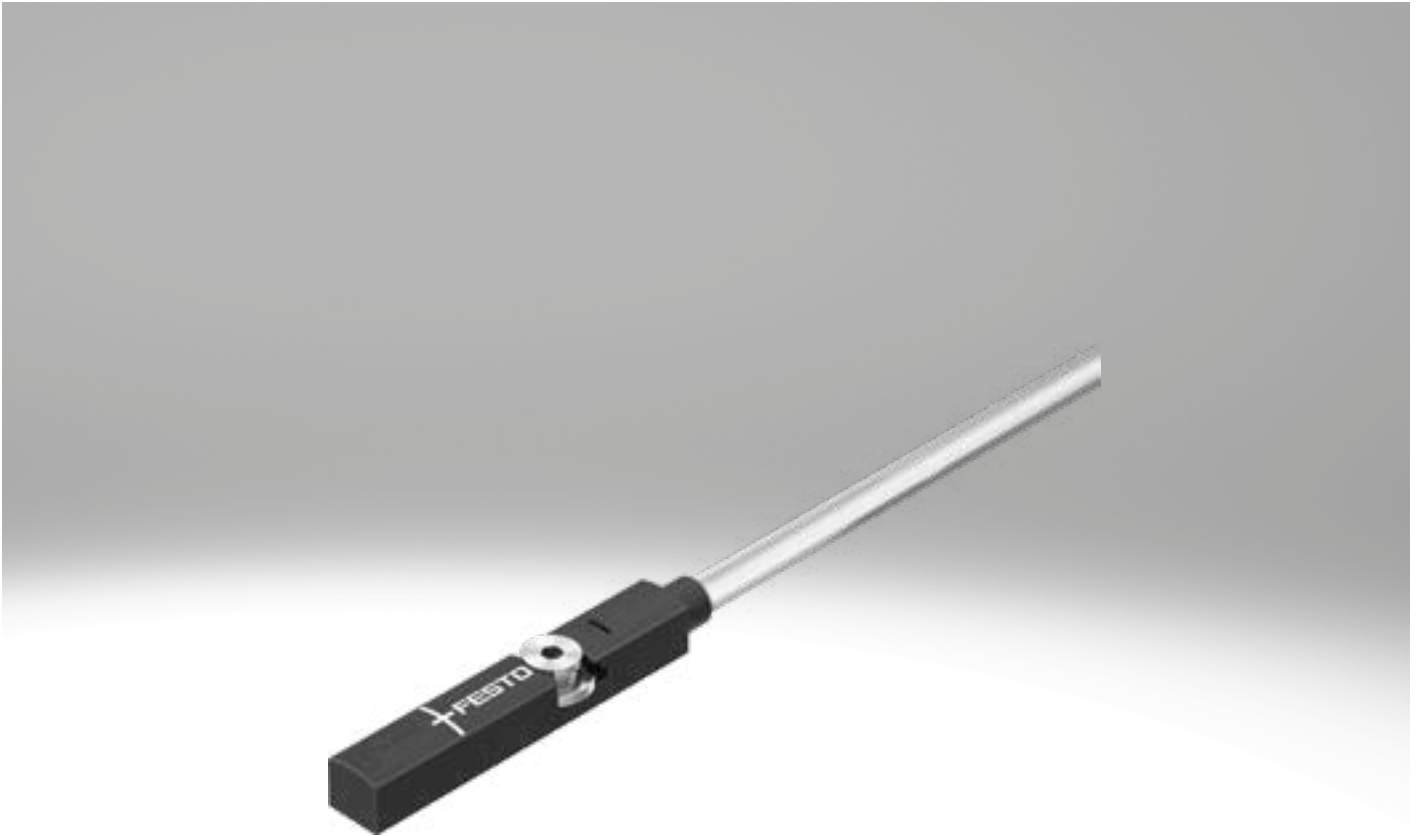


## Proximity switch for T-slot

# FESTO



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Solves the majority of your automation tasks

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With the Festo Core Range, we have selected the most important products and functions from our broad product catalogue, and added the quickest delivery.

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for the  
star!

