

## Proximity switch SMTSO-8E

**FESTO**



## Type code

001	Series
<b>SMTSO</b>	Proximity sensor, magneto-inductive, welding field immune

002	Design type
<b>8</b>	For T-slot

003	Sensor version
<b>E</b>	Mounting with accessories

004	Switching output
<b>NS</b>	3-wire NPN N/O contact
<b>PS</b>	3-wire PNP N/O contact

005	Electrical connection
<b>M12</b>	Plug M12, A-coded

006	Display
<b>L</b>	LED

007	Nominal operating voltage
<b>1</b>	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) <sup>1)</sup>	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](http://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	Pulsed
Overload protection	Available

### 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
Electrical connection 1, number of connections/cores	3
Connection outlet orientation	Lateral
Material electrical contact	Gold-plated brass
Max. tightening torque connector	–

## Datasheet

**Mechanical components**

Type of mounting	Clamped in T-slot, With accessories, Insertable in the slot from above
Tightening torque	–
Material housing	Wrought aluminium alloy, PA, PUR, TPE-U(PU), High-alloy stainless steel
Housing colour	Black
Product weight	10 ... 19 g

**Display, operation**

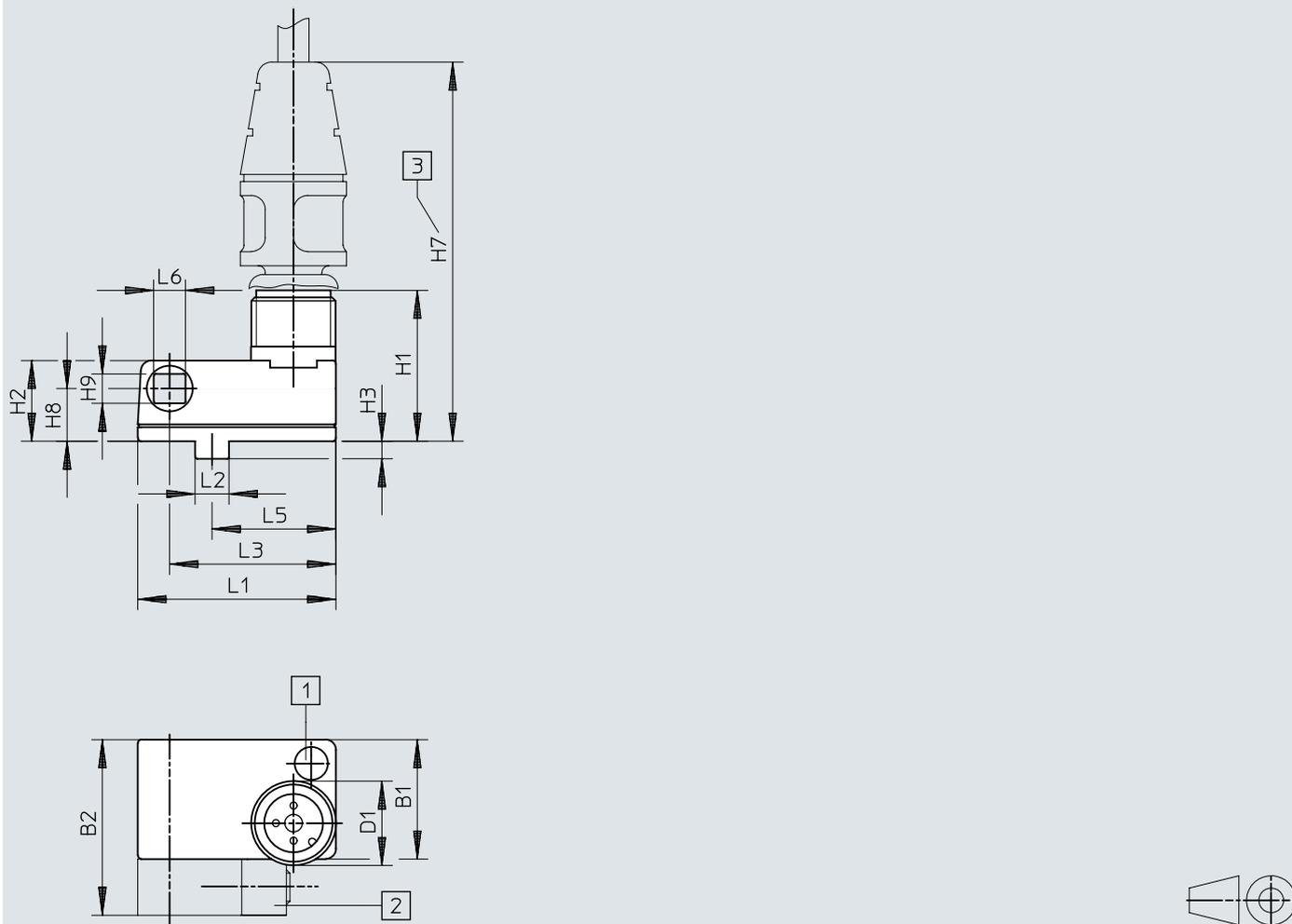
Switching status indication	Yellow LED
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**Immission, emission**

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](http://www.festo.com)

