

Proximity sensors SMT/SME-8, for T-slot

FESTO



Proximity sensors SMT/SME

Product range overview

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Design	Type of mounting	Measuring principle	Type	Operating voltage range	Switching output	Switching element function	➔ Page/Internet	
For T-slot	Standard							
	Insertable in the slot from above, flush with the cylinder profile	Magneto-resistive	SMT-8M-A	5 ... 30 V DC	PNP	N/O contact	7	
						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	15	
						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	31	
						N/C contact		
				3 ... 230 V AC/DC		N/O contact	35	
	Insertable in the slot lengthwise	Magneto-resistive	SMT-8G	10 ... 30 V DC	PNP	N/O contact	38	
		Magneto-resistive	SMT-8-SL	10 ... 30 V DC	PNP	N/O contact	27	
		Magnetic reed	SME-8-SL	10 ... 30 V AC/DC	Contacting, bipolar	N/O contact	31	
	Insertable in the slot from above	Magnetic reed	SME-8-FM	10 ... 30 V AC/DC	Contacting, bipolar	N/O contact	44	
	Via accessories	Magneto-resistive	SMT0-8E	10 ... 30 V DC	PNP	N/O contact	47	
					NPN			
		Magnetic reed	SME0-8E	12 ... 30 V DC	Contacting, bipolar	N/O contact	51	
				3 ... 250 V DC				
	3 ... 230 V AC							
	Corrosion-resistant							
	Insertable in the slot from above, flush with the cylinder profile	Magneto-resistive	CRSMT-8M	5 ... 30 V DC	PNP	N/O contact	23	
	Insertable in the slot lengthwise, flush with the cylinder profile	Magneto-resistive	CRSMT-8	10 ... 30 V DC	PNP	N/O contact	27	
	Welding field immune							
	Via accessories	Magneto-inductive	SMTSO-8E	10 ... 30 V DC	PNP	N/O contact	47	
					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	35	
	Via accessories	Magnetic reed	SME0-8E-...-S6	0 ... 30 V DC	Contacting	N/O contact	51	
0 ... 30 V AC								
To EU Explosion Protection Directive (ATEX)								
Clamped in T-slot	Magneto-inductive	SMT-8F-I-...	8.2 V DC	NAMUR	NAMUR	41		

Proximity sensors SMT/SME

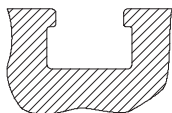
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Product range overview

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	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 sensors can be used for drives with T-slot

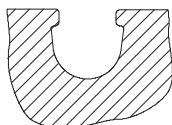
Exceptions



- DFM-B: SMT0-8E, SME0-8E, SMP0-8E cannot be used
- DHDS: SME-8M can only be used on Ø 50
- DHPS: SME-8M can only be used on Ø 20 ... 35
- HGDD-63-A: SMT-8M-A cannot be used

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

Exceptions

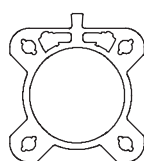


- ADVC Ø 100: SMT-10M and SME-10M cannot be used (ADVC has a T-slot and C-slot)
- DSM/DSM-B-6/8/10: SME-10M cannot be used
- DSM/DSM-B-10/16: SMT-10M cannot be used

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

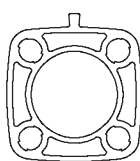
Only T-slot sensors CRSMT-8M and SMT-8M-A can be used, and only with the profile identified below as being suitable

Example: DSBF



Suitable

Example: CDC

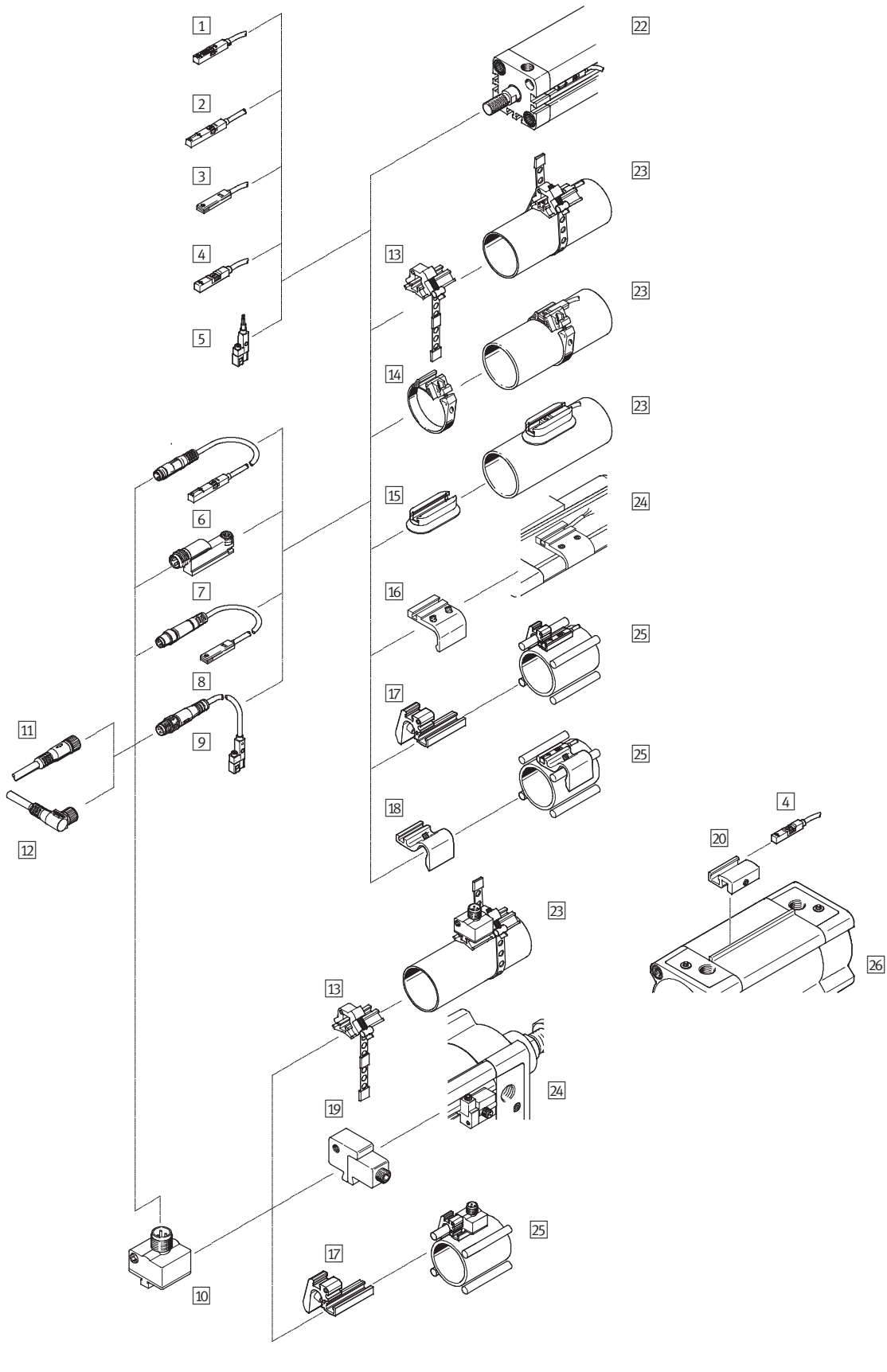


Not suitable

Proximity sensors SMT/SME-8, for T-slot

Peripherals overview

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Proximity sensors SMT/SME-8, for T-slot

Peripherals overview

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Mounting components and accessories		→ Page/ Internet
Proximity sensor		
1	SMT-8M-A-..., with cable	7
2	SME-8M-...-OE, with cable	15
3	SME-8-FM-...-K-..., with cable	44
	CRSMT-8-K-..., with cable, corrosion-resistant	27
4	CRSMT-8M-..., with cable	23
5	SMT-8G-...-OE, with cable	39
6	SME-8M-...-M..., with cable and plug	15
7	SMT-8-SL-..., with plug	27
	SME-8-SL-..., with plug	31
8	SME-8-S-..., with cable and plug	31
9	SMT-8G-...-M..., with cable and plug	39
10	SMT0/SMTSO, with plug	47
	SME0-8E, with cable or plug	51
Connecting cables		
11	NEBU-M...G...	59
12	NEBU-M...W...	59

Mounting components and accessories		→ Page/ Internet
Mounting kits and accessories		
13	Mounting kit SMBR-8-8/100-S6, heat resistant	55
14	Mounting kit SMBR	55
15	Mounting kit CRSMB, corrosion-resistant	56
16	Mounting kit SMB-8-FENG	56
17	Mounting SMBZ-8-...	58
18	Sensor bracket DASP-M4-... for DSBG-125	57
19	Mounting kit SMB-8E	56
20	Mounting kit SMB-8-C	57
21	Sensor tester SM-TEST-1	59
–	Position marker SMM-8	58
–	Clip SMBK-8	59
–	Inscription label ASLR	59
–	Safety clip NEAU	59
Drives		
22	Drives with T-slot	–
23	Round cylinders	–
24	Standard cylinders DSBC	–
25	Drives with tie or mounting rod	–
26	Standard cylinders DSBF	–

Proximity sensors SMT-8M-A, for T-slot

Type codes

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SMT-8M-A		SMT-8M	-	A	-	PO	-	24V	-	E	-	0,5	-	N	-	OE	-	
Function																		
SMT-8M	Proximity sensor, magneto-resistive, for T-slot, insertable in the slot from above																	
Series																		
A	Short design																	
Switching output																		
PS	PNP, N/O contact, 3-wire																	
PO	PNP, N/C contact, 3-wire																	
NS	NPN, N/O contact, 3-wire																	
ZS	N/O contact, 2-wire																	
PNS	PNP, NPN switchable																	
PSO	PNP, N/C contact, N/O contact switchable																	
Rated operating voltage																		
24V	24 V DC																	
Cable characteristics																		
E	Energy chain + robot																	
Cable length [m]																		
Cable designation																		
-	With inscription label holder																	
N	Without inscription label holder																	
Electrical connection																		
OE	Open end																	
M8	Cable with plug M8x1, snap-on flange																	
M8D	Cable with plug M8x1, rotatable thread																	
M12	Cable with plug M12x1, rotatable thread																	
EU certification																		
Ex2	II 3GD in accordance with EU Directive 94/9/EC																	

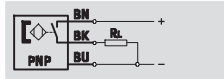
Proximity sensors SMT-8M-A, for T-slot

Technical data – Magneto-resistive

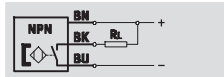
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Function

e.g. PNP, N/O contact, with cable



e.g. NPN, N/O contact, with cable



- Magneto-resistive measuring principle
- Insertable in the slot from above, does not protrude over the cylinder profile
- Cable clip and inscription labels included in the scope of delivery
- Variant EX2 for use in potentially explosive areas in zones 2 and 22



General technical data	
Design	For T-slot
Assembly position	Any
Based on standard	EN 60947-5-2
Approval certificate	UL listed (OL) RCM trademark
CE marking (see declaration of conformity)	To EU EMC Directive
Note on materials	Cable halogen-free, oil-resistant RoHS-compliant, free of copper and PTFE

Input signal/measuring element	
Measured variable	Position
Measuring principle	Magneto-resistive
Ambient temperature [°C]	-40 ... +85

Switching output						
Type	PS	NS	PO	ZS	PNS	PSO
Switching output	PNP	NPN	PNP	Non-contacting, 2-wire	PNP, NPN switchable	PNP
Switching element function	N/O contact	N/O contact	N/C contact	N/O contact	N/O contact	N/C contact, N/O contact switchable
Repetition accuracy [mm]	±0.1					
Switch-on time [ms]	≤ 1					
Switch-off time [ms]	≤ 1					
Max. output current [mA]	100 ¹⁾	100 ¹⁾	100 ¹⁾	80 ¹⁾	100	100
Max. output current in mounting kits [mA]	100			80 ¹⁾	100	
Max. switching capacity DC [W]	2.8	2.8	2.8	1.9	2.7	2.7
Max. switching capacity DC in mounting kits [W]	2.8 ²⁾	2.8 ²⁾	2.8 ²⁾	1.5 ²⁾	2.7	2.7
Max. switching frequency [Hz]	180					
Voltage drop ¹⁾ [V]	0 ... 1.5		0 ... 1.5	0 ... 6	0 ... 2.5	0 ... 2.5

1) Variant ...PS/NS/PO-...-Ex2: max. output current in mounting kits 80 mA, T_a 70 °C

Variant ...ZS-...-Ex2: max. output current in mounting kits 50 mA, T_a 70 °C

2) Variant ...PS/NS/PO-...-Ex2: max. switching capacity 2.2 W

Variant ...ZS-...-Ex2: max. switching capacity 1.2 W

Output, additional data	
Protection against short circuit	Pulsed
Overload protection	Yes

Proximity sensors SMT-8M-A, for T-slot

Technical data – Magneto-resistive

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Electronic components			
Type	PS, NS, PO, ZS	PNS, PSO	Ex2
Operating voltage range [V DC]	5 ... 30	7 ... 30	5 ... 30
Rated operating voltage [V DC]	24		
Reverse polarity protection	For all electrical connections		

Electromechanical components				
Electrical connection	M8	M8D	M12	OE
Electrical connection	Cable with plug, 3-pin			Cable, 3-wire
	M8x1		M12x1	Cable, 2-wire
	–	Rotatable thread		
Connection direction	In-line			
Cable test conditions	Energy chain: 5 million cycles, bending radius 28 mm			
	Torsional strength: > 300,000 cycles, ±270°/0.1 m			
	Resistance to bending: according to Festo standard; test conditions on request			
Cable length	[m]	0.1 ... 30		
Cable characteristics	Energy chain + robot			
Cable sheath materials	TPE-U(PU)			
Cable sheath colour	Grey			

Mechanical components		
Electrical connection	M8, M8D, M12	OE
Type of mounting	Screw-clamped, insertable in the slot from above	
Max. tightening torque [Nm]	0.6	
Housing	Black	
	PA reinforced	
	High-alloy stainless steel	
	Nickel-plated brass	–

