

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) 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
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 → 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
Electrical connection 1, type of mounting	Snap-locking, Screw-type lock, Not rotatable
Electrical connection 1, compatible type of mounting	Compatible with latching lock, Compatible with rotatable screw-type lock
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
Electrical connection 1, type of mounting	Screw-type lock, Not rotatable
Electrical connection 1, compatible type of mounting	Compatible with rotatable screw-type lock
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
-----------------------------	------------

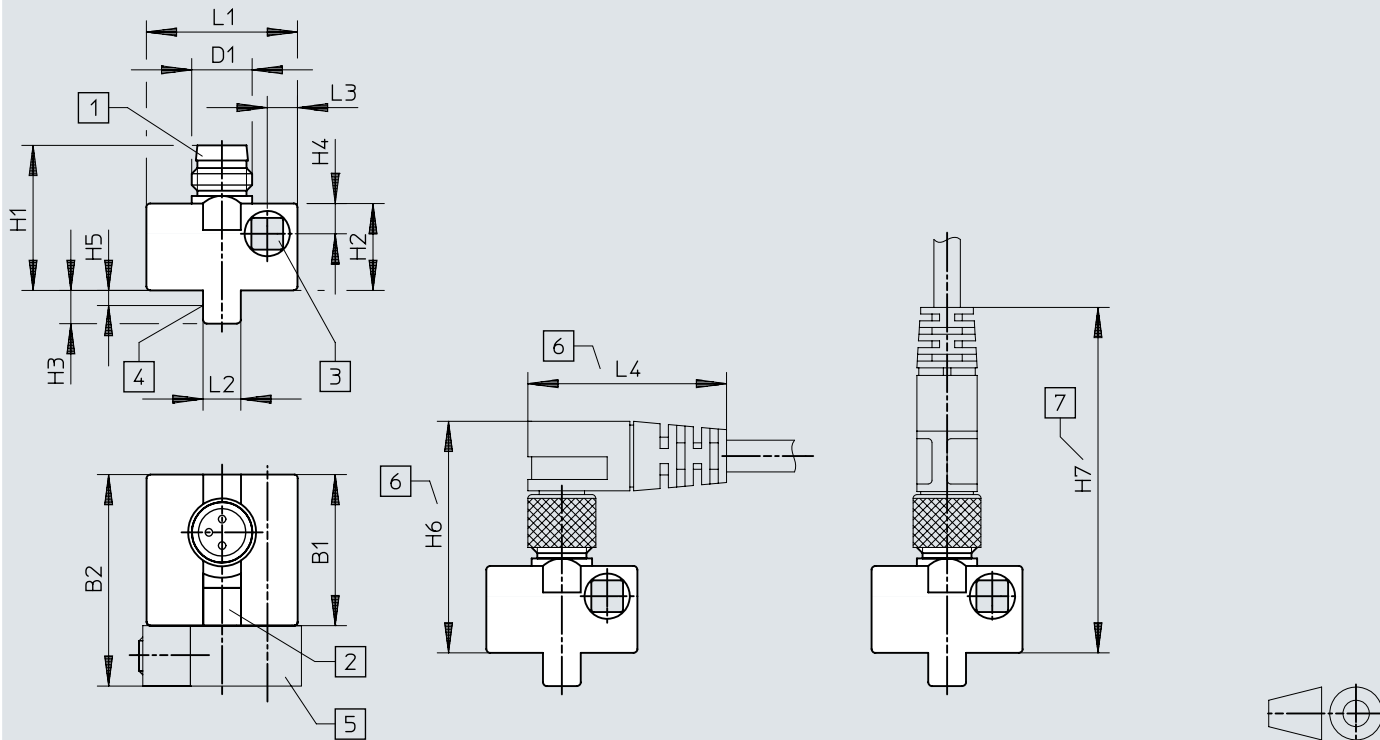
Immission, emission

Degree of protection	IP65, IP67
----------------------	------------

Dimensions

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

Download CAD data www.festo.com

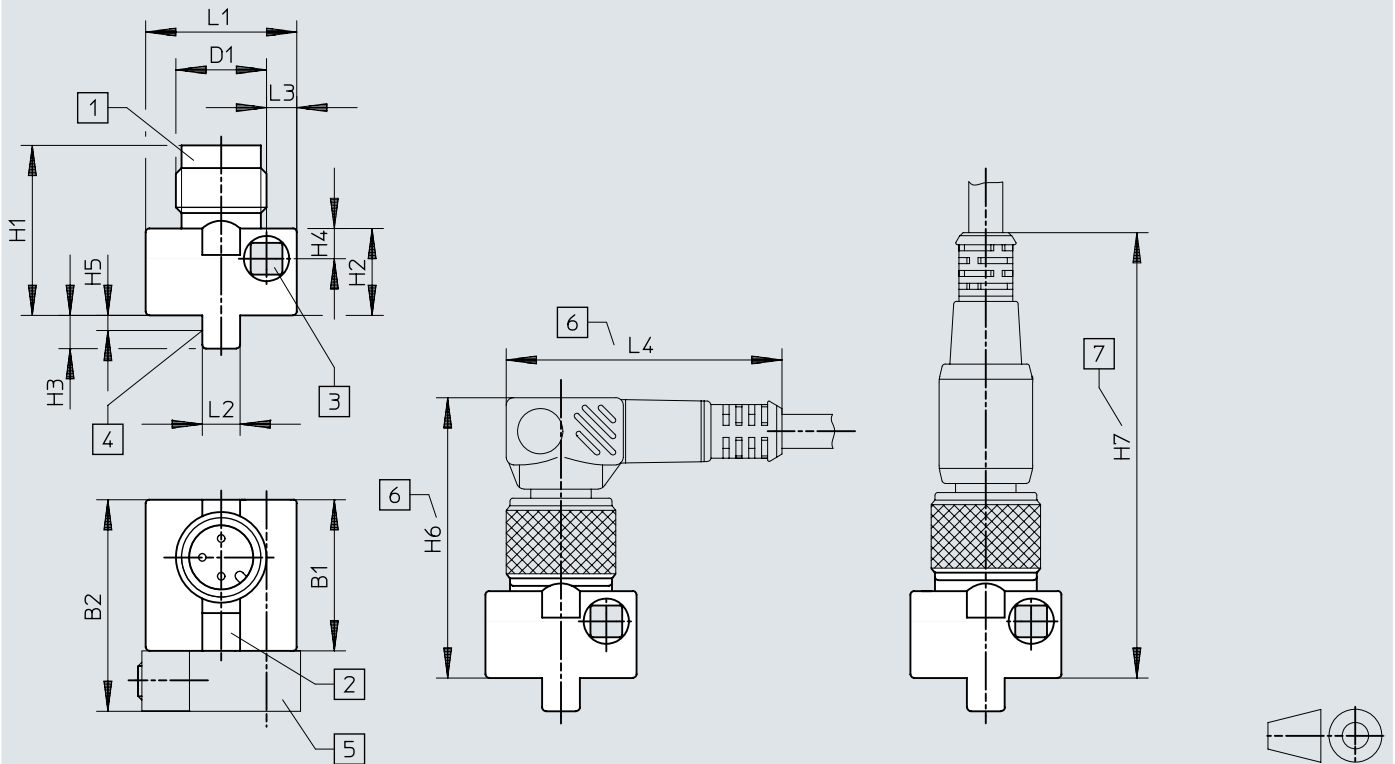


- [1] Suitable for plug socket type NEBA-M8
- [2] Yellow light emitting diode
- [3] Socket head screw M3x25 DIN 912 max. tightening torque 1 Nm
- [4] Theoretical switching point
- [5] Mounting kit SMB-8E (not included in the scope of delivery)
- [6] Installation space for plug socket with 90° corner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

