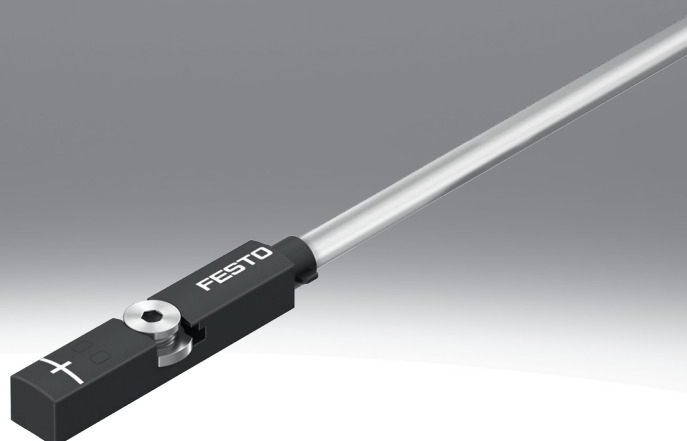


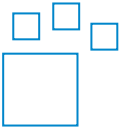
Proximity switch SMT-8M-A

FESTO



Characteristics

Ordering data - modular system



Configurable product

This product and all its product options can be ordered online via the configurator.

Type code

001	Series	
SMT	Proximity sensor	
002	Design type	
8	For T-slot	
003	Sensor version	
M	Inserted in the slot from above	
004	Design	
A	Short	
005	Switching output	
NO	3-wire N/C contact NPN	
NS	3-wire NPN N/O contact	
PO	3-wire PNP N/C contact	
PS	3-wire PNP N/O contact	
ZS	2-wire PNP N/O contact	
006	Rated operating voltage	
24V	24 V	

007	Cable characteristic	
E	Suitable for energy chains/robots	
008	Cable length [m]	
	0.1 ... 30 m	
0,3	0.3 m	
2,5	2.5 m	
5,0	5 m	
7,5	7.5 m	
009	Cable identification	
	With label holder	
N	Without label holder	
010	Connection technology	
OE	Open end	
M8	M8, snap-on flange	
M8D	M8, rotatable thread	
M12	M12, rotatable thread	

Datasheet

General technical data				
Switching output	3-wire N/C contact NPN	3-wire PNP N/C contact	3-wire PNP N/O contact	2-wire PNP N/O contact
Connection technology	Open end		Open end, M8, rotatable thread, M12, rotatable thread	Open end
Sensor version	Inserted in the slot from above			
Design	For T-slot			
Mounting position	optional			
Based on standard	EN 60947-5-2			
Approval	RCM trademark c UL us listed (OL)			
CE mark (see declaration of conformity)	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	https://www.festo.com/Drive-Sensor-Overview			
Note on materials	RoHS-compliant Free of halogen			
LABS (PWIS) conformity	VDMA24364-B2-L			
Certificate issuing authority	UL E232949			
Special characteristics	Oil resistant			
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)			
Cleanroom class	Element installed statically, no meaningful evaluation possible according to ISO 14644-1			

Input signal/measuring element	
Measured variable	Position
Measuring principle	Magneto-resistive

Switching output				
Switching output	3-wire N/C contact NPN	3-wire PNP N/C contact	3-wire PNP N/O contact	2-wire PNP N/O contact
Switching element function	N/C contact		N/O contact	
Repetition accuracy	0.2 mm			
Switch-on time	≤1.3 ms			≤1 ms
Switch-off time	≤7.3 ms			≤1 ms
Max. output current	100 mA			80 mA
Max. output current using mounting kits	100 mA			80 mA
Max. switching capacity DC	2.8 W			1.9 W
Max. switching capacity DC using mounting kits	2.8 W			1.5 W
Max. switching frequency	130 Hz			180 Hz
Voltage drop	<1.5 V			<6 V

Output, additional data	
Short circuit current rating	yes
Overload protection	Available

Electronics				
Switching output	3-wire N/C contact NPN	3-wire PNP N/C contact	3-wire PNP N/O contact	2-wire PNP N/O contact
Operational voltage range DC	5 ... 30 V			7 ... 30 V
Rated operational voltage DC	24 V			
Reverse polarity protection	For all electrical connections			

