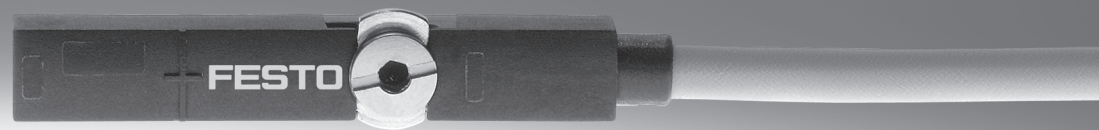


Proximity sensors SMT/SME-8, for T-slot

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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 slot from above, flush with cylinder profile	Magneto-resistive	SMT-8M	10 ... 30 V DC	PNP	N/O contact	9
					NPN	N/C contact	
		Magnetic reed	SME-8M	5 ... 30 V AC/DC	Contacting, bipolar	N/O contact	14
						N/C contact	
	Insertable in slot length-wise, flush with cylinder profile	Magneto-resistive	SMT-8	10 ... 30 V DC	PNP	N/O contact	21
					NPN		
	Insertable in slot length-wise, flush with cylinder profile	Magnetic reed	SME-8	12 ... 30 V AC/DC	Contacting, bipolar	N/O contact	25
				3 ... 230 V AC/DC		N/C contact	
				5 ... 250 V AC/DC		N/O contact	28
	Insertable in slot length-wise	Magneto-resistive	SMT-8G	10 ... 30 V DC	PNP	N/O contact	31
		Inductive	SMT-8-SL	10 ... 30 V DC	PNP	N/O contact	21
		Magnetic reed	SME-8-SL	10 ... 30 V AC/DC	Contacting, bipolar	N/O contact	25
	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	39
				3 ... 250 V DC			40
	3 ... 230 V AC						
	Corrosion resistant						
	Insertable in slot length-wise, flush with cylinder profile	Magneto-resistive	CRSMT-8	10 ... 30 V DC	PNP	N/O contact	21
	Welding field immune						
	Via accessories	Magneto-inductive	SMTSO-8E	10 ... 30 V DC	PNP	N/O contact	38
					NPN		
	Heat resistant up to 120 °C						
Insertable in slot length-wise, flush with cylinder profile	Magnetic reed	SME-8-...-S6	0 ... 30 V AC/DC	Contacting, bipolar	N/O contact	28	
Via accessories	Magnetic reed	SME0-8E-...-S6	0 ... 30 V DC	Contacting	N/O contact	40	
			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 slot from above, flush with 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 slot length-wise	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	

Proximity sensors SMT/SME

Selection aid

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Drive		SMT-8, SMT0-8E CRSMT-8 SME-8, SME0-8E SMPO-8E	SMT-10 SME-10	SMT0-4U SME0-4U CRSME0-4	SMT0-1 SMT0-6 SME0-1 SMPO-1	SMT-C1
Standards-based cylinders						
Standard cylinders DSNU, ESNU	Ø 8 ... 25 mm	■	■	■	■	–
Standard cylinders DSN, ESN	Ø 8 ... 25 mm	■	■	■	■	–
Standard cylinders DNCB		■	–	–	–	–
Standard cylinders DNC		■	–	–	–	–
Standard cylinders DNG		■	–	–	■	–
Standard cylinders CDN-...-R with sensor rail		–	–	–	–	■
Standard cylinders ADN		■	–	–	–	–
Cylinders with piston rod						
Compact cylinders ADVU, AEVU		■	–	–	–	–
Short-stroke cylinders ADVC, AEVC	Ø 6 ... 25 mm	–	■	–	–	–
	Ø 32 ... 100 mm	■	–	–	–	–
Flat cylinders EZH-10/40-40-A-B		■	–	–	–	–
Flat cylinders DZF		■	–	–	–	–
Flat cylinders DZH	Ø 16 ... 25 mm	■	–	–	–	–
	Ø 32 ... 63 mm	–	–	–	■	–
Round cylinders DSNU, ESNU	Ø 32 ... 63 mm	■	■	■	■	–
Round cylinders DSW, ESW		■	■	■	■	–
Round cylinders DSEU, ESEU		■	■	■	■	–
Multimount cylinders DMM, EMM		■	–	–	–	–
Round cylinders CRDG		–	–	■	–	–
Round cylinders CRDSW		■	■	■	■	–
Standard cylinders CRHD		■	–	–	–	–
Standard cylinders CRDSNU		■	–	■	–	–
Standard cylinders CRDNG		■	–	■	–	–
Standard cylinders CRDNGS		■	–	■	–	–
Rodless cylinders						
Linear drives DGC	Ø 8, 12 mm	–	■	–	–	–
	Ø 18 ... 63 mm	■	–	–	–	–
Linear drives DGP, DGPL		■	–	–	–	–
Linear drives SLG		–	■	–	–	–
Linear drives DGO		–	–	■	–	–
Linear drives SLM		■	–	–	–	–
Semi-rotary drives						
Swivel modules DSM	Ø 6 ... 10 mm	–	■	–	–	–
Swivel modules DSM-B	Ø 12 ... 40 mm	–	■	–	–	–
	Ø 63 mm	■	–	–	–	–
Semi-rotary drives DRQ	Ø 16 ... 32 mm	■	–	–	–	–
	Ø 40 ... 100 mm	–	–	–	■	–
Semi-rotary drives DRQD	Ø 6 ... 12 mm	–	■	–	–	–
	Ø 16 ... 32 mm	■	–	–	–	–
Technical data → Page/Internet						
		9	c-slot	smt0, crsmeo	smt0	smt-c1

Proximity sensors SMT/SME

Selection aid

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Drive		SMT-8, SMT0-8E CRSMT-8 SME-8, SME0-8E, SMPO-8E	SMT-10 SME-10	SMH-S1
Function-oriented drives				
Stopper cylinders STA, STAF		■	–	–
Linear/swivel clamps CLR		■	–	–
Swivel/linear units DSL		■	–	–
Swivel/linear units DSL-B		–	■	–
Drives with linear guide				
Mini slides SLS, SLF, SLT		–	■	–
Mini slides DGSL		–	■	–
Twin-piston cylinders SPZ		■	–	–
Slide units SLZ		■	–	–
Guided drives DFP	Ø 6 ... 16 mm	–	■	–
	Ø 25 ... 80 mm	■	–	–
Mini guide units DFC		–	■	–
Guide units DFM		■	–	–
Guide units DFM-B		■ ¹⁾	–	–
Linear drive units SLE	Ø 32 ... 50 mm	■	–	–
Twin-piston cylinders DPZC		–	■	–
Twin-piston cylinders DPZ		■	–	–
Handling units				
Linear modules HMP		■	–	–
Linear modules HMPL		■	–	–
Handling modules HSP, HSW		■	–	–
Feed separators HPV		■	–	–
Three-point grippers HGD	Ø 16 mm	–	–	■
	Ø 32, 50 mm	■ ²⁾	–	–
Three-point grippers HGDT		–	■	–
Parallel grippers HGP	Ø 6 mm	–	–	■
	Ø 10 ... 35 mm	■ ²⁾	–	–
Parallel grippers HGPC		–	■	–
Parallel grippers HGPP	Ø 12 ... 32 mm	–	–	■
Parallel grippers HGPT	Ø 16 ... 63 mm	–	■	–
Angle grippers HGW	Ø 10 mm	–	–	■
	Ø 16 ... 40 mm	■	–	–
Radial grippers HGR	Ø 10 mm	–	–	■
	Ø 16 ... 40 mm	■	–	–
Swivel gripper units HGDS		–	■	–
Cushioning components				
Stop elements YSRWJ		■	–	–
Electrical positioning systems				
Toothed belt axes DGE-ZR		■	–	–
Spindle axes DGE-SP		■	–	–
System components				
Heavy-duty guides HD		■	–	–
Valve actuators				
Linear actuators, Copac DLP-A		■	–	–
Technical data → Page/Internet				
	9	c-slot	smh	

