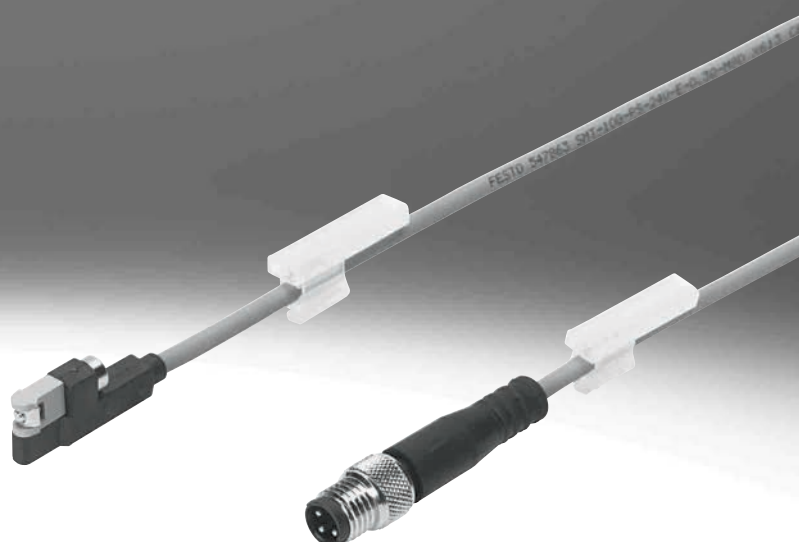


Proximity sensors SMT-10G, for C-slot

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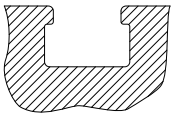
Product range overview

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
	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		
						N/C contact		
				3 ... 230 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	SME0-8E	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	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

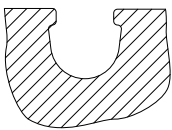
Exceptions



- 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 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

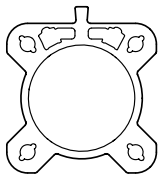


- ADVC $\varnothing 100$: SMT-10M and SME-10M cannot be used (ADVC has a T-slot and C-slot)
- DSM/DSM-B-6/8/10: SME-10M cannot be used
- DSM/DSM-B-10/16: SMT-10M cannot be used
- HGPT-B: only SMT-10G can be used for sizes up to and including size 35

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

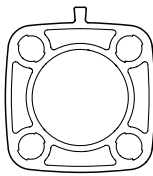
Only T-slot sensors CRSMT-8M and SMT-8M-A can be used, and only with the profile identified as suitable.