## Product range overview

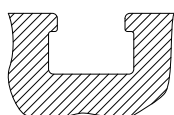
Design	Type of mounting	Measuring principle	Type	Operating voltage range	Switching output	Switching element function	→ Page
For T-slot	<b>Standard</b>						
	Screw-clamped, insertable in the slot from above	Magnetic Hall	SDBT-MSX	10 ... 30 V DC	PNP/NPN, switchable	N/O / N/C contact, switchable	–
	Insertable in the slot from above, flush with the cylinder profile	Magneto-resistive	SMT-8M-A	5 ... 30 V DC	PNP	N/O contact	–
						N/C contact	
					NPN	N/O contact	
					Non-contacting, 2-wire	N/O contact	
	Insertable in the slot from above, flush with the cylinder profile	Magnetic reed	SME-8M	5 ... 30 V AC/DC	Contacting, bipolar	N/O contact	7
						N/C contact	
	Insertable in the slot lengthwise, flush with the cylinder profile	Magnetic reed	SME-8	12 ... 30 V AC/DC	Contacting, bipolar	N/O contact	–
				3 ... 230 V AC/DC		N/C contact	
	Insertable in the slot lengthwise	Magneto-resistive	SMT-8G	10 ... 30 V DC	PNP, NPN	N/O contact	–
		Magneto-resistive	SMT-8-SL	10 ... 30 V DC	PNP	N/O contact	–
		Magnetic reed	SME-8-SL	10 ... 30 V AC/DC	Contacting, bipolar	N/O contact	–
	Insertable in the slot from above	Magnetic reed	SME-8-FM	10 ... 30 V AC/DC	Contacting, bipolar	N/O contact	–
	With accessories	Magneto-resistive	SMT-8E	10 ... 30 V DC	PNP	N/O contact	–
					NPN		
		Magnetic reed	SME-8E	12 ... 30 V DC	Contacting, bipolar	N/O contact	–
				3 ... 250 V DC			
				3 ... 230 V AC			
	<b>Corrosion-resistant</b>						
	Insertable in the slot from above, flush with the cylinder profile	Magneto-resistive	CRSMT-8M	5 ... 30 V DC	PNP	N/O contact	–
	<b>Welding-field-resistant</b>						
	Insertable in the slot from above, screw-clamped	Magneto-resistive	SDBT-BSW	10 ... 30 V DC	PNP	N/O contact	–
					NPN		
					Non-contacting, 2-wire		
	With accessories	Magneto-inductive	SMT-8E	10 ... 30 V DC	PNP	N/O contact	–
					NPN		
<b>Heat-resistant up to 120°C</b>							
Insertable in the slot lengthwise, flush with the cylinder profile	Magnetic reed	SME-8-...S6	0 ... 30 V AC/DC	Contacting, bipolar	N/O contact	–	
With accessories	Magnetic reed	SME-8E-...S6	0 ... 30 V DC	Contacting	N/O contact	–	
			0 ... 30 V AC				
<b>To EU Explosion Protection Directive (ATEX)</b>							
Insertable in the slot from above, screw-clamped	Magneto-resistive	SDBT-MS-...EX6	8.2 V DC	NAMUR	NAMUR	–	

## Product range overview

Design	Type of mounting	Measuring principle	Type	Operating voltage range	Switching output	Switching element function	→ Page
For C-slot	<b>Standard</b>						
	Insertable in the slot from above, flush with the cylinder profile	Magneto-resistive	SMT-10M	10 ... 30 V DC	PNP	N/O contact	C-slot
					NPN		
					Non-contacting, 2-wire		
	Insertable in the slot lengthwise	Magnetic reed	SME-10M	5 ... 30 V AC/DC	Contacting, bipolar	N/O contact	
Magneto-resistive		SMT-10G	10 ... 30 V DC	PNP	N/O contact		
	Magnetic reed	SME-10	12 ... 27 V AC/DC	Contacting	N/O contact		

**T-slot switches can be used for drives with T-slot**

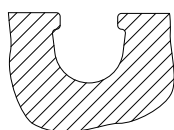
## Exceptions



- DFM-B: SMT0-8E, SMTSO-8E, SME0-8E and SMP0-8E cannot be used
- DHDS: SME-8M can only be used on  $\varnothing 50$
- DHPS: SME-8M can only be used on  $\varnothing 20 \dots 35$
- HGDD-63-A: SMT-8M-A cannot be used
- HGPT-B: only SMT-8G can be used from size 40 and upwards
- SDBT-BSW- ... -PU/NU can only be used on a limited number of drive series. Page → 53

**C-slot switches can be used for drives with C-slot**

## Exceptions



- ADVC  $\varnothing 100$ : SMT-10M and SME-10M cannot be used (ADVC has a T-slot and C-slot)
- DSM/DSM-B-6/8/10: SME-10M cannot be used
- DSM/DSM-B-10/16: SMT-10M cannot be used
- HGPT-B: only SMT-10G can be used for sizes up to and including size 35

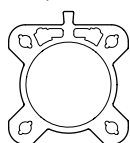
**For drives with sensor rail: these are available with 2 cylinder barrel contours**

Only T-slot switches CRSMT-8M, SMT-8M-A and SDBT-MS- ... -EX6 can be used, and only with the identified profile.

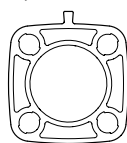
CRSMT-8M and SMT-8M-A can be used for all diameters; SDBT-MS- ... -EX6 cannot be used for diameters 40 and 50.