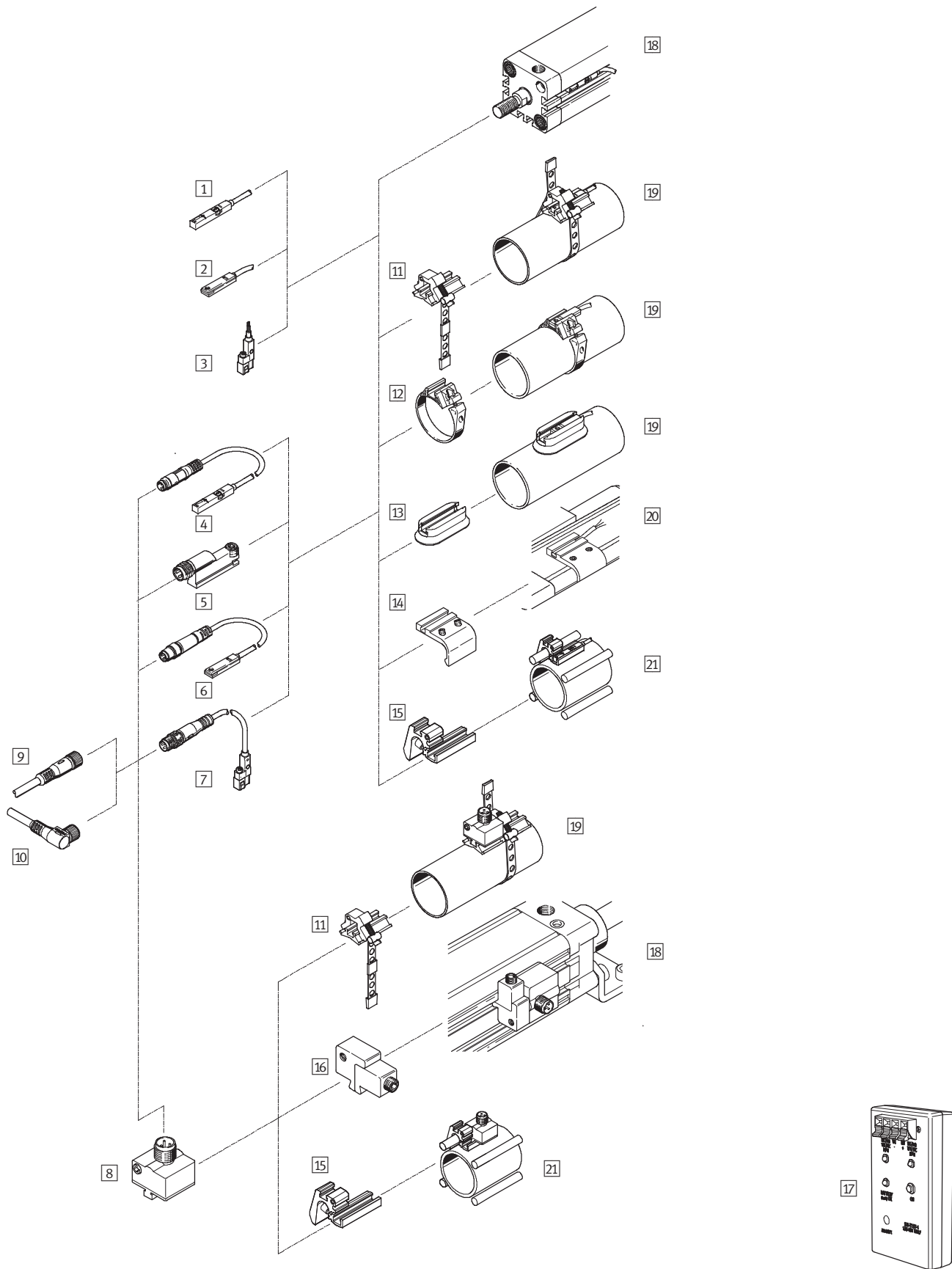
1) Not SM...0-8E.

2) SME-8M only for HGD-50, HGP-20 ... 35.

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 attachments and accessories		→ Page/ Internet
Proximity sensors		
1	SMT/SME-8M-...-OE, with cable	9
2	SMT/SME-8-K-..., with cable	21
	SME-8-FM-...-K-..., with cable	35
	CRSMT-8-K-..., with cable, corrosion resistant	21
3	SMT-8G-...-OE, with cable	32
4	SMT/SME-8M-...-M..., with cable and plug	9
5	SMT-8-SL-..., with plug	21
	SME-8-SL-..., with plug	25
6	SMT-8-S-..., with cable and plug	21
	SME-8-S-..., with cable and plug	25
7	SMT-8G-...-M..., with cable and plug	32
8	SMT0/SMTSO/SME0-8E, with cable or plug	40
Connecting cables		
9	NEBU-M...G...	44
10	NEBU-M...W...	44

Mounting attachments and accessories		→ Page/ Internet
Mounting kits and accessories		
11	Mounting kit SMBR-8-8/100-S6, heat resistant	41
12	Mounting kit SMBR	41
13	Mounting kit CRSMB, corrosion resistant	42
13	Mounting kit SMB-8-FENG	42
15	Mounting SMBZ-8-...	43
16	Mounting kit SMB-8E	42
17	Sensor tester SM-TEST-1	44
-	Positioning component SMM-8	43
-	Clip SMBK-8	44
-	Inscription label ASLR	44
-	Safety clip NEAU	44
Drives		
18	Drives with T-slot	-
19	Round cylinders	
20	Standard cylinders DNC, DNCB, DNCKE	
21	Drives with tie or mounting rod	

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

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Type codes

SMT/SME-8M

		SMT	–	8M	–	PO	–	24V	–	K	–	7,5	–	OE
Function														
SMT	Proximity sensor, magneto-resistive													
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													
M5D	Cable with plug M5x0.5, rotatable thread													
M8	Cable with plug M8x1, snap-on flange													
M8D	Cable with plug M8x1, rotatable thread													
M12	Cable with plug M12x1, rotatable thread													

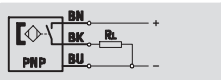
Proximity sensors SMT-8M, for T-slot

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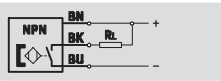
Technical data – Magneto-resistive

