

## Proximity switch SMT0-8E

**FESTO**



## Datasheet

**Type code**

Series	–
Design type	–
Sensor version	–
Switching output	–
Electrical connection, cable length	–
Display	–
Nominal operating voltage	–

**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
Inductive protective circuit	Adapted to MZ, MY, ME coils
LABS (PWIS) conformity	VDMA24364-B2-L

1) For information about the area of use, see the declaration of conformity at: [www.festo.com/catalogue/smt0-8e](http://www.festo.com/catalogue/smt0-8e) → 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-resistive
Ambient temperature	-20 ... 60°C

**Switching output**

Switching output	NPN, PNP
Switching element function	N/O contact
Repetition accuracy	0.2 mm
Switch-on time	≤1.3 ms
Switch-off time	≤7.3 ms
Max. output current	100 mA
Max. switching capacity DC	2.8 W
Max. switching frequency	130 Hz
Voltage drop	≤1.8 V
Off-state current	≤0.15 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

## Datasheet

### Electromechanics M8x1

Electrical connection 1, connector system	M8x1, A-coded, to EN 61076-2-104
Electrical connection 1, connection type	Plugs
Electrical connection 1, number of connections/cores	3
Connection outlet orientation	Lateral
Max. tightening torque connector	0.3 Nm

### Electromechanics M12x1

Electrical connection 1, connector system	M12x1, A-coded to EN 61076-2-101
Electrical connection 1, connection type	Plugs
Electrical connection 1, number of connections/cores	3
Connection outlet orientation	Lateral
Max. tightening torque connector	0.5 Nm

### Mechanical components

Type of mounting	Clamped in T-slot, With accessories, Insertable in the slot from above
Tightening torque	0.5 ... 1 Nm
Material housing	Wrought aluminium alloy, Brass, nickel-plated, TPE-U(PU), High-alloy stainless steel
Housing colour	Black
Product weight	12 g

### Display, operation

Switching status indication	Yellow LED
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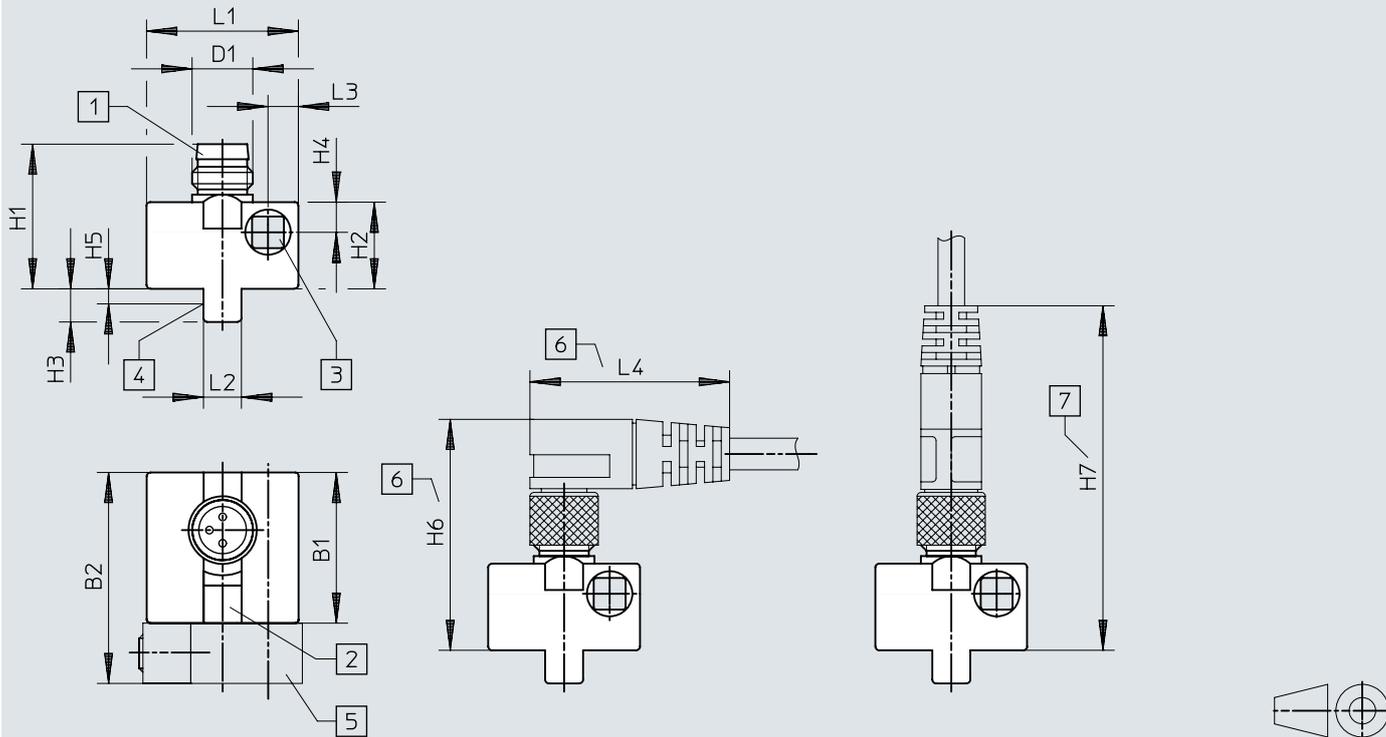
### Immission, emission