Example: DSBF



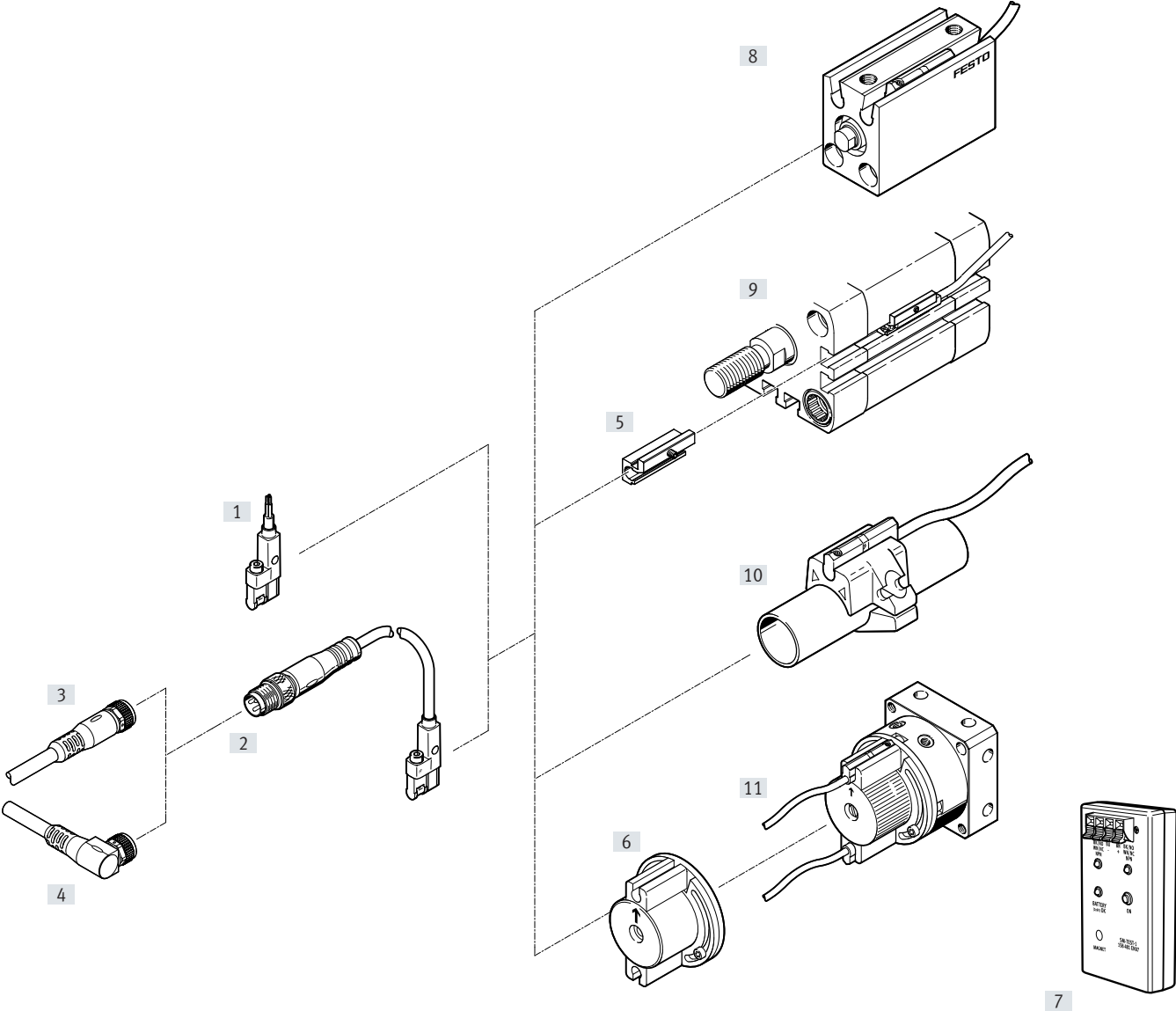
Suitable

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	

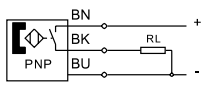
007	Cable outlet	
Q	Transverse	

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

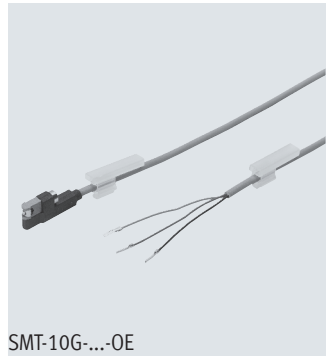
Data sheet – Magneto-resistive

Function

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



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

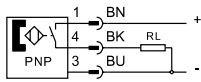


SMT-10G-...-OE

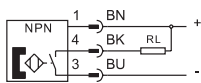
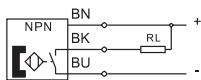


SMT-10G-...-M8D

PNP, N/O contact, with plug



NPN, N/O contact, with cable



General technical data	SMT-10G-PS-...	SMT-10G-NS-...
Design	For C-slot	
Mounting position	Any	
Based on standard	EN 60947-5-2	
Certification	RCM compliance mark c UL us Listed (OL)	
CE marking	To EU EMC Directive	
(see declaration of conformity)	To EU RoHS Directive	
KC marking	KC EMC	
UKCA marking	To UK instructions for EMC	
(see declaration of conformity) ¹⁾	To UK RoHS instructions	
Application information	Support / Actuator-sensor overview "The right sensor for the actuator"	
Certificate-issuing authority	UL E232949	
Suitable for the production of lithium-ion batteries	Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils	–
Cleanroom class	Class 4 to ISO 14644-1	–
Note on materials	RoHS-compliant	
PWIS conformity	VDMA24364-B2-L	