Function

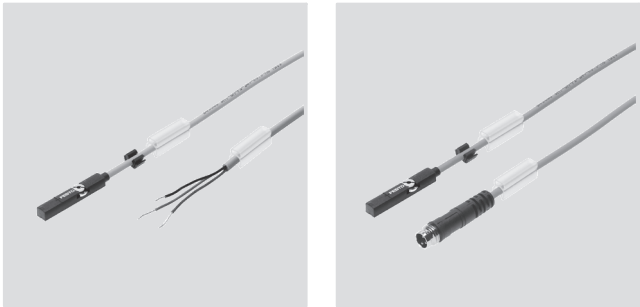
e.g. PNP, N/O contact, with cable



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



- Magneto-resistive measuring principle
- Insertable in 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	Magneto-resistive
Ambient temperature [°C]	−20 ... +70

Switching output			
Type	SMT-8M-PS	SMT-8M-NS	SMT-8M-PO
Switching output	PNP	NPN	PNP
Switching element function	N/O contact		N/C contact
Max. output current [mA]	100		
Max. switching capacity DC [W]	3		

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

Proximity sensors SMT-8M, for T-slot

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Technical data – Magneto-resistive

Electromechanical components					
Electrical connection	OE	M5D	M8D	M8	M12
Electrical connection	Cable, 3-wire	Cable with plug, 3-pin			
		M5x0.5	M8x1	M8x1	M12x1
		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: $\pm 270^\circ/0.1\text{ m}$			
		Resistance to bending: to Festo standard; test conditions on request			
Cable length	[m]	0.2 ... 30			
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			
M5x0.5, 3-pin			
N/O contact			
	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	–
	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

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

Proximity sensors SMT-8M, for T-slot

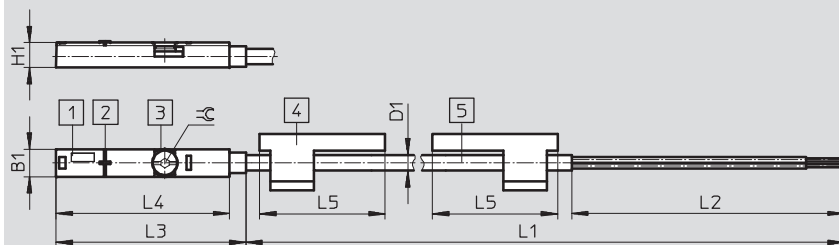
Technical data – Magneto-resistive

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Dimensions

Download CAD data → www.festo.com

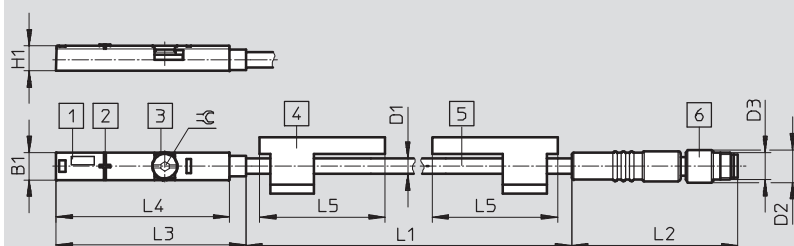
SMT-8M-...-OE – Cable



- 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

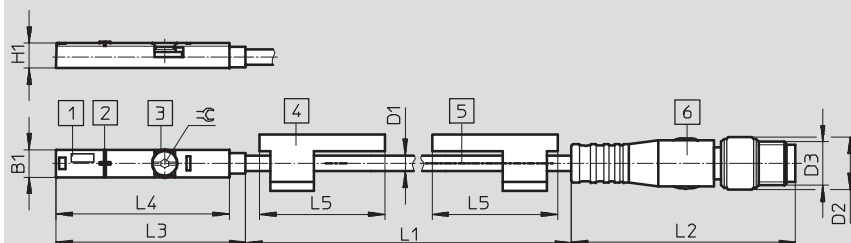
SMT-8M-...-M5D – Cable with plug M5x0.5, rotatable thread



- 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-M5

L1 Cable length

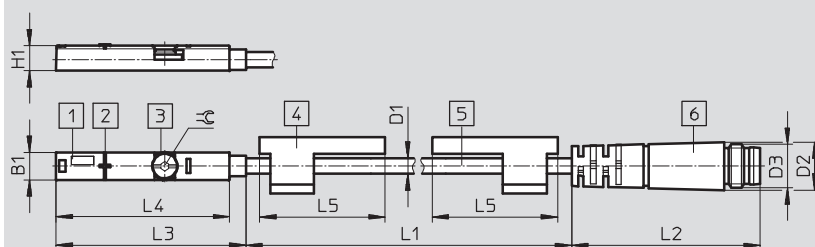
SMT-8M-...-M8D – Cable with plug M8x1, rotatable thread



- 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

SMT-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	⌀
SMT-8M-...-OE	5	2.9	–	–	4.6	50	34.8	31.8	23	1.5
SMT-8M-...-M5D			6	M5x0.5		30.5				
SMT-8M-...-M8D			9.6	M8x1		41				
SMT-8M-...-M8			8.8	M8x1		35				

Proximity sensors SMT-8M, for T-slot

Technical data – Magneto-resistive



Dimensions

Download CAD data → www.festo.com

SMT-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	⌀
SMT-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					
			M5x0.5	M8x1	M12x1			
	N/O contact							
	PNP	3-wire	–	–	–	2.5	543867	SMT-8M-PS-24V-K-2,5-OE
			–	–	–	5.0	543868	SMT-8M-PS-24V-K-5,0-OE
		–	3-pin	–	–	0.3	543865	SMT-8M-PS-24V-K-0,3-M5D
		–	–	3-pin	–		543866	SMT-8M-PS-24V-K-0,3-M8D
		–	–	–	3-pin		543869	SMT-8M-PS-24V-K-0,3-M12
	NPN	3-wire	–	–	–	2.5	543870	SMT-8M-NS-24V-K-2,5-OE
		–	–	3-pin	–	0.3	543871	SMT-8M-NS-24V-K-0,3-M8D
	N/C contact							
PNP	3-wire	–	–	–	7.5	543873	SMT-8M-PO-24V-K-7,5-OE	

Proximity sensors SMT-8M, for T-slot

Modular products – Magneto-resistive

FESTO

M Mandatory data						
Module No.	Function	Switching output	Rated operating voltage	Cable properties	Cable length	Connection technology
543893	SMT-8M	PS NS PO	24V	K E	0.2 ... 30	OE M8D M8 M12
Ordering example						
543893	SMT-8M	- NS	- 24V	- E	- 3	- M8D

Ordering table					
Size	8	Condi- tions	Code	Enter code	
M Module No.	543893				
Function	Proximity sensor for T-slot, non-contacting		SMT-8M		SMT-8M
			-		-
Switching output	3-wire PNP N/O contact		PS		
	3-wire NPN N/O contact		NS		
	3-wire PNP N/C contact		PO		
			-		-
Rated operating voltage [V DC]	24		24V		24V
			-		-
Cable properties	Standard + energy chain		K		
	Energy chain + robot applications		E		
			-		-
Cable length [m]	0.2 ... 30 (0.2 ... 5.0 m in 0.1 m steps, 5.0 ... 30 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

543893	SMT-8M	-		-	24V	-		-		-	
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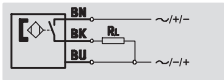
Proximity sensors SME-8M, for T-slot

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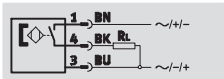
Technical data – Magnetic reed

