

Proximity sensors SME-10, for C-slot

FESTO



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for the
star!

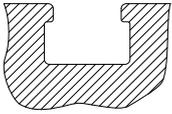
Product range overview

Design	Type of mounting	Measuring principle	Type	Operating voltage range	Switching output	Switching element function	→ Page/ Internet
For C-slot	Standard						
	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	6	
For T-slot	Standard						
	Insertable in the slot from above, flush with the cylinder profile	Magneto-resistive	SMT-8M	10 ... 30 V DC	PNP	N/O contact	T-slot
					NPN	N/C contact	
					Contacting, bipolar	N/O contact	
	Insertable in the slot lengthwise, flush with the cylinder profile	Magneto-resistive	SMT-8	10 ... 30 V DC	PNP	N/O contact	
					NPN		
	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	
				5 ... 250 V AC/DC		N/O contact	
	Insertable in the slot lengthwise	Magneto-resistive	SMT-8G	10 ... 30 V DC	PNP	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	
	Via accessories	Magneto-resistive	SMT0-8E	10 ... 30 V DC	PNP	N/O contact	
					NPN		
					Magnetic reed		
	3 ... 250 V DC						
				3 ... 230 V AC			
	Corrosion-resistant						
	Insertable in the slot lengthwise, flush with the cylinder profile	Magneto-resistive	CRSMT-8	10 ... 30 V DC	PNP	N/O contact	T-slot
	Welding field immune						
	Via accessories	Magneto-inductive	SMTSO-8E	10 ... 30 V DC	PNP	N/O contact	T-slot
					NPN		
	Heat resistant up to 120°C						
	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	T-slot
	Via accessories	Magnetic reed	SME0-8E-...-S6	0 ... 30 V DC	Contacting	N/O contact	T-slot
				0 ... 30 V AC			

Product range overview

T-slot sensors can be used for drives with T-slot

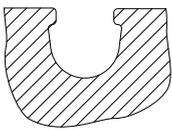
Exceptions



- DFM-B: SMT0-8E, SMTSO-8E, SME0-8E and SMPO-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 for size 40 and upwards
- SDBT-BSW- ... -PU/NU can only be used on a limited number of drive series

C-slot sensors can be used for drives with C-slot

Exceptions

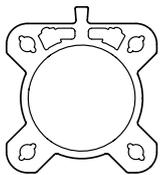


- ADVC $\varnothing 100$: SMT-10M and SME-10M cannot be used (ADVC has a T-slot and C-slot)
- DSM/DSM-B-6/8/10: SME-10M cannot be used
- DSM/DSM-B-10/16: SMT-10M cannot be used
- HGPT-B: only SMT-10G can be used for sizes up to and including size 35

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

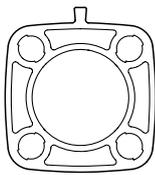
Only T-slot sensors CRSMT-8M and SMT-8M-A can be used, and only with the profile identified as suitable.