Datasheet

Electromechanics

Electrical connection 1, connection type	Cable	Cable with plug
Electrical connection 1, connector system	Open end	M12x1, A-coded to EN 61076-2-101, M8x1, A-coded, to EN 61076-2-104
Electrical connection 1, number of connections/cores	2, 3	3
Electrical connection 1, type of mounting	–	Screw-type lock, Rotatable
Electrical connection 1, compatible type of mounting	–	Compatible with rotatable/non-rotatable screw-type lock
Connection outlet orientation	In-line	
Test conditions cable	Test conditions on request Torsional strength: > 300,000 cycles, $\pm 270^\circ/0.1$ m Flexural strength: >50000 cycles, bending radius 5 mm Energy chain: > 5 million cycles, bending radius 28 mm	
Wire ends	Wire ferrule	–
Cable characteristic	Suitable for energy chains/robot applications	
Material cable sheath	TPE-U(PUR)	
Cable sheath colour	Grey	

Mechanical system

Electrical connection 1, connector system	M12x1, A-coded to EN 61076-2-101	M8x1, A-coded, to EN 61076-2-104	Open end
Type of mounting	Screw-clamped, Insertable in the slot from above		
Max. tightening torque	0.6 Nm		
Material housing	PA-reinforced High-alloy stainless steel		
Material connector housing	TPE-U(PU)	–	–
Material electrical contact	Gold-plated copper alloy	–	–
Material insulating sheath	PP		
Material screw-type lock	Nickel-plated brass	–	–
Material union nut	–	Nickel-plated brass	–
Housing colour	Black		

Display/operation

Switching status indication	Yellow LED
Function reserve indication	Orange LED

Immission/emission

Ambient temperature	-40 ... 85°C
Ambient temperature with moving cable	-20 ... 85°C
Degree of protection	IP65, IP68, IP69K

Dimensions

Dimensions – N/O contact / N/C contact PS, NS, PO, NO, ZS Download CAD data www.festo.com

The technical drawing shows two views of the SMT-8M-A proximity switch. The top view is a side profile showing the overall length with dimensions L3 (total length) and L4 (length to the center of the sensor element), and the mounting height H1. The bottom view is a front view showing the width B1 and the location of the light emitting diodes (1 and 2) and the sensor element (3). A clamping piece (4) is shown on the right side, with a tightening torque of 0.6 Nm. A detail view of the clamping piece is shown on the right with a diameter of Ø1.

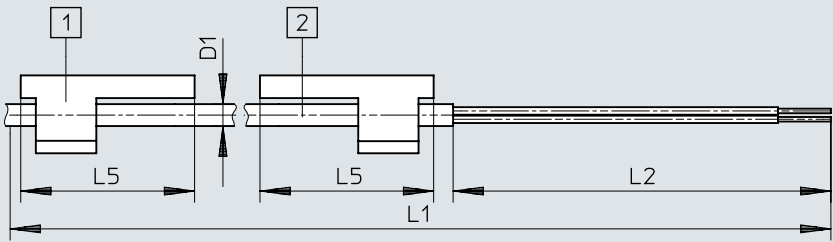
- [1] Yellow light emitting diode
- [2] Orange light emitting diode
- [3] Centre of the position sensor element
- [4] Clamping piece, tightening torque 0.6 Nm

SMT-8M-A	B1	H1	L3	L4	Ø 1
SMT-8M-A-...-24V-E- (PS, NS, PO, NO, ZS)	5	4,6	29,3	26,3	1,5

Dimensions

Dimensions – Cable, open end

Download CAD data www.festo.com

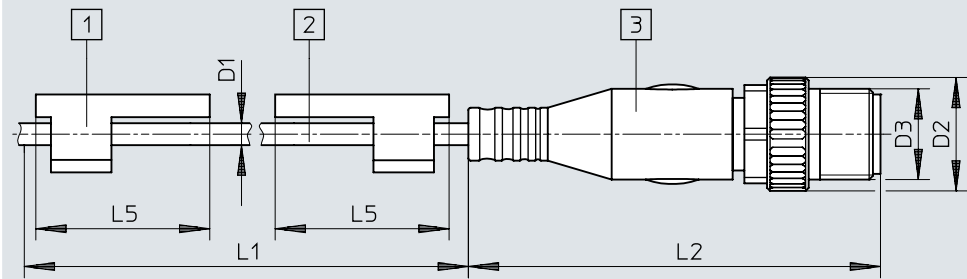


- [1] Inscription label holder drawn turned by 90°
- [2] Connecting cables

	D1 Ø	L1	L2	L5	±G 1
SMT-8M-A-...-OE	2,9	2500, 7500	50	23	1,5
SMT-8M-A-...-OE-EX2		5000			

Dimensions

Dimensions – M12 – Cable with plug M12x1, rotatable thread Download CAD data www.festo.com