Example: DSBF

Example: CDC

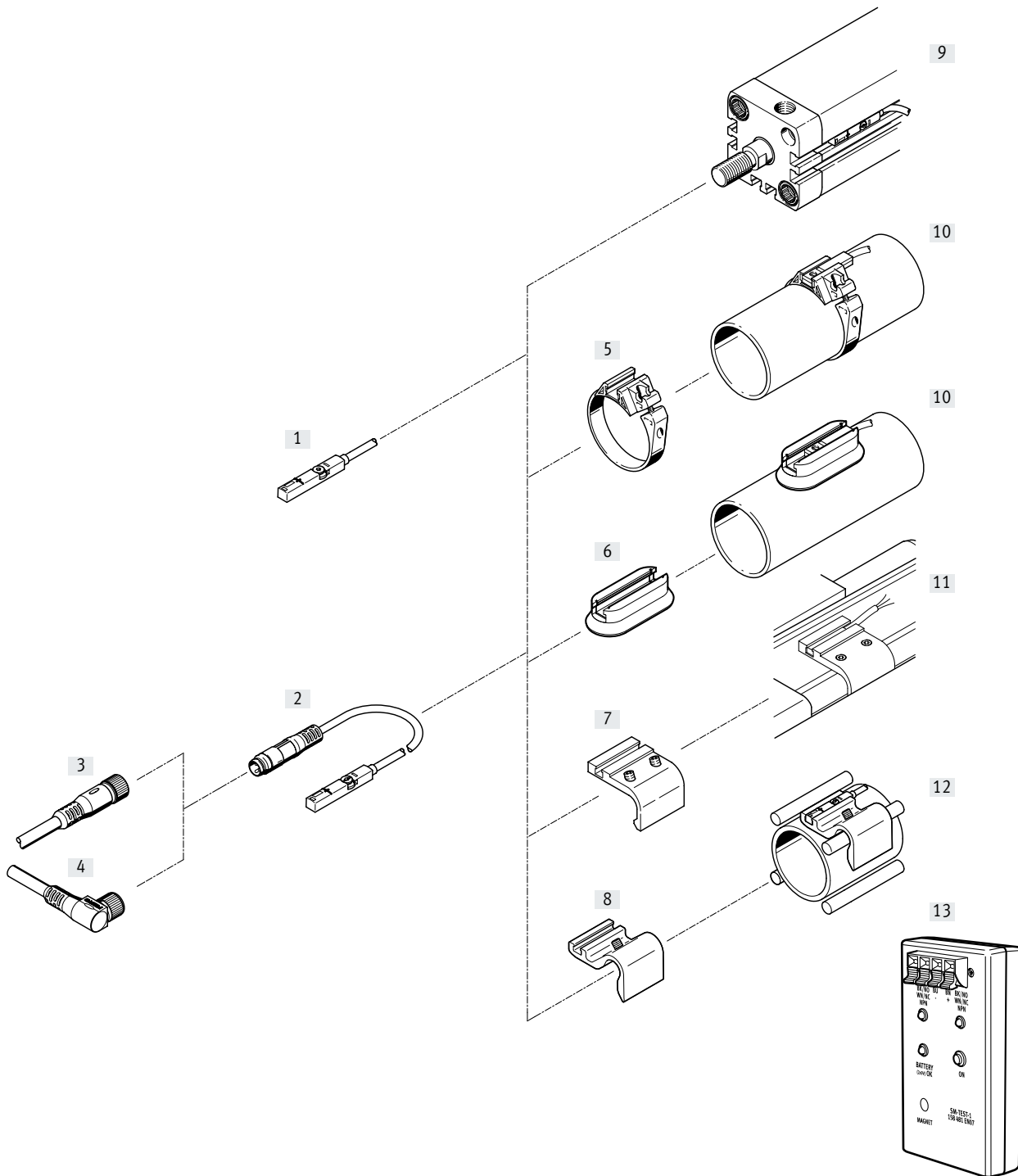


Suitable



Not suitable

Peripherals overview



## Peripherals overview

Mounting components and accessories		→ Page/Internet	Mounting components and accessories		→ Page			
<b>Proximity switches</b>			<b>Mounting kits and accessories</b>					
[1]	SME-8M-...-OE, with cable	7	[5]	Mounting kit SMBR	13			
[2]	SME-8M-...-M..., with cable and plug	7	[6]	Mounting kit CRSMB, corrosion-resistant	13			
			[7]	Mounting kit SMB-8-FENG	14			
			[8]	Sensor bracket DASP-M4-...	15			
			[13]	Sensor tester SM-TEST-1	16			
			-	Positioning element SMM-8	15			
			-	Clip SMBK-8	16			
			-	Inscription label ASLR	16			
			-	Safety clip NEAU	16			
			<b>Connecting cables</b>			<b>Drives</b>		
			[3]	NEBU-M...G...	16	[9]	Drives with T-slot	-
			[4]	NEBU-M...W...	16	[10]	Round cylinders	-
			[11]	Standards-based cylinders DSBC	-			
			[12]	Drives with tie or mounting rod	-			