Degree of protection	IP65, IP67
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## Dimensions

Dimensions – SMT0-8E-...-S-LED-24 – Plug M8x1

Download CAD data [www.festo.com](http://www.festo.com)

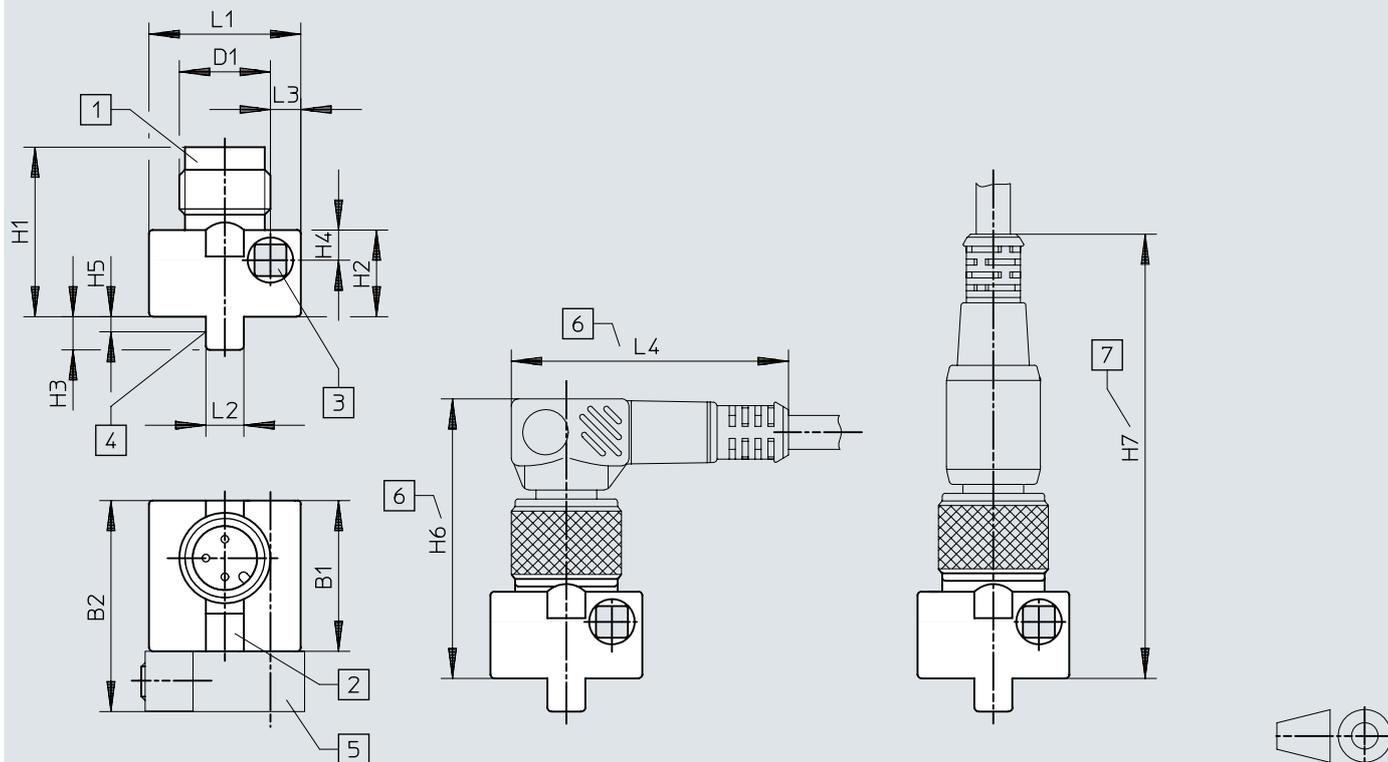


- [1] Suitable for plug socket type NEBA-M8
- [2] Yellow light emitting diode
- [3] Socket head screw M3x25 DIN 912 max. tightening torque 1 Nm
- [4] Theoretical switching point
- [5] Mounting kit SMB-8E (not included in the scope of delivery)
- [6] Installation space for plug socket with 90° corner bracket
- [7] Installation space for straight plug socket