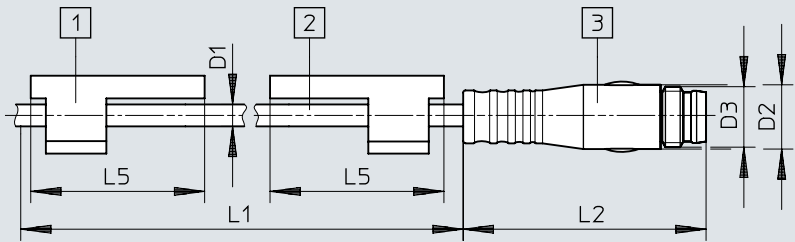
- [1] Inscription label holder drawn turned by 90°
- [2] Connecting cables
- [3] Plug suitable for connecting cable NEBU-M12

SMT-8M-A	D1 ø	D2 ø	D3	L1	L2	L5	± 1
SMT-8M-A-...-M12	2,9	15	M12x1	–	54,5	23	1,5

Dimensions

Dimensions – M8 – cable with plug M8x1, snap collar

Download CAD data www.festo.com

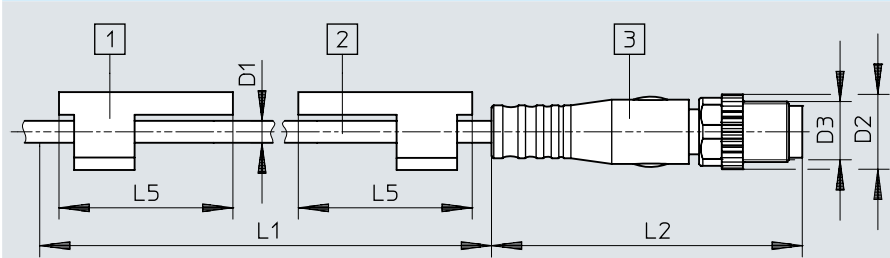


- [1] Inscription label holder drawn turned by 90°
- [2] Connecting cables
- [3] Plug suitable for connecting cable NEBU-M8

SMT-8M-A	D1 ø	D2 ø	D3	L1	L2	L5	± 1
SMT-8M-A-...-M8	2,9	8,5	M8x1	–	32,7	23	1,5

Dimensions

Dimensions – M8D – Cable with plug M8x1, rotatable thread Download CAD data www.festo.com

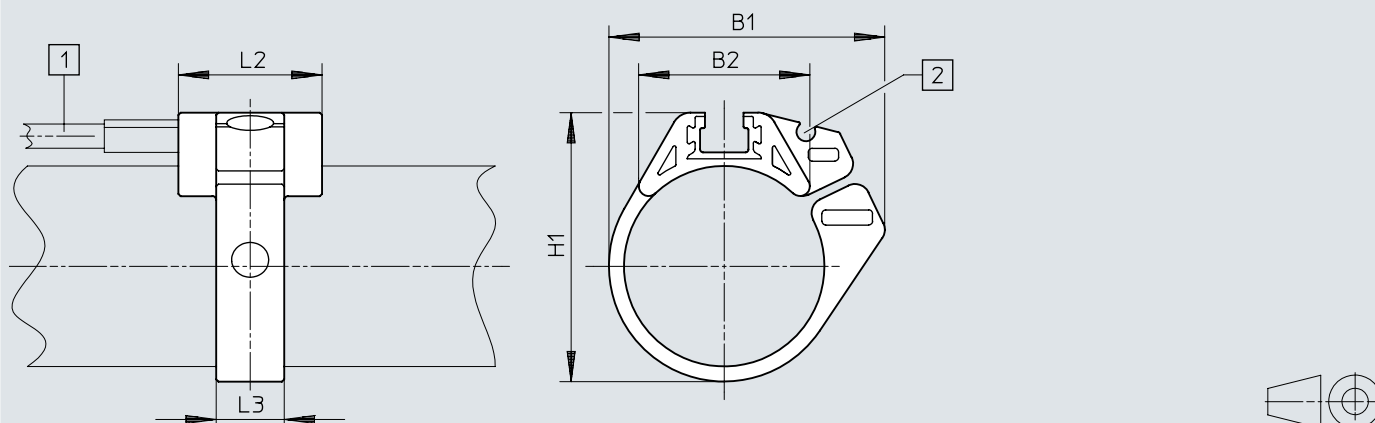


- [1] Inscription label holder drawn turned by 90°
- [2] Connecting cables
- [3] Plug suitable for connecting cable NEBU-M8