## Type codes

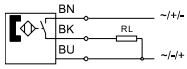
<b>001</b>	<b>Series</b>	
<b>SME</b>	Proximity sensor	
<b>002</b>	<b>Design type</b>	
<b>8</b>	For T-slot	
<b>003</b>	<b>Sensor version</b>	
<b>M</b>	Inserted in the slot from above	
<b>004</b>	<b>Switching output</b>	
<b>DO</b>	3-wire N/C contact	
<b>DS</b>	3-wire N/O contact	
<b>ZS</b>	2-wire PNP N/O contact	
<b>005</b>	<b>Rated operating voltage</b>	
	None	
<b>24V</b>	24 V	

<b>006</b>	<b>Cable characteristic</b>	
<b>E</b>	Suitable for energy chains/robot applications	
<b>K</b>	Standard/suitable for energy chains	
<b>007</b>	<b>Cable length [m]</b>	
	0.2 ... 10 m	
<b>0,3</b>	0.3 m	
<b>2,5</b>	2.5 m	
<b>5,0</b>	5.0 m	
<b>7,5</b>	7.5 m	
<b>008</b>	<b>Connection technology</b>	
<b>OE</b>	Open end	
<b>M8</b>	M8, snap-on flange	
<b>M8D</b>	M8, rotatable thread	
<b>M12</b>	M12, rotatable thread	

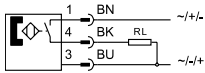
## Data sheet – Magnetic reed

### Function

PNP, N/O contact, open end



N/O contact, 3-wire, with plug



- Magnetic reed measuring principle
- Insertable in the slot from above, does not protrude over the cylinder profile



### General technical data

Design	For T-slot
Based on standard	EN 60947-5-2
Certification	c UL us listed (OL) RCM compliance mark
CE marking (see declaration of conformity)	To EU EMC Directive
Special characteristics	Oil-resistant
Note on materials	Free of copper and PTFE RoHS-compliant

### Input signal/measuring element

Measuring principle	Magnetic reed
Ambient temperature [°C]	-40 ... +70

### Switching output

Type	SME-8M-DS	SME-8M-ZS	SME-8M-DO
Switching output	Contacting, bipolar		
Switching element function	N/O contact	N/O contact	N/C contact
Max. output current [mA]	500	80	
Max. output current in mounting kits [mA]	80	80	
Max. switching capacity DC [W]	10	2.4	
Max. switching capacity DC in mounting kits [W]	2.4	2.4	
Max. switching capacity AC [VA]	10	2.4	
Max. switching capacity AC in mounting kits [VA]	2.4	2.4	
Voltage drop <sup>1)</sup> [V]	≤1.5	≤4.8	≤3.5

1) Applies to cable length 2.5 m. Max. 0.15 V voltage drop per metre of additional cable length

### Output, additional data

Short circuit protection	No
Overload protection	Not present

### Electronics

Operating voltage range DC [V]	5 ... 30
Operating voltage range AC [V]	5 ... 30
Reverse polarity protection	No

## Data sheet – Magnetic reed

<b>Electromechanics</b>								
Switching element function	DS/DO				ZS			
Electrical connection	OE	M8D	M8	M12	OE	M8D	M8	M12
Electrical connection	Cable	Cable with plug			Cable	Cable with plug		
Connection technology	–	M8x1, A-coded to EN 61076-2-104	M8x1	M12x1	–	M8x1, A-coded to EN 61076-2-104	M8x1	M12x1
Number of pins/wires	3				2	3		
Type of mounting	–	Screw-type lock	Snap-on flange	Rotatable thread	–	Screw-type lock	Snap-on flange	Rotatable thread
Outlet direction of connection	In-line							
Cable test conditions	K	Cable chain: 5 million cycles, bending radius 75 mm						
		Resistance to bending: to Festo standard; test conditions on request						
	E	Cable chain: 5 million cycles, bending radius 28 mm						
		Torsional strength: $\pm 270^\circ/0.1$ m						
		Resistance to bending: to Festo standard; test conditions on request						
Cable length	[m]	0.2 ... 10						
Cable characteristic	K	Standard + cable chain						
	E	Cable chain + robot						
Information on materials: cable sheath	K	TPE-U(PUR)						
	E	TPE-U(PUR), halogen-free						
<b>Mechanics</b>								
Electrical connection	OE				M...			
Type of mounting	Screw-clamped, insertable in the slot from above							
Housing	PA				PA			
	High-alloy stainless steel				High-alloy stainless steel			
	–				Nickel-plated brass			
	–				TPE-U(PUR)			
<b>Display/operation</b>								
Switching status indication	Yellow LED							
<b>Immission/emission</b>								
Ambient temperature with flexible cable installation	[°C]	–5 ... +70						
Degree of protection	IP65, IP68							