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

If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

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

Switching output	SMT-10G-PS-...	SMT-10G-NS-...
Switching element function	N/O contact	
Voltage drop	[V]	≤ 2
Inductive protective circuit	Adapted to MZ, MY, ME coils	
Max. output current	[mA]	100
Residual current	[mA]	≤ 0.01
Switch-on time	[ms]	≤ 1
Switch-off time	[ms]	≤ 1
Max. switching frequency	[Hz]	150
Repetition accuracy	[mm]	0.2
Max. switching capacity DC	[W]	2.8

Data sheet – Magneto-resistive

Output, additional data				
Short circuit protection		Yes		
Overload protection		Present		
Electronics				
Operating voltage range		[V DC]	10 ... 30	
Rated operating voltage		[V DC]	24	
Residual ripple		[%]	10	
Reverse polarity protection		For all electrical connections		
Electromechanical components				
Type		SMT-10G-...-OE	SMT-10G-...-M8D	
Electrical connection				
Connection type		Cable	Cable with plug	
Connection technology		Open end	M8x1, A-coded to EN 61076-2-104	
Number of pins/wires		3	3	
Type of mounting		–	Screw-type lock	
Outlet direction of connection		Lateral		
Cable test conditions		Cable chain: 5 million cycles, bending radius 28 mm		
		Torsional resistance: > 300,000 cycles, ±270°/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		
Material of cable sheath		TPE-U(PU)		
Cable sheath colour		Grey		
Material of pin contacts		–	Gold-plated brass	
Wire ends		Wire end sleeve		–
Mechanical components		SMT-10G-...-OE		SMT-10G-...-M8D
Type of mounting		Clamped in C-slot		
		Insertable in the slot lengthwise		
Max. tightening torque		[Nm]	0.6	
Housing material		Aluminium, high-alloy stainless steel, reinforced PA		
Housing colour		Black		
Union nut material		–	Nickel-plated brass	
Product weight		[g]	30	10
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 in a separate bag

[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:

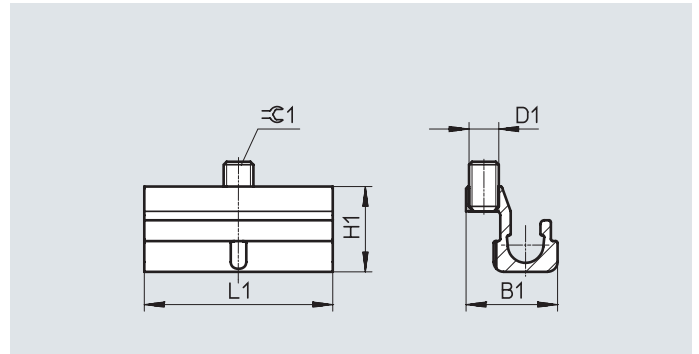
Housing: anodised wrought aluminium alloy

Screws: high-alloy stainless steel

Note on materials:

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data							
For piston Ø	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: $-40 \dots +120^{\circ}\text{C}$

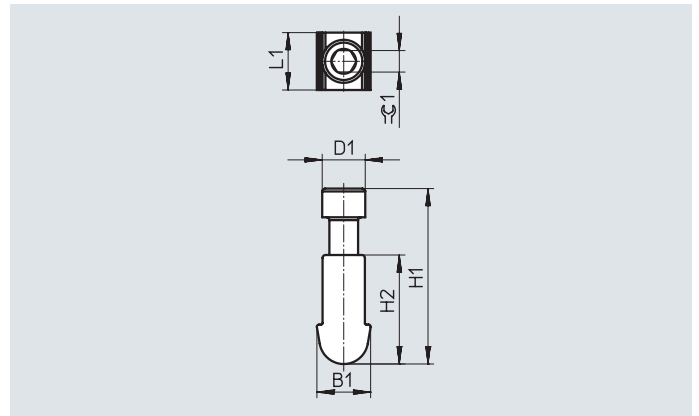
Materials:

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

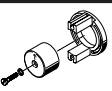
Accessories

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

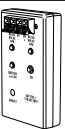
	For Ø	Description	Part no.	Type
	6	Mounting kit for mounting proximity sensors on semi-rotary drive DSM	173205	WSM-6-SME-10
	8		173206	WSM-8-SME-10
	10		173207	WSM-10-SME-10
	—	For fixing connecting cables in place	534255	SMBK-10

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

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