Function

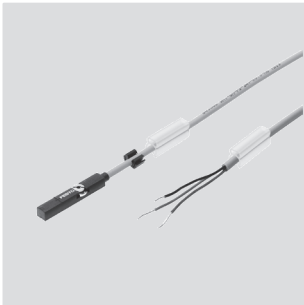
e.g. N/O contact, 3-wire, with cable



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



- Magnetic reed measuring principle
- Insertable in 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

FESTO

Technical data – Magnetic reed

Electromechanical components										
Switching element function		DS/DO					ZS			
Electrical connection		OE	M5D	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		
			M5x0.5	M8x1	M8x1	M12x1		M8x1	M8x1	M12x1
			Rotatable thread	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			
M5x0.5, 3-pin			
N/O contact			
	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	–
	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

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

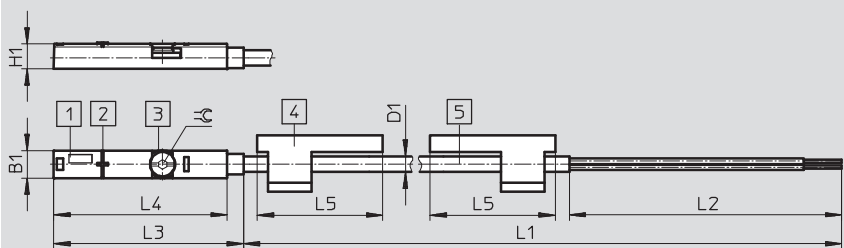
Pin allocation to EN 60947-5-2			
M8x1, 2-pin			
N/O contact			
	Pin	Wire colour	Allocation
	1	Brown	+
	4	Black	Output

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

Dimensions

Download CAD data → www.festo.com

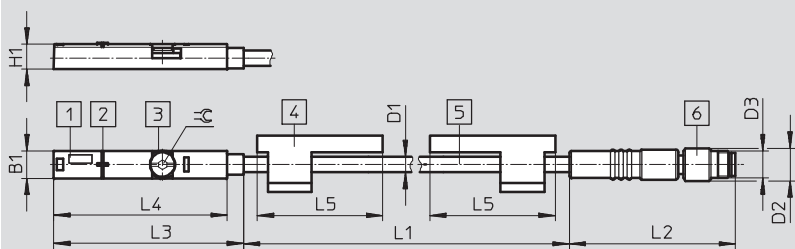
SME-8M-...-OE – Cable



- 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

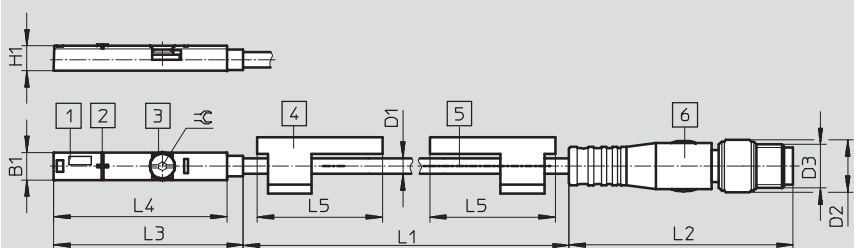
SME-8M-...-M5D – Cable with plug M5x0.5, rotatable thread



- 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-M5

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

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-...-M5D			6	M5x0.5		30.5				
SME-8M-...-M8D			9.6	M8x1		41				

Proximity sensors SME-8M, for T-slot

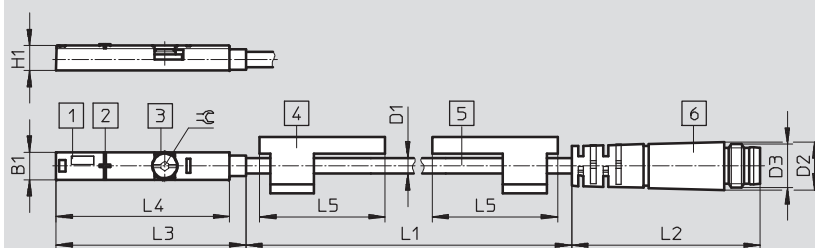
Technical data – Magnetic reed

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Dimensions

Download CAD data → www.festo.com

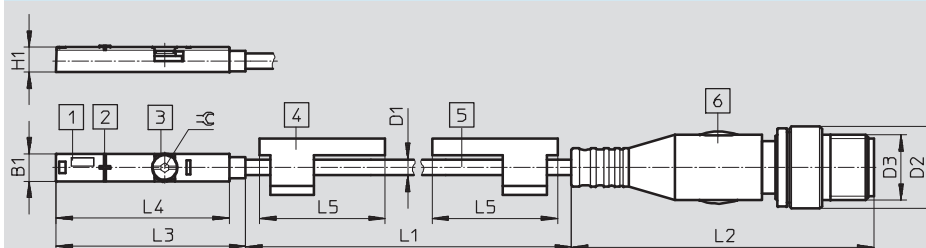
SME-8M-...-M8 – Cable with plug M8x1, snap-on flange



- 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

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

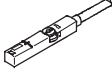


- 1 Yellow LED
- 2 Centre of the sensor element
- 3 Clamping component, tightening torque 0.6 Nm
- 4 Inscription label holder
- 5 Connecting cable
- 6 Plug to fit connecting cable NEBU-M12

L1 Cable length

Type	B1	D1	D2	D3	H1	L2	L3	L4	L5	≈
SME-8M-...-M8	5	2.9	8.8	M8x1	4.6	35	34.8	31.8	23	1.5
SME-8M-...-M12			15	M12x1		55.5				

Ordering data

	Switching output	Electrical connection			Cable length [m]	Part No.	Type
		Cable	Cable with plug, rotatable thread				
			M5x0.5	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	543864	SME-8M-DS-24V-K-0,3-M5D
		–	–	3-pin		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 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		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		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	-		-		-	
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Proximity sensors SMT/CRSMT/SME-8, for T-slot



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															

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 SMT/CRSMT/SME-8, for T-slot



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											

SME-8-ZS-230V												
		SME	–	8	–	ZS	–	230V	–	K2,5Q	–	OE
Function												
SME	Proximity sensor, magnetic reed											
Design												
8	For T-slot, insertable in slot lengthwise											
Switching output, switching element function												
ZS	N/O contact, 2-wire											
Rated operating voltage												
230V	230 V AC/DC											
Electrical connection, cable length, connection direction												
K2,5Q	Cable, 2.5 m, lateral											
K5,0Q	Cable, 5.0 m, lateral											
Connection technology												
OE	Open end											

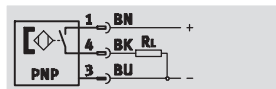
Proximity sensors SMT-8/CRSMT-8, for T-slot

Technical data – Magneto-resistive

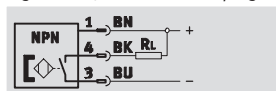
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Function

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



e.g. NPN, 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



SMT-8



SMT-8-SL

General technical data

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

Input signal/measuring element

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

Switching output

Type	SMT-8		CRSMT	SMT-8-SL
Switching output	PNP	NPN	PNP	PNP
Switching output	PNP	NPN	PNP	PNP
Switching element function	N/O contact		N/O contact	N/O contact
Reproducibility of switching value [mm]	±0.1		±0.1	–
Switch-on time [ms]	≤ 0.2	≤ 1	≤ 0.2	≤ 1
Switch-off time [ms]	≤ 0.5	≤ 0.8	≤ 0.5	3 ... 5
Max. switching frequency [Hz]	–		1 000	140
Max. output current [mA]	100		100	100
Max. switching capacity DC [W]	3		3	3
Voltage drop [V]	≤ 1.8	≤ 1.5	≤ 1.8	≤ 2
Residual current [µA]	≤ 100	≤ 2	≤ 100	≤ 1.5

