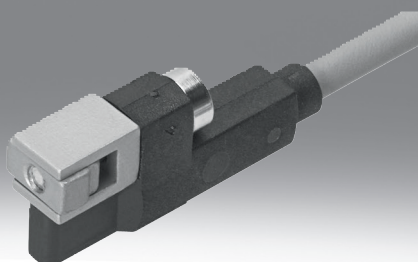


Proximity switch SMT-8G

FESTO



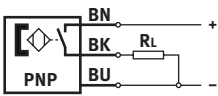
Type code

001	Series	
SMT	Proximity sensor	
002	Design type	
8	For T-slot	
003	Sensor version	
G	Inserted in the slot lengthwise, optimised for gripper sensing	
004	Switching output	
NS	3-wire NPN N/O contact	
PS	3-wire PNP N/O contact	
005	Rated operating voltage	
24V	24 V	

006	Cable characteristic	
E	Suitable for energy chains/robots	
007	Cable length [m]	
0.3	0.3	
2.5	2.5	
008	Cable outlet	
Q	Transverse	
009	Electrical connection	
M8D	Cable with M8x1 plug, 3-pin, rotatable thread	
OE	Open end	

Datasheet

General technical data



- Magneto-resistive measuring principle
- Inserted into the slot lengthwise
- Design ideal for gripper sensing

Electrical connection 1, connection type	Cable	Cable with plug
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) ¹⁾	To UK instructions for EMC, To UK RoHS instructions	
Certificate issuing authority	UL E232949	
Instructions on use	https://www.festo.com/Drive-Sensor-Overview	
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)	
Cleanroom suitability, measured according to ISO 14644-14	Element installed statically, no meaningful evaluation possible according to ISO 14644-1	
Note on materials	RoHS-compliant	
LABS (PWIS) conformity	VDMA24364-B2-L	

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

If the devices are subject to usage restrictions in residential, commercial or industrial environments as well as small businesses, further measures for reducing the emitted interference may be necessary.

Input signal, measuring element

Measured variable	Position
Measuring principle	Magneto-resistive
Ambient temperature	-20 ... 70°C

Switching output

Switching output	NPN	PNP
Switching element function	N/O contact	
Voltage drop	≤2 V	
Inductive protective circuit	Adapted to MZ, MY, ME coils	
Max. output current	100 mA	
Off-state current	≤0.15 mA	≤0.01 mA
Switch-on time	≤1 ms	
Switch-off time	≤1 ms	
Repetition accuracy	0.2	
Max. switching frequency	150 Hz	
Max. switching capacity DC	2.8 W	

Output, additional data

Short circuit current rating	yes
Overload protection	Yes

Electronics

Rated operational voltage DC	24 V
Operational voltage range DC	10 ... 30 V
Residual ripple	10%
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	M8x1, A-coded, to EN 61076-2-104
Electrical connection 1, number of connections/cores	3	
Type of mounting	Clamped in T-slot, Insertable in the slot lengthwise	
Electrical connection 1, type of mounting	–	Screw-type lock with hexagon A/F 9 mm and longitudinal knurl, Rotatable
Electrical connection 1, compatible type of mounting	–	Compatible with rotatable/non-rotatable screw-type lock
Connection outlet orientation	Lateral	
Test conditions cable	Bending strength: to Festo standard, Test conditions on request, Torsional strength: > 300,000 cycles, $\pm 270^\circ/0.1$ m, Energy chain: > 5 million cycles, bending radius 28 mm	
Cable length	2.5 m	0.3 m
Material cable sheath	TPE-U(PU)	
Cable characteristic	Suitable for energy chains/robot applications	
Cable sheath colour	Grey	
Material electrical contact	–	Gold-plated brass
Wire ends	Wire ferrule	–

Mechanics

Electrical connection 1, connection type	Cable	Cable with plug
Type of mounting	Clamped in T-slot, Insertable in the slot lengthwise	
Max. tightening torque	0.8 Nm	
Material housing	Aluminium, PA-reinforced, High-alloy stainless steel	
Housing colour	Black	
Material union nut	–	
Product weight	30 g	10 g

