

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

FESTO



Proximity sensors SMT/SME

Product range overview

FESTO

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
					NPN	N/C contact	
					Non-contacting, 2-wire		
	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	26
				3 ... 230 V AC/DC		N/C contact	29
	Insertable in the slot lengthwise	Magneto-resistive	SMT-8G	10 ... 30 V DC	PNP	N/O contact	31
		Magneto-resistive	SMT-8-SL	10 ... 30 V DC	PNP	N/O contact	22
		Magnetic reed	SME-8-SL	10 ... 30 V AC/DC	Contacting, bipolar	N/O contact	26
	Insertable in slot from above	Magnetic reed	SME-8-FM	10 ... 30 V AC/DC	Contacting, bipolar	N/O contact	35
	Via accessories	Magneto-resistive	SMT0-8E	10 ... 30 V DC	PNP	N/O contact	38
					NPN		
		Magnetic reed	SME0-8E	12 ... 30 V DC	Contacting, bipolar	N/O contact	42
				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	22
	Welding field immune						
	Via accessories	Magneto-inductive	SMTS0-8E	10 ... 30 V DC	PNP	N/O contact	38
					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	29
	Via accessories	Magnetic reed	SME0-8E-...-S6	0 ... 30 V DC	Contacting	N/O contact	42
				0 ... 30 V AC			

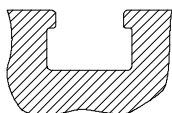
Proximity sensors SMT/SME

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-10F	5 ... 30 V DC	PNP	N/O contact	C-slot
					NPN		
				10 ... 30 V DC	Non-contacting, 2-wire		
		Magnetic reed	SME-10F	10 ... 30 V AC/DC	Contacting, bipolar	N/O contact	
				5 ... 30 V AC/DC			
	Insertable in the slot lengthwise	Magneto-resistive	SMT-10G	10 ... 30 V DC	PNP	N/O contact	
		Magneto-resistive	SMT-10	10 ... 30 V DC	PNP	N/O contact	
					NPN		
		Magnetic reed	SME-10	12 ... 27 V AC/DC	Contacting	N/O contact	

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

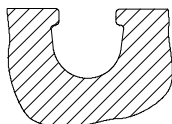
Exceptions



- DFM-B: SMxO-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

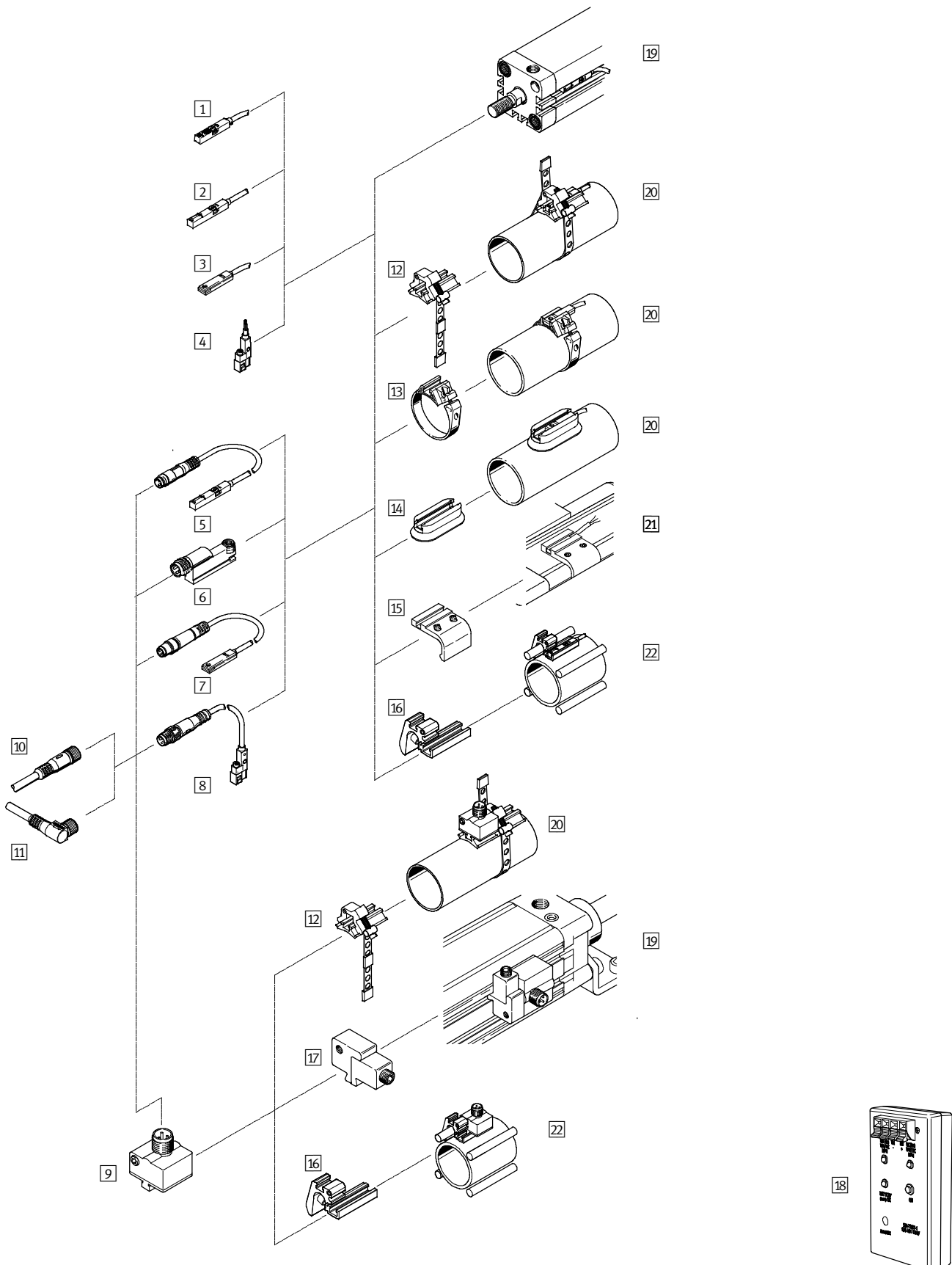


- ADVC Ø 100: SMT-10M and SME-10M cannot be used (ADVC is equipped with T-slot and C-slot)
- DSM/DSM-B-6/8/10: SME-10M cannot be used
- DSM/DSM-B-10/16: SMT-10M cannot be used

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

Peripherals overview

FESTO



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

Peripherals overview

Mounting attachments and accessories		→ Page/ Internet
Proximity sensors		
[1] SMT-8M-A-..., with cable		7 
[2] SME-8M-...-OE, with cable		15
[3] SME-8-FM-...-K-..., with cable		35
CRSMT-8-K-..., with cable, corrosion-resistant		22
[4] SMT-8G-...-OE, with cable		32
[5] SME-8M-...-M..., with cable and plug		15
[6] SMT-8-SL-..., with plug		22
SME-8-SL-..., with plug		26
[7] SMT-8-S-..., with cable and plug		22
SME-8-S-..., with cable and plug		26
[8] SMT-8G-...-M..., with cable and plug		32
[9] SMT0/SMTSO, with plug		38
SME0-8E, with cable or plug		42
Connecting cables		
[10] NEBU-M...G...		49
[11] NEBU-M...W...		49