Proximity sensors SMT-8M-A, for T-slot

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Technical data – Magneto-resistive

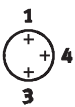
Display/operation			
	PS, NS, PO, ZS	PNS	PSO
Switching status indication	Yellow LED	Yellow LED (for PNP)/white LED (for NPN)	Yellow LED (for N/O contact)/white LED (for N/C contact)
Operating reserve indication	Orange LED	–	

Immissions/emissions	
Ambient temperature with flexible cable installation [°C]	–20 ... +85
Degree of protection	IP65, IP68, IP69K

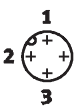
ATEX	
SMT-8M-A-...-	Ex2
ATEX category for gas	II 3G
Explosion ignition protection type for gas	Ex nA IIC T4 X Gc
ATEX category for dust	II 3D
Explosion ignition protection type for dust	Ex tc IIIC T120 °C X Dc IP65
Explosion-proof temperature	–40 °C ≤ Ta ≤ +70 °C
Explosion protection	Zone 2 (ATEX)
	Zone 22 (ATEX)
CE marking (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)

Pin allocation to EN 60947-5-2			
M8x1, 2-pin			
N/O contact			
	Pin	Wire colour	Allocation
	1	Brown	+
	4	Blue	–

M12x1, 2-pin			
N/O contact			
	Pin	Wire colour	Allocation
	1	Brown	+
	4	Blue	–

Pin allocation to EN 60947-5-2			
M8x1, 3-pin			
N/O contact and N/C contact			
	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	–
	4	Black	Output

M12x1, 3-pin			
N/O contact			
	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	–
	4	Black	Output

Pin allocation to EN 60947-5-2			
M12x1, 3-pin			
N/C contact			
	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	–
	2	White	Output

Proximity sensors SMT-8M-A, for T-slot

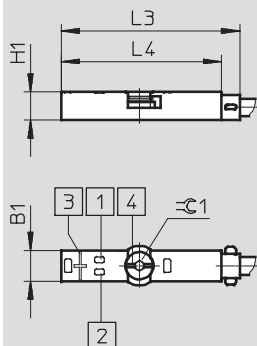
Technical data – Magneto-resistive

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Dimensions

Download CAD data → www.festo.com

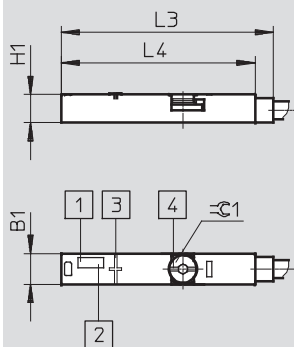
SMT-8M-A-24V-E-...-... (PS, NS, PO, ZS)



Yellow LED for safe switching status.
Yellow and orange LED for unsafe switching status.

- 1 Yellow LED
- 2 Orange LED
- 3 Position of sensor element centre
- 4 Tightening torque of clamping component 0.6 Nm

SMT-8M-A-24V-E-...-... (PNS, PSO)



Switching status indication for PNS:
Yellow LED for PS switching output.
White LED for NS switching output.

- 1 Yellow LED
- 2 White LED
- 3 Position of sensor element centre
- 4 Slot for screwdriver

Switching status indication for PSO:
Yellow LED for PS switching output.
White LED for PO switching output.

Type	B1	H1	L3	L4	±0.1
SMT-8M-A-...-24V-E- (PS, NS, PO, ZS)	5	4.6	29.3	26.3	1.5
SMT-8M-A-...-24V-E- (PNS, PSO)			34.8	31.8	

Proximity sensors SMT-8M-A, for T-slot

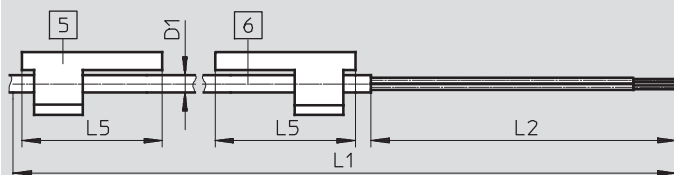
Technical data – Magneto-resistive

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Dimensions

Download CAD data → www.festo.com

SMT-8M-A-...-OE/OE-Ex – Cable

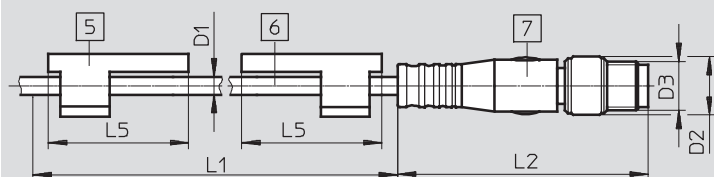


5 Inscription label holder drawn turned by 90°

6 Connecting cable

L1 Cable length

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



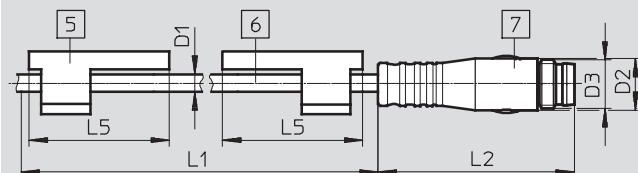
5 Inscription label holder drawn turned by 90°

6 Connecting cable

7 Plug suitable for connecting cable NEBU-M8

L1 Cable length

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



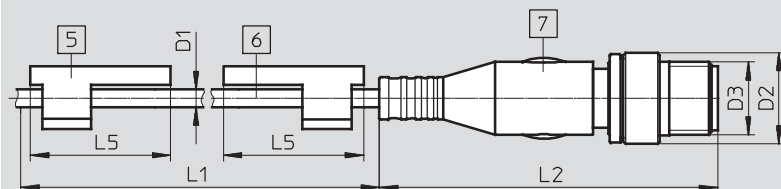
5 Inscription label holder drawn turned by 90°

6 Connecting cable

7 Plug suitable for connecting cable NEBU-M8

L1 Cable length

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



5 Inscription label holder drawn turned by 90°

6 Connecting cable

7 Plug suitable for connecting cable NEBU-M12

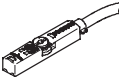
L1 Cable length

Type	D1	D2 Ø	D3	L2	L5	± 1
SMT-8M-A-...-OE	2.9	–	–	50	23	1.5
SMT-8M-A-...-OE-Ex		–	–	50		
SMT-8M-A-...-M8D		9.6	M8x1	41.1		
SMT-8M-A-...-M8		8.5	M8x1	32.7		
SMT-8M-A-...-M12		15	M12x1	54.5		

Proximity sensors SMT-8M-A, for T-slot

Technical data – Magneto-resistive

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Ordering data								
	Switching output	Electrical connection			Cable length	Weight	Part No.	Type
		Cable	Cable with plug, rotatable thread					
			M8x1	M12x1	[m]	[g]		
	N/O contact							
	PNP	–	3-pin	–	0.3	8.9	574334	SMT-8M-A-PS-24V-E-0,3-M8D
	PNP	3-wire	–	–	2.5	29.1	574335	SMT-8M-A-PS-24V-E-2,5-OE
	PNP	3-wire	–	–	5	57.1	574336	SMT-8M-A-PS-24V-E-5,0-OE
	PNP	–	–	3-pin	0.3	15.9	574337	SMT-8M-A-PS-24V-E-0,3-M12
	NPN	3-wire	–	–	2.5	29.1	574338	SMT-8M-A-NS-24V-E-2,5-OE
		–	3-pin	–	0.3	8.9	574339	SMT-8M-A-NS-24V-E-0,3-M8D
	PNP	–	3-pin	–	0.3	8.9	574342	SMT-8M-A-PS-24V-E-0,3-M8D-Ex2
	Non-contacting	2-wire	–	–	5	57.1	574341	SMT-8M-A-ZS-24V-E-5,0-OE-Ex2
	Switchable							
	PNP/NPN	–	3-pin	–	0.3	9	574343	SMT-8M-A-PNS-24V-E-0,3-M8D
	PNP PS/PO	–	3-pin	–	0.3	9	574344	SMT-8M-A-PSO-24V-E-0,3-M8D
	N/C contact							
	PNP	3-wire	–	–	7.5	85.1	574340	SMT-8M-A-PO-24V-E-7,5-OE

Proximity sensors SMT-8M-A, for T-slot

Modular products – Magneto-resistive

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Ordering table					
Size	8	Condi- tions	Code		Entry code
[M] Module No.	574333				
Function	Proximity sensor for T-slot, electronic		SMT-8M		SMT-8M
			–		–
Series	Short design		A		A
			–		–
Switching output	3-wire PNP N/O contact		PS		
	3-wire NPN N/O contact		NS		
	3-wire PNP N/C contact		po		
	2-wire PNP N/O contact		ZS		
	PNP/NPN switchable		PNS		
	PNP N/C contact, N/O contact switchable		PSO		
			–		–
Rated operating voltage [V DC]	24		24 V		24V
			–		–
Cable characteristics	Energy chain + robot		E		E
			–		–
Cable length [m]	0.1 ... 30 (0.1 ... 5.0 in 0.1 increments, 5.0 ... 30 in 0.5 increments)		...		
			–		–
Cable designation	With inscription label holder				
	Without inscription label holder		N		
			–		–
Connection technology	Open end		OE		
	M8, rotatable thread		M8D		
	M8, snap-on flange		M8		
	M12, rotatable thread		M12		
[O] EU certification	II 3GD in accordance with EU Directive 94/9/EC	[1]	-Ex2		

[1] Ex2 Not with switching output PNS, PSO, minimum cable length 0.2 m

Transfer order code

574333 SMT-8M – A – – 24 V – E – – N – –

Proximity sensors SME-8M, for T-slot

Type codes

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SME-8M

		SME	–	8M	–	DO	–	24V	–	K	–	7,5	–	OE
Function														
SME	Proximity sensor, magneto-resistive													
Design														
8M	For T-slot, insertable in the slot from above													
Switching output, switching element function														
ZS	N/O contact, 2-wire													
DS	N/O contact, 3-wire													
DO	N/C contact, 3-wire													
Rated operating voltage														
24V	24 V DC													
Cable characteristics														
K	Standard + energy chain													
E	Energy chain + robot													
Cable length [m]														
...	0.2 ... 10													
Electrical connection														
OE	Open end													
M8	Cable with plug M8x1, snap-on flange													
M8D	Cable with plug M8x1, rotatable thread													
M12	Cable with plug M12x1, rotatable thread													

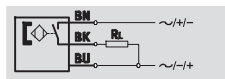
Proximity sensors SME-8M, for T-slot

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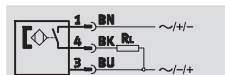
Technical data – Magnetic reed

Function

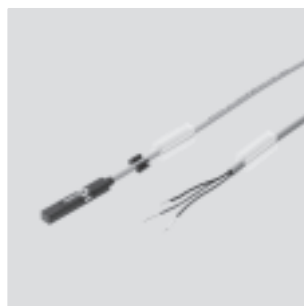
e.g. N/O contact, 3-wire, with cable



e.g. N/O contact, 3-wire, with plug



- Magnetic reed measuring principle
- Insertable in the slot from above, does not protrude over the cylinder profile
- Cable clip and inscription labels included in the scope of delivery



General technical data	
Design	For T-slot
Based on standard	EN 60947-5-2
Approval certificate	c UL us - listed (OL)
	RCM trademark
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 ¹⁾	[V] ≤1.5	≤4.8	≤3.5

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

Output, additional data	
Protection against short circuit	No
Overload protection	No

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

Proximity sensors SME-8M, for T-slot

Technical data – Magnetic reed

FESTO

Electromechanical components									
Switching element function		DS/DO				ZS			
Electrical connection		OE	M8D	M8	M12	OE	M8D	M8	M12
Electrical connection		Cable, 3-wire	Cable with plug, 3-pin			Cable, 2-wire	Cable with plug, 2-pin		
			M8x1	M8x1	M12x1		M8x1	M8x1	M12x1
			Rotatable thread	Snap-on flange	Rotatable thread		Rotatable thread	Snap-on flange	Rotatable thread
Connection direction		In-line							
Cable test conditions	K	Energy chain: 5 million cycles, bending radius 75 mm							
		Resistance to bending: to Festo standard; test conditions on request							
	E	Energy chain: 5 million cycles, bending radius 28 mm							
		Torsional strength: ±270°/0.1 m							
Resistance to bending: to Festo standard; test conditions on request									
Cable length	[m]	0.2 ... 10							
Cable characteristics	K	Standard + energy chain							
	E	Energy chain + robot							
Cable sheath materials	K	TPE-U(PUR)							
	E	TPE-U(PUR), halogen-free							

Mechanical components		
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)

Display/operation	
Switching status indication	Yellow LED

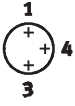
Immissions/emissions	
Ambient temperature with flexible cable installation	[°C] –5 ... +70
Degree of protection	IP65, IP68

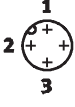
Proximity sensors SME-8M, for T-slot

FESTO

Technical data – Magnetic reed

Pin allocation to EN 60947-5-2			
M8x1, 2-pin		M12x1, 2-pin	
N/O contact		N/O contact	
	Pin	Wire colour	Allocation
	1	Brown	+
	4	Black	Output
	1	Brown	+
	4	Black	Output

Pin allocation to EN 60947-5-2			
M8x1, 3-pin		M12x1, 3-pin	
N/O contact and N/C contact		N/O contact	
	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	–
	4	Black	Output
	1	Brown	+
	3	Blue	–
	4	Black	Output

Pin allocation to EN 60947-5-2			
M12x1, 3-pin			
N/C contact			
	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	–
	2	White	Output