	B1 ±0,3	B2	D1	H1	H2 ±0,27	H3	H4	H5	H6	H7	L1 ±0,3	L2	L3	L4
SMT0-8E- ... -S-LED-24	20	28	M8x1	19,2	11,5	4,4	4	2,2	~32	~46	20	5	4	~26

## Dimensions

Dimensions – SMT0-8E-...-M12-LED-24 – Plug M12x1

Download CAD data [www.festo.com](http://www.festo.com)

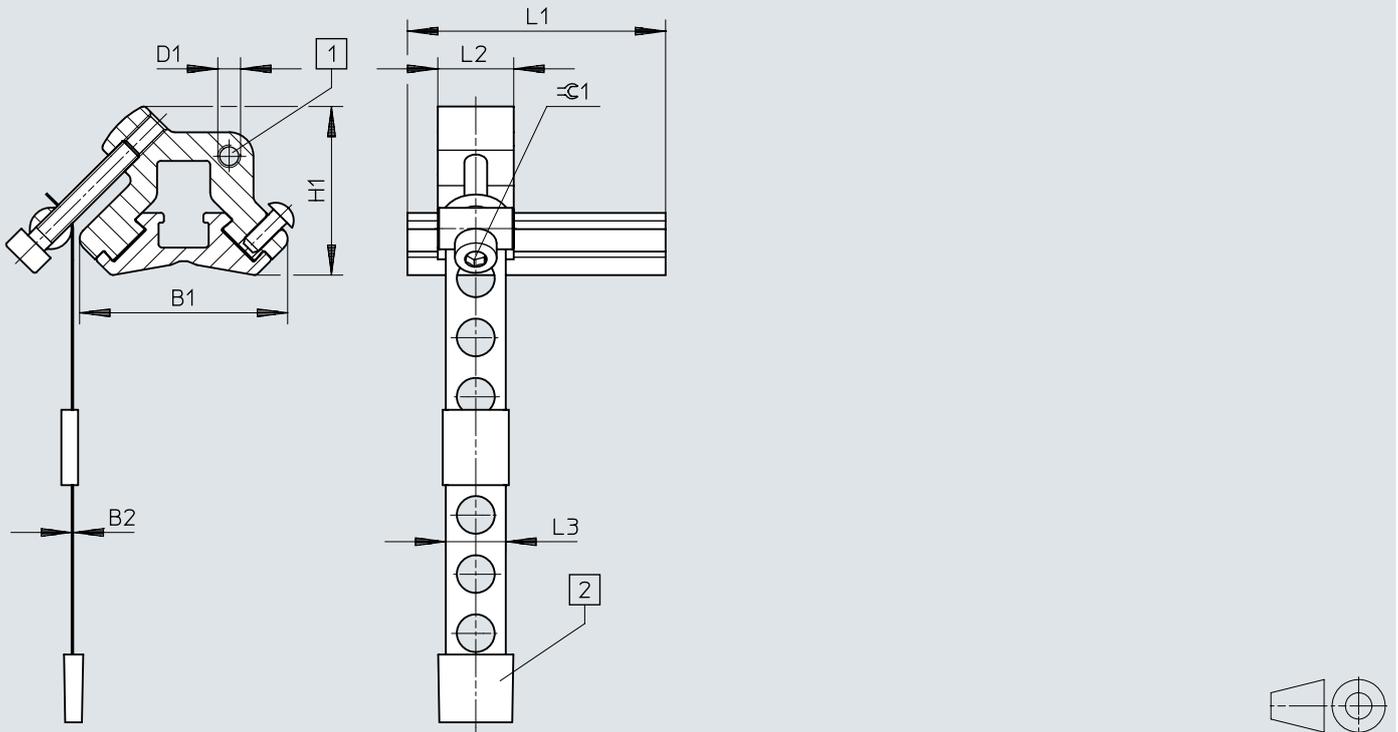
- [1] Suitable for plug socket type NEBA-M12
- [2] Yellow light emitting diode
- [3] Socket head screw M3x25 DIN 912 max. tightening torque 1 Nm
- [4] Theoretical switching point
- [5] Mounting kit SMB-8E (not included in the scope of delivery)
- [6] Installation space for plug socket with 90° corner bracket
- [7] Installation space for straight plug socket