Mounting attachments and accessories		→ Page/ Internet
Mounting kits and accessories		
[12] Mounting kit SMBR-8-8/100-S6, heat-resistant		46
[13] Mounting kit SMBR		46
[14] Mounting kit CRSMB, corrosion-resistant		47
[15] Mounting kit SMB-8-FENG		47
[16] Mounting component SMBZ-8-...		48
[17] Mounting kit SMB-8E		47
[18] Sensor tester SM-TEST-1		49
– Position marker SMM-8		48
– Clip SMBK-8		49
– Inscription label ASLR		49
– Safety clip NEAU		49
Drives		
[19] Drives with T-slot		–
[20] Round cylinders		
[21] Standard cylinders DNC, DNCB, DNCCKE		
[22] Drives with tie or mounting rod		

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

Type codes

FESTO

SMT-8M-A

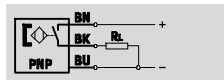
		SMT-8M	–	A	–	PO	–	24V	–	E	–	0,5	–	N	–	OE	–																		
Function																																			
SMT-8M	Proximity sensor, magneto-resistive, for T-slot, insertable in the slot from above																																		
Series																																			
A	Short design																																		
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

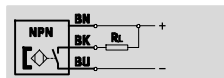
Technical data – Magneto-resistive

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
Mounting position	Any
Based on standard	EN 60947-5-2
Certification	C-Tick UL - Listed (OL)
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
Protection against overloading	Yes

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

Technical data – Magneto-resistive

FESTO

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 in slot, insertable 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

Technical data – Magneto-resistive

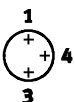
Display/operation			
	PS, NS, PO, ZS	PNS	PSO
Switching status display	Yellow LED	Yellow LED (for PNP)/white LED (for NPN)	Yellow LED (for N/O contact)/white LED (for N/C contact)
Operating reserve display	Orange LED	–	

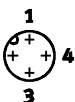
Immissions/emissions	
Ambient temperature with flexible cable installation [°C]	–20 ... +85
Protection class	IP65, IP68, IP69K

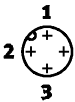
ATEX	
SMT-8M-A-...-	Ex2
ATEX category for gas	II 3G
Explosion ignition protection type for gas	Ex nA IIC T4 X Gc
ATEX category for dust	II 3D
Explosion ignition protection type for dust	Ex tc IIIC T120°C X Dc IP65
Explosion-proof temperature rating	–40 °C ≤ Ta ≤ +70 °C
Explosion protection	Zone 2 (ATEX)
	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 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

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

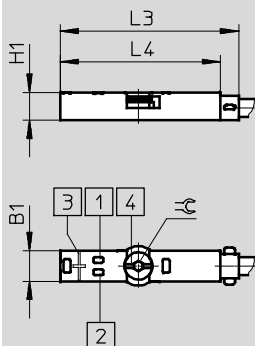
Technical data – Magneto-resistive

FESTO

Dimensions

Download CAD data → www.festo.com

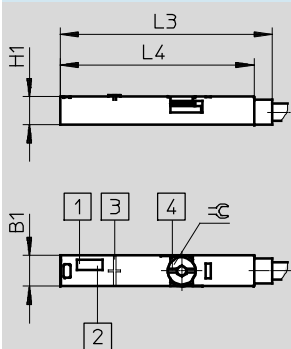
SMT-8M-A-24V-E-...-... (PS, NS, PO, ZS)



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 display 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 display for PSO:
Yellow LED for PS switching output.
White LED for PO switching output.

Type	B1	H1	L3	L4	⌀
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	

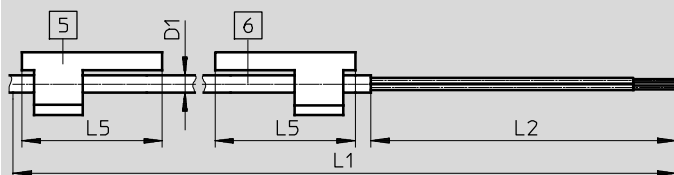
Proximity sensors SMT-8M-A, for T-slot

Technical data – Magneto-resistive

Dimensions

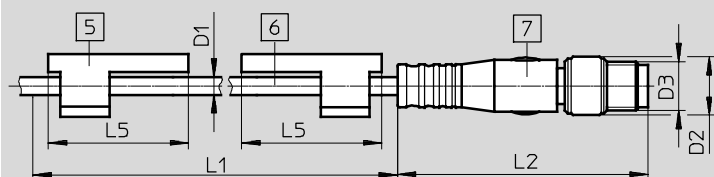
Download CAD data → www.festo.com

SMT-8M-A-...-OE/OE-Ex – Cable



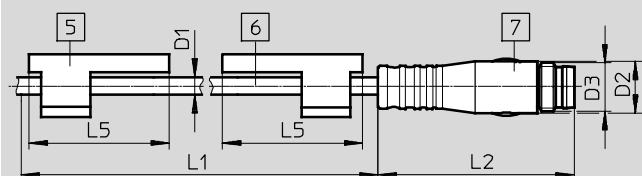
- 5 Inscription label holder drawn turned by 90°
- 6 Connecting cable

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



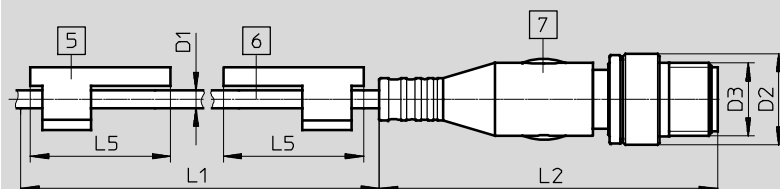
- 5 Inscription label holder drawn turned by 90°
- 6 Connecting cable
- 7 Plug suitable for connecting cable NEBU-M8

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

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



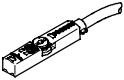
- 5 Inscription label holder drawn turned by 90°
- 6 Connecting cable
- 7 Plug suitable for connecting cable NEBU-M12

Type	D1	D2	D3	L1	L2	L5	⌀
SMT-8M-A-...-OE	2.9	–	–	2,500; 7,500	50	23	1.5
SMT-8M-A-...-OE-Ex		–	–	5,000	50		
SMT-8M-A-...-M8D		9.6	M8x1	300	41.1		
SMT-8M-A-...-M8		8.5	M8x1	300	32.7		
SMT-8M-A-...-M12		15	M12x1	300	55.5		

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

Technical data – Magneto-resistive

FESTO

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

FESTO

Ordering table				
Size	8	Condi- tions	Code	Enter 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		24V	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 – – 24V – E – – N – –