SMT-8M-A	D1 ø	D2 ø	D3	L1	L2	L5	±G 1
SMT-8M-A-...-M8D	2,9	10	M8x1	300	41,1	23	1,5

Dimensions

Dimensions – Mounting kit SMBR

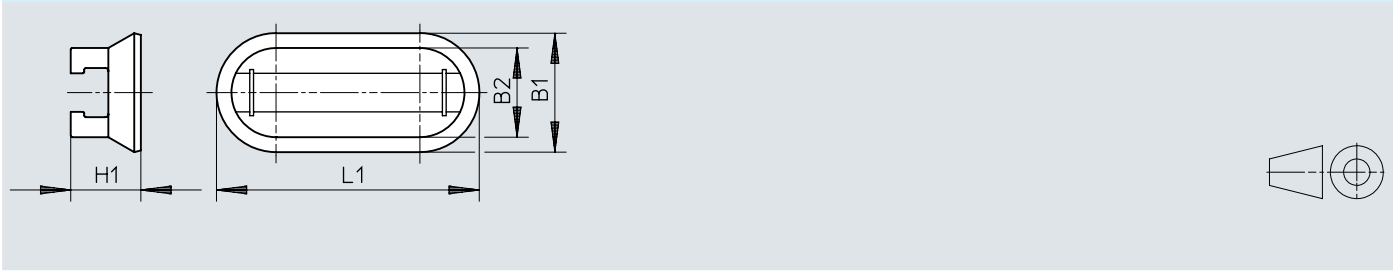
[Download CAD data](#) www.festo.com


- [1] Proximity switches SME-8- ..., SMT-8- ...
 [2] Guide slot for switch cable

	B1	B2	H1	L2	L3
SMBR-8-8	18,9	12,3	17,5	19	7
SMBR-8-10	20,4	13,7	19,9	19	7
SMBR-8-12	22,7	14,3	21,9	19	7
SMBR-8-16	28,2	16,9	25,7	19	8
SMBR-8-20	34,5	20,8	30,4	19	9
SMBR-8-25	36,7	22,7	35,6	19	9
SMBR-8-32	41,7	24,6	42,7	19	9
SMBR-8-40	47,1	26,5	50,7	19	9
SMBR-8-50	56,4	28,6	61,5	19	9
SMBR-8-63	69,4	32	74,5	19	9

Dimensions

Dimensions – Mounting kit CRSMB [Download CAD data](http://www.festo.com) www.festo.com