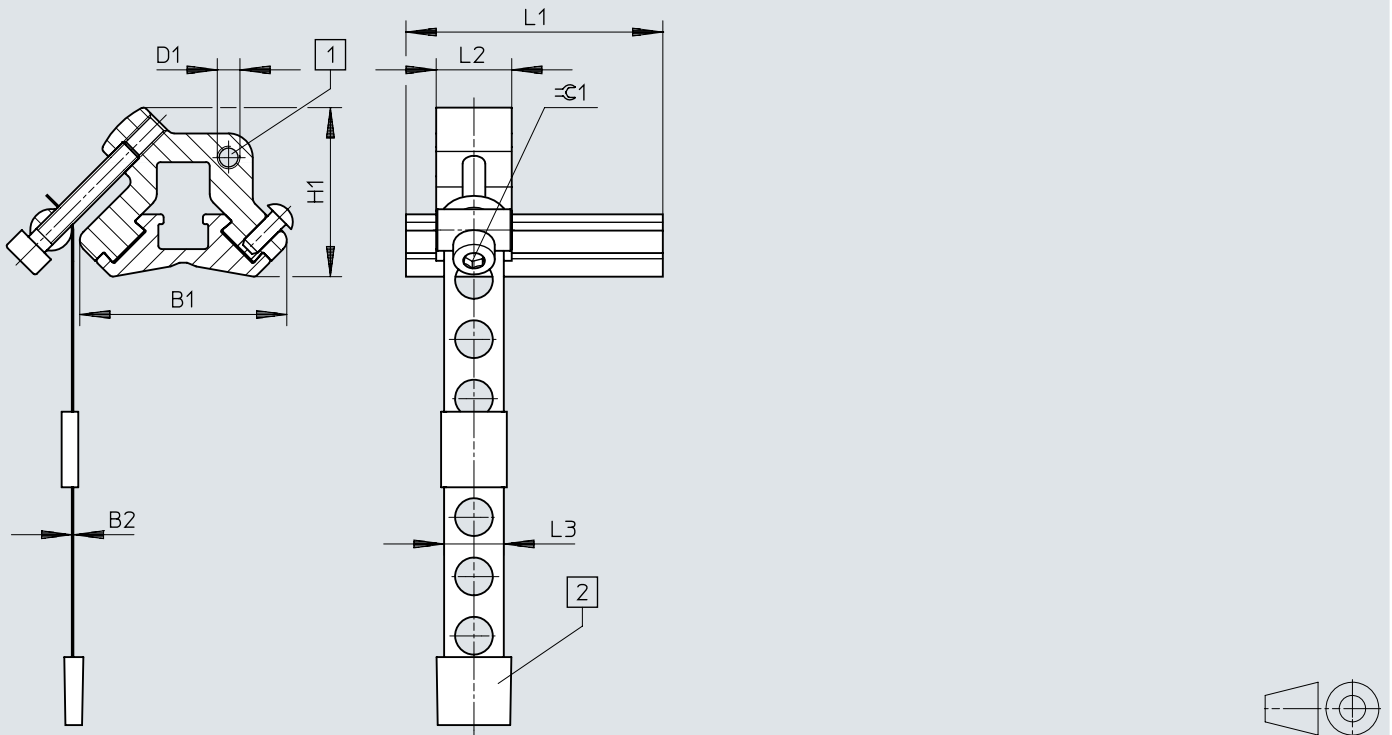
- [1] Suitable for plug socket type NEBA-M12
- [2] Yellow light emitting diode
- [3] Socket head screw M3x25 DIN 912 max. tightening torque 1 Nm
- [4] Theoretical switching point
- [5] Mounting kit SMB-8E (not included in the scope of delivery)
- [6] Installation space for plug socket with 90° corner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