Proximity sensors SME-8M, for T-slot

Type codes

FESTO

SME-8M

		SME	–	8M	–	PO	–	24V	–	K	–	7,5	–	OE	–	
Function																
SME	Proximity sensor, magnetic reed															
Design																
8M	For T-slot, insertable in slot from above															
Switching output, switching element function																
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															
DS	N/O contact, 3-wire															
DO	N/C contact, 3-wire															
Rated operating voltage																
24V	24 V DC															
Cable properties																
K	Standard + energy chain															
E	Energy chain + robot applications															
Cable length [m]																
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 to EU Directive 94/9/EG															

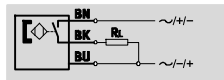
Proximity sensors SME-8M, for T-slot

FESTO

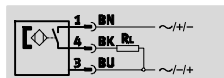
Technical data – Magnetic reed

Function

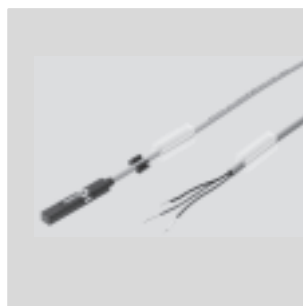
e.g. N/O contact, 3-wire, with cable



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



- Magnetic reed measuring principle
- Insertable in 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
Certification	cULus listed (OL)
	C-Tick
CE mark (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]	−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 2.5 m. Max. 0.15 V voltage drop per metre of additional cable length

Output, additional data	
Protection against short circuit	No
Protection against overloading	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 properties	K	Standard + energy chain							
	E	Energy chain + robot applications							
Cable sheath material	K	TPE-U(PU), oil resistant							
	E	TPE-U(PU), oil resistant, halogen free							

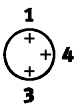
Mechanical components		
Electrical connection	OE	M...
Type of mounting	Screw-clamped in slot, insertable from above	
Housing	PA	PA
	High-alloy stainless steel	High-alloy stainless steel
	–	Nickel-plated brass
	–	TPE-U(PU)

Display/operation	
Switching status display	Yellow LED

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

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

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

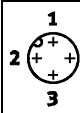
Pin allocation to EN 60947-5-2			
M8x1, 3-pin			
N/O contact and N/C contact			
	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	–
	4	Black	Output

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

Proximity sensors SME-8M, for T-slot

FESTO

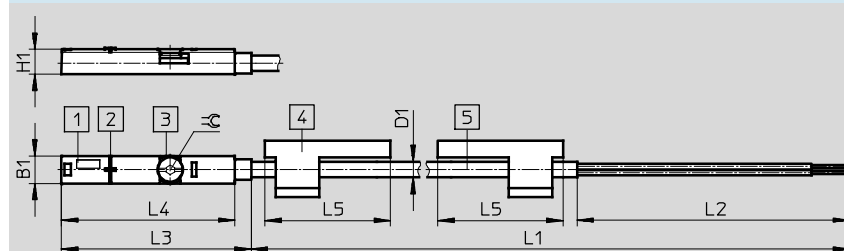
Technical data – Magnetic reed

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

Dimensions

Download CAD data → www.festo.com

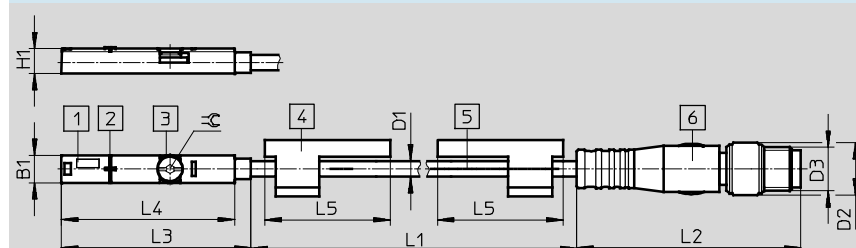
SME-8M-...-OE – Cable



- 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

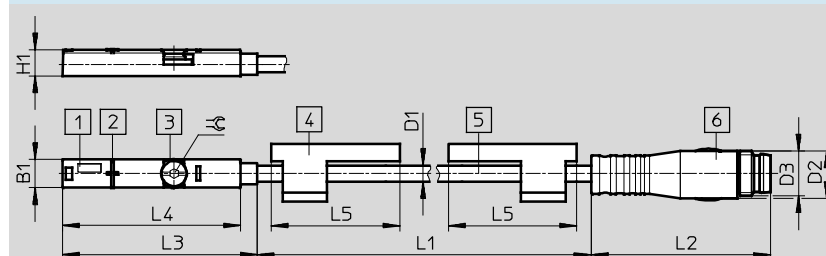
SME-8M-...-M8D – Cable with plug M8x1, rotatable thread



- 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	D1	D2	D3	H1	L2	L3	L4	L5	⌀
SME-8M-...-OE	5	2.9	–	–	4.6	50	34.8	31.8	23	1.5
SME-8M-...-M8D			9.6	M8x1		41				
SME-8M-...-M8			8.8	M8x1		35				

Proximity sensors SME-8M, for T-slot

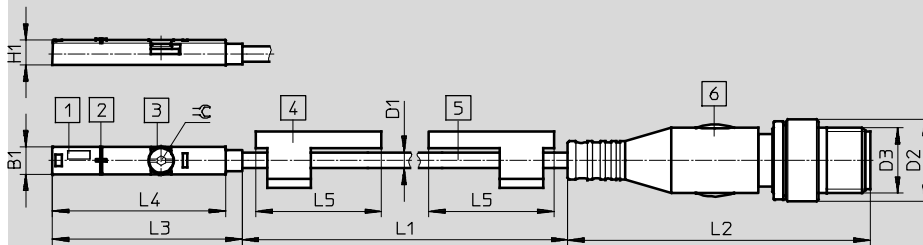
Technical data – Magnetic reed

FESTO

Dimensions

Download CAD data → www.festo.com

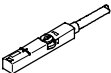
SME-8M-...-M12 – Cable with plug M12x1, rotatable thread



- 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	D2	D3	H1	L2	L3	L4	L5	⌀
SME-8M-...-M12	5	2.9	15	M12x1	4.6	55.5	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

FESTO

Modular products – Magnetic reed

M Mandatory data						
Module No.	Function	Switching output	Rated operating voltage	Cable properties	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
Enter 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 properties	Standard + energy chain				K
	Energy chain + robot applications				E
					-
Cable length [m]	0.2 ... 10 (0.2 ... 5.0 m in 0.1 m steps, 5.0 ... 10 m in 0.5 m steps)				...
					-
Connection technology	Open end				OE
	M8, rotatable thread				M8D
	M8, snap-on flange				M8
	M12, rotatable thread				M12

Transfer order code

543892 SME-8M - - 24V - - -

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 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 display												
LED	Yellow LED											
Rated operating voltage												
24	24 V DC											