Proximity sensors SME-8M, for T-slot

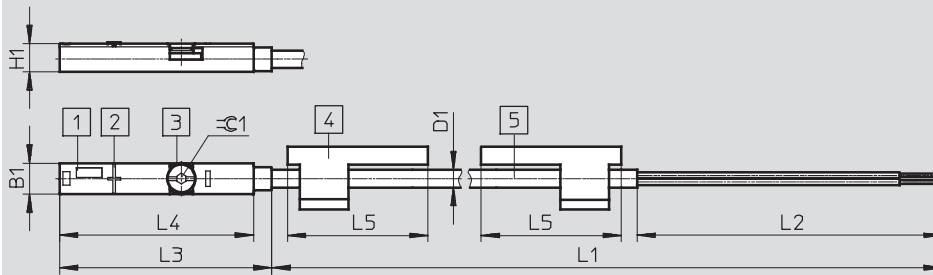
Technical data – Magnetic reed

FESTO

Dimensions

Download CAD data → www.festo.com

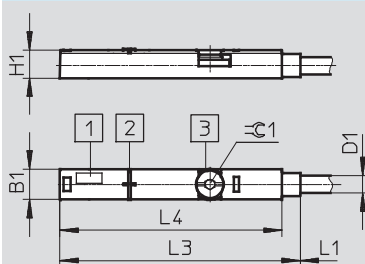
SME-8M-...-OE – Cable



- 1 Yellow LED
- 2 Centre of the sensor element
- 3 Clamping component, tightening torque 0.6 Nm
- 4 Inscription label holder
- 5 Connecting cable

L1 Cable length

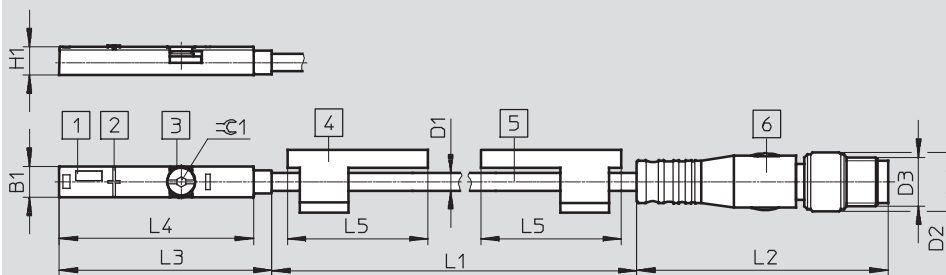
SME-8M-DO-...-OE – Cable



- 1 Light-emitting diode (LED)
- 2 Centre of the sensor element
- 3 Clamping component, tightening torque 0.6 Nm

L1 Cable length

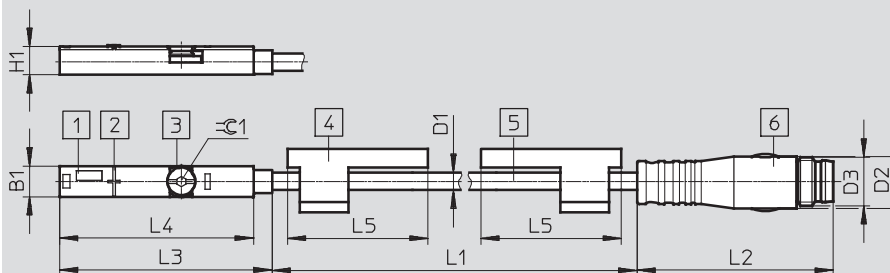
SME-8M-...-M8D – Cable with plug M8x1, rotatable thread



- 1 Yellow LED
- 2 Centre of the sensor element
- 3 Clamping component, 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 LED
- 2 Centre of the sensor element
- 3 Clamping component, 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 Ø	D2 Ø	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	34.8	31.8	23		
SME-8M-...-M8			8.5	M8x1		33					

Proximity sensors SME-8M, for T-slot

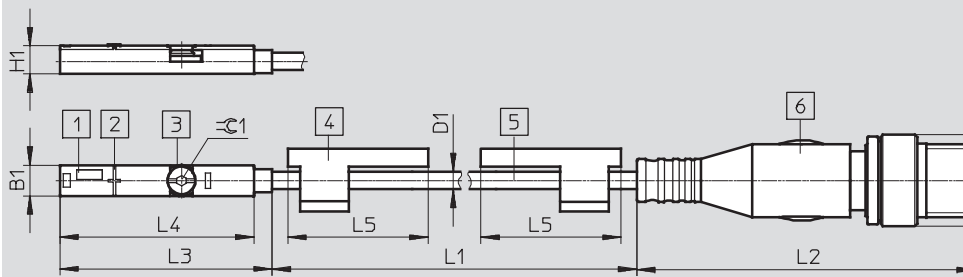
Technical data – Magnetic reed

FESTO

Dimensions

Download CAD data → www.festo.com

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

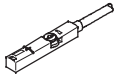


- 1 Yellow LED
- 2 Centre of the sensor element
- 3 Clamping component, tightening torque 0.6 Nm
- 4 Inscription label holder
- 5 Connecting cable
- 6 Plug to fit connecting cable NEBU-M12

L1 Cable length

Type	B1	D1 Ø	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

Ordering data

	Switching output	Electrical connection		Cable length [m]	Part No.	Type
		Cable	Cable with plug, rotatable thread, M8x1			
	N/O contact					
	Contacting, bipolar	3-wire	–	2.5	543862	SME-8M-DS-24V-K-2,5-OE
				5.0	543863	SME-8M-DS-24V-K-5,0-OE
				7.5	543876	SME-8M-DS-24V-K-7,5-OE
		–	3-pin	0.3	543861	SME-8M-DS-24V-K-0,3-M8D
		2-wire	–	2.5	543872	SME-8M-ZS-24V-K-2,5-OE
	N/C contact					
	Contacting, bipolar	3-wire	–	7.5	546799	SME-8M-DO-24V-K-7,5-OE

Proximity sensors SME-8M, for T-slot

Modular products – Magnetic reed

FESTO

M Mandatory data						
Module No.	Function	Switching output	Rated operating voltage	Cable characteristics	Cable length	Connection technology
543892	SME-8M	DS ZS DO	24V	K E	0.2 ... 10	OE M8D M8 M12
Ordering example						
543892	SME-8M	ZS	24V	K	0.8	OE

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

Transfer order code

543892	SME-8M	–		–	24 V	–		–		–	
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Proximity sensors CRSMT-8/SMT-8-SL/SME-8, for T-slot

FESTO

Type codes

CRSMT-8

		CRSMT	–	8	–	PS	–	K2,5	–	LED	–	24
Function												
CRSMT	Proximity sensor, magneto-resistive, suitable for the food industry, resistant to acids and cooling lubricants											
Design												
8	For T-slot, insertable in the slot lengthwise											
Switching output, switching element function												
PS	PNP, N/O contact, 3-wire											
Electrical connection, cable length												
K2,5	Cable, 2.5 m											
K5	Cable, 5.0 m											
Switching status indication												
LED	Yellow LED											
Rated operating voltage												
24	24 V DC											

CRSMT-8M

		CRSMT	–	8M	–	PS	–	24	–	LED	–		–												
Function																									
CRSMT	Proximity sensor, magneto-resistive, suitable for the food industry, resistant to acids and cooling lubricants																								
Design																									
8M	For T-slot, insertable in the slot from above																								
Switching output, switching element function																									
PS	PNP, N/O contact, 3-wire																								
Rated operating voltage																									
24	24 V DC																								
Switching status indication																									
LED	Yellow LED																								
Cable length																									
0.3	Cable, 0.3m ¹⁾																								
K5	Cable, 5 m, open end ²⁾																								
K10	Cable, 10 m, open end ²⁾																								
Connection																									
OE	Open end																								
M8D	M8, rotatable thread																								
M12	M12																								

1) Only with M8D or M12 connection

2) Only with OE connection

Proximity sensors CRSMT-8/SMT-8-SL/SME-8, for T-slot

FESTO

Type codes

SMT/SME-8

		SMT	–	8	–	PS	–	K	–	LED	–	24	–		–	B
Function																
SMT	Proximity sensor, magneto-resistive															
SME	Proximity sensor, magnetic reed															
Design																
8	For T-slot, insertable in the slot lengthwise															
Switching output, switching element function																
PS	PNP, N/O contact, 3-wire															
NS	NPN, N/O contact, 3-wire															
ZS	N/O contact, 2-wire															
O	N/C contact, 3-wire															
Electrical connection, cable length																
K	Cable, 2.5 m or 7.5 m															
K2.5	Cable, 2.5 m															
K5	Cable, 5.0 m															
K-7,5	Cable, 7.5 m															
KL	Cable, 2.5 m															
S	Plug M8x1 with cable, 0.3 m															
Switching status indication																
LED	Yellow LED															
Rated operating voltage																
24	24 V DC															
230	230 V AC															
Variant																
K6	Heat resistant															
Generation																
B	B series															

SMT/SME-8-SL

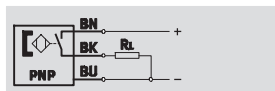
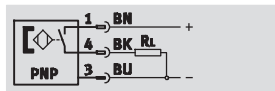
		SMT	–	8	–	SL	–	PS	–	LED	–	24
Function												
SMT	Proximity sensor, magneto-resistive											
SME	Proximity sensor, magnetic reed											
Design												
8	For T-slot, insertable in the slot lengthwise											
Electrical connection												
SL	Plug											
Switching output, switching element function												
PS	PNP, N/O contact, 3-wire											
Switching status indication												
LED	Yellow LED											
Rated operating voltage												
24	24 V DC											

Proximity sensors CRSMT-8M, for T-slot

Technical data – Magneto-resistive

Function

e.g. PNP, N/O contact, with plug



- Suitable for the food industry
- Acid resistant
- Alkali resistant
- Resistant to cooling lubricants



General technical data	
Design	For T-slot
Based on standard	EN 60947-5-2
Approval certificate	RCM trademark
Special characteristics	Oil resistant
Suitable for use in the food industry	As per manufacturer's declaration
CE marking (see declaration of conformity)	To EU EMC Directive
Note on materials	RoHS-compliant, halogen-free

Input signal/measuring element	
Measuring principle	Magneto-resistive
Measured variable	Position
Ambient temperature [°C]	-40 ... 85

Switching output	
Switching element function	N/O contact
Switching output	PNP
Switching output repetition accuracy [mm]	± 0.1
Switch-on time [ms]	≤ 0.1
Switch-off time [ms]	≤ 0.1
Max. switching frequency [Hz]	180
Max. output current [mA]	100
Max. switching capacity DC [W]	2.8
Voltage drop [V]	< 1.5
Residual current [mA]	< 0.05

Output, additional data	
Protection against short circuit	Pulsed
Overload protection	Yes

Electronic components	
Switching output	PNP
Rated operating voltage [V DC]	24
Operating voltage range [V DC]	5 ... 30
Reverse polarity protection	For all electrical connections

Proximity sensors CRSMT-8M, for T-slot

Technical data – Magneto-resistive

FESTO

Electromechanical components			
Connection direction	In-line		
Cable characteristics	Standard + energy chain		
Mechanical components			
Electrical connection	Cable, 3-wire	Cable with plug, rotatable thread M8D M12	
Type of mounting	Screw-clamped Insertable in the slot from above		
Assembly position	Any		
Max. tightening torque [Nm]	–	0.3	0.5
Information on materials			
Housing	High-alloy stainless steel, PP		
Union nut	–	Nickel-plated brass	
Cable sheath	TPE-O		
Insulating sheath	PP		
Plug housing	–	PP	
Wire ends	Wire end sleeves	–	
Pin contacts	–	Nickel-plated and gold-plated brass	
Display/operation			
Switching status indication	Yellow LED		
Operating reserve indication	Orange LED		
Immissions/emissions			
Ambient temperature with flexible cable installation [°C]	–20 ... 85		
Degree of protection	IP65 IP68 IP69K		

Proximity sensors CRSMT-8M, for T-slot

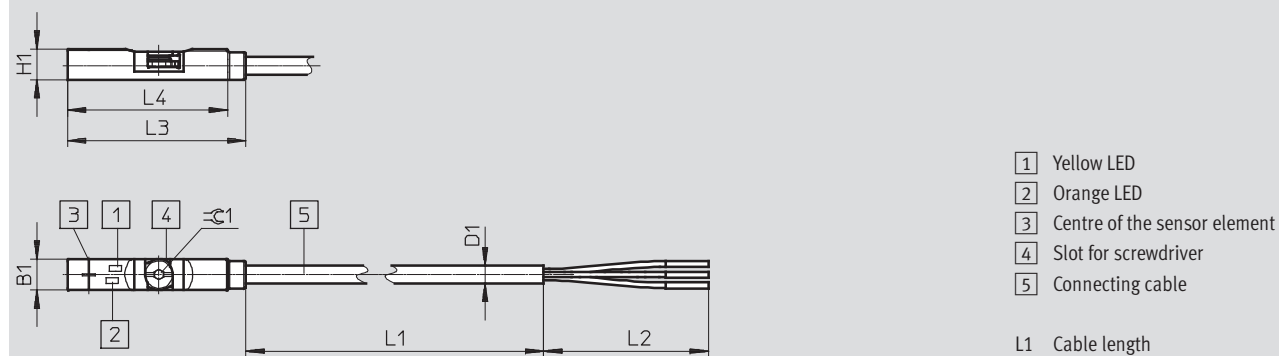
Technical data – Magneto-resistive

FESTO

Pin allocation to EN 60947-5-2							
M8x1, 3-pin				M12x1, 3-pin			
N/O contact				N/O contact			
	Pin	Wire colour	Allocation		Pin	Wire colour	Allocation
	1	Brown	+		1	Brown	+
	3	Blue	-		3	Blue	-
	4	Black	Output		4	Black	Output

