

## Proximity sensors SME-10, for C-slot

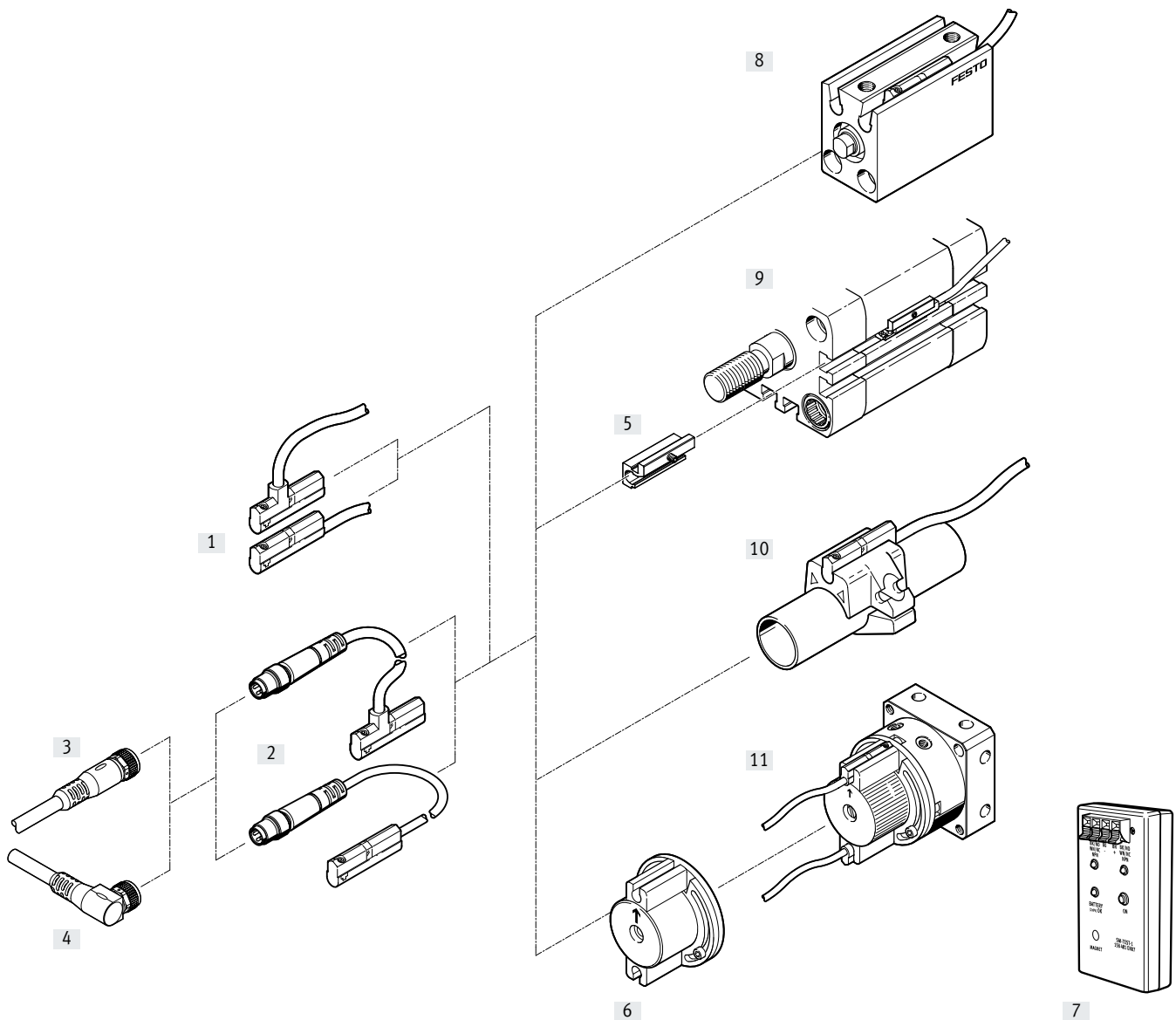
**FESTO**



## Product range overview

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

Peripherals overview



Mounting components and accessories		→ Page/ Internet
<b>Proximity sensor</b>		
[1]	SME-10, with cable	5
[2]	SME-10, with cable and plug	5
<b>Connecting cables</b>		
[3]	Connecting cable NEBU-M...G...	10
[4]	Connecting cable NEBU-M...W...	10
<b>Mounting kits</b>		
[5]	Mounting kit SMBN-10	9
[6]	Mounting kit WSM-...SME-10	10

