

Proximity sensors SMT-10G, for C-slot

FESTO



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for the
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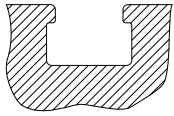
Product range overview

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			
		Magnetic reed	SME-10M	5 ... 30 V AC/DC	Contacting, bipolar	N/O contact	–	
	Insertable in the slot lengthwise	Magneto-resistive	SMT-10G	10 ... 30 V DC	PNP, NPN	N/O contact	6	
Magnetic reed		SME-10	12 ... 27 V AC/DC	Contacting	N/O contact	–		
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	
						N/C contact		
					NPN	N/O contact		
		Magnetic reed	SME-8M	5 ... 30 V AC/DC	Contacting, bipolar	N/O contact		
						N/C contact		
						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	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				
	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	SMT-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	SME-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

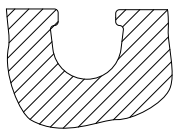
Exceptions



- 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 from 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

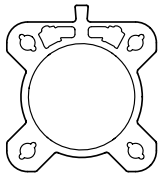


- ADVC $\varnothing 100$: SMT-10M and SME-10M cannot be used (ADVC has a T-slot and C-slot)
- DSM/DSM-B-6/8/10: SME-10M cannot be used
- DSM/DSM-B-10/16: SMT-10M cannot be used
- HGPT-B: only SMT-10G can be used for sizes up to and including size 35

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

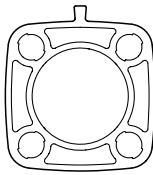
Only T-slot sensors CRSMT-8M and SMT-8M-A can be used, and only with the profile identified as suitable.