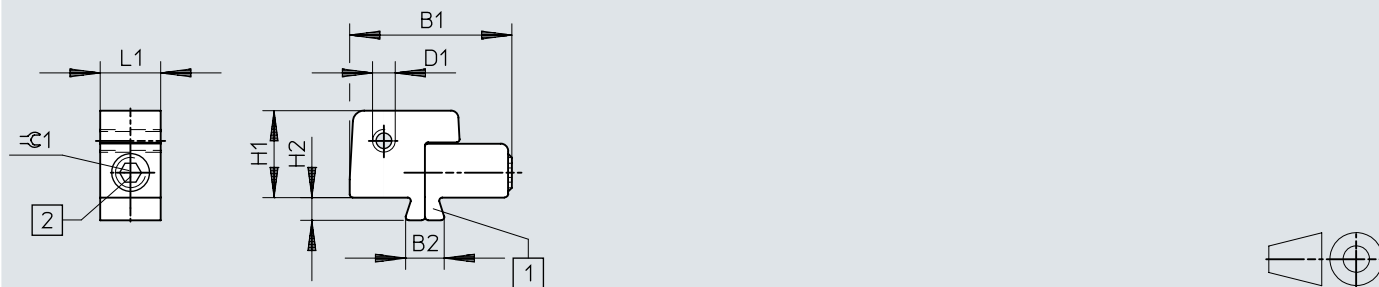
[1] Mounting thread for proximity switch SM ... O-8E

[2] Protective cap

	B1	B2	D1	H1	L1	L2	L3	±0.1
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

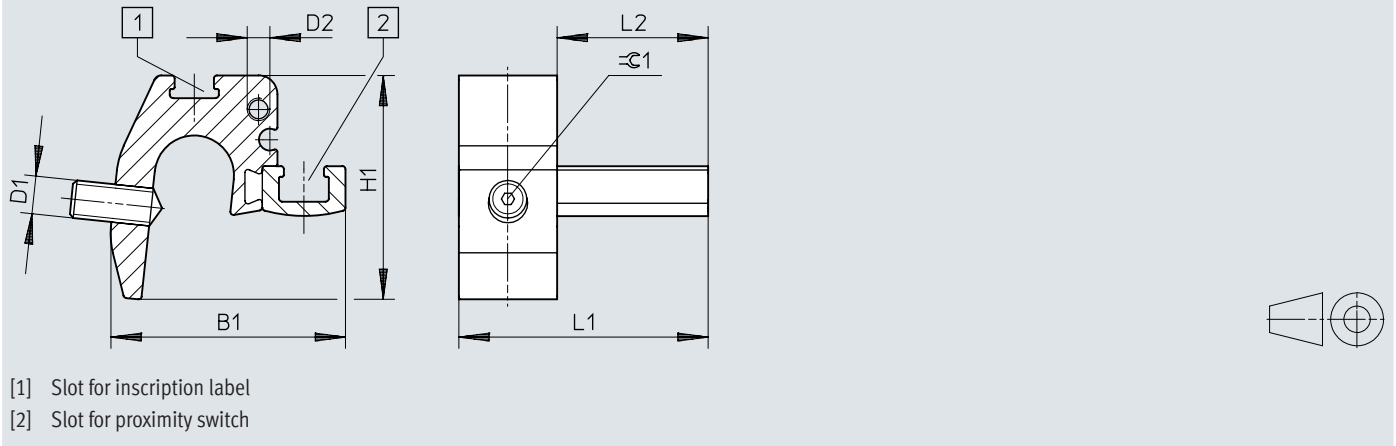
- [1] Suitable for T-slot
 [2] Max. tightening torque 1 Nm

		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

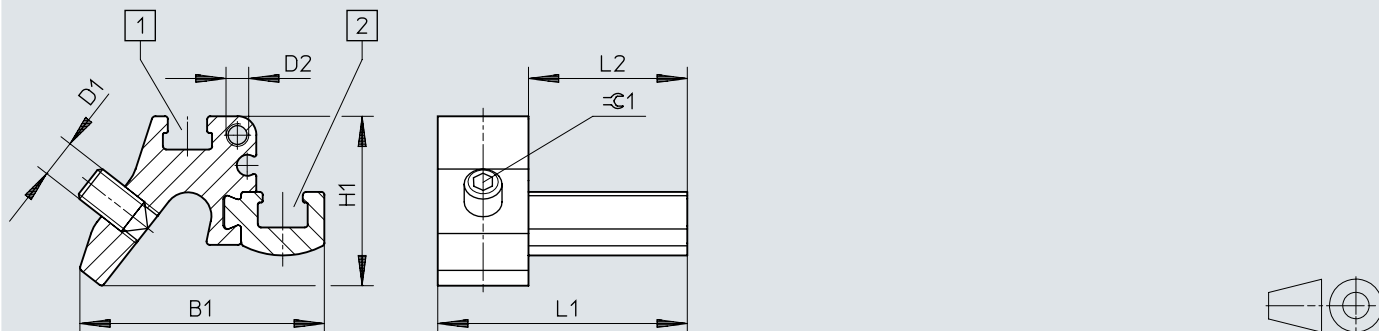
Download CAD data www.festo.com



SDBT-MSX	B1	D1	D2	H1	L1	L2	R1
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