Mounting components and accessories		→ Page/ Internet
<b>Accessories</b>		
[7]	Sensor tester SM-TEST-1	10
-	Positioning element SMM-10	9
-	Clip SMBK-10	10
-	Inscription label ASLR	10
-	Safety clip NEAU	10
<b>Drives</b>		
[8]	Drives with C-slot	-
[9]	Drives with T-slot	-
[10]	Round cylinder	-
[11]	Semi-rotary drive DSM	-

## Type codes

001	Series
<b>SME</b>	Proximity sensor

002	Design type
<b>10</b>	For round slot, insertable in the slot lengthwise

003	Electrical connection, cable length, outlet orientation of connection
<b>KL</b>	Cable, 2.5 m, in-line
<b>KQ</b>	Cable, 2.5 m, lateral
<b>SL</b>	Plug M8x1 with cable, 0.3 m, in-line
<b>SQ</b>	Plug M8x1 with cable, 0.3 m, lateral

004	Switching status indication
<b>LED</b>	Yellow LED

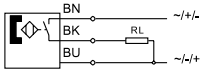
005	Rated operating voltage
<b>24</b>	24 V DC

## Data sheet – Magnetic reed

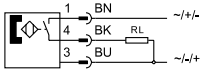
### Function

N/O contact, 3-wire, with cable

- Magneto-resistive measuring principle
- Insertable in the slot lengthwise



N/O contact, 3-wire, with plug



General technical data	
Design	For C-slot
Mounting position	Any
Measured variable	Position
Conforms to standard	EN 60947-5-2
Certification	RCM compliance mark
Application information	Support / Actuator-sensor overview
CE marking (see declaration of conformity)	To EU EMC Directive
	To EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC
	To UK RoHS instructions
Note on materials	RoHS-compliant
Input signal/measuring element	
Measuring principle	Magnetic reed
Ambient temperature	[°C] -20 ... +70
Switching output	
Switching output	Contacting, bipolar
Switching element function	N/O contact
Repetition accuracy	[mm] 0.2
Reproducibility of switching value	[mm] ±0.1
Switch-on time	[ms] ≤0.6
Switch-off time	[ms] ≤0.05
Max. output current	[mA] 100
Max. switching frequency	[Hz] 500
Max. switching capacity DC	[W] 1
Voltage drop	[V] 0
Output, additional data	
Short circuit protection	No
Overload protection	Not present
Electronics	
Operating voltage range DC	[V] 12 ... 27
Operating voltage range AC	[V] 12 ... 27
Reverse polarity protection	No


## Data sheet – Magnetic reed

Electromechanical components		
Type	SME-10-...-K...-...	SME-10-...-S...-...
Electrical connection 1		
Function	Switching output, power supply	
Connection type	Cable	Cable with plug
Connection technology	Open end	M8x1, A-coded to EN 61076-2-104
Number of pins/wires	3	
Outlet direction of connection	In-line, lateral	In-line, lateral
Cable length [m]	2.5	0.3
Information on materials: cable sheath	TPE-U (PUR)	
Cable sheath colour	Grey	

Mechanical components		
Type	SME-10-...-K...-...	SME-10-...-S...-...
Type of mounting	Clamped in C-slot, insertable in the slot lengthwise	
Tightening torque [Nm]	0.18	
Information on materials: housing	PPS, high-alloy stainless steel	PPS, TPE-U(PU) High-alloy stainless steel Nickel-plated brass
Housing colour	Black	

Display/operation	
Switching status indication	Yellow LED

Immission/emission	
Ambient temperature with flexible cable installation [°C]	-5 ... +70
Degree of protection	IP65 IP67
Insulation voltage [V]	50
Surge resistance [kV]	0.8
Pollution degree	3
PWIS conformity	VDMA24364-B2-L

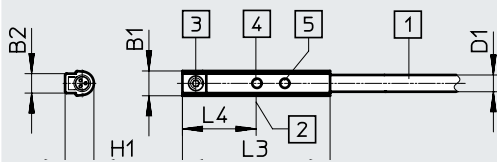
Pin allocation to EN 60947-5-2			
Plug, 3-pin, M8x1			
Port pattern	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	-
	4	Black	Output