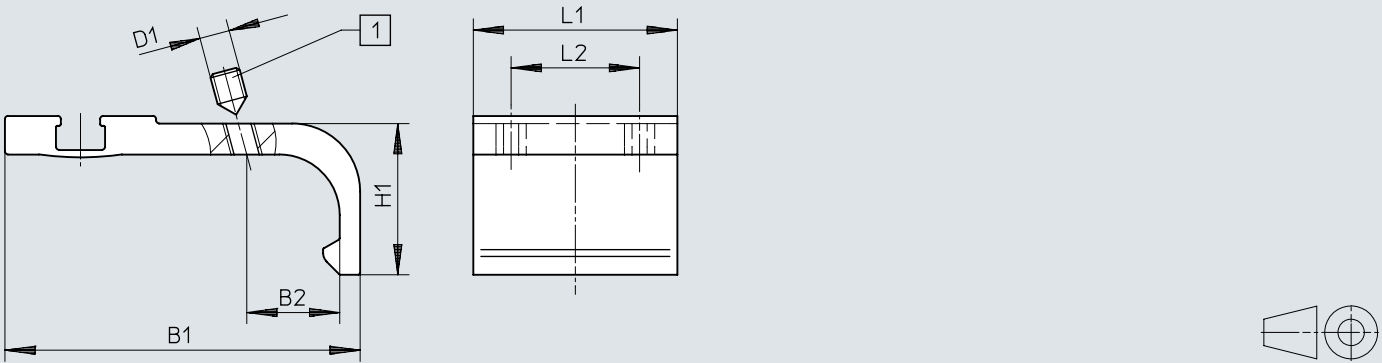


	B1	B2	H1	L1
CRSMB-8-32/100	15,8	11,8	9,3	35

Dimensions

Dimensions – Mounting kit SMB-8-FENG

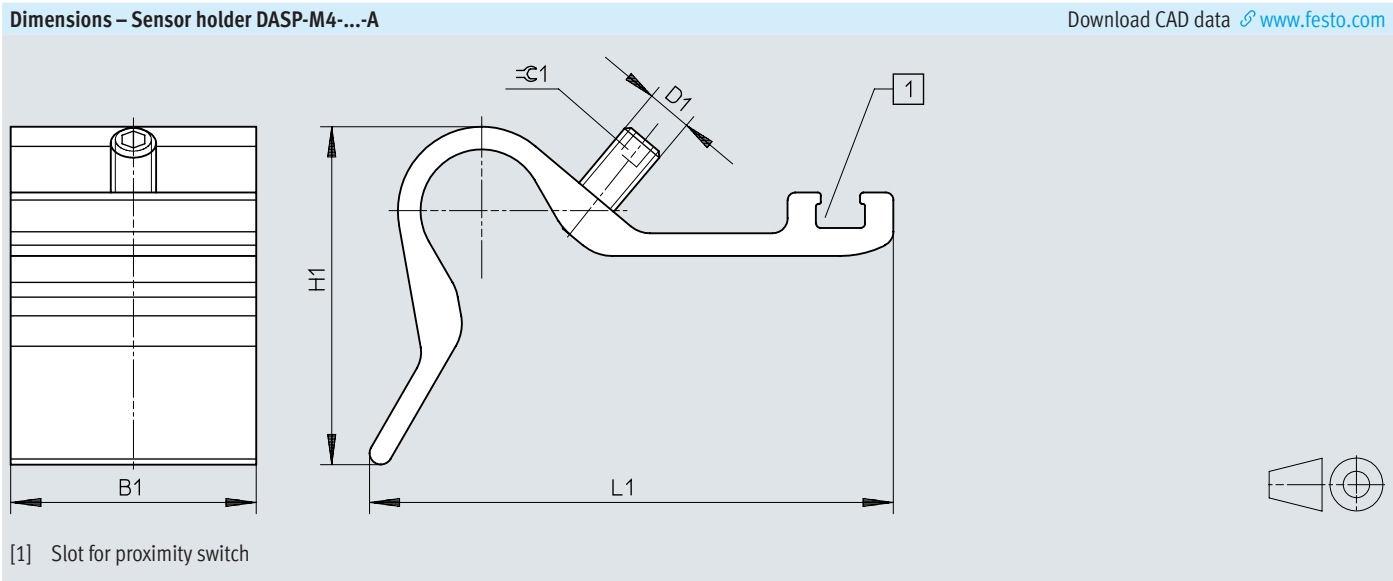
Download CAD data www.festo.com



[1] Threaded pin

	B1	B2	D1	H1	L1	L2
SMB-8-FENG-32/40	35,1	8,7	M3	15,5	27	17
SMB-8-FENG-50/63	47	12,3	M4	20	27	17
SMB-8-FENG-80/100	64,3	15,7	M5	24,3	27	17

Dimensions

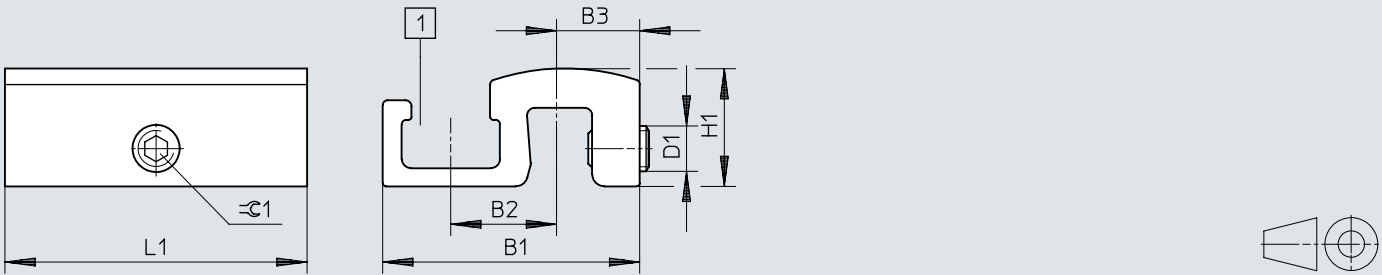


	B1	D1	H1	L1	$\pm C1$
DASP-M4-125-A	32,5	M5	28	45,4	2,5
DASP-M4-160-A	32,5	M6	44,7	69,4	3
DASP-M4-250-A	32,5	M6	56,3	88	3
DASP-M4-320-A	32,5	M6	56,3	88	3