Output, additional data

Type	SMT-8		CRSMT	SMT-8-SL
Switching output	PNP	NPN	PNP	PNP
Protection against short circuit	Pulsed	Yes	Yes	Yes
Protection against overloading	Yes	–	–	Yes

Electronic components

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

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

Technical data – Magneto-resistive

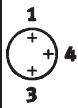
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Electromechanical components						
Type	SMT-8				CRSMT	SMT-8-SL
Switching output	PNP		NPN		PNP	PNP
Electrical connection	Cable, 3-wire	Cable with plug, 3-pin	Cable, 3-wire	Cable with plug, 3-pin	Cable, 3-wire	Plug M8x1, 3-pin
Connection direction	In-line				–	In-line
Cable length [m]	2.5	0.3	2.5	0.3	2.5	–
	5	–	–	–	5	
Cable properties	Standard		–		–	–
Cable sheath material	Polyurethane				Thermoplastic polyolefin elastomer	–

Mechanical components						
Type	SMT-8				CRSMT	SMT-8-SL
Switching output	PNP		NPN		PNP	PNP
Electrical connection	Cable, 3-wire	Cable with plug M8x1, 3-pin	Cable, 3-wire	Cable with plug M8x1, 3-pin	Cable, 3-wire	Plug M8x1, 3-pin
Type of mounting	Clamped in T-slot				Clamped in T-slot	Screw-clamped
	Insertable in slot lengthwise				–	Insertable in slot lengthwise
Housing material	High-alloy stainless steel				High-alloy stainless steel	Polyamide
	Thermoplastic polyurethane elastomer				Polypropylene	–
	–	Brass	–	Brass	–	–
	–	Nickel-plated	–	Nickel-plated	–	–

Display/operation	
Switching status display	Yellow LED

Immissions/emissions			
Type	SMT-8	CRSMT	SMT-8-SL
Ambient temperature with flexible cable installation [°C]	–5 ... +60	–5 ... +60	–
Protection class	IP65	IP65	IP65
	IP67	IP68	IP68
	–	IP69K	–
Insulation voltage [V]	–	500	–
Degree of contamination	–	3	–
Corrosion resistance class CRC	2	4	3

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

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

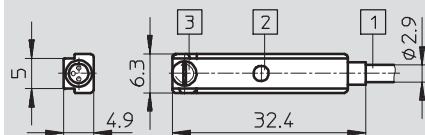
Technical data – Magneto-resistive

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Dimensions

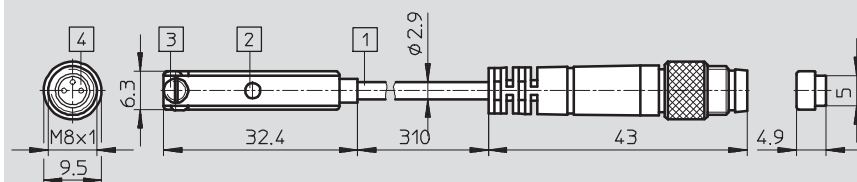
Download CAD data → www.festo.com

SMT-8-...S-K



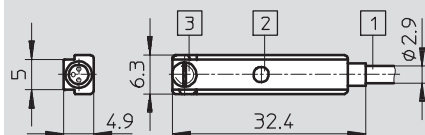
- 1 Connecting cable
- 2 Yellow LED
- 3 Clamping component

SMT-8-...S-S



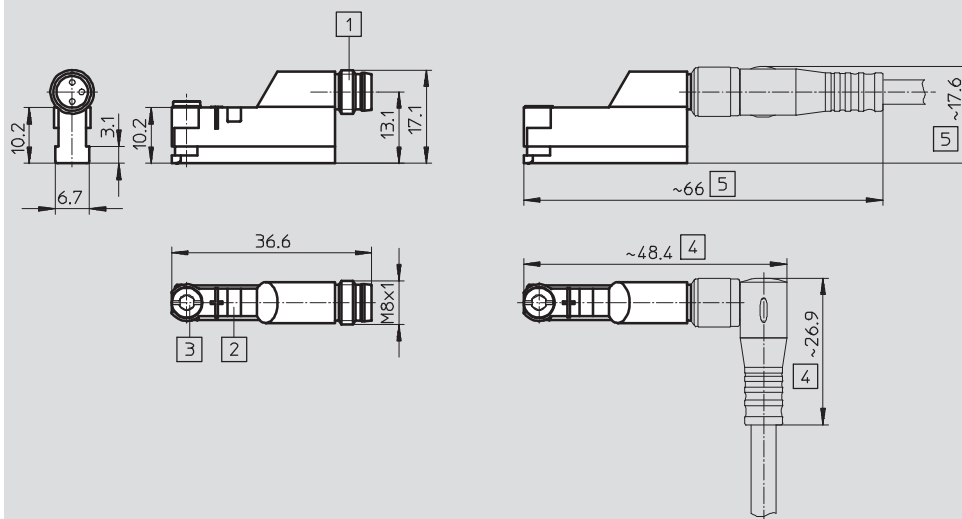
- 1 Connecting cable
- 2 Yellow LED
- 3 Clamping component
- 4 Plug to fit connecting cable NEBU-M8

CRSMT



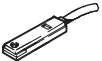
- 1 Connecting cable
- 2 Yellow LED
- 3 Clamping component

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

Ordering data

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-wire	–	–	2.5	175436	SMT-8-PS-K-LED-24-B
					5.0	175434	SMT-8-PS-K5-LED-24-B
		–	3-pin	–	0.3	175484	SMT-8-PS-S-LED-24-B
	NPN	3-wire	–	–	2.5	171180	SMT-8-NS-K-LED-24-B
		–	3-pin	–	0.3	171181	SMT-8-NS-S-LED-24-B
	PNP	–	–	3-pin	–	562019	SMT-8-SL-PS-LED-24-B

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

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, corrosion resistant							
	PNP	3-wire	–	–	2.5	525563	CRSMT-8-PS-K-LED-24
					5.0	525564	CRSMT-8-PS-K5-LED-24

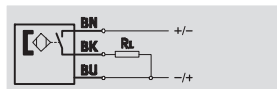
Proximity sensors SME-8, for T-slot

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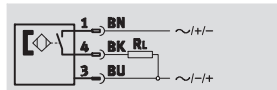
Technical data – Magnetic reed

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 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-O	SME-8-ZS	SME-8-SL
Design	For T-slot				
Conforms to	EN 60947-5-2				
CE mark (see declaration of conformity)	To EU EMC Directive				
Note on materials	Free of copper and PTFE				
	–				RoHS-compliant

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]	–30 ... +60	–30 ... +70	–30 ... +70	–20 ... +70	–20 ... +60	–20 ... +60	–20 ... +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	Polyurethane						–