Dimensions, open end

Download CAD data → www.festo.com



Type	B1	D1 ⌀	H1	L2	L3	L4	⌀ 1
CRSMT-8M-PS-24V-K-5,0-OE	5	2.9	5	50	29.3	26.3	1.5
CRSMT-8M-PS-24V-K-10,0-OE							

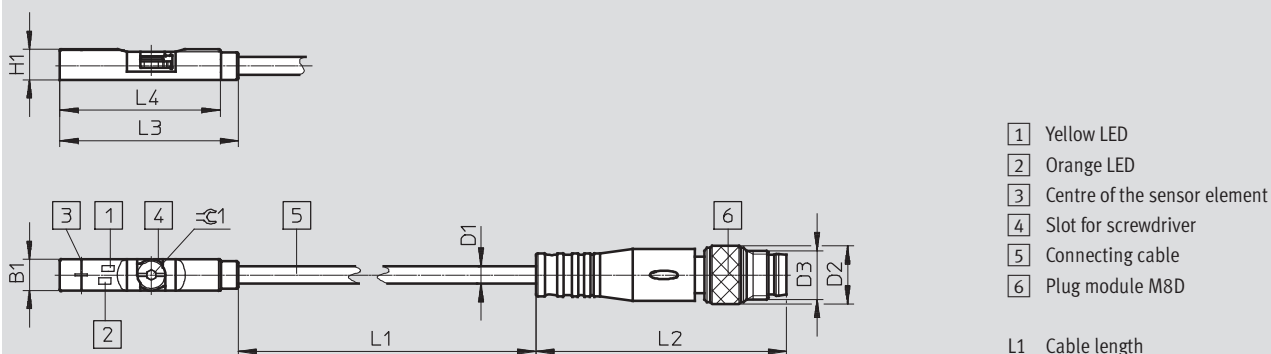
Proximity sensors CRSMT-8M, for T-slot

Technical data – Magneto-resistive

FESTO

Dimensions with plug

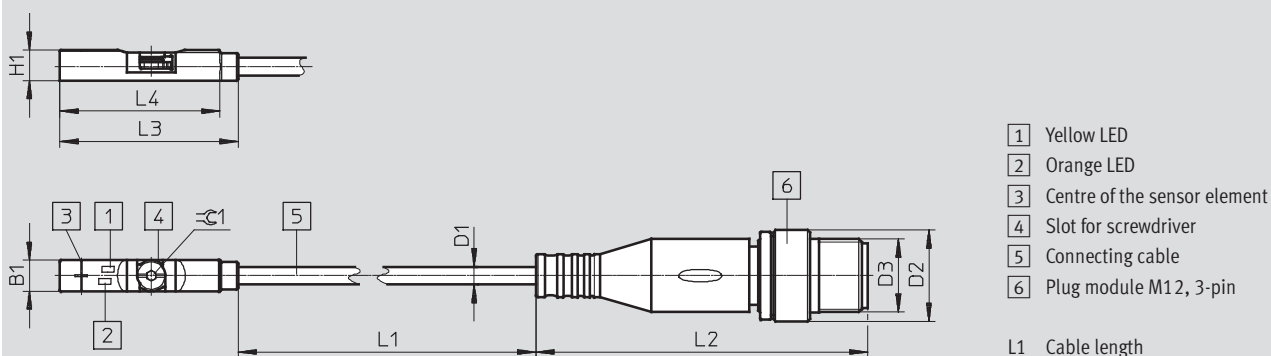
Download CAD data → www.festo.com



Type	B1	D1 Ø	D2	D3	H1	L2	L3	L4	≈ 1/4
CRSMT-8M-PS-24V-K-0,3-M8D	5	2.9	9.5	M8x1	5	41.1	29.3	26.3	1.5

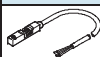
Dimensions with plug

Download CAD data → www.festo.com



Type	B1	D1 Ø	D2 Ø	D3	H1	L2	L3	L4	≈ 1/4
CRSMT-8M-PS-24V-K-0,3-M12	5	2.9	15	M12x1	5	54.5	29.3	26.3	1.5

Ordering data

	Switching output	Electrical connection		Cable length [m]	Weight [g]	Part No.	Type
		Cable	Cable with plug, rotatable thread				
N/O contact, corrosion resistant							
	PNP	3-wire	–	5	47.6	574380	CRSMT-8M-PS-24V-K-5,0-OE
	PNP	3-wire	–	10	93.4	574381	CRSMT-8M-PS-24V-K-10,0-OE
	PNP	3-pin	M12x1	0.3	9.1	574382	CRSMT-8M-PS-24V-K-0,3-M12
	PNP	3-pin	M8x1	0.3	16.1	574383	CRSMT-8M-PS-24V-K-0,3-M8D

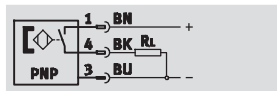
Proximity sensors CRSMT-8/SMT-8-SL, for T-slot

FESTO

Technical data – Magneto-resistive

Function

e.g. PNP, N/O contact, with plug



- Magneto-resistive measuring principle
- Insertable in the slot lengthwise
- Corrosion-resistant designs

SMT-8-SL

- Sturdy thanks to long guides
- Plug directly on sensor



CRSMT



SMT-8-SL

General technical data		
Type	CRSMT	SMT-8-SL
Switching output	PNP	PNP
Design	For T-slot	For T-slot
Conforms to standard	EN 60947-5-2	–
Based on standard	–	EN 60947-5-2
Certification	C-Tick	C-Tick
	–	c UL us - listed (OL)
CE marking (see declaration of conformity)	To EU EMC Directive	To EU EMC Directive
Note on materials	Free of copper and PTFE	Free of copper and PTFE
	–	RoHS-compliant

Input signal/measuring element		
	CRSMT	SMT-8-SL
Measuring principle	Magneto-resistive	Magneto-resistive
Ambient temperature [°C]	–20 ... +60	–20 ... +70

Switching output		
Type	CRSMT	SMT-8-SL
Switching output	PNP	PNP
Switching output	PNP	PNP
Switching element function	N/O contact	N/O contact
Reproducibility of switching value [mm]	±0.1	–
Switch-on time [ms]	≤ 0.2	≤ 1
Switch-off time [ms]	≤ 0.5	3 ... 5
Max. switching frequency [Hz]	1,000	140
Max. output current [mA]	100	100
Max. switching capacity DC [W]	3	3
Voltage drop [V]	≤ 1.8	≤ 2
Residual current [µA]	≤ 100	≤ 1.5

Output, additional data		
Type	CRSMT	SMT-8-SL
Switching output	PNP	PNP
Protection against short circuit	Yes	Yes
Overload protection	–	Yes

Proximity sensors CRSMT-8/SMT-8-SL, for T-slot

FESTO

Technical data – Magneto-resistive

Electronic components		
Type	CRSMT	SMT-8-SL
Switching output	PNP	PNP
Rated operating voltage [V DC]	–	24
Operating voltage range [V DC]	10 ... 30	10 ... 30
Reverse polarity protection	For all electrical connections	

Electromechanical components		
Type	CRSMT	SMT-8-SL
Switching output	PNP	PNP
Electrical connection	Cable, 3-wire	Plug M8x1, 3-pin
Connection direction	–	In-line
Cable length [m]	2.5	–
	5	
Cable sheath materials	TPE-O	–

Mechanical components		
Type	CRSMT	SMT-8-SL
Switching output	PNP	PNP
Electrical connection	Cable, 3-wire	Plug M8x1, 3-pin
Type of mounting	Clamped in T-slot	Screw-clamped
	–	Insertable in the slot lengthwise
Housing material information	High-alloy stainless steel	Polyamide
	Polypropylene	–

Display/operation	
Switching status indication	Yellow LED

Immissions/emissions		
Type	CRSMT	SMT-8-SL
Ambient temperature with flexible cable installation [°C]	–5 ... +60	–
Degree of protection	IP65	IP65
	IP68	IP68
	IP69K	–
Insulation voltage [V]	500	–
Degree of contamination	3	–
Corrosion resistance class CRC	4	3

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

Proximity sensors CRSMT-8/SMT-8-SL, for T-slot

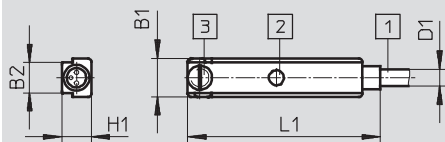
FESTO

Technical data – Magneto-resistive

Dimensions

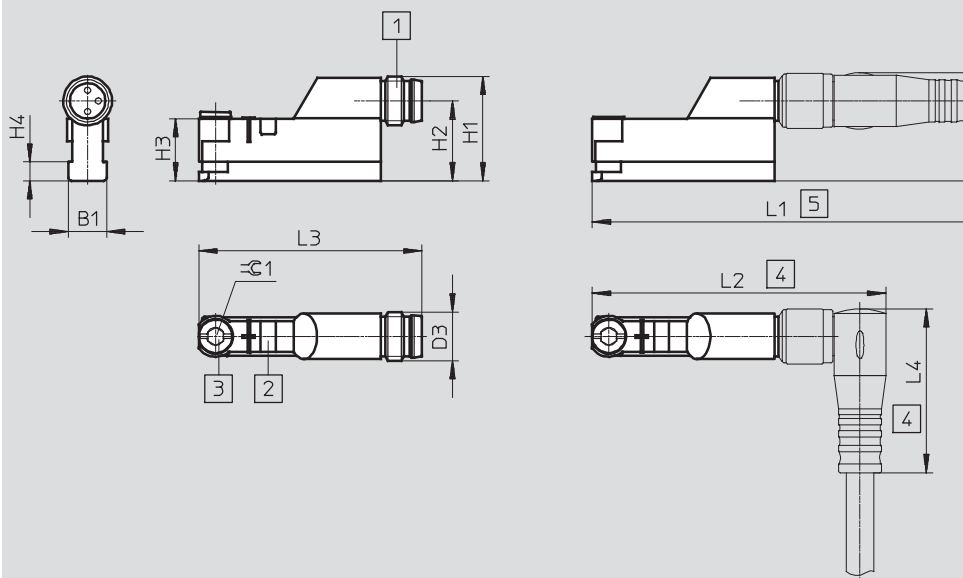
Download CAD data → www.festo.com

CRSMT



- 1 Connecting cable
- 2 Yellow LED
- 3 Clamping component

SMT-8-SL



- 1 Plug to fit connecting cable NEBU-M8
- 2 Yellow LED
- 3 Clamping component
- 4 Installation space for connecting cable NEBU-M8W3
- 5 Installation space for connecting cable NEBU-M8G3

Type	B1	B2	D1	D3	H1	H2	H3	H4	H5	L1	L2	L3	L4
CRSMT	6.3	5	2.9	–	4.9	–	–	–	–	32.4	–	–	–
SMT-8-SL	6.7	–	–	M8x1	17.1	13.1	10.2	3.1	17.6	66	48.4	36.6	25

Proximity sensors CRSMT-8/SMT-8-SL, for T-slot

FESTO

Technical data – Magneto-resistive

Ordering data							
	Switching output	Electrical connection			Cable length [m]	Part No.	Type
		Cable	Cable with plug M8x1	Plug M8x1			
N/O contact, basic version							
	PNP	–	–	3-pin	–	562019	SMT-8-SL-PS-LED-24-B
N/O contact, corrosion resistant							
	PNP	3-wire	–	–	2.5	525563	CRSMT-8-PS-K-LED-24
					5.0	525564	CRSMT-8-PS-K5-LED-24

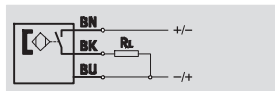
Proximity sensors SME-8, for T-slot

FESTO

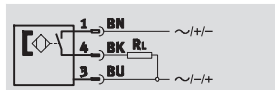
Technical data – Magnetic reed

Function

e.g. N/O contact, with cable, 3-wire



e.g. N/O contact, with plug,
3-pin



- Magnetic reed measuring principle
- Insertable in the slot lengthwise

SME-8-SL

- Sturdy thanks to long guides
- Plug directly on sensor



SME-8



SME-8-SL

General technical data					
Type	SME-8-K	SME-8-S	SME-8-ZS	SME-8-O	SME-8-SL
Design	For T-slot				
Conforms to standard	EN 60947-5-2				
Certification	C-Tick				
CE marking (see declaration of conformity)	To EU EMC Directive ¹⁾				
Note on materials	Free of copper and PTFE				
	RoHS-compliant	–	RoHS-compliant		

1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com → Support → User documentation.
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

Input signal/measuring element							
Type	SME-8-K	SME-8-K5	SME-8-K-7,5	SME-8-S	SME-8-ZS	SME-8-O	SME-8-SL
Measuring principle	Magnetic reed						
Ambient temperature [°C]	–40 ... +60	–40 ... +70	–40 ... +70	–40 ... +70	–40 ... +60	–40 ... +60	–40 ... +60

Switching output					
Type	SME-8-K	SME-8-S	SME-8-ZS	SME-8-O	SME-8-SL
Switching output	Contacting, bipolar				
Switching element function	N/O contact	N/O contact	N/O contact	N/C contact	N/O contact
Reproducibility of switching value [mm]	±0.1	±0.1	±0.1	±0.1	±0.1
Switch-on time [ms]	≤ 0.5	≤ 0.5	≤ 0.5	≤ 2	≤ 0.6
Switch-off time [ms]	≤ 0.03	≤ 0.03	≤ 0.03	≤ 0.2	≤ 0.05
Max. switching frequency [Hz]	800	–	800	–	500
Max. output current [mA]	500	500	80	50	500
Max. switching capacity AC [VA]	10	10	–	1.5	10
Max. switching capacity DC [W]	10	10	2.16	1.5	10
Voltage drop [V]	0	–	≤ 3.5	≤ 2.5	0

Output, additional data	
Protection against short circuit	No
Overload protection	No

Electronic components					
Type	SME-8-K	SME-8-S	SME-8-ZS	SME-8-O	SME-8-SL
Operating voltage range [V AC]	12 ... 30	12 ... 30	–	12 ... 30	10 ... 30
Operating voltage range [V DC]	12 ... 30	12 ... 30	12 ... 27	12 ... 30	10 ... 30
Reverse polarity protection	No				

Proximity sensors SME-8, for T-slot

Technical data – Magnetic reed

FESTO

Electromechanical components							
Type	SME-8-K	SME-8-K5	SME-8-K-7,5	SME-8-S	SME-8-ZS	SME-8-O	SME-8-SL
Electrical connection	Cable, 3-wire			Cable with plug M8x1, 3-pin	Cable, 2-wire	Cable, 3-wire	Plug M8x1, 3-pin
Connection direction	In-line						
Cable length [m]	2.5	5	7.5	0.3	2.5	7.5	–
Cable sheath materials	TPE-U (PUR)						–