Dimensions

Dimensions – Mounting kit SMB-8-C

Download CAD data www.festo.com

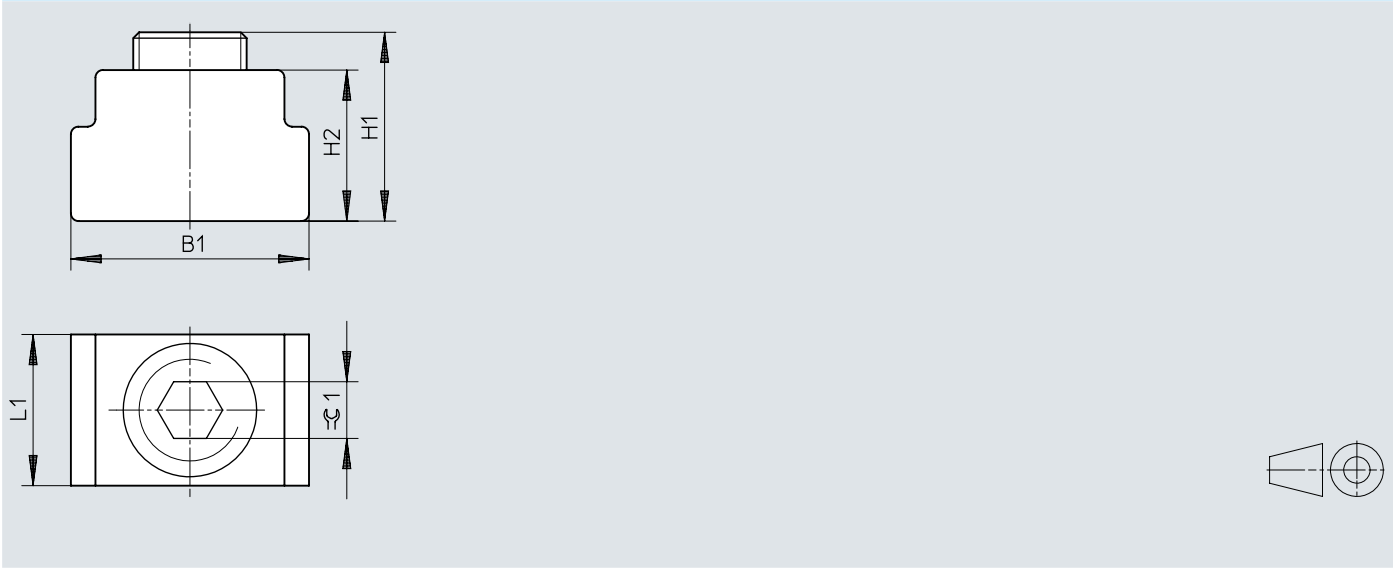


[1] Slot for proximity switch

	B1	B2	B3	D1	H1	L1	⌀ 1
SMB-8-C	17	7	5,5	M3	7,8	20	1,5

Dimensions

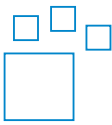
Dimensions – Positioning element SMM Download CAD data www.festo.com