## Data sheet – Magnetic reed

## Dimensions

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

Cable, in-line connection direction



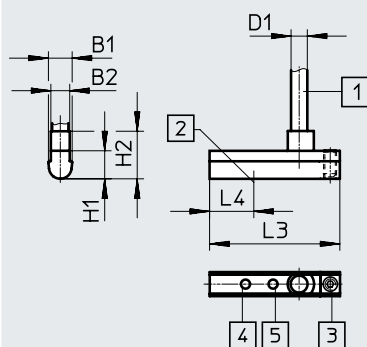
- [1] Connecting cable
- [2] Theoretical switching point
- [3] Threaded pin M2x4
- [4] Yellow LED (positive switching)
- [5] Yellow LED (negative switching)

Type	B1	B2	D1 ∅	H1	L3 + 0.4	L4
SME-10-KL-LED-24	3.7	2.9	2.4	4.3	22	11

## Dimensions

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

Cable, lateral connection direction



- [1] Connecting cable
- [2] Theoretical switching point
- [3] Threaded pin M2x4
- [4] Yellow LED (positive switching)
- [5] Yellow LED (negative switching)

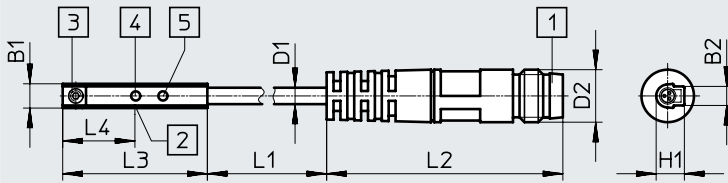
Type	B1	B2	D1 ∅	H1	H2	L3 + 0.4	L4
SME-10-KQ-LED-24	3.7	2.9	2.4	4.3	7.3	20	6.8

## Data sheet – Magnetic reed

### Dimensions

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

Plug M8x1, in-line connection direction



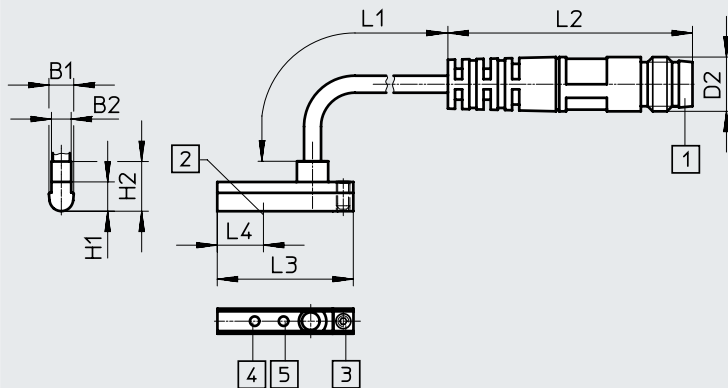
- [1] Plug to fit connecting cable NEBU-M8
- [2] Theoretical switching point
- [3] Threaded pin M2x4
- [4] Yellow LED (positive switching)
- [5] Yellow LED (negative switching)

Type	B1	B2	D1 ∅	D2	H1	L1	L2 ± 1	L3 + 0.4	L4
SME-10-SL-LED-24	3.7	2.9	2.4	M8	4.3	310	34	22	11

### Dimensions

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

Plug M8x1, lateral connection direction



- [1] Plug to fit connecting cable NEBU-M8
- [2] Theoretical switching point
- [3] Threaded pin M2x4
- [4] Yellow LED (positive switching)
- [5] Yellow LED (negative switching)

Type	B1	B2	D2	H1	H2	L1 -10 ... 30	L2 ± 1	L3 + 0.4	L4
SME-10-SQ-LED-24	3.7	2.9	M8	4.3	7.3	310	34	20	6.8

### Ordering data

	Switching output	Electrical connection		Cable length [m]	Part no.	Type
		Cable	Cable with plug M8x1			
<b>In-line connection direction</b>						
	N/O contact	Contacting, bipolar	3-wire	-	2.5	<b>173210</b> <b>SME-10-KL-LED-24</b>
			-	3-pin	0.3	<b>173212</b> <b>SME-10-SL-LED-24</b>
<b>Lateral connection direction</b>						
	N/O contact	Contacting, bipolar	3-wire	-	2.5	<b>173211</b> <b>SME-10-KQ-LED-24</b>
			-	3-pin	0.3	<b>173213</b> <b>SME-10-SQ-LED-24</b>