Mechanical components							
Type	SME-8-K	SME-8-K5	SME-8-K-7,5	SME-8-S	SME-8-ZS	SME-8-O	SME-8-SL
Type of mounting	Clamped in T-slot Insertable in the slot lengthwise						
Housing material information	Epoxy resin PC PET High-alloy stainless steel						

Display/operation	
Switching status indication	Yellow LED

Immissions/emissions							
Type	SME-8-K	SME-8-K5	SME-8-K-7,5	SME-8-S	SME-8-ZS	SME-8-O	SME-8-SL
Ambient temperature with flexible cable installation [°C]	–5 ... +60	–5 ... +70	–5 ... +70	–5 ... +70	–5 ... +60	–5 ... +60	–
Degree of protection	IP65 IP67			– IP67	IP65 IP67	– IP67	IP65 IP67
Insulation voltage [V]	50						
Surge resistance [kV]	3	3	3	3	3	3	3
Degree of contamination	3						

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

Proximity sensors SME-8, for T-slot

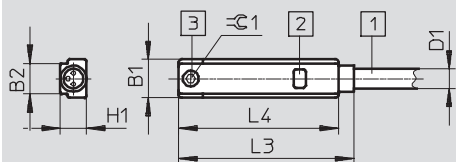
Technical data – Magnetic reed

FESTO

Dimensions

Download CAD data → www.festo.com

N/O contact, cable



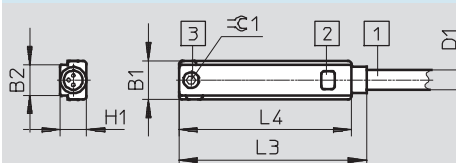
- 1 Connecting cable, 3 wire cable, 3 x 0.14 mm²
- 2 Yellow LED
- 3 Max. tightening torque 0.2 Nm

Type	B1	B2	D1 -σ-	H1	L3	L4	≈ 1
SME-8-K- ...	6.4	5	2.9	4.3	28.8	26.3	1.3

Dimensions

Download CAD data → www.festo.com

N/C contact, cable



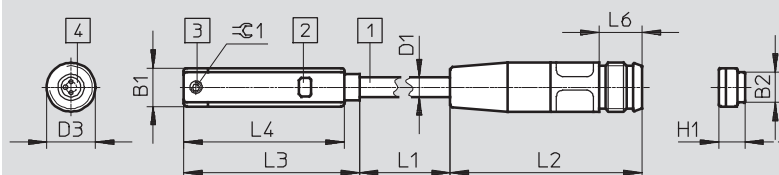
- 1 Connecting cable, 3 wire cable, 3 x 0.14 mm²
- 2 Yellow LED
- 3 Max. tightening torque 0.2 Nm

Type	B1	B2	D1 -σ-	H1	L3	L4	≈ 1
SME-8-O-K-LED-24	6.4	5	2.9	4.4	30.8	28.3	1.3

Dimensions

Download CAD data → www.festo.com

Plug M8x1



- 1 Connecting cable
- 2 Yellow LED
- 3 Clamping component
- 4 Plug to fit connecting cable NEBU-M8

L1 Cable length

Type	B1	B2	D1 -σ-	D3	H1	L2 +5	L3	L4	L6 min.	≈ 1
SME-8-S-LED-24	6.3	5	2.9	M8	4.7	31	28.8	26.3	6	1.3

Proximity sensors SME-8, for T-slot

Technical data – Magnetic reed

FESTO

Ordering data							
	Switching output	Electrical connection			Cable length [m]	Part No.	Type
		Cable	Cable with plug M8x1	Plug M8x1			
N/O contact, basic version							
	Contacting, bipolar	3-wire	–	–	2.5	150855	SME-8-K-LED-24
					5.0	175404	SME-8-K5-LED-24
					7.5	530491	SME-8-K-7,5-LED-24
		–	3-pin	–	0.3	150857	SME-8-S-LED-24
		2-wire	–	–	2.5	171169	SME-8-ZS-KL-LED-24
	Contacting, bipolar	–	–	3-pin	–	526622	SME-8-SL-LED-24
N/C contact							
	Contacting, bipolar	3-wire	–	–	7.5	160251	SME-8-O-K-LED-24

Proximity sensors SME-8, for T-slot

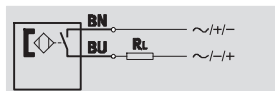
FESTO

Technical data – Magnetic reed

Function

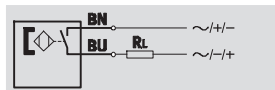
e.g. N/O contact, with cable, 2-wire,

0 ... 30 V AC/DC

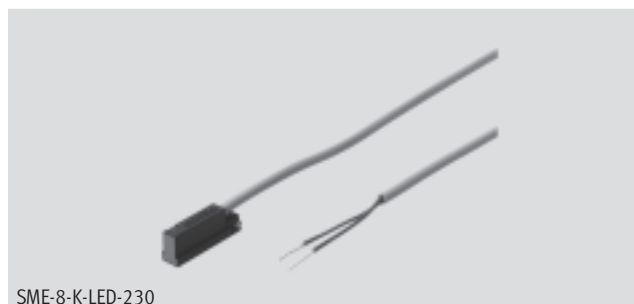


e.g. N/O contact, with cable, 2-wire,

3 ... 230 V AC/DC



- Magnetic reed measuring principle
- Insertable in the slot lengthwise
- Heat resistant design
- Variants with operating voltage range up to 230 V DC/AC



SME-8-K-LED-230

General technical data		
	SME-8-...-S6	SME-8-...-230
Design	For T-slot	
Conforms to standard	EN 60947-5-2	
Certification	C-Tick	
	–	CCC
CE marking (see declaration of conformity)	–	To EU EMC Directive ¹⁾
	–	To EU Low Voltage Directive
Note on materials	Free of copper and PTFE	
	RoHS-compliant	

1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com → Support → User documentation.
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

Input signal/measuring element		
	SME-8-...-S6	SME-8-...-230
Measuring principle	Magnetic reed	
Ambient temperature [°C]	–40 ... +120	–30 ... +60

Switching output		
	SME-8-...-S6	SME-8-...-230
Switching output	Contacting, bipolar	Contacting, bipolar
Switching element function	N/O contact	
Reproducibility of switching value [mm]	±0.1	±0.1
Switch-on time [ms]	≤ 0.5	2
Switch-off time [ms]	≤ 0.03	0.03
Max. switching frequency [Hz]	800	500
Max. output current [mA]	500	120
Max. switching capacity AC [VA]	10	
Max. switching capacity DC [W]	10	
Voltage drop [V]	≤ 0	≤ 3.9
Residual current [mA]	–	0

Proximity sensors SME-8, for T-slot

Technical data – Magnetic reed

FESTO

Output, additional data		
	SME-8-...-S6	SME-8-...-230
Protection against short circuit	No	
Overload protection	No	

Electronic components		
	SME-8-...-S6	SME-8-...-230
Operating voltage range [AC V]	0 ... 30	3 ... 230
Operating voltage range [V DC]	0 ... 30	3 ... 230
Reverse polarity protection	No	

Electromechanical components		
	SME-8-...-S6	SME-8-...-230
Electrical connection	Cable, 2-wire	
Connection direction	In-line	
Cable length [m]	2.5	2.5
	–	–
Cable sheath materials	TPE-S	TPE-U (PUR)

Mechanical components		
	SME-8-...-S6	SME-8-...-230
Type of mounting	Clamped in T-slot Insertable in the slot lengthwise	
Housing material information	Epoxy resin	Epoxy resin
	PC	PS
	PET	PET
	High-alloy stainless steel	High-alloy stainless steel

Display/operation		
	SME-8-...-S6	SME-8-...-230
Switching status indication	–	Yellow LED

Immissions/emissions		
	SME-8-...-S6	SME-8-...-230
Ambient temperature with flexible cable installation [°C]	–5 ... +120	–5 ... +60
Ambient temperature	–40 ... +120	–
Degree of protection	–	–
	IP67	IP67
Insulation voltage [V]	50	–
Surge resistance [kV]	0.8	4
Degree of contamination	3	3

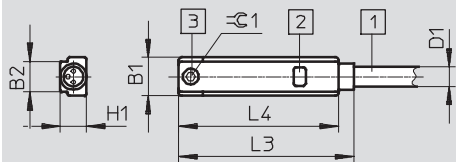
Proximity sensors SME-8, for T-slot

Technical data – Magnetic reed

FESTO

Dimensions

Download CAD data → www.festo.com

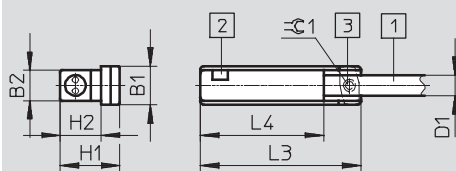


- 1 Connecting cable, 3 wire cable, 3 x 0.14 mm²
- 2 Yellow LED
- 3 Max. tightening torque 0.2 Nm

Type	B1	B2	D1 Ø	H1	L3	L4	≈ 1
SME-8- ... -S6	6.4	5	2.9	4.3	28.8	26.3	1.3

Dimensions

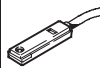
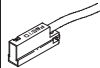
Download CAD data → www.festo.com



- 1 Connecting cable
- 2 Yellow LED
- 3 Max. tightening torque 0.2 Nm

Type	B1	B2	D1 Ø	H1	H2	L3	L4	≈ 1
SME-8-K-LED-230	6.4	5	3.4	9.8	6.7	26.2	20.2	1.3

Ordering data

	Switching output	Electrical connection	Connection direction	Cable length [m]	Part No.	Type
		Cable				
N/O contact, heat resistant						
	Contacting, bipolar	2-wire	In-line	2.5	161756	SME-8-K-24-S6
N/O contact, operating voltage range up to 230 V AC/DC						
	Contacting, bipolar	2-wire	In-line	2.5	152820	SME-8-K-LED-230

Proximity sensors SMT-8G, for T-slot

Type codes

FESTO

SMT-8G

		SMT	—	8G	—	PS	—	24V	—	E	—	2,5Q	—	OE
Function														
SMT	Proximity sensor, magneto-resistive													
Design														
8G	For T-slot, insertable in the slot lengthwise													
Switching output, switching element function														
PS	PNP, N/O contact, 3-wire													
Rated operating voltage														
24V	24 V DC													
Cable characteristics														
E	Energy chain + robot													
Cable length [m], connection direction														
2,5Q	Cable, 2.5 m, lateral ¹⁾													
0,3Q	Cable with plug, 0.3 m, lateral ²⁾													
Electrical connection														
OE	Open end													
M8D	Cable with plug M8x1, rotatable thread													

1) Only with electrical connection OE

2) Not with electrical connection OE

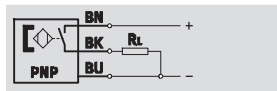
Proximity sensors SMT-8G, for T-slot

FESTO

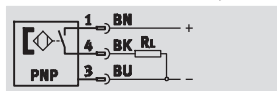
Technical data – Magneto-resistive

Function

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



E.g. PNP, N/O contact, with plug



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



SMT-8G-...-OE



SMT-8G-...-M

General technical data

Design	For T-slot
Based on standard	EN 60947-5-2
Approval certificate	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 output	PNP
Switching element function	N/O contact
Max. output current [mA]	80
Max. switching capacity DC [W]	2.4

Output, additional data

Protection against short circuit	Pulsed
Overload protection	Yes

Electronic components

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

Electromechanical components

Type	SMT-8G-...-OE	SMT-8G-...-M8D
Electrical connection	Cable, 3-wire	Cable with plug M8x1, 3-pin, rotatable thread
Connection direction	Lateral	
Cable test conditions	Energy chain: 5 million cycles, bending radius 28 mm Torsional strength: > 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 characteristics	Energy chain + robot	
Cable sheath materials	Thermoplastic polyurethane elastomer	

Mechanical components

Type of mounting	Clamped in T-slot
	Insertable in the slot lengthwise
Housing material information	Reinforced PA

Proximity sensors SMT-8G, for T-slot

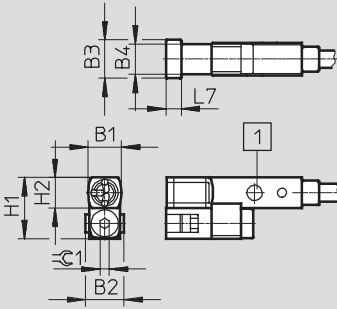
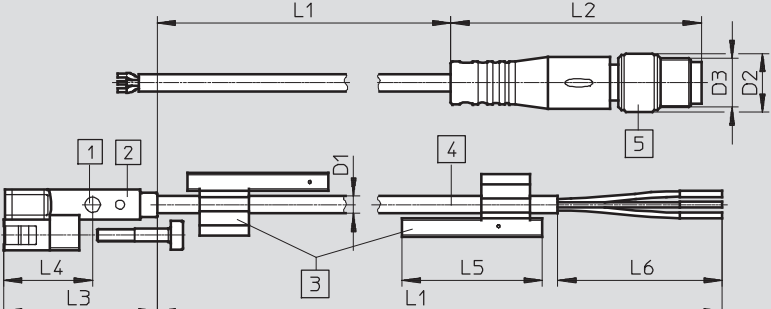
Technical data – Magneto-resistive

FESTO

Display/operation	
Switching status indication	Yellow LED

Immissions/emissions	
Ambient temperature with flexible cable installation	–5 ... +70 °C
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

Dimensions		Download CAD data → www.festo.com	
			
1 Light-emitting diode (LED)	3 Inscription label holder	4 Connecting cable	L1 Cable length
2 SMT-8G		5 Plug M8x1	

	D1	D2	D3	B1	B2	B3	B4	H1	H2	L2	L3	L4	L5	L6	L7	≙ 1
SMT-8G-...-OE	2.9	–	–	5.4	5	6.3	5	10	5	25	–	14.4	23	50	2.5	1.5
SMT-8G-...-M8D		M8x1	9.6								41.1					