	B1	H1	H2	L1	Ø1
SMM-8	6,3	5,0	4,0	4,0	1,5

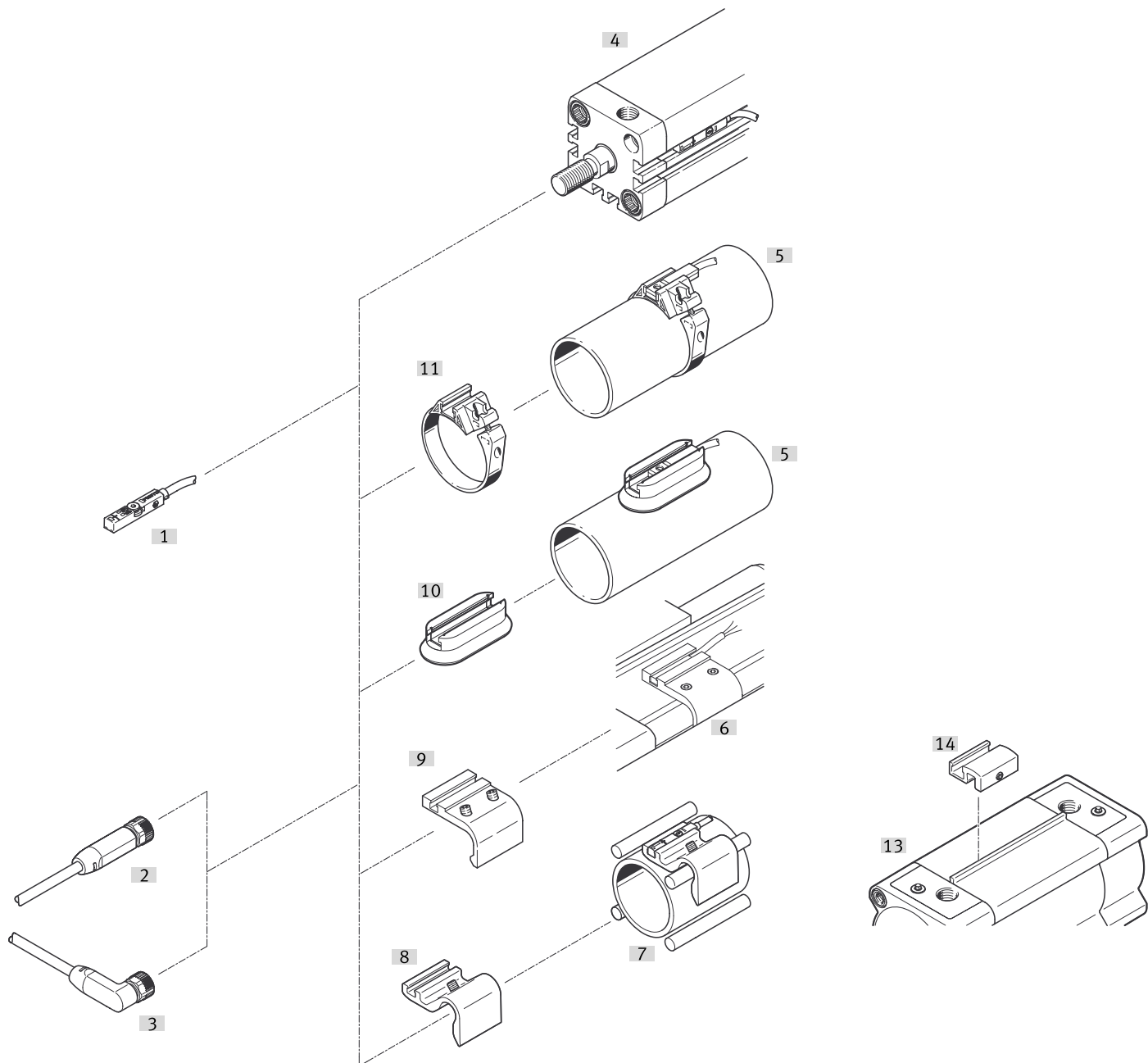
Ordering data

Ordering data						
	Switching output	Switching element function	Cable length	Product weight	Part no.	Type
	NPN	N/C contact	2.5 m	29.1 g	8138000	SMT-8M-A-NO-24V-E-2,5-OE
			7.5 m	85.1 g	8138001	SMT-8M-A-NO-24V-E-7,5-OE
		N/O contact	0.3 m	8.9 g	574339	SMT-8M-A-NS-24V-E-0,3-M8D
			2.5 m	29.1 g	574338	SMT-8M-A-NS-24V-E-2,5-OE
	PNP	N/C contact	7.5 m	85.1 g	574340	SMT-8M-A-PO-24V-E-7,5-OE
		N/O contact	0.3 m	8.9 g	574334	SMT-8M-A-PS-24V-E-0,3-M8D
				15.9 g	574337	SMT-8M-A-PS-24V-E-0,3-M12
			2.5 m	29.1 g	574335	SMT-8M-A-PS-24V-E-2,5-OE
		5 m		57.1 g	574336	SMT-8M-A-PS-24V-E-5,0-OE
					8165237	SMT-8M-A-ZS-24V-E-5,0-OE
	Non-contacting, 2-wire					

Modular product system – Ordering information					
	Design	Switching output	Switching element function	Part no.	Type
	For T-slot	NPN, PNP, Non-contacting, 2-wire	N/C contact, N/O contact	574333	SMT-8M-A