	B1 ±0,3	B2	D1	H1 ±0,34	H2 ±0,27	H3	H4	H5	H6	H7	L1 ±0,3	L2	L3	L4
SMT0-8E- ... -M12-LED-24	20	28	M12x1	22,5	11,5	4,4	4	2,2	~36	~59	20	5	4	~36,5

## Dimensions

### Dimensions – Mounting kit SMBR-8-8/100-S6

Download CAD data [www.festo.com](http://www.festo.com)



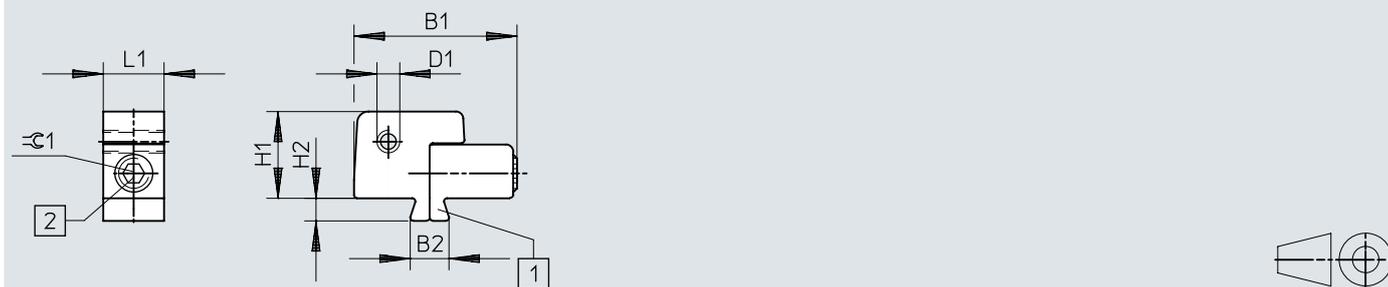
[1] Mounting thread for proximity switch SM ... O-8E

[2] Protective cap

	B1	B2	D1	H1	L1	L2	L3	∅1
SMBR-8-8/100-S6	27,4	0,2	M3	22,4	34	10	7,9	2,5

## Dimensions

## Dimensions – Mounting kit SMB-8E

Download CAD data [www.festo.com](http://www.festo.com)