Ordering data						
	Switching output	Electrical connection		Cable length	Part No.	Type
		Cable	Cable with plug, rotatable thread M8x1			
				[m]		
N/O contact						
	PNP	3-wire	–	2.5	547859	SMT-8G-PS-24V-E-2,5Q-OE
		–	3-pin	0.3	547860	SMT-8G-PS-24V-E-0,3Q-M8D

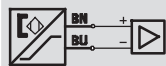
Proximity sensors SMT-8F-I, to EU Explosion Protection Directive (ATEX)

FESTO

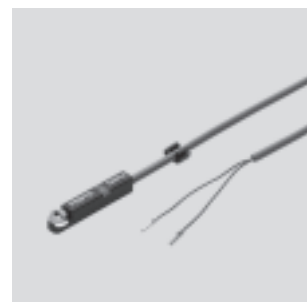
Technical data

Function

Namur, with cable



- EU conformity to EU EMC Directive, to EU Explosion Protection Directive (ATEX)
- Magneto-inductive measuring principle
- Insertable in the slot from above
- Cable clip included in the scope of delivery



Technical data		
Switching element function	NAMUR	
Switching output	NAMUR	
Design	For T-slot	
Type of mounting	Clamped in T-slot	
Reproducibility of switching value ¹⁾	[mm]	±0.1
Electrical connection	Cable, 2-wire	
Assembly position	Any	
Cable length	[m]	5
Rated operating voltage	[V DC]	8.2
Max. output current in Namur operation	[mA]	0 ... 4.5
Residual current	[mA]	0 ... 0.7
Switch-on time	[ms]	0 ... 0.5
Switch-off time	[ms]	0 ... 0.5
Protection against short circuit	For all electrical connections	
Reverse polarity protection		
Conforms to standard	EN 60947-5-6	
Certificate issuing authority	KEMA 04 ATEX 1114 X	
Switching status indication	Yellow LED	
Product weight	[g]	70

1) Only applicable to drives secured against rotation

Operating and environmental conditions		
Cable installation	Fixed	Flexible
Ambient temperature	[°C]	-25 ... +70
Degree of protection	IP65, IP67	
Approval certificate	C-Tick	



Note

When used in hazardous areas, the proximity sensor SMT-8F-I must always be operated with an isolated

switch amplifier according to DIN EN 60 947-5-6.



Note

Operating instructions, declarations and statements of conformity
→ www.festo.com

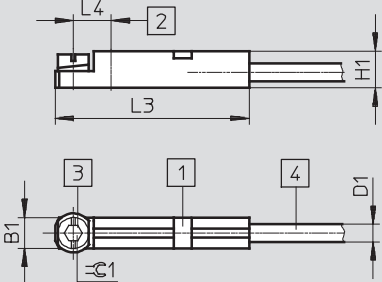
Proximity sensors SMT-8F-I, to EU Explosion Protection Directive (ATEX)

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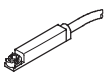
Technical data

ATEX	
ATEX category for gas	II 1G
Explosion ignition protection type for gas	Ex ia IIC T4 ... T6
ATEX category for dust	II 1D
Explosion ignition protection type for dust	Ex iaD 20 IP67 T95°C
Explosion-proof temperature [°C]	-10 °C ≤ Ta ≤ +70 °C
Explosion protection certification outside the EU	EPL Da (RU)
	EPL Db (RU)
	EPL Dc (RU)
	EPL Ga (RU)
	EPL Gb (RU)
	EPL Gc (RU)
CE marking (see declaration of conformity)	To EU EMC Directive
	To EU Explosion Protection Directive (ATEX)

Materials	
Housing	PA
Cable sheath	PVC
Note on materials	Free of copper and PTFE

Dimensions		Download CAD data → www.festo.com
		1 Yellow LED for switching status 2 Switching point 3 Clamping component, max. tightening torque 0.6 Nm 4 Cable

Type	B1	D1 Ø	H1	L1	L2	≙ 1
SMT-8F-I-8 ...	5	2.9	6	31.8	6.2	1.5

Ordering data					
	Switching output	Electrical connection	Cable length [m]	Part No.	Type
	Namur	Cable, 2-wire	5.0	536 956	SMT-8F-I-8,2V-K5,0-OE-Ex

Proximity sensors SME-8-FM, for T-slot

FESTO

Type codes

SME-8-FM

		SME	–	8	–	FM	–	DS	–	24V	–	K	–	1,0	–	OE
Function																
SME	Proximity sensor, magnetic reed															
Design																
8	For T-slot															
Sensor design																
FM	Screw-clamped, insertable in the slot from above															
Switching output																
DS	3-wire N/O contact															
ZS	2-wire N/O contact															
Nominal operating voltage																
24V	24 V AC/DC															
Cable characteristics																
K	Standard															
Cable length [m]																
1,0	1															
Electrical connection																
OE	Open end															

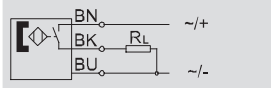
Proximity sensors SME-8-FM, for T-slot

Technical data – Magnetic reed

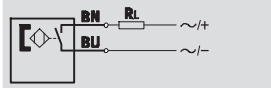
FESTO

Function

N/O contact, with cable, 3-wire



N/O contact, with cable, 2-wire



- Magnetic reed measuring principle
- Insertable in the slot from above



SME-8-FM-DS



SME-8-FM-ZS

General technical data	
Design	For T-slot
Based on standard	EN-60947-5-2
Certification	C-Tick
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	Magnetic reed
Ambient temperature [°C]	-10 ... +60

Switching output		
Type	SME-8-FM-DS	SME-8-FM-ZS
Switching output	Contacting, bipolar	
Switching element function	N/O contact	
Max. output current [mA]	100	
Max. switching capacity AC [VA]	3	
Max. switching capacity DC [W]	3	

Output, additional data	
Protection against short circuit	No
Overload protection	No

Electronic components		
Operating voltage range [AC V]	10 ... 30	
Operating voltage range [V DC]	10 ... 30	

Electromechanical components		
Type	SME-8-FM-DS	SME-8-FM-ZS
Electrical connection	Cable, 3-wire	Cable, 2-wire
Connection direction	In-line	
Cable test conditions	Test conditions on request	
Cable length [m]	1	
Cable characteristics	Standard	
Cable sheath materials	PVC	

Mechanical components		
Type	SME-8-FM-DS	SME-8-FM-ZS
Type of mounting	Screw-clamped Insertable in the slot from above	
Housing material information	PA	

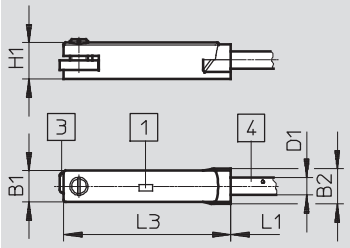
Proximity sensors SME-8-FM, for T-slot

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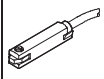
Technical data – Magnetic reed

Display/operation	
Switching status indication	Yellow LED

Immissions/emissions	
Ambient temperature with flexible cable installation	–5 ... +60 °C
Degree of protection	IP67

Dimensions		Download CAD data → www.festo.com
		1 Yellow LED 3 Clamping component 4 Cable

	B1	B2	D1	H1	L1	L2
SME-8-FM	5.1	5.8	2.9	6	27.4	1,000

Ordering data					
	Switching output	Electrical connection	Cable length [m]	Part No.	Type
		Cable			
	Contacting, bipolar	3-wire	1	562515	SME-8-FM-DS-24V-K-1,0-OE
		2-wire	1	562516	SME-8-FM-ZS-24V-K-1,0-OE

Proximity sensors SMT0/SMTSO/SME0-8E, for T-slot

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Type codes

SMT0/SMTSO/SME0-8E		SMT0	8E	PS	M12	LED	24	
Function								
SMT0	Proximity sensor, magneto-resistive							
SMTSO	Proximity sensor, magneto-inductive, welding field immune							
SME0	Proximity sensor, magnetic reed							
Design								
8E	For T-slot, mounting via accessories							
Switching output, switching element function								
PS	PNP, N/O contact, 3-wire							
NS	NPN, N/O contact, 3-wire							
Electrical connection, cable length								
K	Cable, 2.5 m or 7.5 m							
S	Plug M8x1							
M12	Plug M12x1							
Switching status indication								
LED	Yellow LED							
Rated operating voltage								
24	24 V DC							
230	230 V AC							
Variant								
S6	Heat resistant							

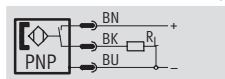
Proximity sensors SMT0-8E/SMTSO-8E, for T-slot

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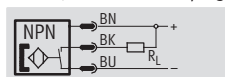
Technical data – Magneto-resistive

Function

e.g. PNP, N/O contact, with plug



NPN, N/O contact, with plug



- Magneto-resistive measuring principle
- Welding field immune designs



SMT0-8E



SMTSO-8E

General technical data		
Type	SMT0-8E	SMTSO-8E, welding field immune
Design	For T-slot	
Approval certificate	C-Tick	
CE marking (see declaration of conformity)	To EU EMC Directive ¹⁾	
Note on materials	Free of copper and PTFE	
	RoHS-compliant	–

- 1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com → Support → User documentation.
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

Input signal/measuring element		
Type	SMT0-8E	SMTSO-8E, welding field immune
Measuring principle	Magneto-resistive	Magneto-inductive
Ambient temperature [°C]	–20 ... +60	–25 ... +70

Switching output				
Type	SMT0-8E		SMTSO-8E, welding field immune	
Switching output	PNP	NPN	PNP	NPN
Switching element function	N/O contact			
Reproducibility of switching value [mm]	±0.1			
Switch-on time [ms]	0 ... 0.5		0 ... 38	
Switch-off time [ms]	10 ... 25		0 ... 20	
Max. output current [mA]	100		200	
Max. switching capacity DC [W]	3		6	
Voltage drop [V]	0 ... 1.8		0 ... 1.8	0 ... 3
Residual current [µmA]	0.01			

Output, additional data				
Type	SMT0-8E		SMTSO-8E, welding field immune	
Switching output	PNP	NPN	PNP	NPN
Protection against short circuit	Pulsed		Yes	Pulsed
Overload protection	Yes			

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

Proximity sensors SMT0-8E/SMTSO-8E, for T-slot

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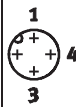
Technical data – Magneto-resistive

Electromechanical components			
Type	SMT0-8E-...-S	SMT0-8E-...-M12	SMTSO-8E-...-M12, welding field immune
Electrical connection	Plug M8x1, 3-pin	Plug M12x1, 3-pin	Plug M12x1, 3-pin
Connection direction	Lateral		
Max. tightening torque, plug [Nm]	0.3	0.5	0.5

Mechanical components			
Type	SMT0-8E-...-S	SMT0-8E-...-M12	SMTSO-8E-...-M12, welding field immune
Type of mounting	Clamped in T-slot Insertable in the slot from above Via accessories		
Tightening torque [Nm]	1	0.5	0.5
Housing material information	TPE-U(PU)	TPE-U(PU)	TPE-U(PU)
	Nickel-plated brass	High-alloy stainless steel	High-alloy stainless steel
	–	Wrought aluminium alloy	Wrought aluminium alloy
		–	PA

Display/operation	
Switching status indication	Yellow LED

Immissions/emissions			
Type	SMT0-8E-...-S	SMT0-8E-...-M12	SMTSO-8E-...-M12, welding field immune
Degree of protection	IP65 IP67		
Resistance to interference from magnetic fields	–	–	Alternating magnetic field 45 ... 65 Hz

Pin allocation to EN 60947-5-2			
M8x1, 3-pin			
N/O contact			
	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	–
	4	Black	Output
M12x1, 3-pin			
N/O contact			
	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	–
	4	Black	Output

Proximity sensors SMT0-8E/SMTS0-8E, for T-slot

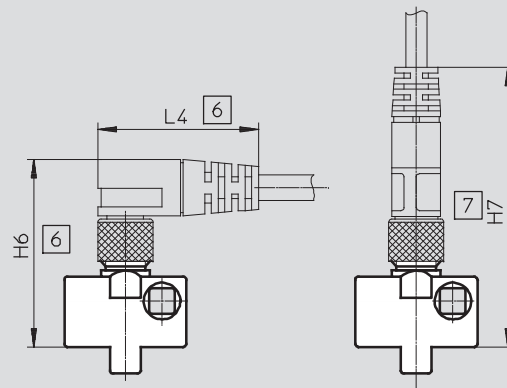
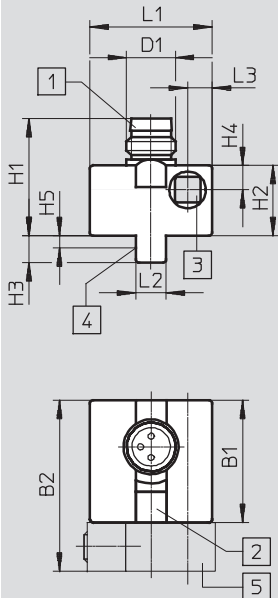
Technical data – Magneto-resistive

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Dimensions

Download CAD data → www.festo.com

SMT0-8E-...-S-LED-24 – Plug M8x1



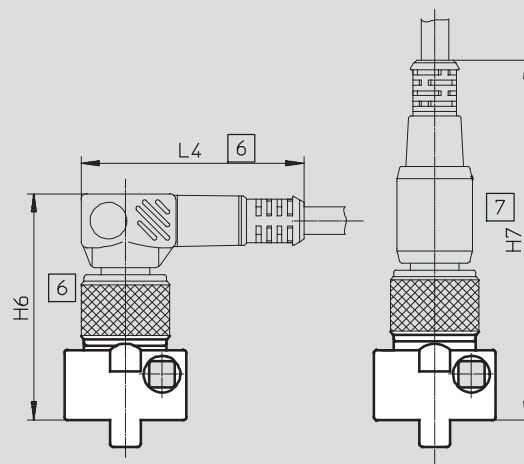
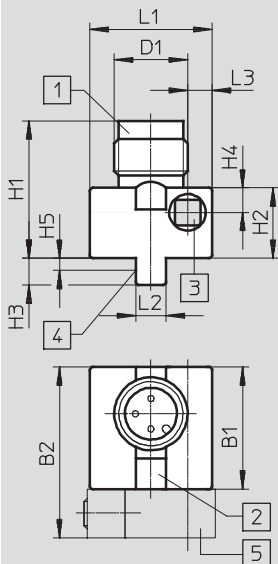
- 1 Suitable for socket type SIM-M8
- 2 Yellow LED
- 3 Socket head screw M3x25 DIN 912, max. tightening torque 1 Nm
- 4 Theoretical switching point
- 5 Mounting kit SMB-8E (not included in scope of delivery)
- 6 Installation space for angled plug socket 90°
- 7 Installation space for straight plug socket