Example: DSBF



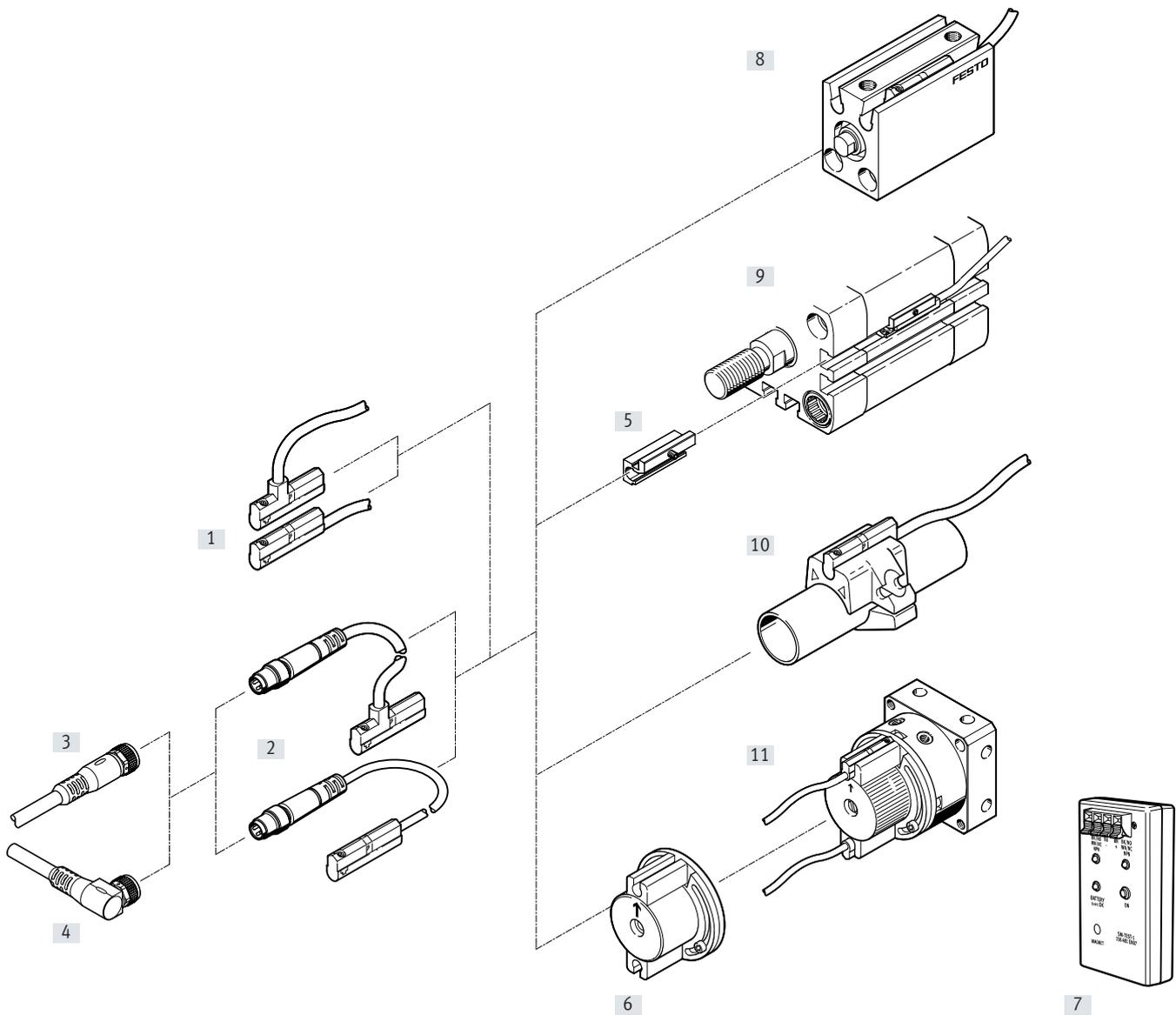
Suitable

Example: CDC



Not suitable

Peripherals overview



Mounting components and accessories		→ Page/ Internet
Proximity sensor		
[1]	SME-10, with cable	6
[2]	SME-10, with cable and plug	6
Connecting cables		
[3]	Connecting cable NEBU-M...G...	11
[4]	Connecting cable NEBU-M...W...	11
Mounting kits		
[5]	Mounting kit SMBN-10	10
[6]	Mounting kit WSM-...-SME-10	11

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

Type codes

001	Series
SME	Proximity sensor

002	Design type
10	For round slot, insertable in the slot lengthwise

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

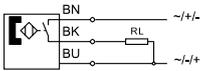
004	Switching status indication
LED	Yellow LED

005	Rated operating voltage
24	24 V DC

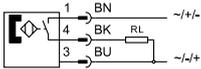
Data sheet – Magnetic reed

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
Conforms to standard	EN 60947-5-2
Certification	RCM compliance mark
CE marking (see declaration of conformity)	To EU EMC Directive
Note on materials	Free of copper and PTFE

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
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

Electromechanical components

Type	SME-10-...-K...-...	SME-10-...-S...-...
Electrical connection	Cable, 3-wire	Cable with plug M8x1, 3-pin
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)	

Data sheet – Magnetic reed

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

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	

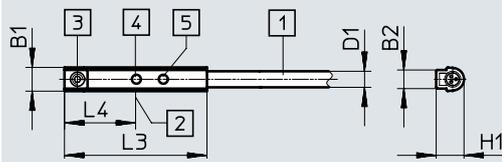
Pin allocation to EN 60947-5-2			
Plug, 3-pin, M8x1			
	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	-
	4	Black	Output

Data sheet – Magnetic reed

Dimensions

Download CAD data → www.festo.com

Cable, in-line connection direction



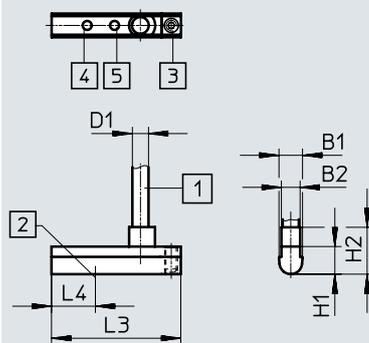
- [1] Connecting cable
- [2] Theoretical switching point
- [3] Threaded pin M2x4
- [4] Yellow LED (positive switching)
- [5] Yellow LED (negative switching)

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

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)

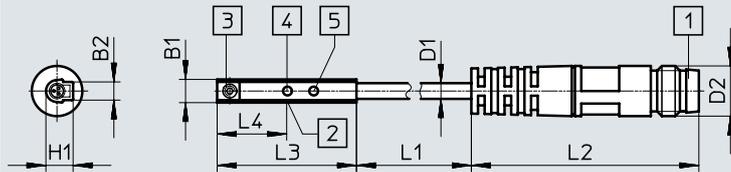
Type	B1	B2	D1 ∅	H1	H2	L3 + 0.4	L4
SME-10-KQ-LED-24	3.7	2.9	2.4	4.3	7.3	20	6.8