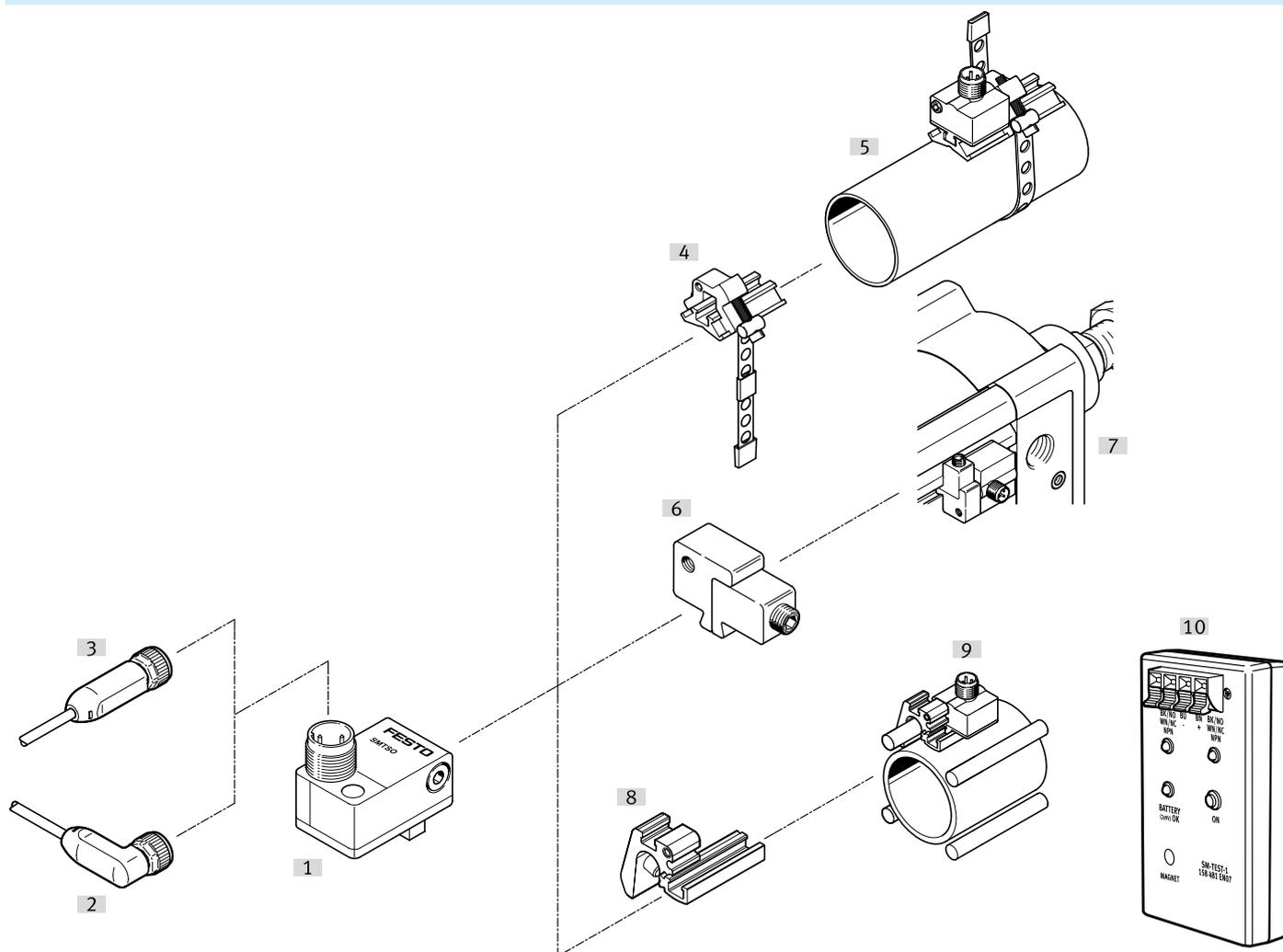
- [1] Yellow LED  
 [2] Mounting kit SMB-8E (included in the scope of delivery)  
 [3] Installation space for connecting cable NEBU-M12G5

	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	<b>175825</b>	<b>SMTSO-8E-NS-M12-LED-24</b>
	PNP		19 g	<b>191986</b>	<b>SMTSO-8E-PS-M12-LED-24</b>

## Peripherals



Accessories			→ Link
Type/order code	Description		
[1] Proximity switch SMTSO-8E	–		<a href="#">smtso-8e</a>
[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	–		<a href="#">dsnu</a>
[6] Mounting kit SMB-8E	–		8
[7] Standards-based cylinder DSBC	–		<a href="#">dsbc</a>
[8] Mounting SMBZ-8-...	for tie rods		8
[9] Drives with tie rod or mounting rod	–		<a href="#">–</a>
[10] Sensor tester SM-TEST-1	Checking that the proximity switches are functioning using the built-in voltage source. Adjusting proximity switches on the cylinder.		<a href="#">sm-test-1</a>

## Accessories

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

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

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	<b>537806</b>	<b>SMBZ-8-32/100</b>
	Ø125 - Ø320			<b>537808</b>	<b>SMBZ-8-125/320</b>

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

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

Inscription labels					
	Material label			Part no.	Type
	PC			<b>541598</b>	<b>ASLR-L-423</b>