	B1 ±0.3	B2	D1	H1	H2 ±0.27	H3	H4	H5	H6	H7	L1 ±0.3	L2	L3	L4
SMT0-8E- ... -S-LED-24	20	28	M8x1	19.2	11.5	4.4	4	2.2	~32	~46	20	5	4	~26

Dimensions

Download CAD data → www.festo.com

SMT0-8E-...-M12-LED-24 – Plug M12x1



- 1 Suitable for socket type SIM-M12
- 2 Yellow LED
- 3 Socket head screw M3x25 DIN 912, max. tightening torque 1 Nm
- 4 Theoretical switching point
- 5 Mounting kit SMB-8E (not included in scope of delivery)
- 6 Installation space for angled plug socket 90°
- 7 Installation space for straight plug socket

	B1 ±0.3	B2	D1	H1 ±0.34	H2 ±0.27	H3	H4	H5	H6	H7	L1 ±0.3	L2	L3	L4
SMT0-8E- ... -M12-LED-24	20	28	M12x1	22.5	11.5	4.4	4	2.2	~36	~59	20	5	4	~36.5

Proximity sensors SMT0-8E/SMTSO-8E, for T-slot

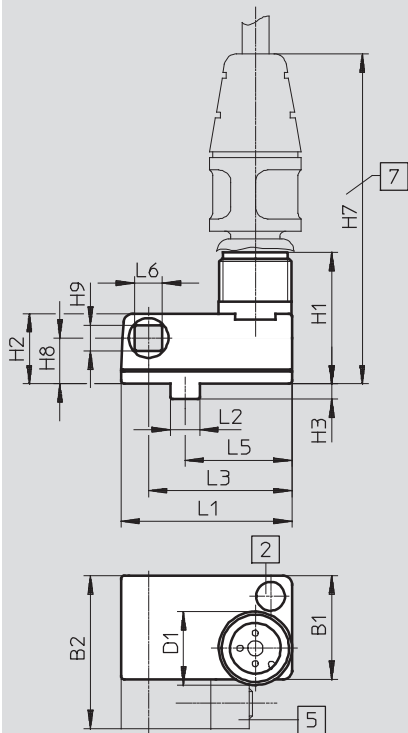
Technical data – Magneto-resistive

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Dimensions

Download CAD data → www.festo.com

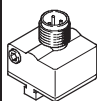
SMTSO-8E-...-M12-LED-24 – Plug M12x1



- 2 Yellow LED
- 5 Mounting kit SMB-8E (not included in scope of delivery)
- 7 Installation space for connecting cable NEBU-M12G5

	B1	B2	D1	H1 +0.5	H2	H3 ±0.2	H7	H8	H9	L1	L2	L3	L5	L6
SMT0-8E- ... -M12-LED-24	17	24.8	M12x1	21.5	11.5	2.5	~56	7.5	4.2	28	4.8	23.5	17.5	4.5

Ordering data

Drawing data	Switching output	Electrical connection		Part No.	Type
		Plug M8x1	Plug M12x1		
N/O contact, basic version					
	PNP	3-pin	–	171178	SMT0-8E-PS-S-LED-24
		–	3-pin	171179	SMT0-8E-PS-M12-LED-24
	NPN	3-pin	–	171166	SMT0-8E-NS-S-LED-24
		–	3-pin	171176	SMT0-8E-NS-M12-LED-24
N/O contact, welding field immune					
	PNP	–	3-pin	191986	SMTSO-8E-PS-M12-LED-24
	NPN	–	3-pin	175825	SMTSO-8E-NS-M12-LED-24

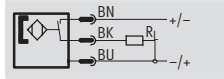
Proximity sensors SMEO-8E, for T-slot

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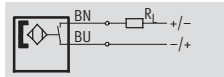
Technical data – Magnetic reed

Function

e.g. N/O contact, 3-wire, with plug



E.g. N/O contact, 2-wire, with cable



- Magnetic reed measuring principle
- Heat resistant variant



General technical data			
	SMEO-8E-...-24	SMEO-8E-...-24-S6, heat resistant	SMEO-8E-...-230
Design	For T-slot	For T-slot	For T-slot
Conforms to standard	EN 60947-5-2	–	EN 60947-5-2
Certification	C-Tick	–	C-Tick
CE marking	To EU EMC Directive ¹⁾	–	To EU EMC Directive ¹⁾
(see declaration of conformity)	–		To EU Low Voltage Directive
Note on materials	Free of copper and PTFE	Free of copper and PTFE	Free of copper and PTFE
	RoHS-compliant	–	–

- 1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com → Support → User documentation.
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

Input signal/measuring element			
	SMEO-8E-...-24	SMEO-8E-...-24-S6, heat resistant	SMEO-8E-...-230
Measuring principle	Magnetic reed	Magnetic reed	Magnetic reed
Ambient temperature [°C]	–40 ... +60	–40 ... +120	–20 ... +60

Switching output			
	SMEO-8E-...-24	SMEO-8E-...-24-S6, heat resistant	SMEO-8E-...-230
Switching output	Contacting, bipolar	Contacting	Contacting, bipolar
	–	–	Without LED function
Switching element function	N/O contact	N/O contact	N/O contact
Reproducibility of switching value [mm]	±0.1	±0.1	±0.1
Switch-on time [ms]	0 ... 0.5	0 ... 0.5	0 ... 2
Switch-off time [ms]	0.03	0.03	0.03
Max. switching frequency [Hz]	800	500	500
Max. output current [mA]	500	500	120
Max. switching capacity DC [W]	10	10	10
Max. switching capacity AC [VA]	10	10	10
Voltage drop [V]	–	0.5	3.9

Output, additional data	
Protection against short circuit	No
Overload protection	No

Electronic components			
	SMEO-8E-...-24	SMEO-8E-...-24-S6, heat resistant	SMEO-8E-...-230
Operating voltage range DC [V]	12 ... 30	0 ... 30	3 ... 250
Operating voltage range AC [V]	12 ... 30	0 ... 30	3 ... 230
Reverse polarity protection	No	For all electrical connections	No

Proximity sensors SMEO-8E, for T-slot

Technical data – Magnetic reed

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Electromechanical components				
Type	SMEO-8E-S-LED-24	SMEO-8E-M12-LED-24	SMEO-8E-K-24-S6, heat resistant	SMEO-8E-M12-LED-230
Electrical connection	Plug M8x1, 3-pin	Plug M12x1, 3-pin	Cable, 2-wire	Plug M12x1, 3-pin
Connection direction	Lateral	Lateral	Lateral	In-line
Pin contact materials	Nickel-plated brass	Brass	–	–
Cable length [m]	–	–	2.5	–
Cable sheath materials	–	–	TPE-S	–

Mechanical components				
Type	SMEO-8E-S-LED-24	SMEO-8E-M12-LED-24	SMEO-8E-K-24-S6, heat resistant	SMEO-8E-M12-LED-230
Type of mounting	Via accessories		Via accessories	Via accessories
Tightening torque [Nm]	0.5	0.5	0.5	0.5
Housing material information	TPE-U(PU)	TPE-U(PU)	TPE-U(PU)	TPE-U(PU)
	High-alloy stainless steel	High-alloy stainless steel	–	High-alloy stainless steel
	Wrought aluminium alloy	Wrought aluminium alloy		Wrought aluminium alloy
	Nickel-plated brass	–		–

Display/operation			
	SMEO-8E-...-24	SMEO-8E-...-24-S6, heat resistant	SMEO-8E-...-230
Switching status indication	Yellow LED	–	Yellow LED

Immissions/emissions			
	SMEO-8E-...-24	SMEO-8E-...-24-S6, heat resistant	SMEO-8E-...-230
Ambient temperature with flexible cable installation [°C]	–	–40 ... +120	–
Degree of protection	IP65	IP65	IP65
	IP67	IP67	IP67
Insulation voltage [V]	–	50	–
Surge resistance [kV]	0.8	–	4
Degree of contamination	3	3	3

Pin allocation to EN 60947-5-2			
M8x1, 3-pin			
N/O contact			
	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	–
	4	Black	Output
M12x1, 3-pin, 24 V			
N/O contact			
	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	–
	4	Black	Output

Pin allocation to EN 60947-5-2			
M12x1, 3-pin, 230 V			
N/O contact			
	Pin	Wire colour	Allocation
	4	Black	~ / +
	3	Blue	~ / –

Proximity sensors SMEO-8E, for T-slot

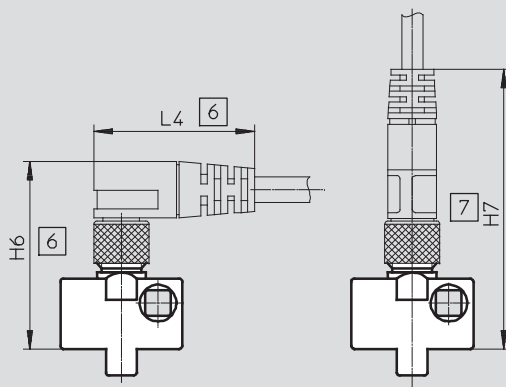
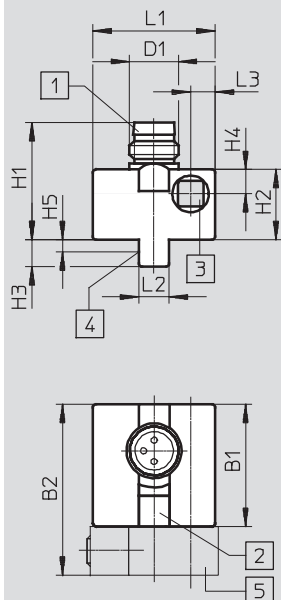
Technical data – Magnetic reed

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Dimensions

Download CAD data → www.festo.com

SMEO-8E-S-LED-24 – Plug M8x1



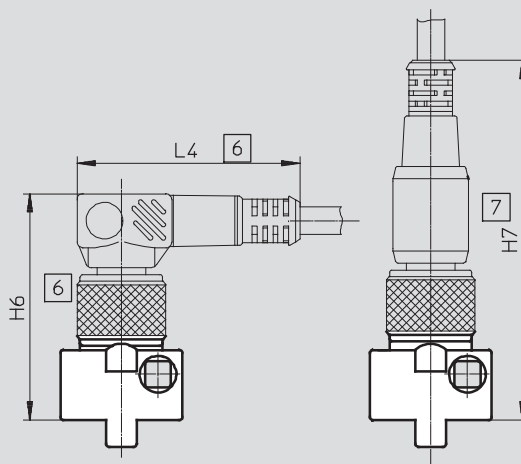
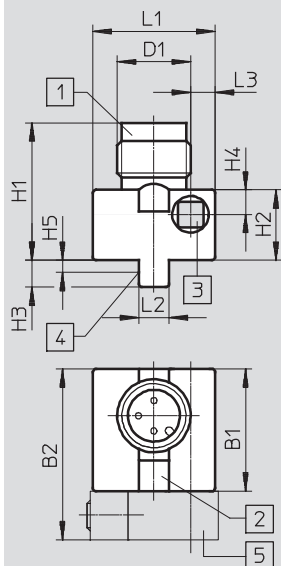
- 1 Suitable for socket type SIM-M8
- 2 Yellow LED
- 3 Socket head screw M3x25 DIN 912, max. tightening torque 1 Nm
- 4 Theoretical switching point
- 5 Mounting kit SMB-8E (not included in scope of delivery)
- 6 Installation space for angled plug socket 90°
- 7 Installation space for straight plug socket

	B1 ±0.3	B2	D1	H1	H2 ±0.27	H3	H4	H5	H6	H7	L1 ±0.3	L2	L3	L4
SMEO-8E- ... -S-LED-24	20	28	M8x1	19.2	11.5	4.4	4	2.2	~32	~46	20	5	4	~26

Dimensions

Download CAD data → www.festo.com

SMEO-8E-M12-LED-24 – Plug M12x1



- 1 Suitable for socket type SIM-M12
- 2 Yellow LED
- 3 Socket head screw M3x25 DIN 912, max. tightening torque 1 Nm
- 4 Theoretical switching point
- 5 Mounting kit SMB-8E (not included in scope of delivery)
- 6 Installation space for angled plug socket 90°
- 7 Installation space for straight plug socket

	B1 ±0.3	B2	D1	H1 ±0.34	H2 ±0.27	H3	H4	H5	H6	H7	L1 ±0.3	L2	L3	L4
SMEO-8E- ... -M12-LED-24	20	28	M12x1	22.5	11.5	4.4	4	2.2	~36	~59	20	5	4	~36.5

Proximity sensors SMEO-8E, for T-slot

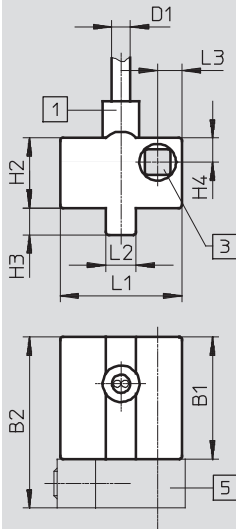
Technical data – Magnetic reed

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Dimensions

Download CAD data → www.festo.com

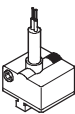
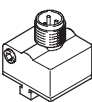
SMEO-8E-K24-S6 – Cable, heat resistant to 120°C