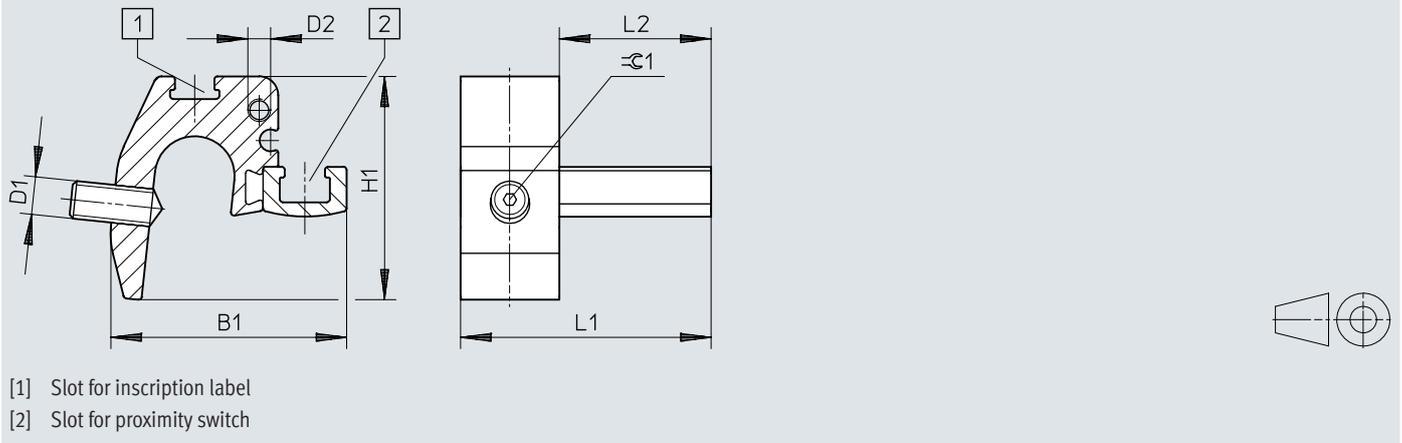
- [1] Suitable for T-slot  
 [2] Max. tightening torque 1 Nm

		B1	B2	D1	H1	H2	L1	$\varnothing 1$
SMB-8E	10 ... 125	21,5	5,1	M3	11,5	3	8	2,5

## Dimensions

### Dimensions – Mounting SMBZ-8-32/100

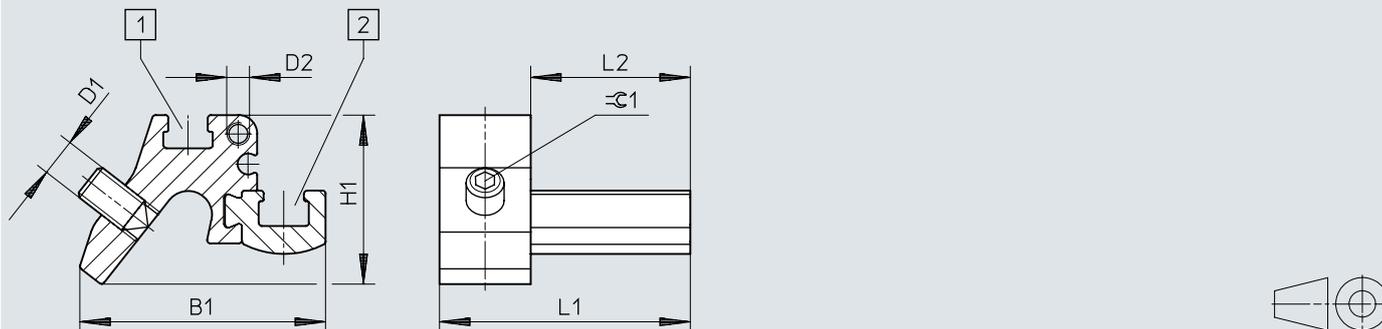
Download CAD data [www.festo.com](http://www.festo.com)



SDBT-MSX	B1	D1	D2	H1	L1	L2	$\varnothing C1$
SMBZ-8-32/100	31	M5	M3	30	33	20	1,5

## Dimensions

## Dimensions – Mounting SMBZ-8-125/320

Download CAD data [www.festo.com](http://www.festo.com)