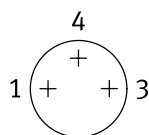
Display, operation

Switching status indication	Yellow LED
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Immission, emission

Ambient temperature	-20 ... 70°C
Degree of protection	IP65, IP68
Cleanroom suitability, measured according to ISO 14644-14	Element installed statically, no meaningful evaluation possible according to ISO 14644-1
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)

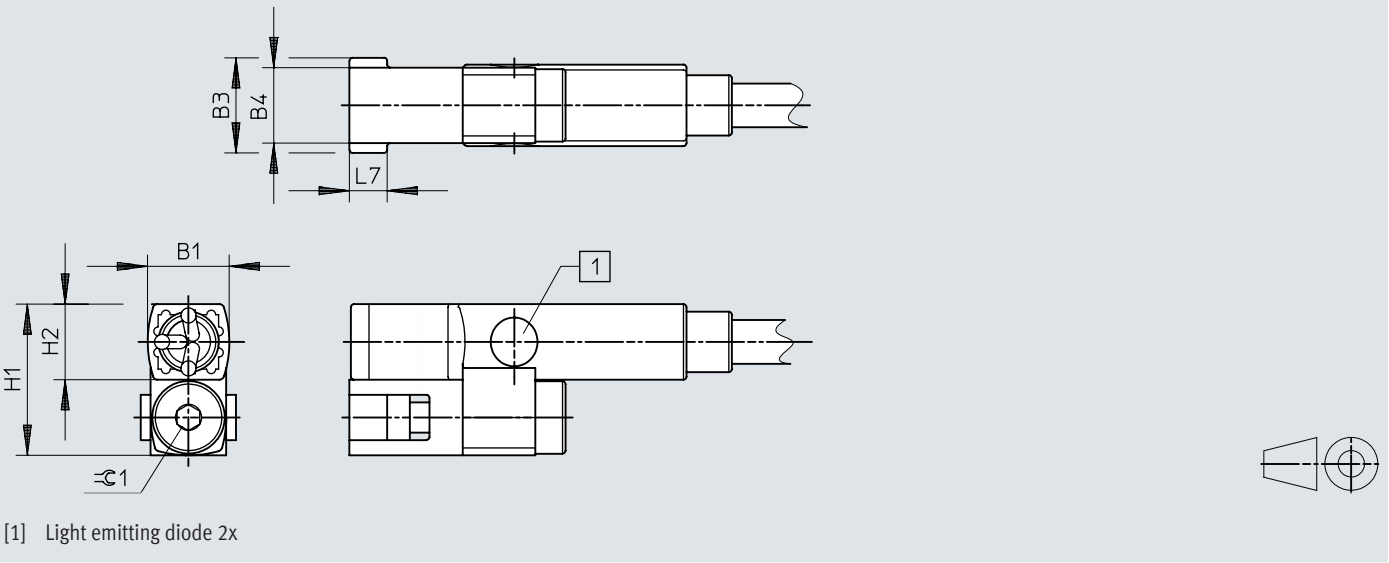
Pin assignment to EN 60947-5-2



Dimensions

Dimensions – SMT-8-G

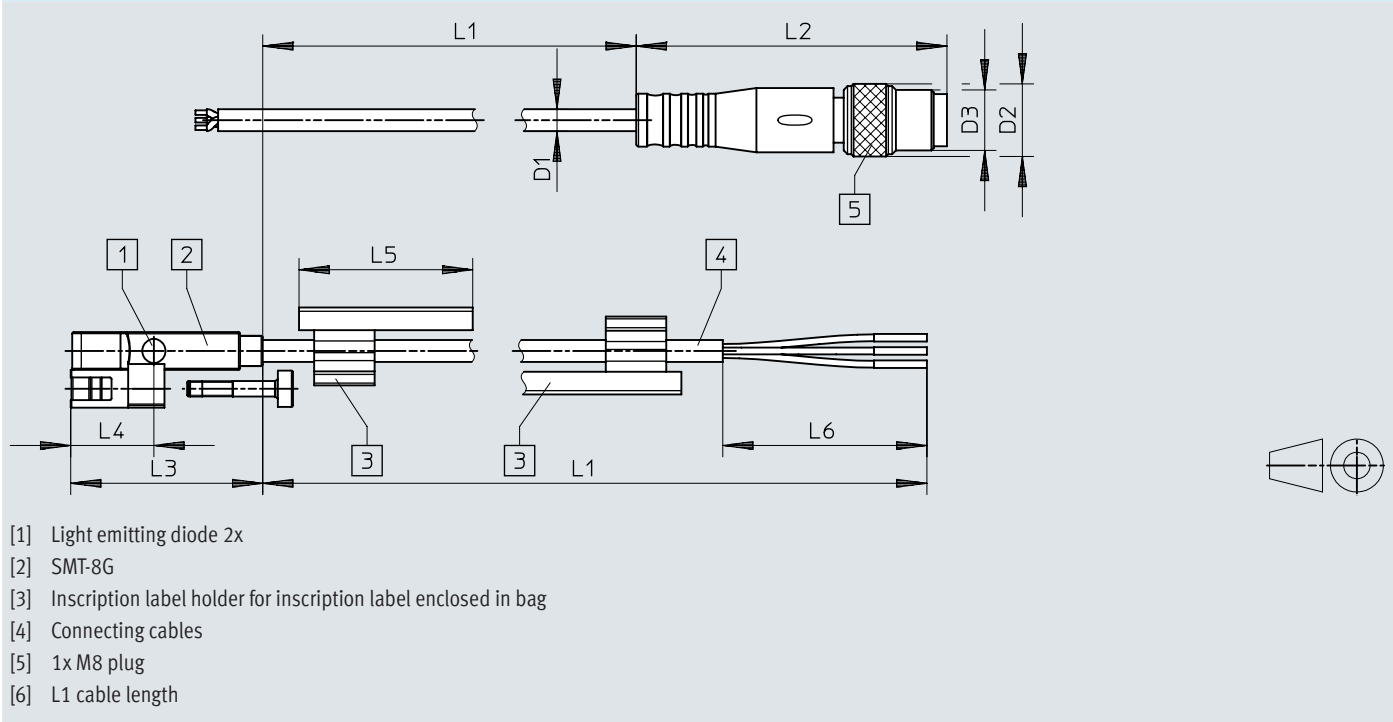
Download CAD data www.festo.com



	B1	B3	B4	H1	H2	L7	⌀ 1
SMT-8G	5,4	6,3	5	10	5	2,5	1,5

Dimensions

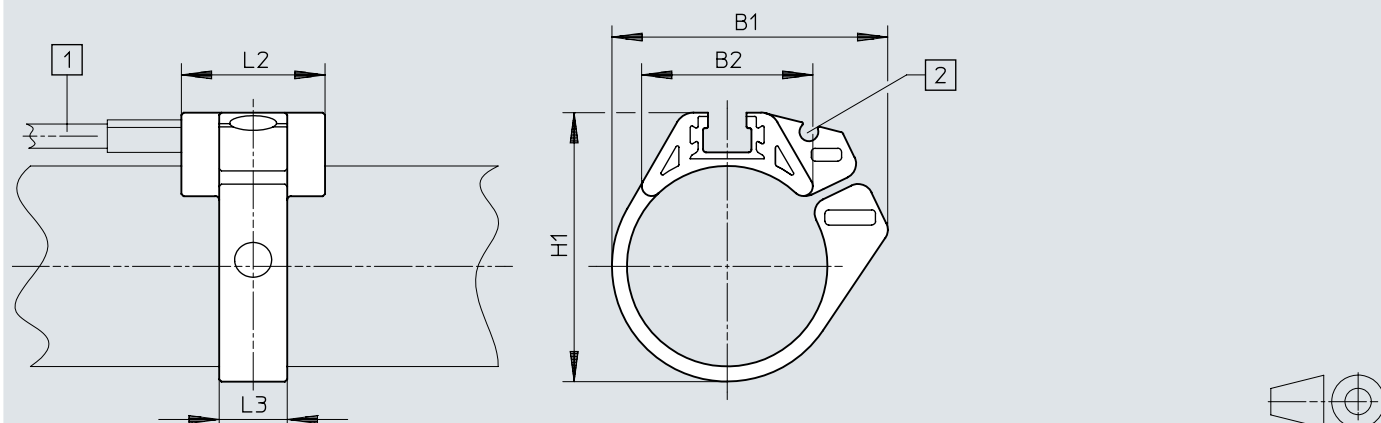
Dimensions – SMT-8-G, PS, NS Download CAD data www.festo.com