Example: DSBF



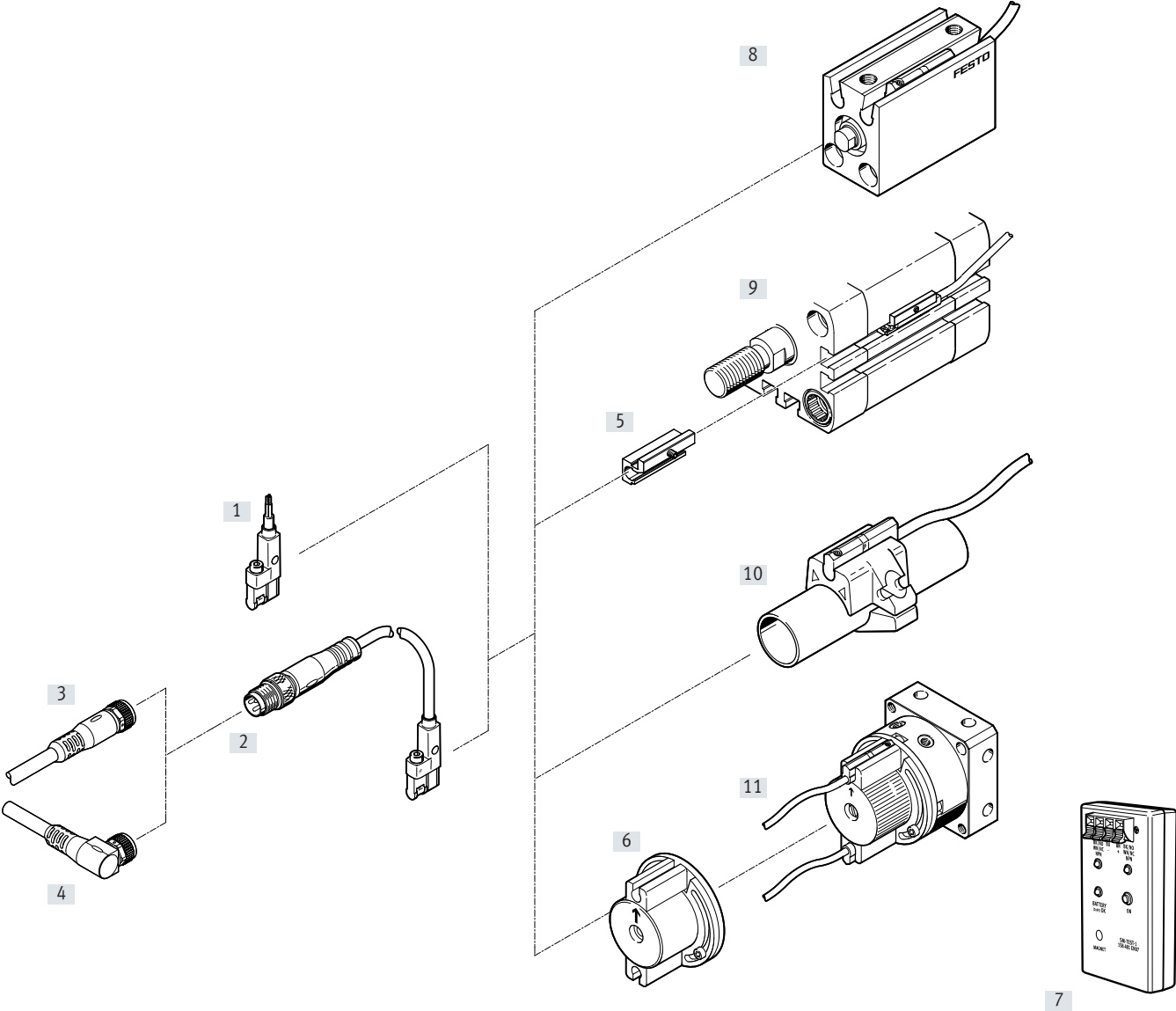
Suitable

Example: CDC



Not suitable

Peripherals overview



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

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

Type codes

001	Series	
SMT	Proximity sensor	

002	Design type	
10G	For round slot, inserted in the slot lengthwise	

003	Switching output	
PS	3-wire PNP N/O contact	
NS	3-wire NPN N/O contact	

004	Rated operating voltage	
24V	24 V	

005	Cable characteristic	
E	Suitable for energy chains/robot applications	

006	Cable length [m]	
0.3	0.3	
2.5	2.5	

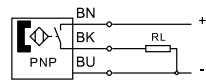
007	Cable outlet	
Q	Transverse	

008	Electrical connection	
OE	Open end	
M8D	Cable with M8x1 plug, 3-pin, rotatable thread	

Data sheet – Magneto-resistive

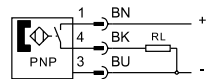
Function

PNP, N/O contact, with cable, 3-wire

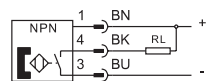
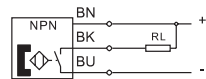


- Magneto-resistive measuring principle
- Insertable in the slot lengthwise
- Design ideal for gripper sensing

PNP, N/O contact, with plug



NPN, N/O contact, with cable



General technical data	
Design	For C-slot
Based on standard	EN 60947-5-2
Certification	RCM compliance mark c UL us Listed (OL)
CE marking (see declaration of conformity)	To EU EMC Directive
Note on materials	Free of copper and PTFE RoHS-compliant

Input signal/measuring element	
Measuring principle	Magneto-resistive
Ambient temperature	[°C] -20 ... +70

Switching output	
Switching element function	N/O contact
Max. output current	[mA] 100
Max. switching capacity DC	[W] 2.8

Output, additional data	
Short circuit protection	Yes
Overload protection	Present

Data sheet – Magneto-resistive

Electronics		
Operating voltage range	[V DC]	10 ... 30
Reverse polarity protection		For all electrical connections

Electromechanical components		
Type	SMT-10G-...-OE	SMT-10G-...-M8D
Electrical connection	Cable, 3-wire	Cable with plug M8x1, 3-pin, rotatable thread
Outlet direction of connection	Lateral	
Cable test conditions	Cable chain: 5 million cycles, bending radius 28 mm	
	Torsional resistance: > 300,000 cycles, $\pm 270^\circ/0.1$ m	
	Resistance to bending: to Festo standard; test conditions on request	
Cable length	[m]	2.5 0.3
Cable characteristic	Suitable for energy chains and robot applications	
Information on materials: cable sheath	TPE-U(PU)	

Mechanical components	
Type of mounting	Clamped in C-slot Insertable in the slot lengthwise
Information on materials: housing	Reinforced PA