## Data sheet – Magnetic reed

**Pin allocation to EN 60947-5-2**

M8x1, 2-polig, ZS, M8, M8D

N/O contact

	Pin	Wire colour	Allocation
	1	Brown	+
	4	Black	Output

M12x1, 2-polig, ZS, M12

N/O contact

	Pin	Wire colour	Allocation
	1	Brown	+
	4	Black	Output

**Pin allocation to EN 60947-5-2**

M8x1, 3-polig, DS, DO, M8

N/O contact / N/C contact

	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	-
	4	Black	Output

M12x1, 3-polig, DS, M12

N/O contact

	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	-
	4	Black	Output

**Pin allocation to EN 60947-5-2**

M12x1, 3-polig, DO, M12

N/C contact

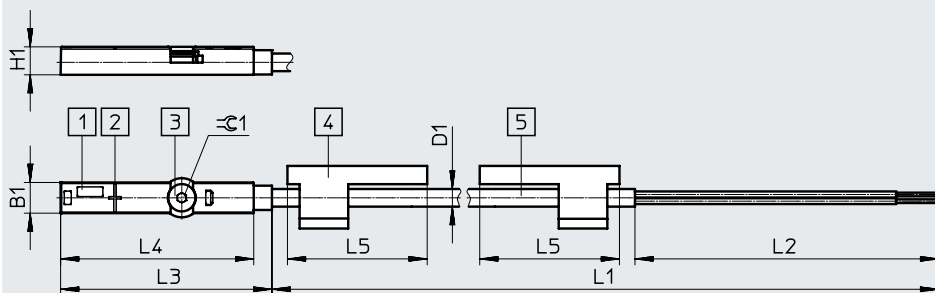
	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	-
	2	White	Output

## Data sheet – Magnetic reed

### Dimensions

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

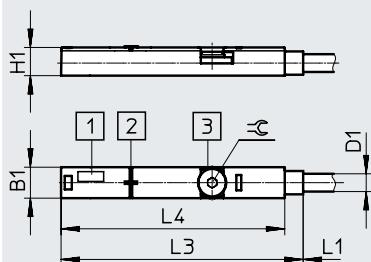
SME-8M-...-OE – Cable



- [1] Yellow light emitting diode
- [2] Centre of the sensor element
- [3] Clamping element, tightening torque 0.6 Nm
- [4] Inscription label holder
- [5] Connecting cable

L1 Cable length

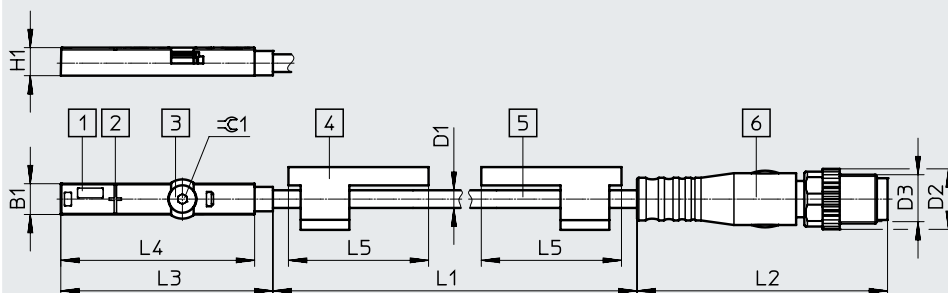
SME-8M-DO-...-OE – Cable



- [1] Light emitting diode
- [2] Centre of the sensor element
- [3] Clamping element, tightening torque 0.6 Nm

L1 Cable length

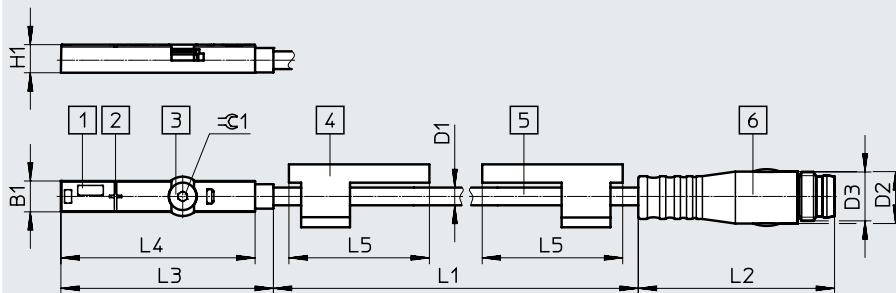
SME-8M-...-M8D – Cable with plug M8x1, rotatable thread



- [1] Yellow light emitting diode
- [2] Centre of the sensor element
- [3] Clamping element, tightening torque 0.6 Nm
- [4] Inscription label holder
- [5] Connecting cable
- [6] Plug to fit connecting cable NEBU-M8

L1 Cable length

SME-8M-...-M8 – Cable with plug M8x1, snap-on flange



- [1] Yellow light emitting diode
- [2] Centre of the sensor element
- [3] Clamping element, tightening torque 0.6 Nm
- [4] Inscription label holder
- [5] Connecting cable
- [6] Plug to fit connecting cable NEBU-M8