	D1 ø	D2 ø	D3	L1	L2 ±0,4	L3 ±0,3	L4	L5	L6 +5
SMT-8G-PS-...-OE	2,9	–	–	2500 + 70	–	25	10,8	23	50
SMT-8G-PS-...-M8D		9,6	M8x1	300 + 30	41,1				–
SMT-8G-NS-...-OE		–	–	2500 + 70	–				50
SMT-8G-NS-...-M8D		9,6	M8x1	300 + 30	41,1				–

Dimensions

Dimensions – Mounting kit SMBR

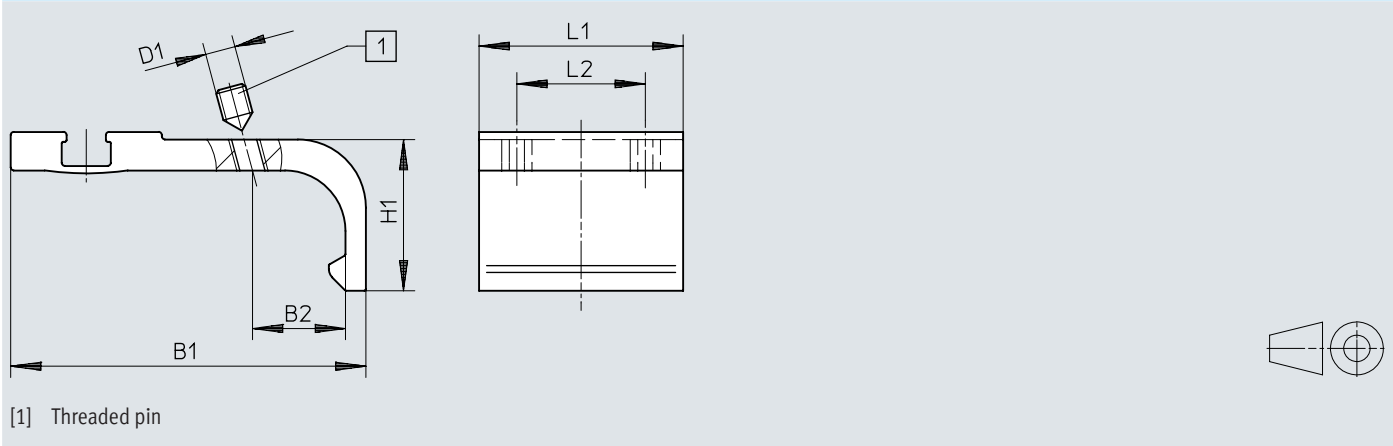
[Download CAD data](#) www.festo.com


- [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 SMB-8-FENG [Download CAD data](#) www.festo.com