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 slot lengthwise																						
Electrical connection																							
SL	Plug																						
Switching output, switching element function																							
PS	PNP, N/O contact, 3-wire																						
Switching status display																							
LED	Yellow LED																						
Rated operating voltage																							
24	24 V DC																						

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 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 display

LED	Yellow LED
-----	------------

Rated operating voltage

24	24 V DC
230	230 V AC

Variant

S6	Heat resistant
----	----------------

Generation

B	B series
---	----------

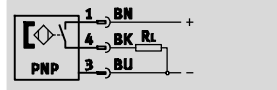
Proximity sensors CRSMT-8/SMT-8-SL, for T-slot

Technical data – Magneto-resistive

FESTO

Function

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



- Magneto-resistive measuring principle
- Insertable in 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	EN 60947-5-2	–
Based on standard	–	EN 60947-5-2
Certification	C-Tick	C-Tick
	–	c UL us - Listed (OL)
CE mark (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 [µmA]	≤ 100	≤ 1.5

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

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

FESTO

Technical data – Magneto-resistive

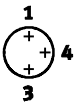
Electronic components		
Type	CRSMT	SMT-8-SL
Switching output	PNP	PNP
Rated operating voltage [V DC]	–	24
Operating voltage range [V DC]	10 ... 30	10 ... 30
Reverse polarity protection	For all electrical connections	

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 material	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 slot lengthwise
Housing material	High-alloy stainless steel Polypropylene	Polyamide –

Display/operation	
Switching status display	Yellow LED

Immissions/emissions		
Type	CRSMT	SMT-8-SL
Ambient temperature with flexible cable installation [°C]	–5 ... +60	–
Protection class	IP65 IP68 IP69K	IP65 IP68 –
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
	2	–	–

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

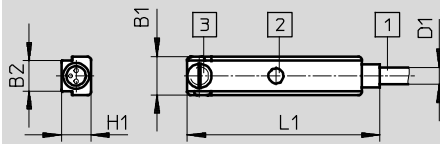
Technical data – Magneto-resistive

FESTO

Dimensions

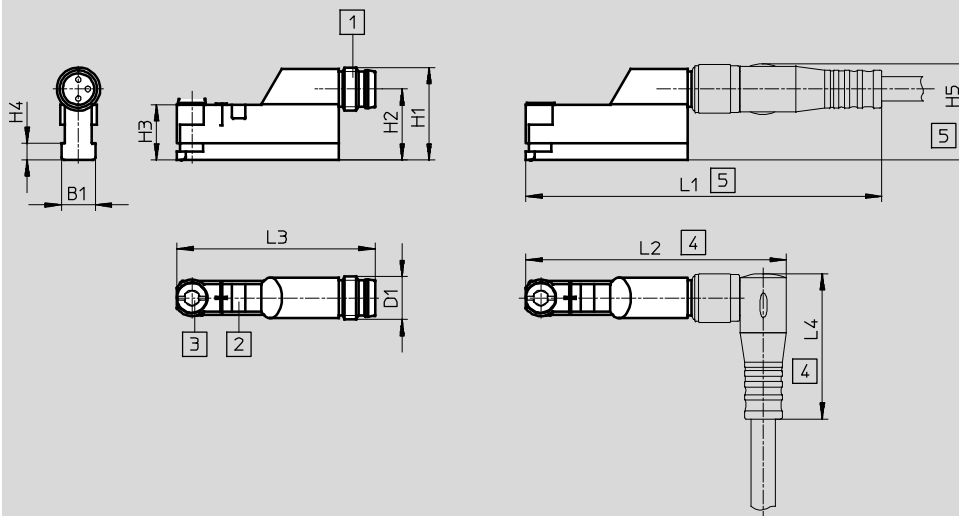
Download CAD data → www.festo.com

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 Fitting space for connecting cable NEBU-M8W3
- 5 Fitting space for connecting cable NEBU-M8G3

Type	B1	B2	D1	D2	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	26.9

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	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

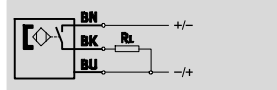
Proximity sensors SME-8, for T-slot

Technical data – Magnetic reed

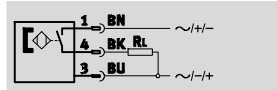
FESTO

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 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	EN 60947-5-2				
Certification	C-Tick				
CE mark (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
Protection against overloading	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

FESTO

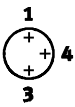
Technical data – Magnetic reed

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 material	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 slot lengthwise						
Housing material	Epoxy resin						
	Polycarbonate						
	Polybutylene terephthalate						
	High-alloy stainless steel						

Display/operation	
Switching status display	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	–
Protection class	IP65			–	IP65	–	IP65
	IP67			IP67	IP67	IP67	IP67
Insulation voltage [V]	50						
Surge capacity [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
	2		

Proximity sensors SME-8, for T-slot

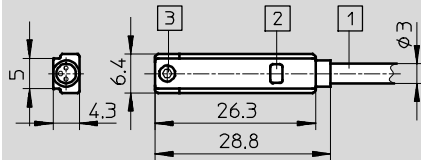
Technical data – Magnetic reed

FESTO

Dimensions

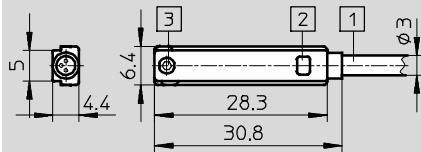
Download CAD data → www.festo.com

N/O contact, cable



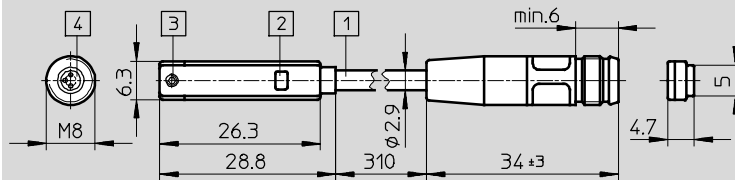
- 1 Connecting cable
- 2 Yellow LED
- 3 Clamping component

N/C contact, cable



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

Plug M8x1



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

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

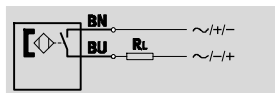
Proximity sensors SME-8, for T-slot

FESTO

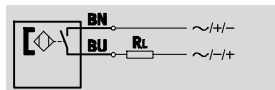
Technical data – Magnetic reed

Function

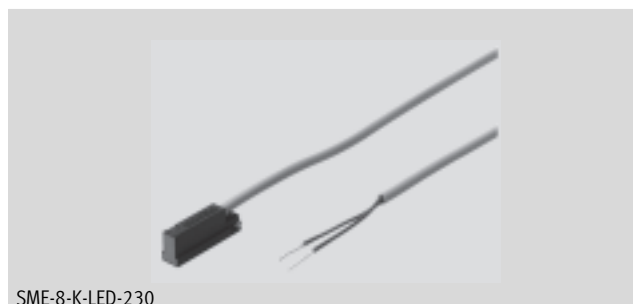
e.g. N/O contact, with cable, 2-wire,
0 ... 30 V AC/DC



e.g. N/O contact, with cable, 2-wire,
3 ... 230 V AC/DC



- Magnetic reed measuring principle
- Insertable in 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	EN 60947-5-2	
CE mark (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, without LED function
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