L1 Cable length

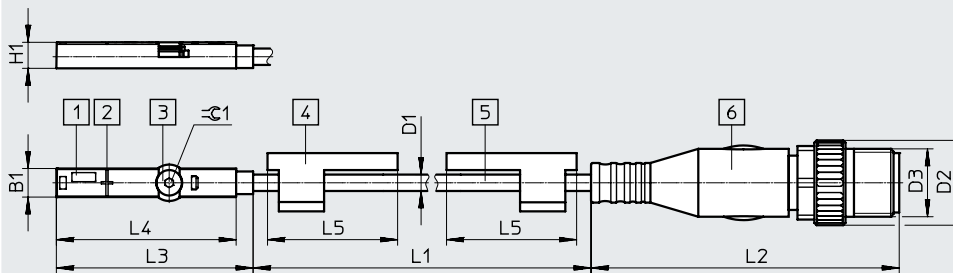
Type	B1 ±0.05	D1 ∅	D2 ∅	D3	H1 ±0.05	L2	L3	L4 ±0.1	L5	∠ 1
SME-8M-...-OE	5	2.9	-	-	4.6	50	34.8	31.8	23	1.5
SME-8M-DO-...-OE			-	-		-	39.5	36.5	-	
SME-8M-...-M8D			9.6	M8x1		41.1	34.8	31.8	23	
SME-8M-...-M8			8.5	M8x1		32.7	34.8	31.8	23	

## Data sheet – Magnetic reed

## Dimensions

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

SME-8M-...-M12 – Cable with plug M12x1, rotatable thread



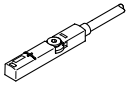
- [1] Yellow light emitting diode
- [2] Centre of the sensor element
- [3] Clamping element, tightening torque 0.6 Nm
- [4] Inscription label holder
- [5] Connecting cable
- [6] Plug to fit connecting cable NE-BU-M12

L1 Cable length

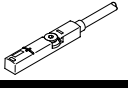
Type	B1	D1 ∅	D2	D3	H1	L2	L3	L4	L5	∠ 1
SME-8M-...-M12	5	2.9	15	M12x1	4.6	54.5	34.8	31.8	23	1.5

## ★ Core product range

## Ordering data

	Switching output	Electrical connection		Cable length [m]	Part no.	Type
		Cable	Cable with plug, rotatable thread, M8x1			
	<b>N/O contact</b>					
	Contacting Bipolar	3-wire	–	2.5	★ 543862	SME-8M-DS-24V-K-2.5-OE
		–	3-pin	0.3	★ 543863	SME-8M-DS-24V-K-5.0-OE
		2-wire	–	2.5	★ 543872	SME-8M-ZS-24V-K-2.5-OE
<b>N/C contact</b>						
Contacting Bipolar	3-wire	–	7.5	★ 546799	SME-8M-DO-24V-K-7.5-OE	

## Ordering data

	Switching output	Electrical connection		Cable length [m]	Part no.	Type
		Cable	Cable with plug, rotatable thread, M8x1			
	<b>N/O contact</b>					
	Contacting Bipolar	3-wire	–	7.5	543876	SME-8M-DS-24V-K-7.5-OE

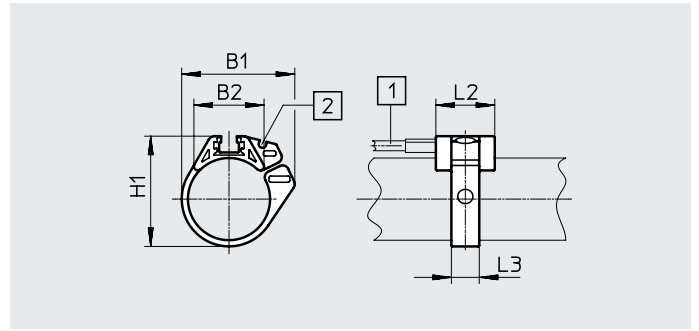
## Modular product system – Magnetic reed

Ordering table				
Size	8	Conditions	Code	Enter code
Module no.	<b>543892</b>			
Function	Proximity switch for T-slot, contacting		<b>SME-8M</b>	SME-8M
			–	–
Switching output	3-wire N/O contact		<b>DS</b>	
	2-wire N/O contact		<b>ZS</b>	
	3-wire N/C contact		<b>DO</b>	
			–	–
Rated operating voltage [V DC]	24		<b>24V</b>	24V
			–	–
Cable characteristic	Standard + cable chain		<b>K</b>	
	Cable chain + robot		<b>E</b>	
			–	–
Cable length [m]	0.2 ... 10		<b>...</b>	
	(0.2 ... 5.0 m in 0.1 m increments, 5.0 ... 10 m in 0.5 m increments)			
			–	–
Connection technology	Open end		<b>OE</b>	
	M8, rotatable thread		<b>M8D</b>	
	M8, snap-on flange		<b>M8</b>	
	M12, rotatable thread		<b>M12</b>	