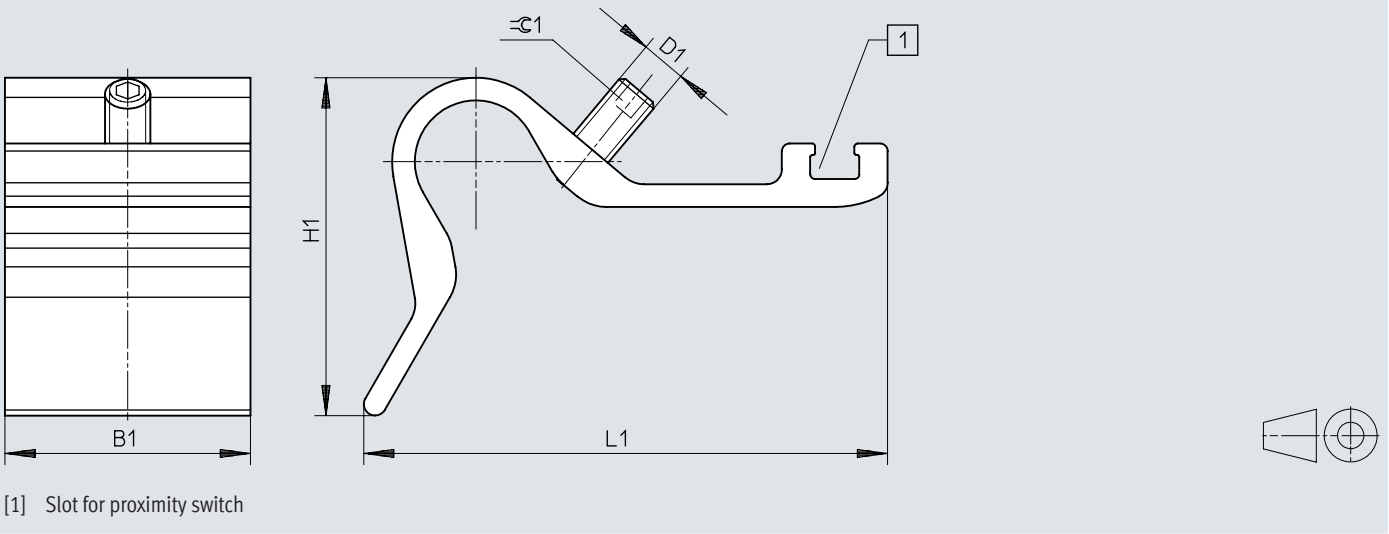


	B1	B2	D1	H1	L1	L2
SMB-8-FENG-32/40	35,1	8,7	M3	15,5	27	17
SMB-8-FENG-50/63	47	12,3	M4	20	27	17
SMB-8-FENG-80/100	64,3	15,7	M5	24,3	27	17