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

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

Proximity sensors SME-8, for T-slot

Technical data – Magnetic reed

FESTO

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 material	TPE-S	TPE-U (PUR)

Mechanical components		
	SME-8-...-S6	SME-8-...-230
Type of mounting	Clamped in T-slot	
	Insertable in slot lengthwise	
Housing material	Epoxy resin	Epoxy resin
	Polycarbonate	Polystyrene
	Polyethylene terephthalate	Polyethylene terephthalate
	High-alloy stainless steel	High-alloy stainless steel

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

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

Dimensions		Download CAD data → www.festo.com
SME-8-...-S6	SME-8-...-230	

Ordering data						
	Switching output	Electrical connection	Connection direction	Cable length	Part No.	Type
		Cable		[m]		
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

SMT-8G

		SMT	–	8G	–	PS	–	24V	–	E	–	2,5Q	–	OE
Function														
SMT	Proximity sensor, magneto-resistive													
Design														
8G	For T-slot, insertable in slot lengthwise													
Switching output, switching element function														
PS	PNP, N/O contact, 3-wire													
Rated operating voltage														
24V	24 V DC													
Cable properties														
E	Energy chain + robot applications													
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

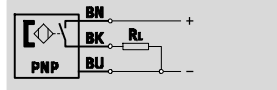
Proximity sensors SMT-8G, for T-slot

Technical data – Magneto-resistive

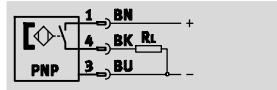
FESTO

Function

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



PNP, N/O contact, with plug



- Magneto-resistive measuring principle
- Insertable in slot lengthwise
- Design ideally matched to gripper sensing



SMT-8G-...-OE



SMT-8G-...-M

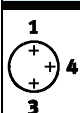
General technical data		
Design	For T-slot	
Based on standard	EN 60947-5-2	
Certification	c UL us - Listed (OL)	
CE mark (see declaration of conformity)	To EU EMC Directive	
Note on materials	Free of copper and PTFE	
	RoHS-compliant	
Input signal/measuring element		
Measuring principle	Magneto-resistive	
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	
Protection against overloading	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]	2.50.3
Cable properties	Energy chain + robot applications	
Cable sheath material	Thermoplastic polyurethane elastomer	
Mechanical components		
Type of mounting	Clamped in T-slot	
	Insertable in slot lengthwise	
Housing material	Reinforced polyamide	

Proximity sensors SMT-8G, for T-slot

Technical data – Magneto-resistive

Display/operation	
Switching status display	Yellow LED

Immissions/emissions	
Ambient temperature with flexible cable installation	–5 ... +70
Protection class	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

Technical drawing showing dimensions for the SMT-8G sensor and its components. The drawing includes a side view of the sensor head with dimensions B1, B2, B3, B4, H1, and H2. A top view of the sensor head shows dimensions L1, L2, L3, L4, L5, L6, and L7. A side view of the sensor body shows dimensions D1, D2, and D3. The drawing is labeled with 1, 2, 3, 4, and 5.

- 1 LED
- 2 SMT-8G

Technical drawing showing dimensions for the holder for inscription label and its components. The drawing includes a side view of the holder with dimensions L1, L2, L3, L4, L5, L6, and L7. A top view of the holder shows dimensions D1, D2, and D3. The drawing is labeled with 1, 2, 3, 4, and 5.

- 3 Holder for inscription label
- 4 Connecting cable
- 5 Plug M8x1

	D1	D2	D3	B1	B2	B3	B4	H1	H2	L1	L2	L3	L4	L5	L6	L7	≅
SMT-8G-...-OE	2.9	–	–	5.4	5	6.3	5	10	5	2500 +70	25	–	14.4	23	50	2.5	1.5
SMT-8G-...-M8D		M8x1	9.6							300 +30							

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 SME-8-FM, for T-slot

Type codes

FESTO

SME-8-FM

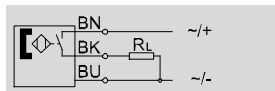
		SME	–	8	–	FM	–	DS	–	24V	–	K	–	1,0	–	OE
Function																
SME	Proximity sensor, magnetic reed															
Design																
8	For T-slot															
Sensor design																
FM	Screw-clamped in slot, insertable from above															
Switching output																
DS	3-wire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

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

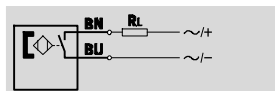
Technical data – Magnetic reed

Function

N/O contact, with cable, 3-wire



N/O contact, with cable, 2-wire



- Magnetic reed measuring principle
- Insertable in 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 mark (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
Protection against overloading	No

Electronic components		
Operating voltage range [V AC]	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 properties	Standard	
Cable sheath material	Polyvinyl chloride	

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

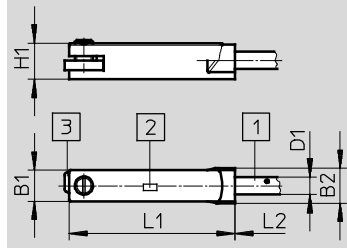
Proximity sensors SME-8-FM, for T-slot

Technical data – Magnetic reed

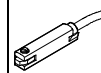
FESTO

Display/operation	
Switching status display	Yellow LED

Immissions/emissions	
Ambient temperature with flexible cable installation	–5 ... +60 °C
Protection class	IP67

Dimensions		Download CAD data → www.festo.com
		1 Connecting cable 2 Yellow LED 3 Clamping component

	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

FESTO

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 display														
LED	Yellow LED													
Rated operating voltage														
24	24 V DC													
230	230 V AC													
Variant														
S6	Heat resistant													

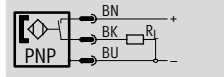
Proximity sensors SMT0-8E/SMTSO-8E, for T-slot

FESTO

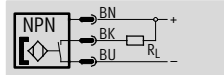
Technical data – Magneto-resistive

Function

PNP, N/O contact, with plug



NPN, N/O contact, with plug



- Magneto-resistive measuring principle
- Welding field immune designs



General technical data		
Type	SMT0-8E	SMTSO-8E, welding field immune
Design	For T-slot	
Certification	C-Tick	
CE mark (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
Protection against overloading	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

FESTO

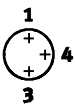
Technical data – Magneto-resistive

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 for 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 slot from above Via accessories		
Tightening torque [Nm]	1	0.5	0.5
Housing materials	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 display	Yellow LED

Immissions/emissions			
Type	SMT0-8E-...-S	SMT0-8E-...-M12	SMTSO-8E-...-M12, welding field immune
Protection class	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/SMTSO-8E, for T-slot