## Accessories

### Mounting kit SMBR

Material:  
Polyacetal  
RoHS-compliant



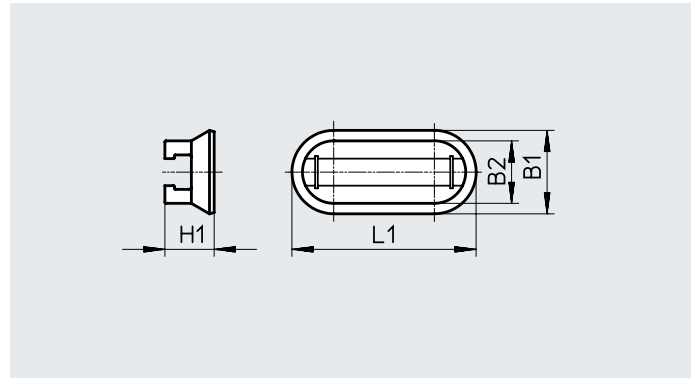
Dimensions and ordering data							
For piston $\varnothing$	B1	B2	H1	L2	L3	Part no.	Type
8	18.9	12.3	17.5	19	7	175091	SMBR-8-8
10	20.4	13.7	19.9	19	7	175092	SMBR-8-10
12	22.7	14.3	21.9	19	7	★ 175093	SMBR-8-12
16	28.2	16.9	25.7	19	8	★ 175094	SMBR-8-16
20	34.5	20.8	30.4	19	9	★ 175095	SMBR-8-20
25	36.7	22.7	35.6	19	9	★ 175096	SMBR-8-25
32	41.7	24.6	42.7	19	9	175097	SMBR-8-32
40	47.1	26.5	50.7	19	9	175098	SMBR-8-40
50	56.4	28.6	61.5	19	9	175099	SMBR-8-50
63	69.4	32	74.5	19	9	175100	SMBR-8-63

### Mounting kit CRSMB

Design: for round cylinders  
Type of mounting: bonded using  
enclosed adhesive tape

Degree of protection: IP65, IP68, IP69K  
Ambient temperature:  $-40 \dots +90^{\circ}\text{C}$

Material:  
Housing: polyurethane  
Rail: hard anodised aluminium  
Free of copper and PTFE



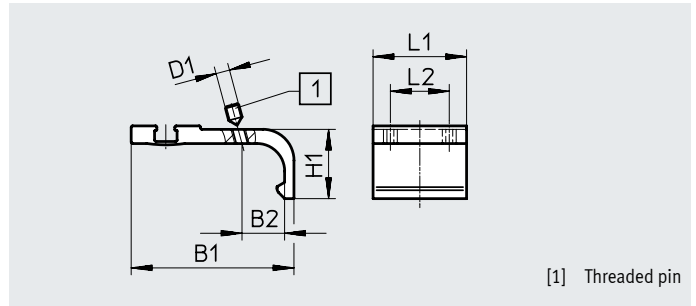
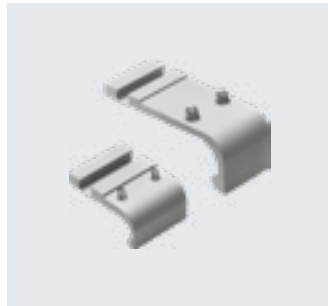
Ordering data							
For piston $\varnothing$	B1	B2	H1	L1	CRC <sup>1)</sup>	Part no.	Type
32 ... 100	15.8	11.8	9.3	35	4	525565	CRSMB-8-32/100

1) Corrosion resistance class CRC 4 to Festo standard FN 940070  
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by means of special testing (→ also FN 940082), using appropriate media.

## Accessories

### Mounting kit SMB-8-FENG

Material:  
Wrought aluminium alloy  
Free of copper and PTFE



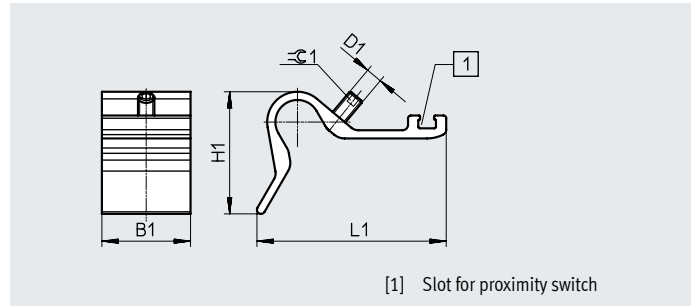
#### Dimensions and ordering data

For piston $\varnothing$	B1	B2	D1	H1	L1	L2	Tightening torque [Nm]	Part no.	Type
32/40	35.1	8.7	M3	15.5	27	17	0.2	175705	SMB-8-FENG-32/40
50/63	47	12.3	M4	20	27	17	0.5	175706	SMB-8-FENG-50/63
80/100	64.3	15.7	M5	24.3	27	17	0.7	175707	SMB-8-FENG-80/100