[1] Slot for inscription label

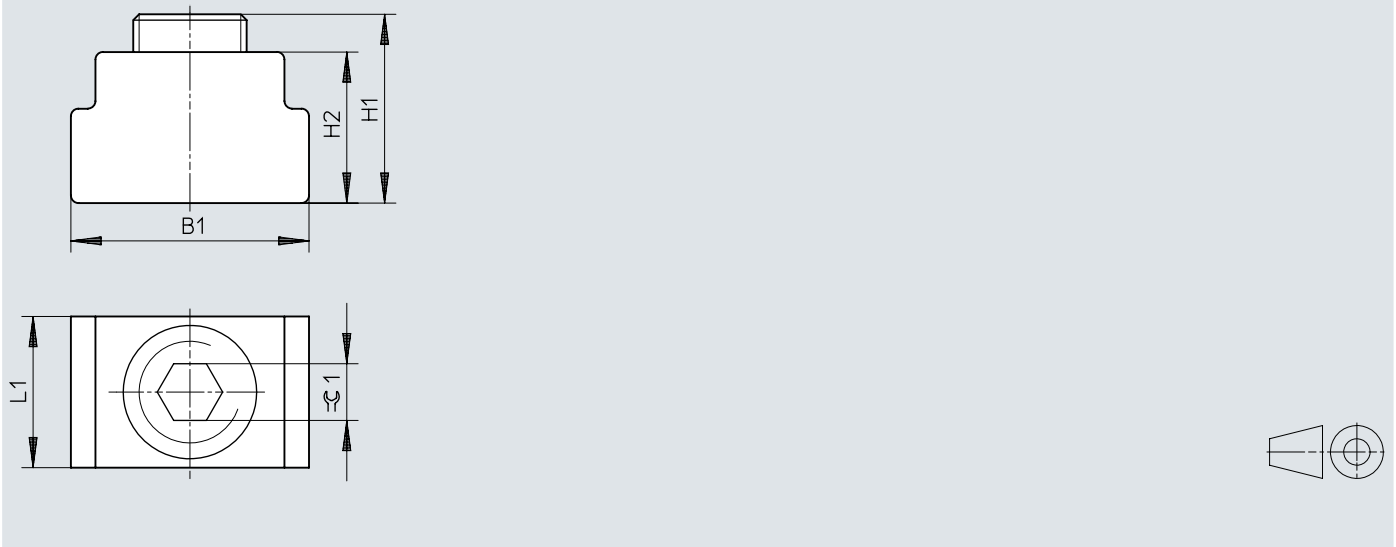
[2] Slot for proximity switch

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

Dimensions


Dimensions – Positioning element SMM

Download CAD data www.festo.com



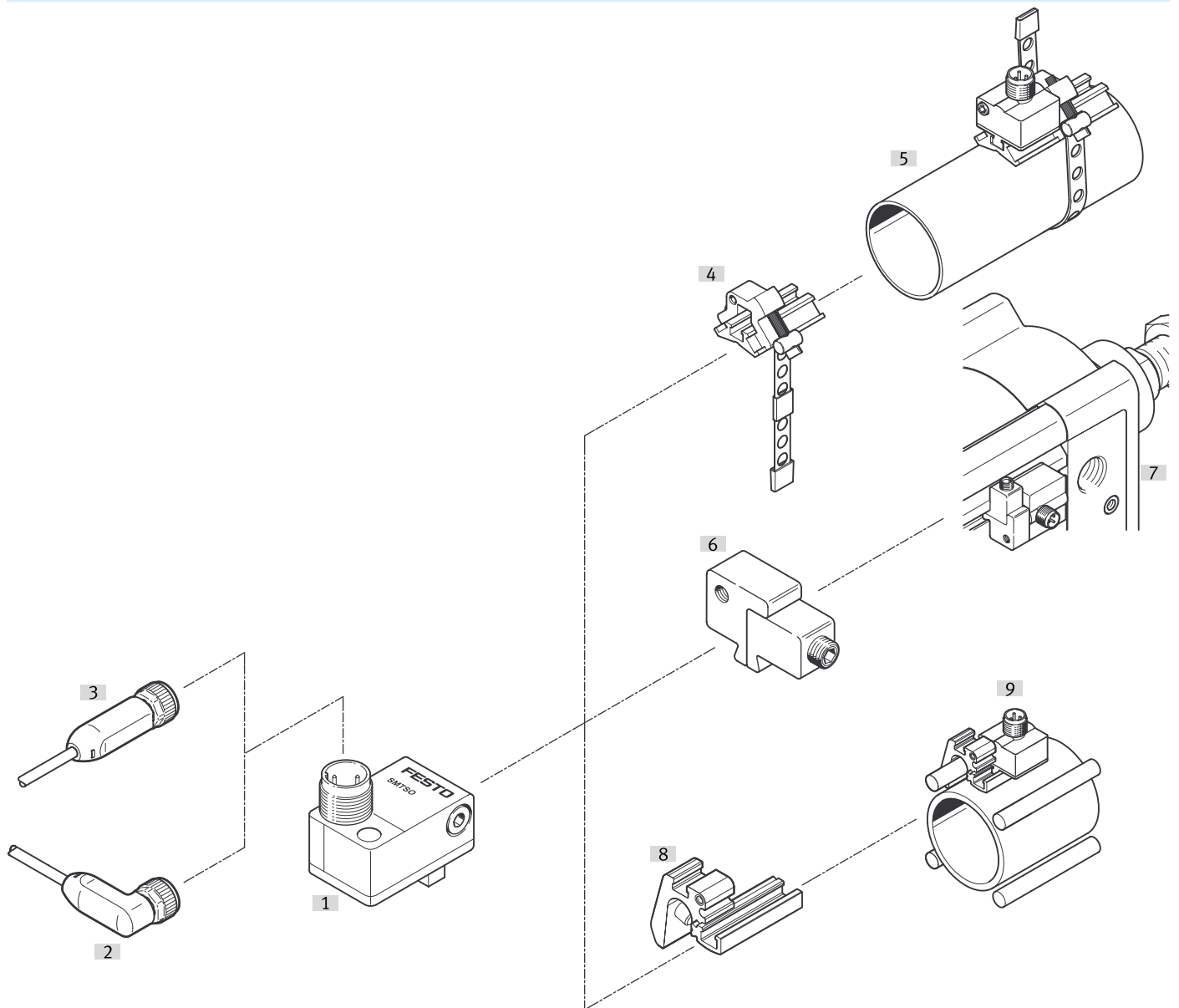
	B1	H1	H2	L1	R1
SMM-8	6,3	5,0	4,0	4,0	1,5

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 SMTO-8-E





Accessories			→ Link
Type/order code	Description		
[1] Proximity switch SMTO-8E	–		smt0-8e
[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	–		dsnu
[6] Mounting kit SMB-8E	–		13
[7] Standards-based cylinder DSBC	–		dsbc
[8] Mounting SMBZ-8-...	for tie rods		13
[9] Drives with tie rod or mounting rod	–		–

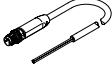
Accessories

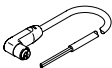
Mounting kit SMBR-8-8/100-S6					
	For piston diameter	Material housing	Corrosion resistance class CRC ¹⁾	Part no.	Type
	Ø8 - Ø100	Wrought aluminium alloy, Anodised, High-alloy stainless steel	4 - Very high corrosion stress	538937	SMBR-8-8/100-S6

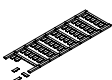
1) More information www.festo.com/x/topic/kbk

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