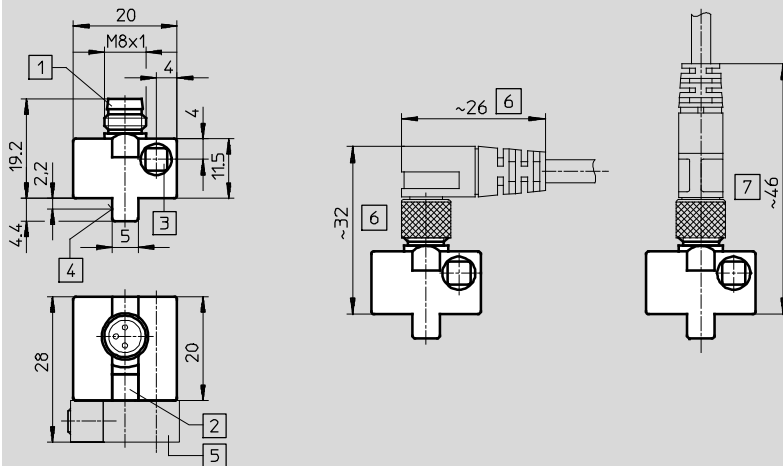
Technical data – Magneto-resistive

FESTO

Dimensions

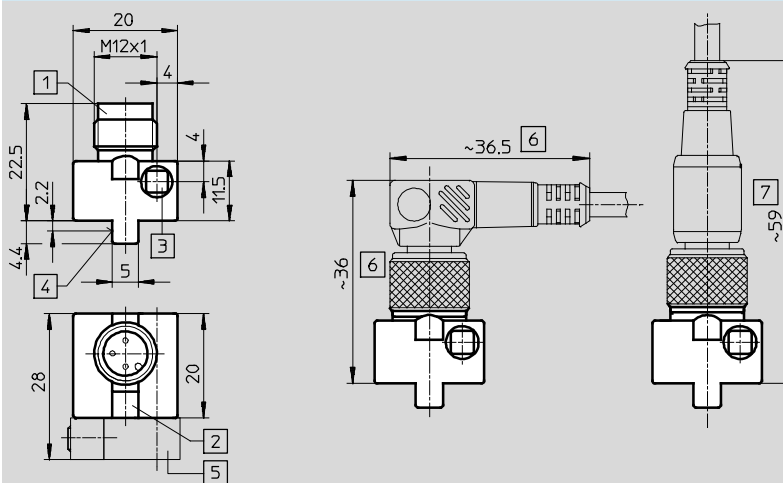
Download CAD data → www.festo.com

SMT0-8E-...-S-LED-24 – Plug M8x1



- 1 Plug to fit connecting cable NEBU-M8
- 2 Yellow LED
- 3 Mounting screw
- 4 Theoretical switching point
- 5 Mounting kit SMB-8E (not included in the scope of delivery)
- 6 Fitting space for connecting cable NEBU-M8W3
- 7 Fitting space for connecting cable NEBU-M8G3

SMT0-8E-...-M12-LED-24 – Plug M12x1



- 1 Plug to fit connecting cable NEBU-M12
- 2 Yellow LED
- 3 Mounting screw
- 4 Theoretical switching point
- 5 Mounting kit SMB-8E (not included in the scope of delivery)
- 6 Fitting space for connecting cable NEBU-M12W5
- 7 Fitting space for connecting cable NEBU-M12G5

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

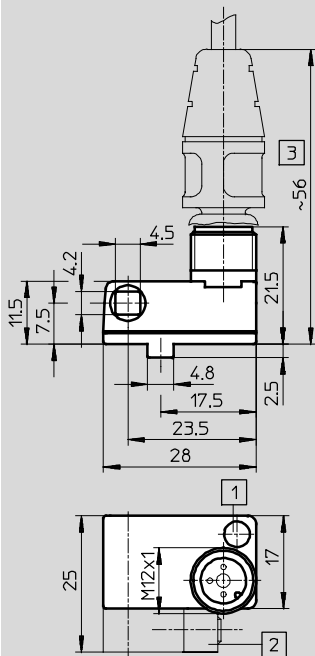
Technical data – Magneto-resistive

FESTO

Dimensions

Download CAD data → www.festo.com

SMTSO-8E-...-M12-LED-24 – Plug M12x1



- 1 Yellow LED
- 2 Mounting kit SMB-8E (not included in the scope of delivery)
- 3 Fitting space for connecting cable NEBU-M12G5

Ordering 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

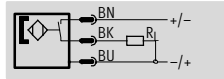
Proximity sensors SMEO-8E, for T-slot

Technical data – Magnetic reed

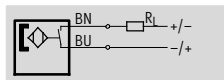
FESTO

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	EN 60947-5-2	–	EN 60947-5-2
Certification	C-Tick	–	C-Tick
CE mark (see declaration of conformity)	To EU EMC Directive ¹⁾ –	–	To EU EMC Directive ¹⁾ 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
Protection against overloading	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

FESTO

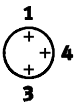
Technical data – Magnetic reed

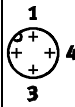
Electromechanical components				
Type	SMEO-8E-S-LED-24	SMEO-8E-M12-LED-24	SMEO-8E-K-24-S6, heat-resistant	SMEO-8E-M12-LED-230
Electrical connection	Plug M8x1, 3-pin	Plug M12x1, 3-pin	Cable, 2-wire	Plug M12x1, 3-pin
Connection direction	Lateral	Lateral	Lateral	In-line
Pin contact materials	Nickel-plated 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 materials	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 display	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	–
Protection class	IP65	IP65	IP65
	IP67	IP67	IP67
Insulation voltage [V]	–	50	–
Surge capacity [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