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

Proximity sensors SME-8, for T-slot

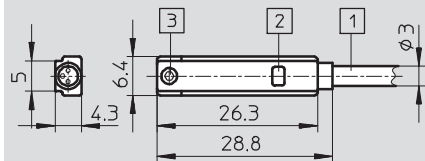
Technical data – Magnetic reed

FESTO

Dimensions

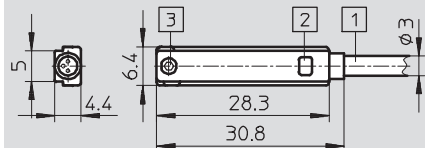
Download CAD data → www.festo.com

N/O contact, cable



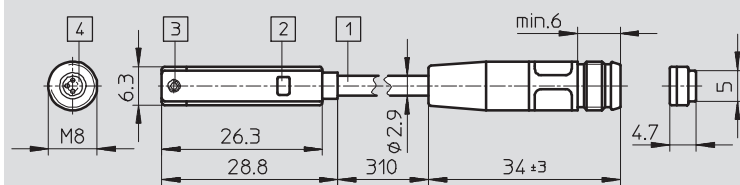
- 1 Connecting cable
- 2 Yellow LED
- 3 Clamping component

N/C contact, cable



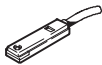
- 1 Connecting cable
- 2 Yellow LED
- 3 Clamping component

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

- 7 - To be discontinued SME-8-ZS-230V
Available until 2010

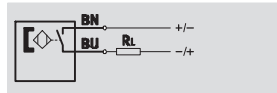
Proximity sensors SME-8, for T-slot

FESTO

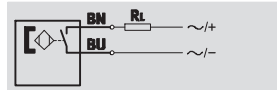
Technical data – Magnetic reed

Function

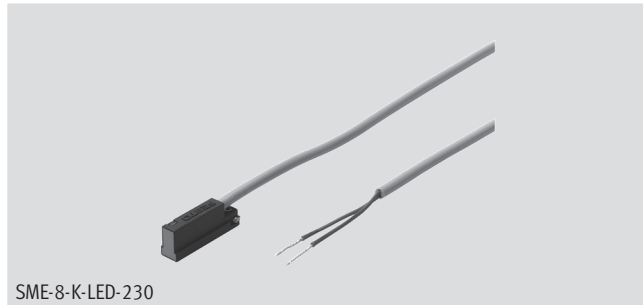
e.g. N/O contact, with cable, 2-wire,
 0 ... 30 V AC/DC



e.g. N/O contact, with cable, 2-wire,
 5 ... 250 V AC/DC



- Magnetic reed measuring principle
- Insertable in slot lengthwise
- Heat-resistant design
- Variants with operating voltage range up to 250 V DC/AC



SME-8-K-LED-230

General technical data			
	SME-8-...-S6	SME-8-...-230	SME-8-ZS-230V-...
Design	For T-slot		
Conforms to	EN 60947-5-2	EN 60947-5-2	–
CE mark (see declaration of conformity)	–	To EU EMC Directive	
	–	To EU Low Voltage Directive	
Note on materials	Free of copper and PTFE		

Input signal/measuring element			
	SME-8-...-S6	SME-8-...-230	SME-8-ZS-230V-...
Measuring principle	Magnetic reed		
Ambient temperature [°C]	–40 ... +120	–40 ... +60	–20 ... +60

Switching output			
	SME-8-...-S6	SME-8-...-230	SME-8-ZS-230V-...
Switching output	Contacting, bipolar	Contacting, bipolar, without LED function	Contacting, bipolar
Switching element function	N/O contact		
Reproducibility of switching value [mm]	±0.1	±0.1	±0.1
Switch-on time [ms]	≤ 0.5	2	≤ 2
Switch-off time [ms]	≤ 0.03	0.03	≤ 0.1
Max. switching frequency [Hz]	800	500	50
Max. output current [mA]	500	120	120
Max. switching capacity AC [VA]	10		
Max. switching capacity DC [W]	10		
Voltage drop [V]	≤ 0	≤ 3.9	≤ 4
Residual current [mA]	–	0	0

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

Electronic components			
	SME-8-...-S6	SME-8-...-230	SME-8-ZS-230V-...
Operating voltage range [V AC]	0 ... 30	3 ... 230	5 ... 250
Operating voltage range [V DC]	0 ... 30	3 ... 230	5 ... 250
Reverse polarity protection	No		

- 1 - To be discontinued SME-8-ZS-230V
Available until 2010

Proximity sensors SME-8, for T-slot

Technical data – Magnetic reed

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Electromechanical components			
	SME-8-...-S6	SME-8-...-230	SME-8-ZS-230V-...
Electrical connection	Cable, 2-wire		
Connection direction	In-line		Lateral
Cable length [m]	2.5	2.5	2.5
	–	–	5
Cable sheath material	Thermoplastic styrene elastomer	Polyurethane	Thermoplastic polyurethane elastomer

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

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

Immissions/emissions			
	SME-8-...-S6	SME-8-...-230	SME-8-ZS-230V-...
Ambient temperature with flexible cable installation [°C]	–5 ... +120	–5 ... +60	–5 ... +60
Protection class	–	–	IP65
	IP67	IP67	IP67
Insulation voltage [V]	50	–	250
Surge capacity [kV]	0.8	4	4
Degree of contamination	3	3	–

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

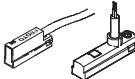
SME-8-ZS-230V-...	
	1 Connecting cable 2 Yellow LED 3 Clamping component

- 7 - To be discontinued SME-8-ZS-230V
Available until 2010

Proximity sensors SME-8, for T-slot

FESTO

Technical data – Magnetic reed

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 250 V AC/DC							
	Contacting, bipolar	2-wire	In-line	2.5	152820	SME-8-K-LED-230	
			Lateral	2.5	538816	SME-8-ZS-230V-K2,5Q-OE	7
				5.0	538817	SME-8-ZS-230V-K5,0Q-OE	7

Proximity sensors SMT-8G, for T-slot

FESTO

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
M5D	Cable with plug M5x0.5, rotatable thread
M8D	Cable with plug M8x1, rotatable thread

1) Only with electrical connection OE
2) Not with electrical connection OE

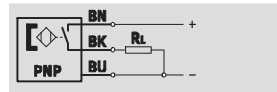
Proximity sensors SMT-8G, for T-slot

FESTO

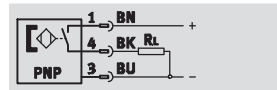
Technical data – Magneto-resistive

Function

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



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	
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-...-M5D	SMT-8G-...-M8D
Electrical connection	Cable, 3-wire	Cable with plug M5x0.5, 3-pin, rotatable thread	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 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		

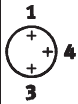
Proximity sensors SMT-8G, for T-slot

Technical data – Magneto-resistive

FESTO

Display/operation	
Switching status display	Yellow LED

Immissions/emissions	
Ambient temperature with flexible cable installation	–5 ... +70
Protection class	IP65
	IP68

Pin allocation to DIN EN 60947-5-2			
PS			
Plug, 3-pin			
M5x0.5, M8x1	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	–
	4	Black	Output
	2		

Dimensions

Download CAD data → www.festo.com

Technical drawing of the SMT-8G sensor showing dimensions B1, B2, B3, B4, H1, H2, L1, L2, L3, L4, L5, L6, L7, D1, D2, D3.