Dimensions

Dimensions – Sensor bracket DASP-M4-...-A

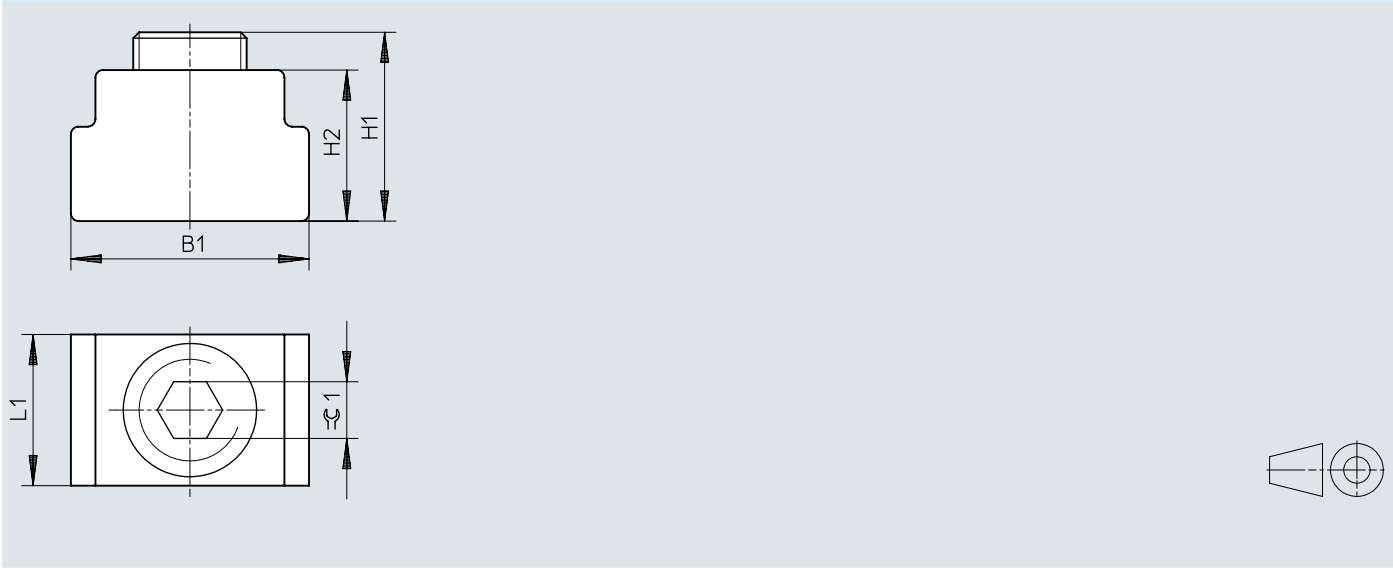
Download CAD data www.festo.com



	B1	D1	H1	L1	⌀ 1
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

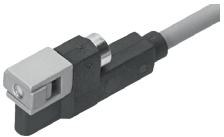
Dimensions

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



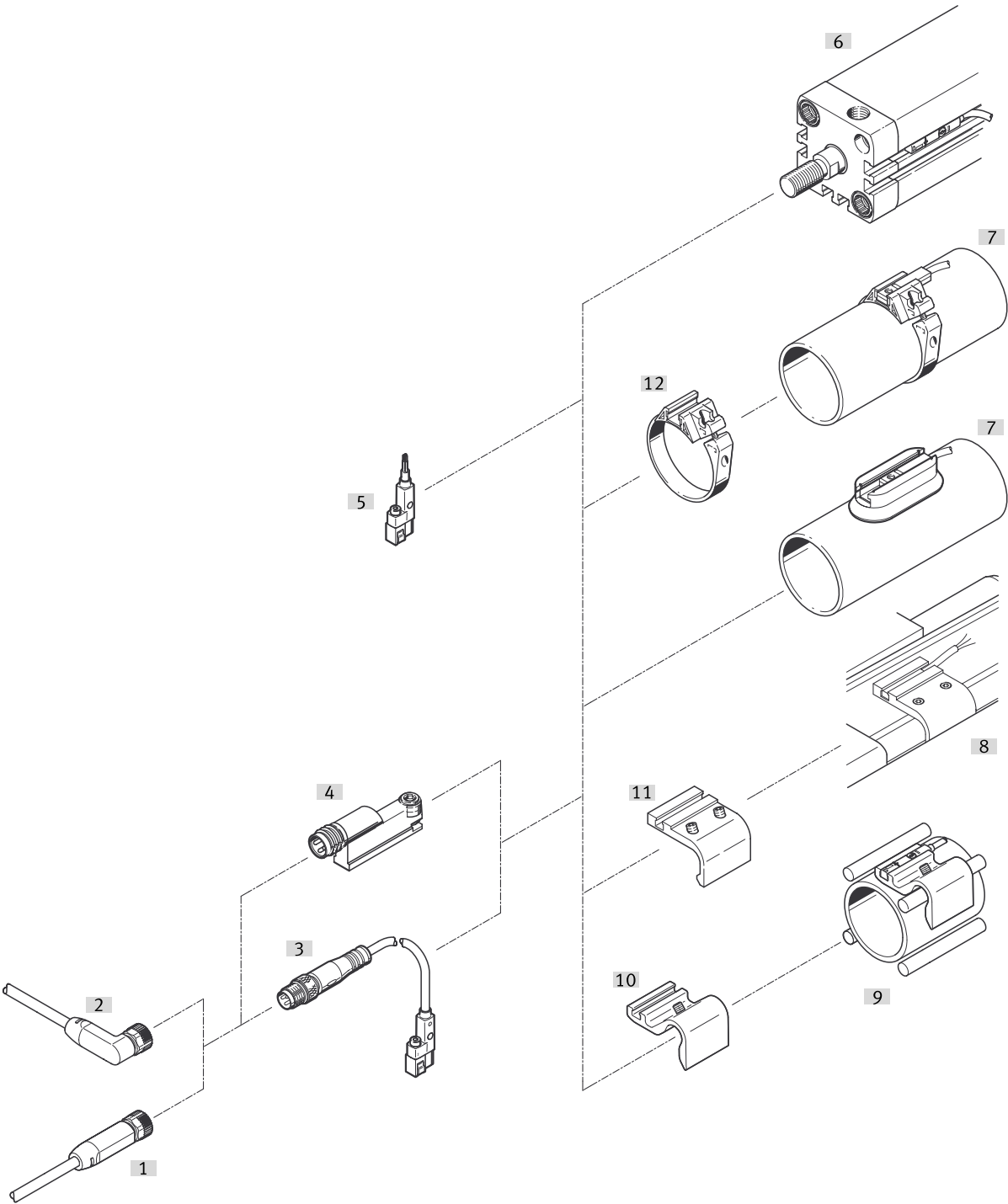
	B1	H1	H2	L1	Ø1
SMM-8	6,3	5,0	4,0	4,0	1,5