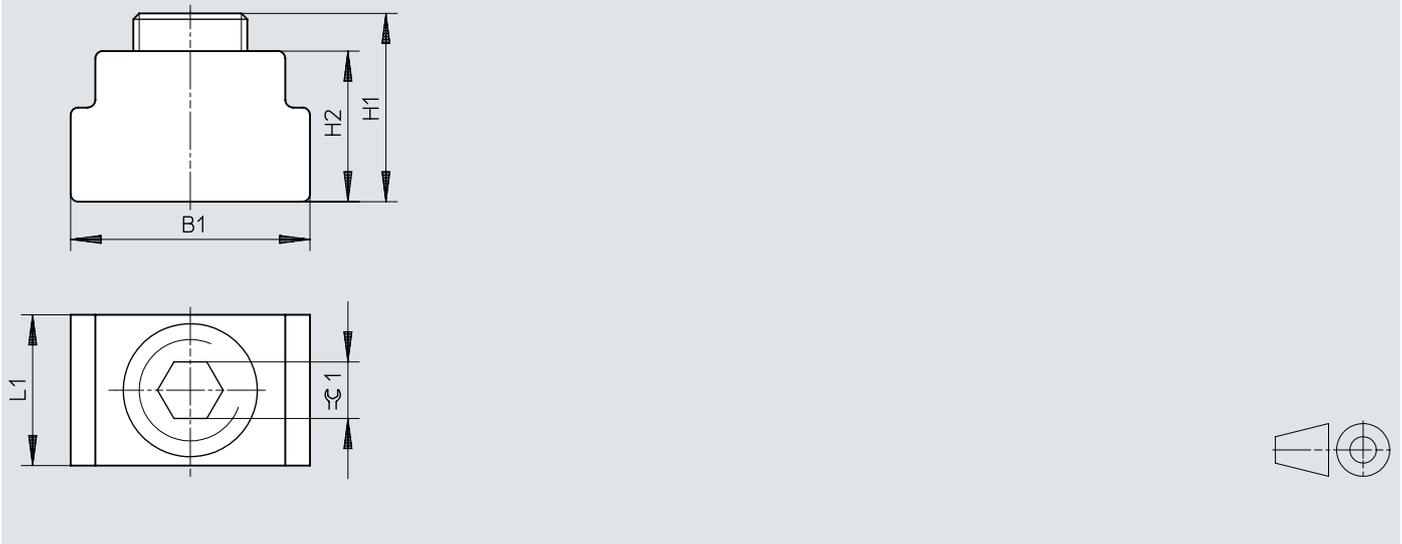
- [1] Slot for inscription label  
 [2] Slot for proximity switch

SDBT-MSX	B1	D1	D2	H1	L1	L2	⌀1
SMBZ-8-125/320	32,3	M5	M3	22	33	20	2,5

## Dimensions

### Dimensions – Positioning element SMM

Download CAD data [www.festo.com](http://www.festo.com)