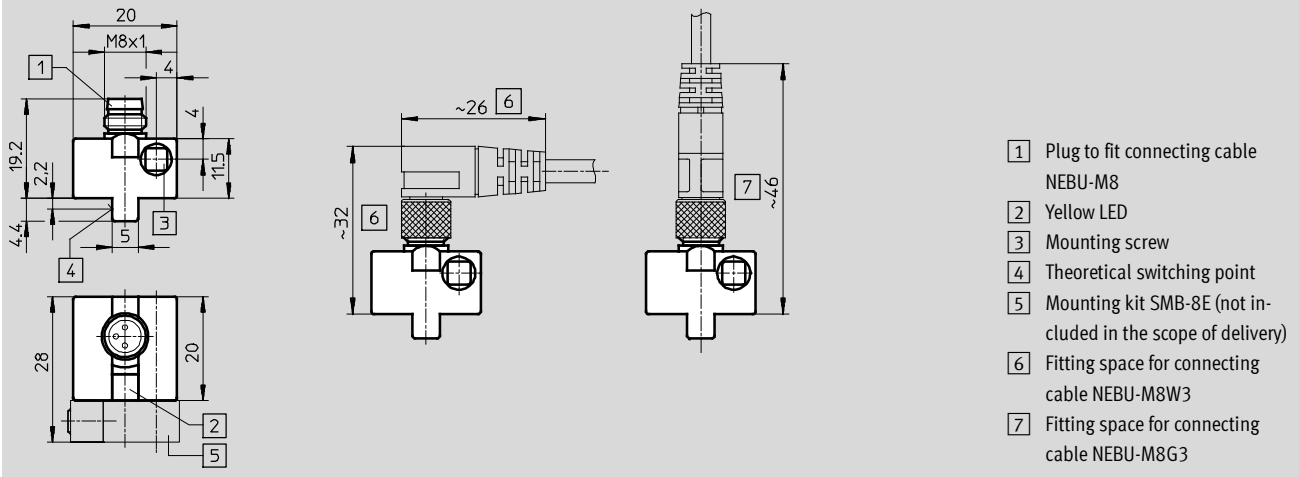
Technical data – Magnetic reed

FESTO

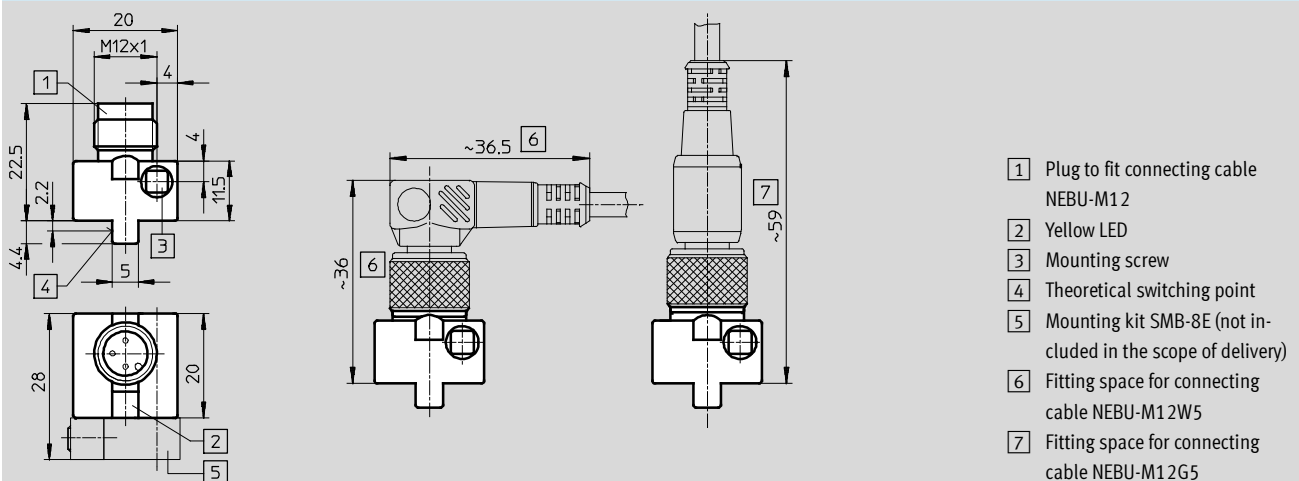
Dimensions

Download CAD data → www.festo.com

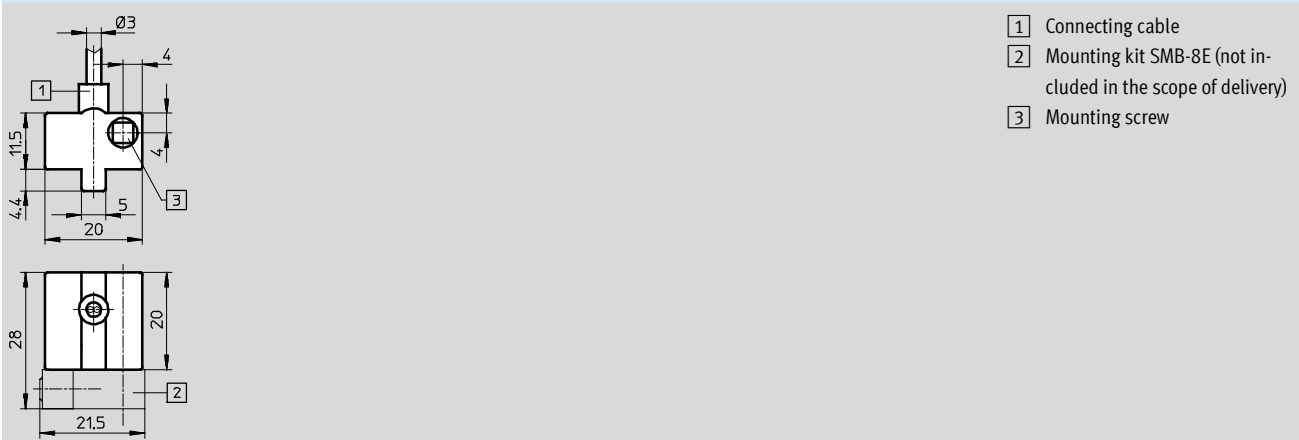
SMEO-8E-S-LED-24 – Plug M8x1



SMEO-8E-M12-LED-24 – Plug M12x1



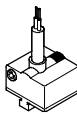
SMEO-8E-K24-S6 – Cable, heat-resistant up to 120 °C



Proximity sensors SMEO-8E, for T-slot

Technical data – Magnetic reed

FESTO

Ordering data							
	Switching output	Electrical connection			Cable length [m]	Product weight [g]	Part No. Type
		Cable	Plug M8x1	Plug M12x1			
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

Accessories

FESTO

Mounting kit SMBR-8-8/100-S6

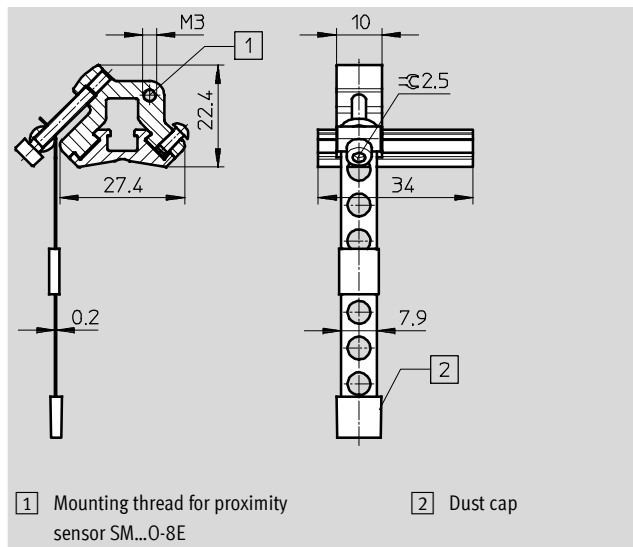
Materials:

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	Corrosion resistance class CRC ¹⁾	Part No.	Type
8 ... 100	4	538937	SMBR-8-8/100-S6