- 1 LED
- 2 SMT-8G

Technical drawing of the SMT-8G sensor showing dimensions L1, L2, L3, L4, L5, L6, L7, D1, D2, D3.

- 3 Holder for inscription label
- 4 Connecting cable
- 5 Plug M8x1
- 6 Plug M5x0.5

	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		41.1					
SMT-8G-...-M5D		M5x0.5	6							300 +30		30.5					

Ordering data							
	Switching output	Electrical connection			Cable length	Part No.	Type
		Cable	Cable with plug, rotatable thread				
			M5x0.5	M8x1			
					[m]		
N/O contact							
	PNP	3-wire	–	–	2.5	547859	SMT-8G-PS-24V-E-2,5-OE
		–	3-pin	–	0.3	547861	SMT-8G-PS-24V-E-0,3-M5D
		–	–	3-pin		547860	SMT-8G-PS-24V-E-0,3-M8D

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

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 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

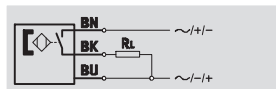
Proximity sensors SME-8-FM, for T-slot

FESTO

Technical data – Magnetic reed

Function

N/O contact, with cable, 3-wire



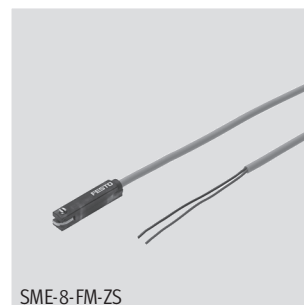
N/O contact, with cable, 2-wire



- 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	

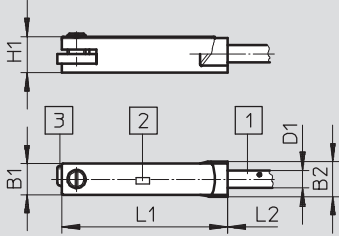
Proximity sensors SME-8-FM, for T-slot

FESTO

Technical data – Magnetic reed

Display/operation	
Switching status display	Yellow LED

Immissions/emissions	
Ambient temperature with flexible cable installation	–5 ... +60
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



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 SMTO-8E/SMTSO-8E, for T-slot

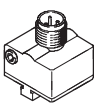
FESTO

Technical data – Magneto-resistive

Technical data			
		SMTO-8E	SMTSO-8E, welding field immune
Type of mounting		Via accessories	
Electrical connection		Plug M8x1, 3-pin	Plug M12x1, 3-pin
		Plug M12x1, 3-pin	
Operating voltage range DC	[V]	10 ... 30	
Max. output current	[mA]	100	200
Max. switching capacity DC	[W]	3.0	6.0
Protection against short circuit		Yes	
Protection against overloading		No	
Reverse polarity protection		For all electrical connections	
Resistance to interference from magnetic fields		–	Alternating magnetic field 45 ... 65 Hz
Protection class		IP65, IP67	

Operating and environmental conditions			
	SMTO-8E		SMTSO-8E, welding field immune
Ambient temperature [°C]	–20 ... +60		–25 ... +70
CE mark (see declaration of conformity)	To EU EMC Directive		

Materials			
	SMTO-8E		SMTSO-8E, welding field immune
Housing	Polyurethane		Polyamide

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

- - Note

Mounting kit not included in the scope of delivery. Corresponding mounting kits, peripherals overview
→ 6

Proximity sensors SMEO-8E, for T-slot

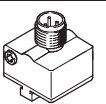
Technical data – Magnetic reed



Technical data		
Type of mounting	Via accessories	
Electrical connection	Plug M8x1, 3-pin	Plug M12x1, 3-pin
Operating voltage range DC	[V]	12 ... 30
Max. output current	[mA]	500
Max. switching capacity DC	[W]	10.0
Protection against short circuit	No	
Protection against overloading	No	
Reverse polarity protection	No	
Protection class	IP65, IP67	

Operating and environmental conditions		
Ambient temperature	[°C]	−20 ... +60
CE mark (see declaration of conformity)	To EU EMC Directive	

Materials	
Housing	Polyurethane

Ordering data					
	Switching output	Electrical connection		Part No.	Type
		Plug M8x1	Plug M12x1		
N/O contact, basic version					
	Contacting, bipolar	3-pin	–	171163	SMEO-8E-S-LED-24
		–	3-pin	171164	SMEO-8E-M12-LED-24

 Note

Mounting kit not included in the scope of delivery. Corresponding mounting kits, peripherals overview

➔ 6

Proximity sensors SMEO-8E, for T-slot

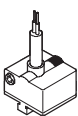
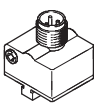
FESTO

Technical data – Magnetic reed

Technical data			
		SMEO-8E-...-S6	SMEO-8E-...-230
Type of mounting		Via accessories, insertable in slot from above	
Electrical connection		Cable, 2-wire	Plug M12x1, 3-pin
Operating voltage range DC	[V]	0 ... 30	3 ... 250
Operating voltage range AC	[V]	0 ... 30	3 ... 250
Max. output current	[mA]	500	120
Max. switching capacity DC	[W]	10.0	10.0
Max. switching capacity AC	[VA]	10.0	10.0
Protection against short circuit		No	
Protection against overloading		No	
Reverse polarity protection		No	
Protection class		IP65, IP67	

Operating and environmental conditions			
		SMEO-8E-...-S6	SMEO-8E-...-230
Ambient temperature	[°C]	–40 ... +120	–20 ... +60
Ambient temperature with flexible cable installation	[°C]	–40 ... +120	–
CE mark (see declaration of conformity)		Not necessary	To EU EMC Directive To EU Low Voltage Directive

Materials			
		SMEO-8E-...-S6	SMEO-8E-...-230
Housing		Polyurethane	
Cable sheath		Thermoplastic styrene elastomer	–

Ordering data						
	Switching output	Electrical connection		Cable length [m]	Part No.	Type
		Cable	Plug			
N/O contact, heat resistant						
	Contacting, bipolar	2-wire	–	2.5	171158	SME0-8E-K-24-S6
N/O contact, operating voltage range 3 ... 250 V AC/DC						
	Contacting, bipolar	–	3-pin	–	171160	SME0-8E-M12-LED-230

- - Note

Mounting kit not included in the scope of delivery. Corresponding mounting kits, peripherals overview
→ 6

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

Accessories

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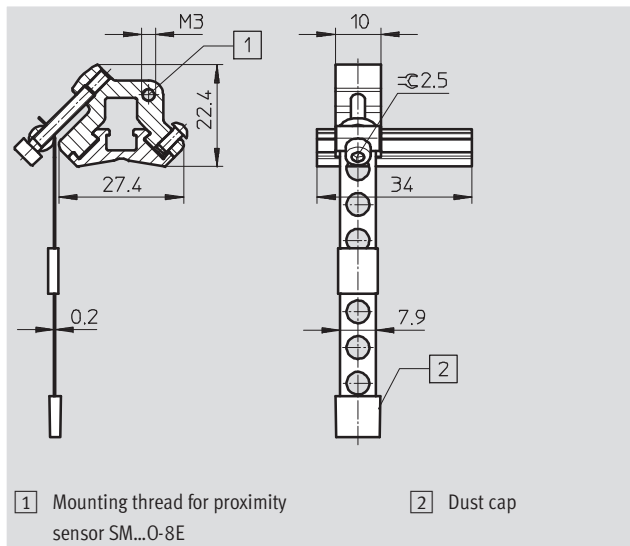
Mounting kit SMBR-8-8/100-S6