Peripherals

Peripherals overview



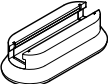
Accessories		→ Link
Type/order code	Description	
[1] SMT-8M-A proximity switch	With cable	smt-8m-a
[2] Connecting cables NEBA-M...G...	-	20
[3] Connecting cables NEBA-M...W...	-	21
[4] Drives with T-slot e.g. ADN	-	-
[5] Round cylinder e.g. DSNU	-	-
[5] Round cylinder e.g. CRDSNU	-	-
[6] Standards-based cylinder DSBC	-	dsbc
[7] Drives with tie rod or mounting rod e.g. DSBG	-	-
[8] Sensor holder DASP-M4-...	-	20
[9] Mounting kit SMB-8-FENG	-	20
[10] Mounting kit CRSMB	For round cylinders, corrosion protected	20
[11] Mounting kit SMBR	For round cylinders	20
[12] Standards-based cylinder DSBF	-	dsbf

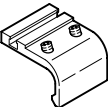
Peripherals

Accessories		→ Link
Type/order code	Description	
[13] Mounting kit SMB-8-C	-	20

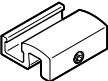
Accessories

Mounting kit SMBR			
	Size	Part no.	Type
	8	175091	SMBR-8-8
	10	175092	SMBR-8-10
	12	175093	SMBR-8-12
	16	175094	SMBR-8-16
	20	175095	SMBR-8-20
	25	175096	SMBR-8-25
	32	175097	SMBR-8-32
	40	175098	SMBR-8-40
	50	175099	SMBR-8-50
	63	175100	SMBR-8-63

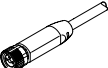
Mounting kit CRSMB			
	For piston diameter	Part no.	Type
	Ø32 - Ø100	525565	CRSMB-8-32/100

Mounting kit SMB-8-FENG			
	Note on materials	Part no.	Type
	RoHS-compliant	175706	SMB-8-FENG-50/63
		175707	SMB-8-FENG-80/100
		175705	SMB-8-FENG-32/40

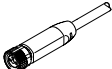
Sensor holder DASP-M4-...-A			
	For piston diameter	Part no.	Type
	Ø125	1451483	DASP-M4-125-A
	Ø160 - Ø200	1553813	DASP-M4-160-A
	Diameter 250	1456781	DASP-M4-250-A
	Ø320	3015256	DASP-M4-320-A

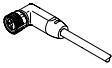
Mounting kit SMB-8-C			
	Note on materials	Part no.	Type
	RoHS-compliant	1806790	SMB-8-C

Positioning element SMM			
	Note on materials	Part no.	Type
	RoHS-compliant	547941	SMM-8

Connecting cable M8x1, straight socket					
	Cable structure	Cable length	Product weight	Part no.	Type
	3 x 0.25 mm ²	2.5 m	50 g	8078223	NEBA-M8G3-U-2.5-N-LE3

Accessories

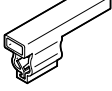
Connecting cable M8x1, straight socket					
	Cable structure	Cable length	Product weight	Part no.	Type
	3 x 0.25 mm ²	5 m	96 g	8078224	NEBA-M8G3-U-5-N-LE3

Connecting cable M8x1, angled socket					
	Cable structure	Cable length	Product weight	Part no.	Type
	3 x 0.25 mm ²	2.5 m	50 g	8078230	NEBA-M8W3-U-2.5-N-LE3
		5 m	96 g	8078231	NEBA-M8W3-U-5-N-LE3

Connecting cable NEBU, socket M12x1, 5-pin						
	Connection technology left, field device side	Electrical connection 1, cable outlet	Connection technology right, controller side	Cable length	Part no.	Type
	Socket M12x1 A-coded, EN 61076-2-101	Straight	Open end	2.5 m	8078236	NEBA-M12G5-U-2.5-N-LE3
		Angled		5 m	8078237	NEBA-M12G5-U-5-N-LE3
				2.5 m	8078245	NEBA-M12W5-U-2.5-N-LE3

Mounting attachment SMBK-8			
	Description	Part no.	Type
	For attaching connecting cables	534254	SMBK-8

Inscription labels			
	Size	Part no.	Type
	4x23 mm	541598	ASLR-L-423

Inscription label holder						
	Length	Width	Height	Size of pack	Part no.	Type
	23 mm	5.4 mm	10.3 mm	100	8078306	NEAU-LH-2