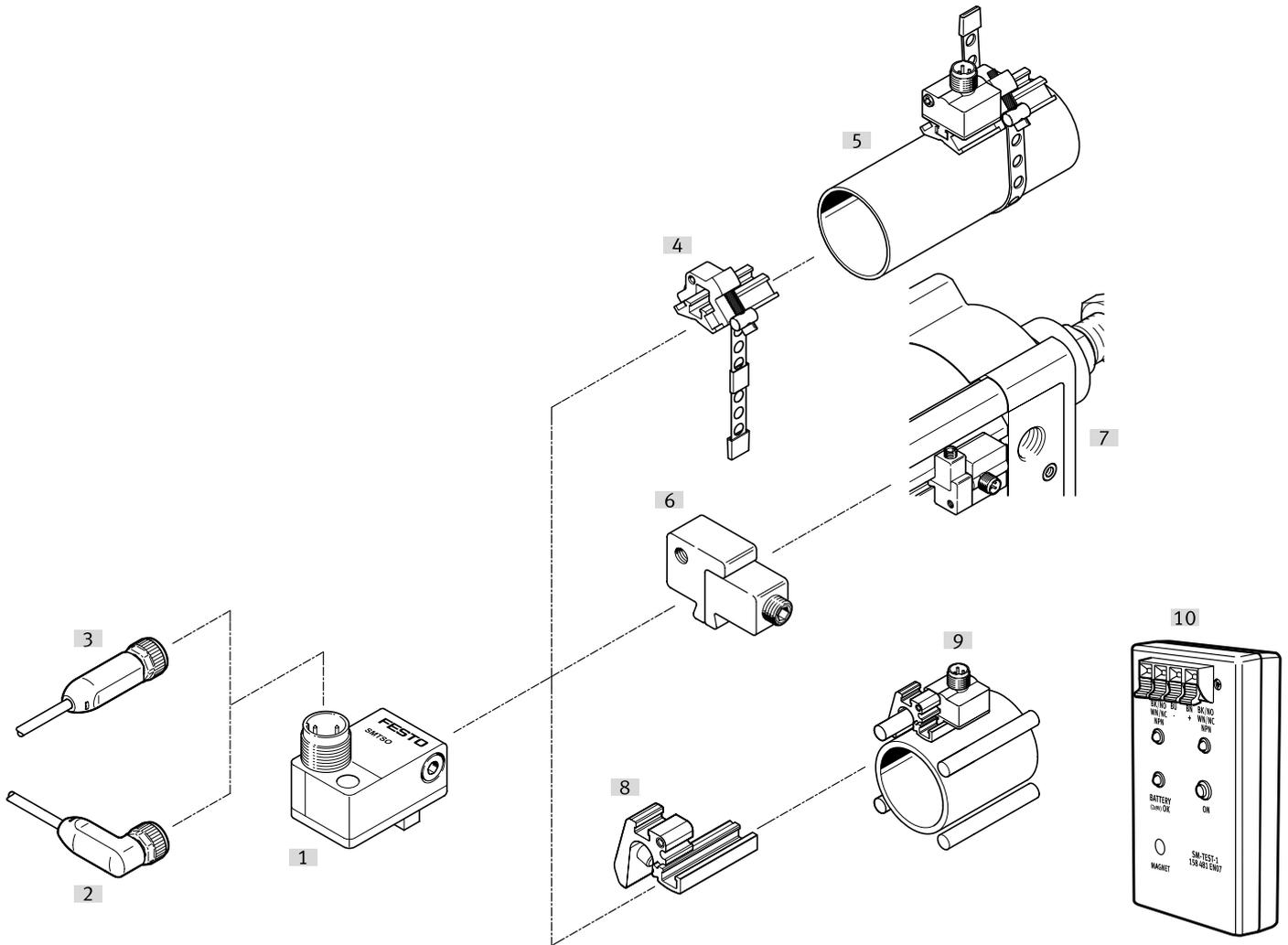
	B1	H1	H2	L1	⌀1
SMM-8	6,3	5,0	4,0	4,0	1,5

## 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	12 g	171176	SMTO-8E-NS-M12-LED-24
		M8x1, A-coded, to EN 61076-2-104		171166	SMTO-8E-NS-S-LED-24
	PNP	M12x1, A-coded to EN 61076-2-101		171179	SMTO-8E-PS-M12-LED-24
		M8x1, A-coded, to EN 61076-2-104		171178	SMTO-8E-PS-S-LED-24

## Peripherals

### Peripherals overview SMT0-8-E



Accessories			→ Link
Type/order code	Description		
[1] Proximity switch SMT0-8E	–		<a href="#">smt0-8e</a>
[2] Connecting cable NEBA-M...W...	Angled socket		13
[3] Connecting cable NEBA-M...G...	Straight socket		13
[4] Mounting kit SMBR-8-8/100-S6	Heat resistant		13
[5] Round cylinders	–		<a href="#">dsnu</a>
[6] Mounting kit SMB-8E	–		13
[7] Standards-based cylinder DSBC	–		<a href="#">dsbc</a>
[8] Mounting SMBZ-8-...	for tie rods		13
[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	538937	SMBR-8-8/100-S6

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 <sup>2</sup>	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 <sup>2</sup>	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