Display/operation	
Switching status indication	Yellow LED

Immission/emission	
Ambient temperature with flexible cable installation	[°C] -5 ... +70
Degree of protection	IP65
	IP68

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

Data sheet – Magneto-resistive

Dimensions

Download CAD data → www.festo.com

[1] 2x LED
[2] SMT-10G
[3] Inscription label holder
[4] Connecting cable
[5] Plug M8x1
L1 Cable length

	B1	B2	B3	B4	D1 ø	D2 ø	D3	H1	H2	L1	L2 ±0.4	L3 ±0.15	L4	L5	L6 ±5	L7	⊥
SMT-10G-PS-...-OE	5.4	5	3.8	3	2.9	–	–	10	5	2500 + 70	–	25.2	10.8	23	50	2.8	1.5
SMT-10G-PS-...-M8D						9.6	M8x1			300 + 30	41.1				–		
SMT-10G-NS-...-OE						–	–			2500 + 70	–				50		
SMT-10G-NS-...-M8D						9.6	M8x1			300 + 30	41.1				–		

Ordering data						
	Switching output	Electrical connection		Cable length [m]	Part no.	Type
		Cable	Cable with plug, rotatable thread M8x1			
N/O contact						
	PNP	3-wire	–	2.5	547862	SMT-10G-PS-24V-E-2.5Q-OE
		–	3-pin	0.3	547863	SMT-10G-PS-24V-E-0.3Q-M8D
	NPN	3-wire	–	2.5	8065030	SMT-10G-NS-24V-E-2.5Q-OE
		–	3-pin	0.3	8065029	SMT-10G-NS-24V-E-0.3Q-M8D

Accessories

Mounting SMBN-10

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

Material:

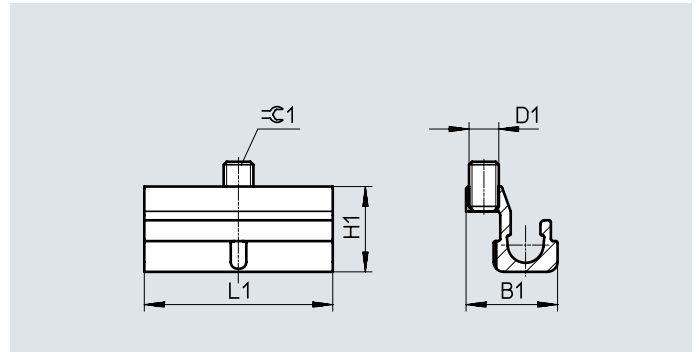
Rail: anodised wrought aluminium
alloy

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

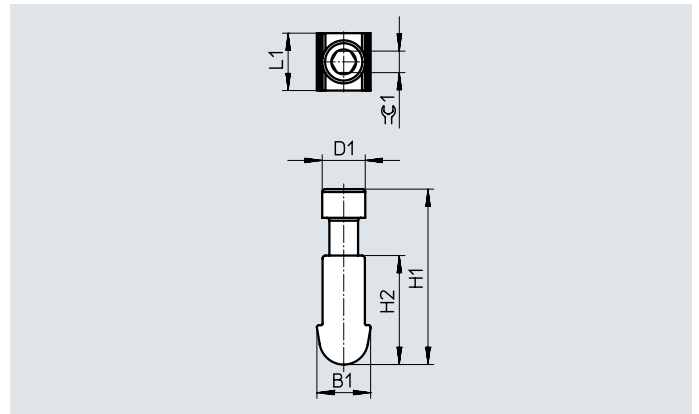
Materials:

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

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

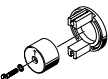
Accessories

Ordering data – Connecting cables

Data sheets → Internet: nebu

	Type	Number of wires	Cable length [m]	Part no.	Type
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

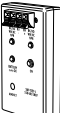
	For Ø	Description	Part no.	Type
	6	Mounting kit for mounting proximity sensors on semi-rotary drive DSM	173205	WSM-6-SME-10
	8		173206	WSM-8-SME-10
	10		173207	WSM-10-SME-10
	–	For fixing connecting cables in place	534255	SMBK-10

Ordering data – Safety clips for ATEX zone

	Size	Description	Part no.	Type	PU ¹⁾
	M8	- 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
	- Testing of 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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