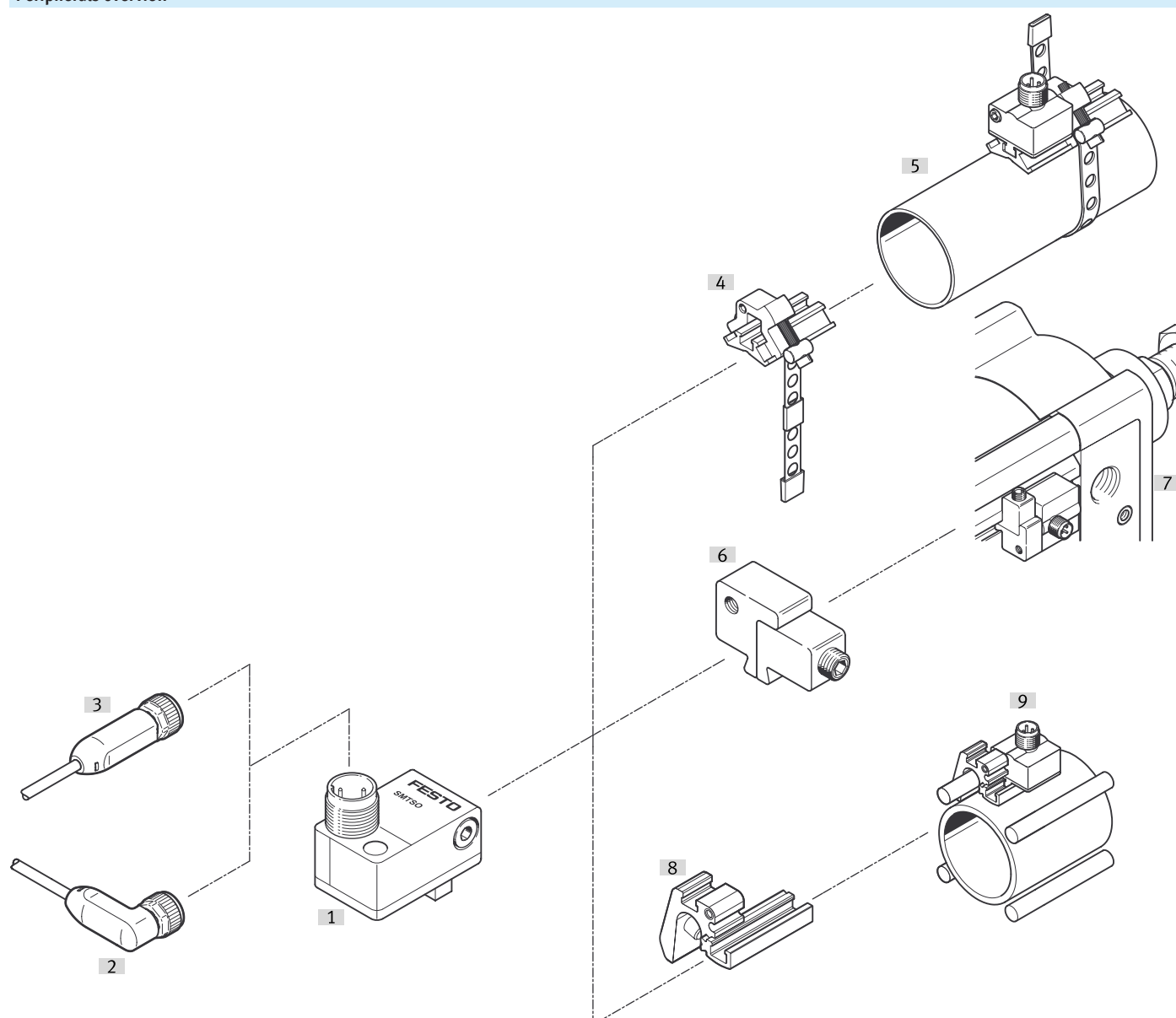
	B1	B2	D1	H1 +0,5	H2	H3 ±0,2	H7	H8	H9	L1	L2	L3	L5	L6
SMTSO-8E- ... -M12-LED-24	17	24,8	M12x1	21,5	11,5	2,5	~56	7,5	4,2	28	4,8	23,5	17,5	4,5

Ordering data

Ordering data					
	Switching output	Electrical connection 1, connector system	Product weight	Part no.	Type
	NPN	M12x1, A-coded to EN 61076-2-101	10 g	175825	SMTSO-8E-NS-M12-LED-24
	PNP		19 g	191986	SMTSO-8E-PS-M12-LED-24

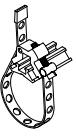
Peripherals

Peripherals overview



Accessories			→ Link
Type/order code	Description		
[1] Proximity switch SMTSO-8E	–		smtso-8e
[2] Connecting cable NEBA-M...W...	Angled socket	8	
[3] Connecting cable NEBA-M...G...	Straight socket	8	
[4] Mounting kit SMBR-8-8, 100-S6	Heat resistant	8	
[5] Round cylinders	–		dsnu
[6] Mounting kit SMB-8E	–	8	
[7] Standards-based cylinder DSBC	–		dsbc
[8] Mounting SMBZ-8-...	for tie rods	8	
[9] Drives with tie rod or mounting rod	–		–

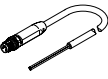
Accessories

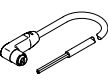
Mounting kit SMBR-8-8/100-S6					
	For piston diameter	Material housing	Corrosion resistance class CRC ¹⁾	Part no.	Type
	Ø8 - Ø100	Wrought aluminium alloy, Anodised, High-alloy stainless steel	4 - Very high corrosion stress	538937	SMBR-8-8/100-S6

1) More information www.festo.com/x/topic/kbk

Mounting kit SMB-8E					
	Material profile	Material screws	LABS (PWIS) conformity	Part no.	Type
	Aluminium, Anodised	High-alloy stainless steel	VDMA24364-B2-L	178230	SMB-8E

Mounting SMBZ-8					
	For piston diameter	Material housing	Corrosion resistance class CRC	Part no.	Type
	Ø32 - Ø100	Anodised wrought aluminium alloy	2 - Moderate corrosion stress	537806	SMBZ-8-32/100
	Ø125 - Ø320			537808	SMBZ-8-125/320

Connecting cable NEBA-M12, straight socket					
	Cable structure	Cable length	Product weight	Part no.	Type
	3 x 0.25 mm ²	2.5 m	55 g	8078236	NEBA-M12G5-U-2.5-N-LE3
		5 m	102 g	8078237	NEBA-M12G5-U-5-N-LE3

Connecting cables NEBA-M12, angled socket					
	Cable structure	Cable length	Product weight	Part no.	Type
	3 x 0.25 mm ²	2.5 m	56 g	8078245	NEBA-M12W5-U-2.5-N-LE3
		5 m	103 g	8078246	NEBA-M12W5-U-5-N-LE3

Inscription labels			
	Material label	Part no.	Type
	PC	541598	ASLR-L-423