- 1 Cable, 2.5 m long, 2 x 0.14mm²
- 3 Socket head screw M3x25 DIN 912, max. tightening torque 1 Nm
- 5 Mounting kit SMB-8E (not included in scope of delivery)

	B1 ±0.3	B2	D1	H2 ±0.27	H3	H4	L1 ±0.3	L2	L3
SMEO-8E-K24-S6	20	28	2.9	11.5	4.4	4	20	5	4

Ordering data

	Switching output	Electrical connection			Cable length	Product weight	Part No.	Type
		Cable	Plug M8x1	Plug M12x1	[m]	[g]		
N/O contact, basic version								
	Contacting, bipolar	–	3-pin	–		10	171163	SMEO-8E-S-LED-24
		–	3-pin			9	171164	SMEO-8E-M12-LED-24
N/O contact, heat resistant								
	Contacting, bipolar		2-wire	–	2.5	40	171158	SMEO-8E-K-24-S6
N/O contact, operating voltage range 3 ... 250 V AC/DC								
	Contacting, bipolar		–	3-pin	–	9	171160	SMEO-8E-M12-LED-230

Proximity sensors SMT/SME-8, for T-slot

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Accessories

Mounting kit SMBR-8-8/100-S6

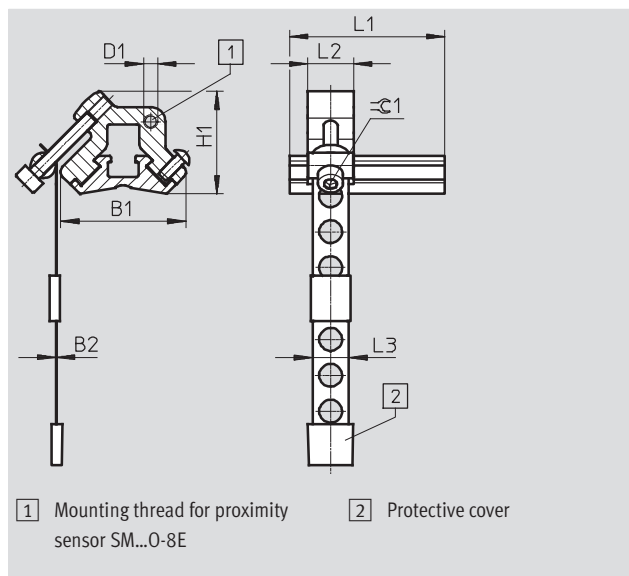
Material:

Rail: Anodised wrought aluminium alloy

Clamping strap, screws: High-alloy stainless steel

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data										
For piston Ø	B1	B2	D1	H1	L1	L2	L3	±0.1	CRC ¹⁾	Part No. Type
8 ... 100	27.4	0.2	M3	22.4	34	10	7.9	2.5	4	538937 SMBR-8-8/100-S6

1) Corrosion resistance class 4 to Festo standard 940 070

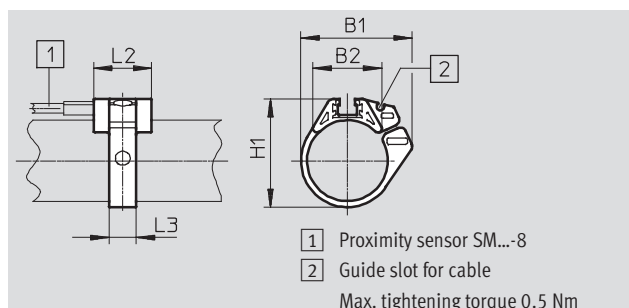
Components subject to high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

Mounting kit SMBR

Material:

Polyacetal

RoHS-compliant



Dimensions and ordering data						
For piston Ø	B1	B2	H1	L2	L3	Part No. Type
8	18.9	12.3	18.4	19	7	175091 SMBR-8-8
10	20.4	13.8	20.4	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

Proximity sensors SMT/SME-8, for T-slot

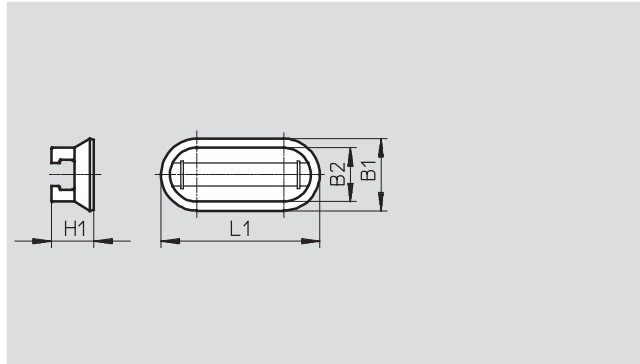
Accessories

FESTO

Mounting kit CRSMB

Design: For round cylinders
Type of mounting: Bonded using enclosed adhesive tape

Degree of protection: IP65, IP68, IP69K
Ambient temperature: -40 ... +90 °C
Material:
Housing: Polyurethane
Rail: Hard anodised aluminium
Free of copper and PTFE

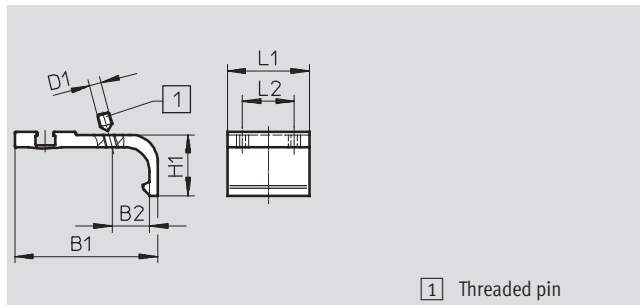
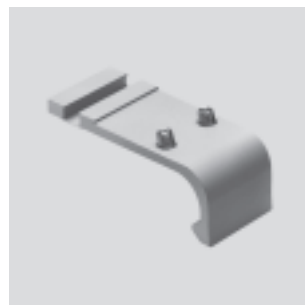


Ordering data							
For piston Ø	B1	B2	H1	L1	CRC ¹⁾	Part No.	Type
32 ... 100	15.8	11.8	9.3	35	4	525565	CRSMB-8-32/100

1) Corrosion resistance class 4 to Festo standard 940 070
Components subject to high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

Mounting kit SMB-8-FENG

Material:
Wrought aluminium alloy
Free of copper and PTFE

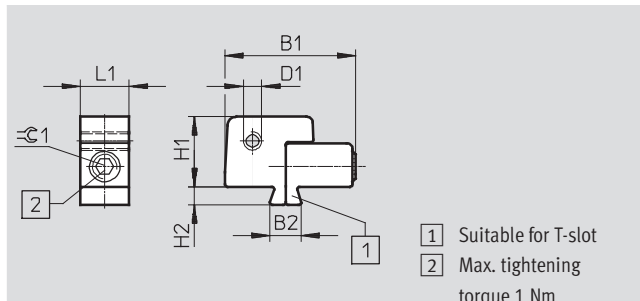


Dimensions and ordering data								
For piston Ø	B1	B2	D1	H1	L1	L2	Tightening torque [Nm]	Part No. Type
32/40	35.1	8.7	M3	15.5	27	17	0.2	175705 SMB-8-FENG-32/40
50/63	47	12.3	M4	20	27	17	0.5	175706 SMB-8-FENG-50/63
80/100	64.3	15.7	M5	24.3	27	17	0.7	175707 SMB-8-FENG-80/100

Mounting kit SMB-8E

Material:
Anodised aluminium, stainless steel

Note on materials:
RoHS-compliant



Ordering data								
For piston Ø	B1	B2	D1	H1	H2	L1	≈C1	Part No. Type
10 ... 125	21.5	5.1	M3	11.5	3	8	2.5	178230 SMB-8E

Proximity sensors SMT/SME-8, for T-slot

Accessories

Mounting kit SMB-8-C

Temperature: -40 ... 120°C

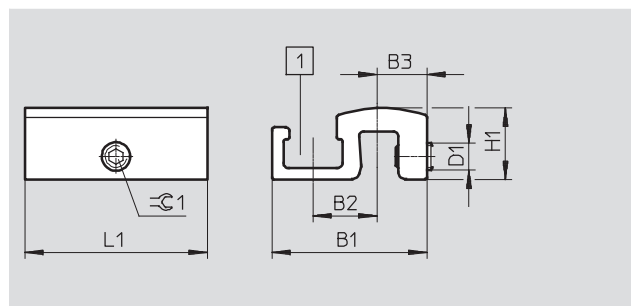
Material:

Retainer: Anodised wrought aluminium alloy

Screws: High-alloy stainless steel

Free of copper and PTFE,

RoHS-compliant



Dimensions and ordering data

Type	B1	B2	B3	D1	H1	L1	∅ 1	Tightening torque [Nm]	CRC ¹⁾	Weight [g]	Part No.	Type
SMB-8-C	17	7	5.5	M3	7.8	20	1.5	0.2 ... 0.6	3	3.5	1806790	SMB-8-C

1) Corrosion resistance class 3 according to Festo standard 940 070

Components subject to high corrosion stress. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment or media such as solvents and cleaning agents.

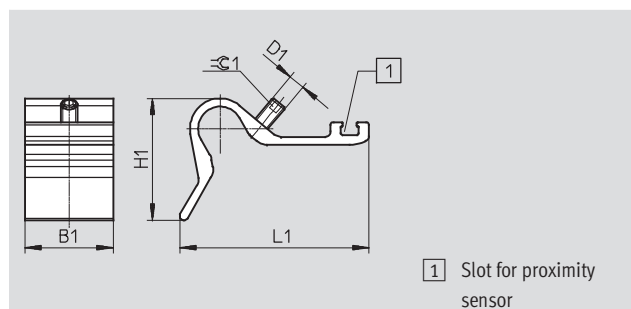
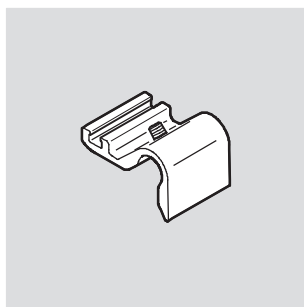
Sensor bracket DASP-M4-125-A

Material:

Anodised wrought aluminium alloy

Screws: High-alloy stainless steel

RoHS-compliant



Dimensions and ordering data

Type	B1	D1	H1	L1	∅ 1	Tightening torque [Nm]	CRC ¹⁾	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

1) Corrosion resistance class 3 according to Festo standard 940 070

Components subject to high corrosion stress. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment or media such as solvents and cleaning agents.

Proximity sensors SMT/SME-8, for T-slot

Accessories

FESTO

Mounting SMBZ-8-...

Material:

Rail: Anodised wrought aluminium alloy

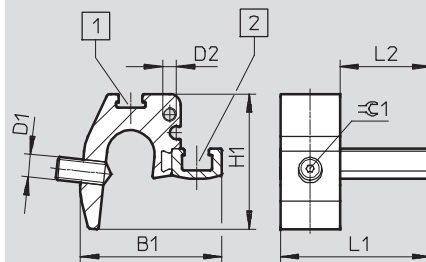
Screws: high-alloy stainless steel

Free of copper and PTFE

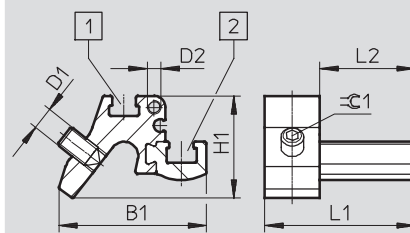
RoHS-compliant



SMBZ-8-32/100



SMBZ-8-125/320



1 Slot for inscription label

2 Slot for proximity sensor

Dimensions and ordering data

For piston Ø	B1	D1	D2	H1	L1	L2	≈C1	Part No.	Type
32 ... 100	31	M5	M3	30	33	20	1.5	537806	SMBZ-8-32/100
125 ... 320	32.3			22			2.5	537808	SMBZ-8-125/320

Position marker SMM

Insertable in the slot lengthwise

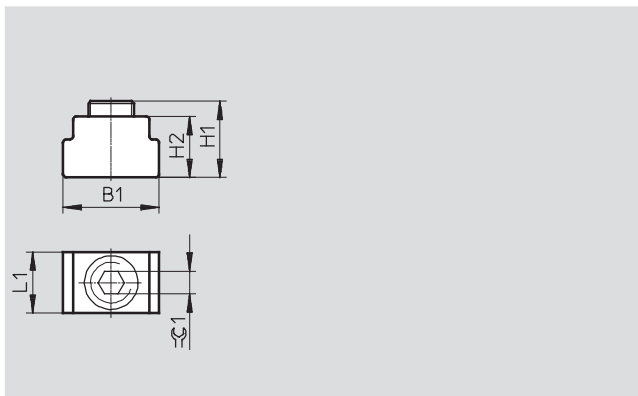
Ambient temperature -40 ... +120 °C

Material:

Housing: anodised wrought aluminium alloy

Screws: High-alloy stainless steel

Note on materials: RoHS-compliant



Dimensions and ordering data

B1	H1	H2	L1	≈C1	CRC ¹⁾	Part No.	Type	PU ²⁾
6.3	5.0	4.0	4.0	1.5	3	547941	SMM-8	10

1) Corrosion resistance class 3 according to Festo standard 940 070

Components subject to high corrosion stress. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment or media such as solvents and cleaning agents.

2) Packaging unit

Proximity sensors SMT/SME-8, for T-slot

Accessories

FESTO

Ordering data – Connecting cables				Technical data ➔ Internet: nebu	
		Number of wires	Cable length [m]	Part No.	Type
Socket M8x1, 3-pin					
	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
Socket M12x1, 5-pin					
	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 – Inscription labels,, safety clips				
	Size	Part No.	Type	PU ¹⁾
	23x4 mm	541598	ASLR-L-423	34
	M8	548067	NEAU-M8-GD	1
	M12	548068	NEAU-M12-GD	1

1) Packaging unit per frame

Ordering data – Mounting components			
	For Ø	Part No.	Type
	–	534254	SMBK-8

Ordering data – Sensor testers		
	Part No.	Type
	158481	SM-TEST-1