## Accessories

### Sensor bracket DASP-M4-...-A

Material:  
Anodised wrought aluminium alloy  
Screws: high-alloy stainless steel  
RoHS-compliant



[1] Slot for proximity switch

Dimensions and ordering data										
Type	B1	D1	H1	L1	$\approx \ominus 1$	Tightening torque [Nm]	CRC <sup>1)</sup>	Weight [g]	Part no.	Type
DASP-M4-125-A	32.5	M5	28	45.4	2.5	1	3	26.5	1451483	DASP-M4-125-A
DASP-M4-160-A	32.5	M6	44.7	69.4	3	1	3	41.5	1553813	DASP-M4-160-A
DASP-M4-250-A	32.5	M6	56.3	88	3	1	3	60	1456781	DASP-M4-250-A
DASP-M4-320-A	32.5	M6	56.3	88	3	1	3	60	3015256	DASP-M4-320-A

1) Corrosion resistance class CRC 3 to Festo standard FN 940070

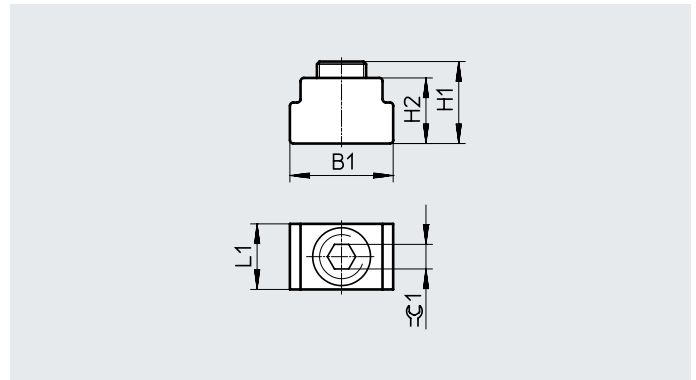
High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

### Positioning element SMM

Insertable in the slot lengthwise

Ambient temperature:  $-40 \dots +120^{\circ}\text{C}$

Materials:  
Housing: anodised wrought aluminium alloy  
Screws: high-alloy stainless steel  
Note on materials: RoHS-compliant







Dimensions and ordering data									
B1	H1	H2	L1	$\approx \ominus 1$	CRC <sup>1)</sup>	Part no.	Type	PU <sup>2)</sup>	
6.3	5.0	4.0	4.0	1.5	3	547941	SMM-8	10	


1) Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

2) Packaging unit


## Accessories


Ordering data – Connecting cables		Number of wires	Cable length [m]	Part no.	Type	Data sheets → Internet: nebu/sim
<b>Socket M8x1, 3-pin</b>						
	For SMT/SME-8... and SMT0/SMTSO/SME0-8E	3	2.5	★ 541333	NEBU-M8G3-K-2.5-LE3	
			5	★ 541334	NEBU-M8G3-K-5-LE3	
	For SMT/SME-8... and SMT0/SMTSO/SME0-8E	3	2.5	★ 541338	NEBU-M8W3-K-2.5-LE3	
			5	★ 541341	NEBU-M8W3-K-5-LE3	
<b>Socket M12x1, 5-pin</b>						
	For SMT/SME-8M and SMT0/SMTSO/SME0-8E	3	2.5	★ 541363	NEBU-M12G5-K-2.5-LE3	
			5	★ 541364	NEBU-M12G5-K-5-LE3	
	For SMT/SME-8M and SMT0/SMTSO/SME0-8E	3	2.5	541367	NEBU-M12W5-K-2.5-LE3	
			5	541370	NEBU-M12W5-K-5-LE3	

Ordering data – Safety clip for ATEX zone		Size	Description	Part no.	Type	PU <sup>1)</sup>
	M8	<ul style="list-style-type: none"> <li>Protects "equipment that is not intrinsically safe" in zones 2 and 22 against simple disconnection</li> <li>ATEX category: gas: II 3G / dust: II 3D</li> </ul>	548067	NEAU-M8-GD	1	
	M12		548068	NEAU-M12-GD	1	

1) Packaging unit

Ordering data – Mounting components		Description	Part no.	Type
		For fixing connecting cables in place	534254	SMBK-8

Ordering data – Sensor tester		Description	Part no.	Type
		<ul style="list-style-type: none"> <li>Testing the functionality of proximity switches using the integrated voltage supply</li> <li>Adjusting proximity switches on the cylinder</li> </ul>	158481	SM-TEST-1

Ordering data – Inscription labels		Size	Part no.	Type	PU <sup>1)</sup>
		23x4 mm	541598	ASLR-L-423	34

1) Packaging unit