## Accessories

### Mounting SMBN-10

for mounting proximity sensors  
SME/SMT-10 on drives with T-slot

Material:

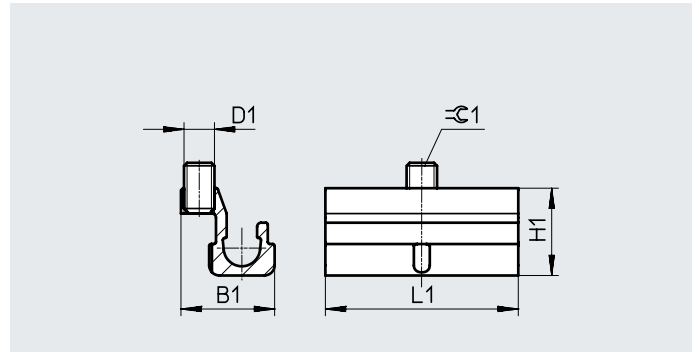
Rail: anodised wrought aluminium  
alloy

Screws: high-alloy stainless steel

Note on materials:

Free of copper and PTFE

RoHS-compliant



#### Dimensions and ordering data

For piston $\varnothing$	D1	B1	H1	L1	$\varnothing 1$	Part no.	Type
125 ... 320	M3	9.3	8.6	19	1.5	<b>537809</b>	<b>SMBN-10</b>

### Positioning element SMM

insertable in the slot lengthwise

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

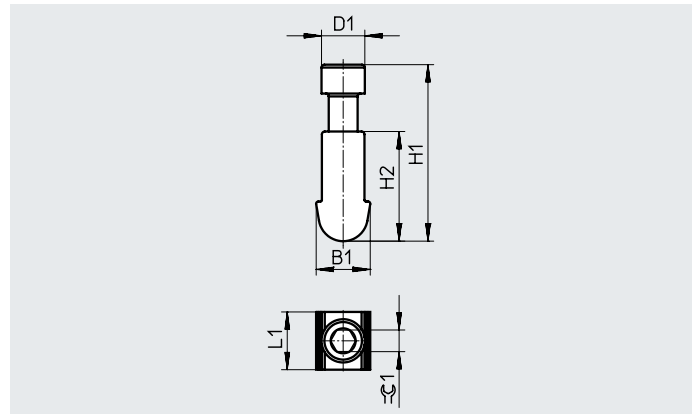
Materials:

Housing: anodised wrought aluminium  
alloy

Screws: high-alloy stainless steel

Note on materials:

RoHS-compliant



#### Dimensions and ordering data

B1	D1	H1	H2	L1	$\varnothing 1$	CRC <sup>1)</sup>	Part no.	Type	PU <sup>2)</sup>
3.75	3.0	12.23	7.6	4.0	1.5	3	<b>547942</b>	<b>SMM-10</b>	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

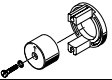

## Accessories

## Ordering data – Connecting cables


Data sheets → Internet: nebu

	Type	Number of wires	Cable length [m]	Part no.	Type
<b>Socket M8x1, 3-pin</b>					
	For SMT/SME-10...	3	2.5	★ 541333	NEBU-M8G3-K-2.5-LE3
			5	★ 541334	NEBU-M8G3-K-5-LE3
	For SMT/SME-10...	3	2.5	★ 541338	NEBU-M8W3-K-2.5-LE3
			5	★ 541341	NEBU-M8W3-K-5-LE3

## Ordering data – Mounting components

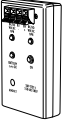
	For Ø	Description	Part no.	Type
	6	Mounting kit for mounting proximity sensors on semi-rotary drive DSM	173205	WSM-6-SME-10
	8		173206	WSM-8-SME-10
	10		173207	WSM-10-SME-10
	–	For fixing connecting cables in place	534255	SMBK-10

## Ordering data – Safety clips 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 – Sensor tester

	Description	Part no.	Type
	<ul style="list-style-type: none"> <li>Testing the functionality of proximity sensors using the integrated voltage supply</li> <li>Adjusting the proximity sensors 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