Ordering data

Ordering data SMT-8G					
	Switching output	Electrical connection 1, connection type	Cable length	Part no.	Type
	NPN	Cable	2.5 m	8065028	SMT-8G-NS-24V-E-2,5Q-OE
		Cable with plug	0.3 m	8065027	SMT-8G-NS-24V-E-0,3Q-M8D
	PNP	Cable	2.5 m	547859	SMT-8G-PS-24V-E-2,5Q-OE
		Cable with plug	0.3 m	547860	SMT-8G-PS-24V-E-0,3Q-M8D

Peripherals

Peripherals overview



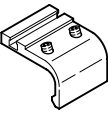
Accessories		→ Link
Type/order code	Description	
[1] Connecting cable NEBA-M8	Straight socket	15
[2] Connecting cable NEBA-M8	Angled socket	15
[3] SMT-8-G-...-M-...	With cable and plug	smt-8-g
[4] SMT-8-SL-...	With plug	smt-8-sl
[5] SMT-8-G-...-OE	With cable	smt-8-g
[6] Drives with T-slot	e.g. ADN	-
[7] Round cylinder	e.g. CRDSNU	-
[8] Standards-based cylinder DSBC	-	-
[9] Drives with tie rod or mounting rod	-	-

Peripherals

Accessories		→ Link
Type/order code	Description	
[10] Sensor bracket DASP-M4-...	For DSBG-125 ... 320	14
[11] Mounting kit SMB-8-FENG	–	14
[12] Mounting kit SMBR	For round cylinders	14

Accessories

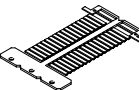
Mounting kit SMBR			
	Size	Part no.	Type
	8	175091	SMBR-8-8
	10	175092	SMBR-8-10
	12	175093	SMBR-8-12
	16	175094	SMBR-8-16
	20	175095	SMBR-8-20
	25	175096	SMBR-8-25
	32	175097	SMBR-8-32
	40	175098	SMBR-8-40
	50	175099	SMBR-8-50
	63	175100	SMBR-8-63

Mounting kit 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

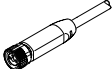
Positioning element SMM			
	Note on materials	Part no.	Type
	RoHS-compliant	547941	SMM-8

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

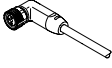
Inscription labels			
	Size	Part no.	Type
	4x23 mm	541598	ASLR-L-423

Accessories

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
		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