Materials:

Rail: Anodised wrought aluminium alloy

Clamping strap, screws: High-alloy stainless steel

Free of copper and PTFE



Dimensions and ordering data

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

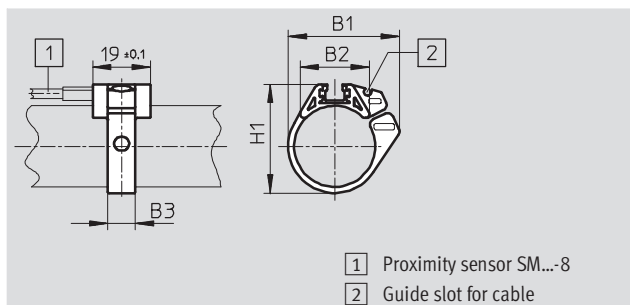
1) Corrosion resistance class 4 according to Festo standard 940 070

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



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	26.1	17.1	7	25.7	175094	SMBR-8-16
20	33.2	20.8	9	30.4	175095	SMBR-8-20
25	36.5	22.6	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

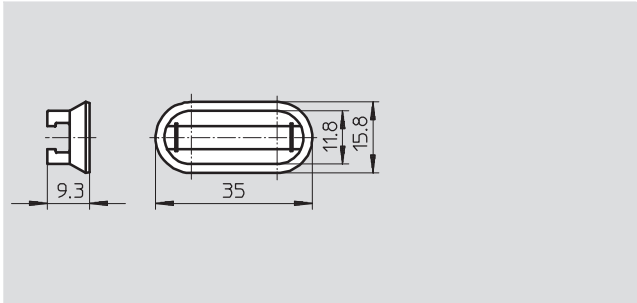
Proximity sensors SMT/SME-8, for T-slot

Accessories



Mounting kit CRSMB

Materials:
Housing: Polyurethane
Rail: Hard anodised aluminium
Free of copper and PTFE

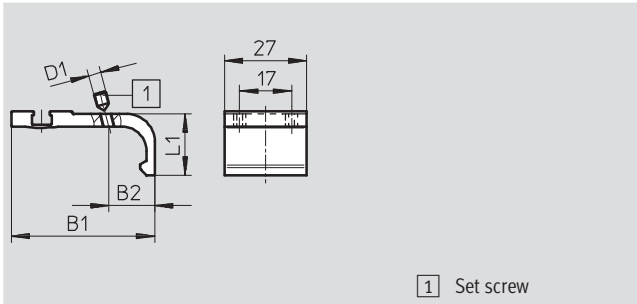
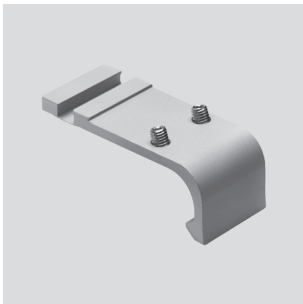


Dimensions and ordering data			
For piston Ø	Part No.	Type	
32 ... 100	525565	CRSMB-8-32/100	

 Note
The mounting kit is secured to the cylinder using the double-sided adhesive tape provided.

Mounting kit SMB-8-FENG

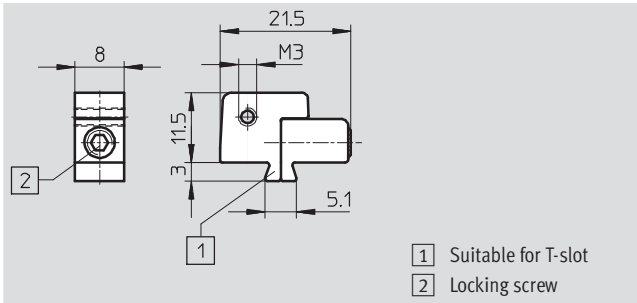
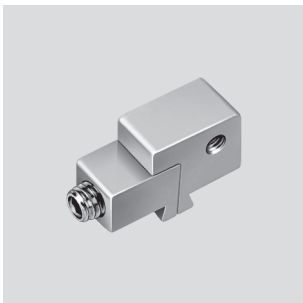
Material:
Wrought aluminium alloy
Free of copper and PTFE



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:
Polyacetal



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

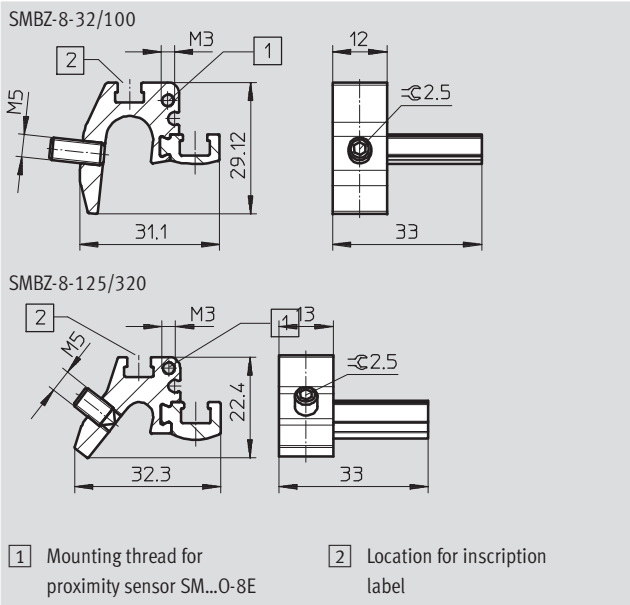
Proximity sensors SMT/SME-8, for T-slot

Accessories



Mounting SMBZ-8-...

Materials:
 Rail: Anodised wrought aluminium alloy
 Screws: High-alloy stainless steel
 Free of copper and PTFE



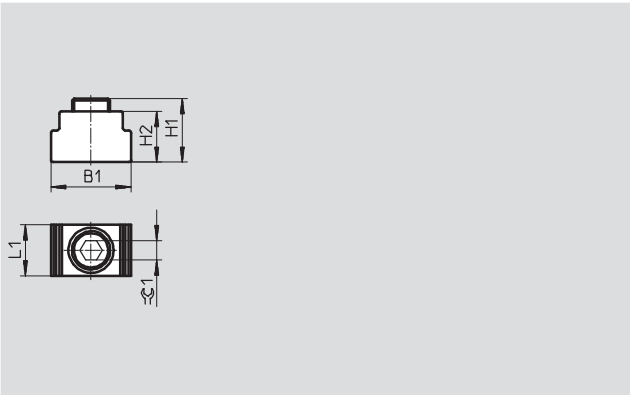
Ordering data		
For piston Ø	Part No.	Type
32 ... 100	537806	SMBZ-8-32/100
125 ... 320	537808	SMBZ-8-125/320

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							Part No.	Type	PU ²⁾
B1	H1	H2	L1	≈C1	CRC ¹⁾				
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 M5x0.5, 4-pin					
	For SMT/SME-8M and SMT-8G	3	2.5	539508	NEBU-M5G4-K-5-Q3-LE3
			1.0	539510	NEBU-M5G4-K-1-Q3-M8G3
		4	1.0	539512	NEBU-M5G4-K-1-Q3-M12G4
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