Data sheet – Magnetic reed

Dimensions

Download CAD data → www.festo.com

Plug M8x1, in-line connection direction



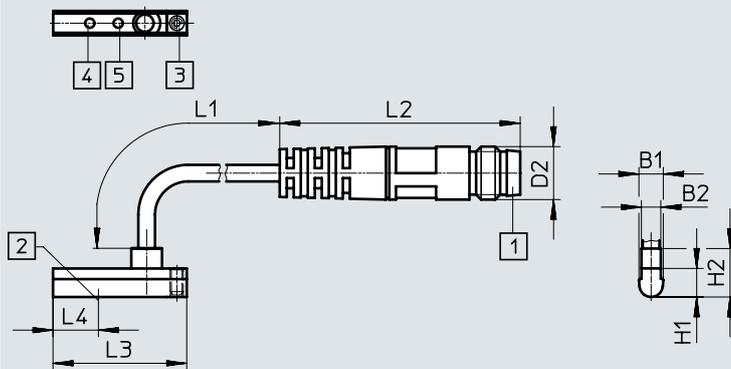
- [1] Plug to fit connecting cable NEBU-M8
- [2] Theoretical switching point
- [3] Threaded pin M2x4
- [4] Yellow LED (positive switching)
- [5] Yellow LED (negative switching)

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

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

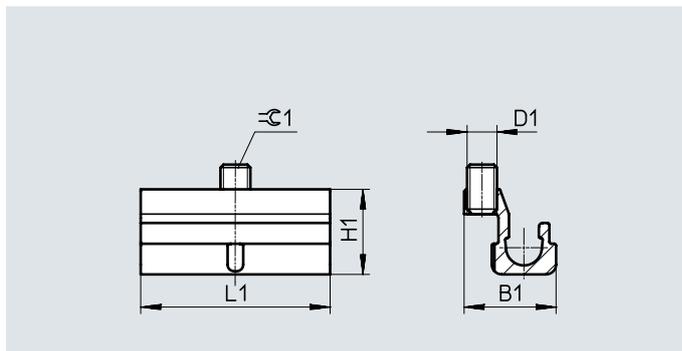
	Switching output	Electrical connection		Cable length [m]	Part no.	Type
		Cable	Cable with plug M8x1			
In-line connection direction						
	N/O contact Contacting, bipolar	3-wire	–	2.5	173210	SME-10-KL-LED-24
		–	3-pin	0.3	173212	SME-10-SL-LED-24
Lateral connection direction						
	N/O contact Contacting,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

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

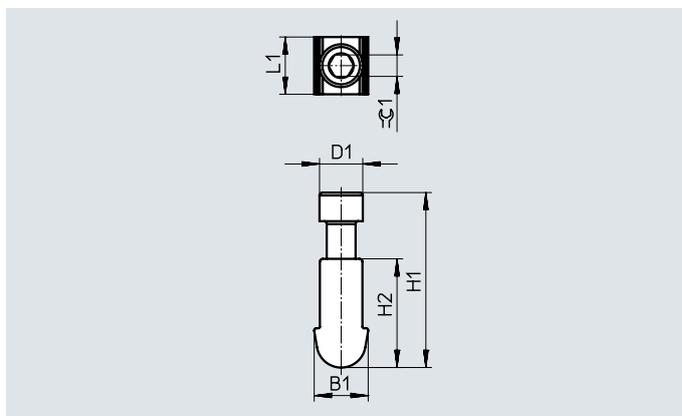
For piston \varnothing	D1	B1	H1	L1	$\varnothing 1$	Part no.	Type
125 ... 320	M3	9.3	8.6	19	1.5	537809	SMBN-10

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 ¹⁾	Part no.	Type	PU ²⁾
3.75	3.0	12.23	7.6	4.0	1.5	3	547942	SMM-10	10

- 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.
- Packaging unit

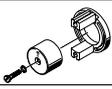
Accessories

Ordering data – Connecting cables

Data sheets → Internet: nebu

	Type	Number of wires	Cable length [m]	Part no.	Type
Socket M8x1, 3-pin					
	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

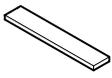
	Size	Description	Part no.	Type	PU ¹⁾
	M8	<ul style="list-style-type: none"> Protects "equipment that is not intrinsically safe" in zones 2 and 22 against simple disconnection ATEX category: gas: II 3G / dust: II 3D 	548067	NEAU-M8-GD	1
	M12		548068	NEAU-M12-GD	1

1) Packaging unit

Ordering data – Sensor tester

	Description	Part no.	Type
	<ul style="list-style-type: none"> Testing the functionality of proximity sensors using the integrated voltage supply Adjusting the proximity sensors on the cylinder 	158481	SM-TEST-1

Ordering data – Inscription labels

	Size	Part no.	Type	PU ¹⁾
	23x4 mm	541598	ASLR-L-423	34

1) Packaging unit

Festo core product range



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