1) Corrosion resistance class 4 according to Festo standard 940 070

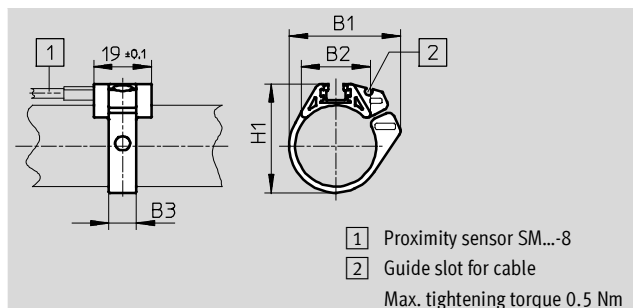
Components subject to particularly high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

Mounting kit SMBR

Material:

Polyacetal

RoHS-compliant



Dimensions and ordering data					
For piston Ø	B1	B2	B3	H1	Part No. Type
8	18.9	12.3	7	17.5	175091 SMBR-8-8
10	20.4	13.7	7	19.9	175092 SMBR-8-10
12	22.7	14.3	7	21.9	175093 SMBR-8-12
16	28.2	16.9	8	25.7	175094 SMBR-8-16
20	34.5	20.8	9	30.4	175095 SMBR-8-20
25	36.7	22.7	9	35.6	175096 SMBR-8-25
32	41.7	24.6	9	42.7	175097 SMBR-8-32
40	47.1	26.5	9	50.7	175098 SMBR-8-40
50	56.4	28.6	9	61.5	175099 SMBR-8-50
63	69.4	32	9	74.5	175100 SMBR-8-63

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

FESTO

Accessories

Mounting kit CRSMB

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

Protection class: IP65, IP68, IP69K

Ambient temperature:

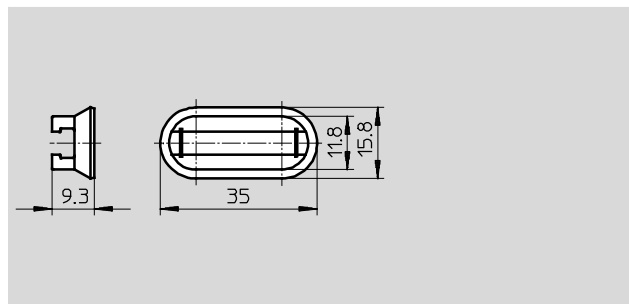
–40 ... +90 °C

Materials:

Housing: Polyurethane

Rail: Hard anodised aluminium

Free of copper and PTFE



Ordering data			
For piston Ø	CRC ¹⁾	Part No.	Type
32 ... 100	4	525565	CRSMB-8-32/100

1) Corrosion resistance class 4 according to Festo standard 940 070

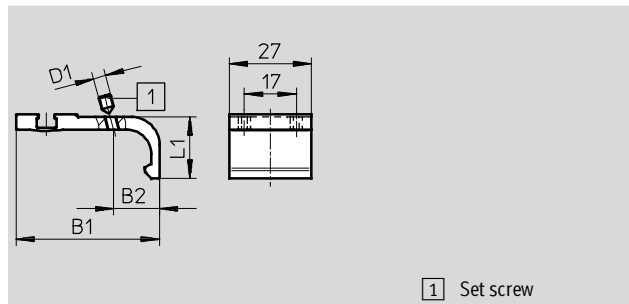
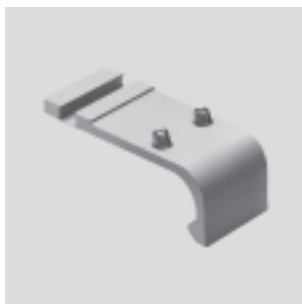
Components subject to very high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

Mounting kit SMB-8-FENG

Material:

Wrought aluminium alloy

Free of copper and PTFE



1 Set screw

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

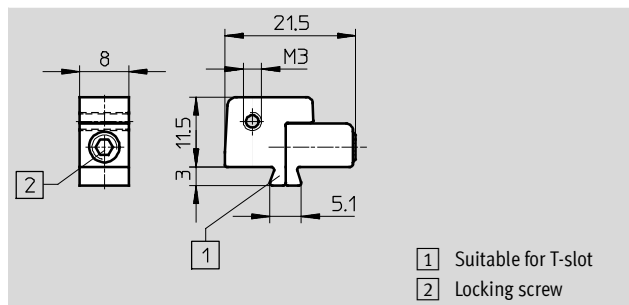
Mounting kit SMB-8E

Material:

Anodised aluminium, stainless steel

Note on materials:

RoHS-compliant



1 Suitable for T-slot
2 Locking screw

Ordering data		
For piston Ø	Part No.	Type
10 ... 125	178230	SMB-8E

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

Accessories

FESTO

Mounting SMBZ-8-...

Materials:

Rail: Anodised wrought aluminium alloy

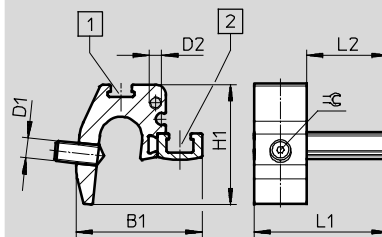
Screws: High-alloy stainless steel

Free of copper and PTFE

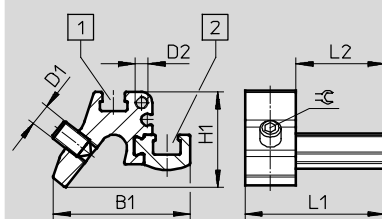
RoHS-compliant



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	⌀	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

Positioning component SMM

Insertable in slot lengthwise

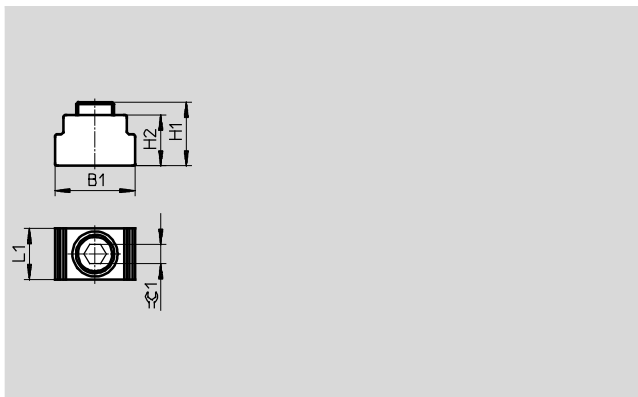
Ambient temperature: -40 ... +120 °C

Materials:

Housing: Anodised wrought aluminium alloy

Screws: High-alloy stainless steel

Note on materials: RoHS-compliant



Dimensions and ordering data								
B1	H1	H2	L1	⌀1	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 4 according to Festo standard 940 070

Components subject to particularly 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.

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 attachments			
	For Ø	Part No.	Type
	–	534254	SMBK-8

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