

Proximity sensors SMT/SME

Product overview



- Versions for T-slot and -slot
- Switch output contactless or via reed contacts
- Wide range of mounting and connection options
- Heat and corrosion-resistant designs
- Free of copper and PTFE
- Specified types in accordance with ATEX directive for potentially explosive atmospheres
 → www.festo.com/en/ex

Detailed product information
 → www.festo.com/catalogue/sm

Product overview							
Design	Type of mounting	Measuring principle	Type	Operating voltage range	Switch output	Switching element function	→ Page
For T slot	Insertable in the slot from above, flush with cylinder profile	Magneto-resistive	SMT-8M	10 ... 30 V DC	PNP/NPN	N/O contact N/C contact	15
		Magnetic reed	SME-8M	5 ... 30 V AC/DC	Contacting	N/O contact	17
	Insertable in the slot lengthwise, flush with the cylinder profile	Magneto-resistive	SMT-8	10 ... 30 V DC	PNP/NPN	N/O contact	21
		Magneto-resistive, corrosion-resistant	CRSMT-8	10 ... 30 V DC	PNP	N/O contact	21
		Magnetic reed	SME-8	12 ... 30 V AC/DC	Contacting	N/O contact N/C contact	22
		Magnetic reed, heat-resistant up to 120 °C	SME-8-...-S6	0 ... 30 V AC/DC	Contacting	N/O contact	23
		Magnetic reed	SME-8	3 ... 250 V AC	Contacting	N/O contact	23
	Insertable in the slot lengthwise	Magneto-resistive	SMT-8-SL	10 ... 30 V DC	PNP	N/O contact	21
		Magnetic reed	SME-8-SL	10 ... 30 V AC/DC	Contacting	N/O contact	22
	Via accessories	Magneto-resistive	SMT0-8E	10 ... 30 V DC	PNP/NPN	N/O contact	25
		Magneto-inductive, welding field immune	SMTSO-8E	10 ... 30 V DC	PNP/NPN	N/O contact	25
		Magnetic reed	SME0-8E	0 ... 30 V DC	Contacting	N/O contact	26
		Magnetic reed, heat-resistant up to 120 °C	SME0-8E-...-S6	0 ... 30 V DC	Contacting	N/O contact	27
5 ... 250 V AC							
Magnetic reed	SME0-8E	3 ... 250 V AC	Contacting	N/O contact	27		
For C-slot	Insertable in the slot from above, flush with cylinder profile	Magneto-resistive	SMT-10F	5 ... 30 V DC	PNP/NPN/contactless, 2-wire	N/O contact	31
		Magnetic reed	SME-10F	10 ... 30 V AC/DC	Contacting	N/O contact	32
	Insertable in the slot lengthwise	Magneto-resistive	SMT-10	10 ... 30 V DC	PNP/NPN	N/O contact	34
		Magnetic reed	SME-10	12 ... 27 V AC/DC	Contacting	N/O contact	35

Proximity sensors

Selection aid

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Sensors
Sensors for drive units

1.1

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	∅ 8 ... 25 mm	■	■	■	■	-
Standard cylinders DSN, ESN	∅ 8 ... 25 mm	■	■	■	■	-
Standard cylinders DNCB		■	-	-	-	-
Standard cylinders DNC		■	-	-	-	-
Standard cylinders DNG		■	-	-	■	-
Standard cylinders CDN-...-R with sensor strip		-	-	-	-	■
Standard cylinders ADN		■	-	-	-	-
Cylinders with piston rod						
Compact cylinders ADVU, AEVU		■	-	-	-	-
Short-stroke cylinders ADVC, AEVC	∅ 6 ... 25 mm	-	■	-	-	-
	∅ 32 ... 100 mm	■	-	-	-	-
Flat cylinders EZH-10/40-40-A-B		■	-	-	-	-
Flat cylinders DZF		■	-	-	-	-
Flat cylinders DZH	∅ 16 ... 25 mm	■	-	-	-	-
	∅ 32 ... 63 mm	-	-	-	■	-
Round cylinders DSNU, ESNU	∅ 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	∅ 8, 12 mm	-	■	-	-	-
	∅ 18 ... 63 mm	■	-	-	-	-
Linear drives DGP, DGPL		■	-	-	-	-
Linear drives SLG		-	■	-	-	-
Linear drives DGO		-	-	■	-	-
Linear drives SLM		■	-	-	-	-
Semi-rotary drives						
Swivel modules DSM	∅ 6 ... 10 mm	-	■	-	-	-
Semi-rotary drives DSM-B	∅ 12 ... 40 mm	-	■	-	-	-
	∅ 63 mm	■	-	-	■	-
Semi-rotary drives DRQ	∅ 16 ... 32 mm	■	-	-	-	-
	∅ 40 ... 100 mm	-	-	-	■	-
Semi-rotary drives DRQD	∅ 6 ... 12 mm	-	■	-	-	-
	∅ 16 ... 32 mm	■	-	-	-	-
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Proximity sensors

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 cylinders SPZ	■	-	-
Slide units SLZ	■	-	-
Guided cylinders DFP	∅ 6 ... 16 mm	-	■
	∅ 25 ... 80 mm	■	-
Mini guide units DFC	-	■	-
Guided drives DFM	■	-	-
Guided drives DFM-B	■ ¹⁾	-	-
Linear units SLE	∅ 32 ... 50 mm	■	-
Twin cylinders DPZC	-	■	-
Twin cylinders DPZ	■	-	-
Handling units			
Linear modules HMP	■	-	-
Linear modules HMPL	■	-	-
Handling modules HSP, HSW	■	-	-
Feed separators HPV	■	-	-
Three-point grippers HGD	∅ 16 mm	-	■
	∅ 32, 50 mm	■ ²⁾	-
Three-point grippers HGDT	-	■	-
Parallel grippers HGP	∅ 6 mm	-	■
	∅ 10 ... 35 mm	■ ²⁾	-
Parallel grippers HGPC	-	■	-
Parallel grippers HGPP	∅ 12 ... 32 mm	-	■
Parallel grippers HGPT	∅ 16 ... 63 mm	-	■
Angle grippers HGW	∅ 10 mm	-	■
	∅ 16 ... 40 mm	■	-
Radial grippers HGR	∅ 10 mm	-	■
	∅ 16 ... 40 mm	■	-
Swivel/gripper units HGDS	-	■	-
Cushioning components			
Hydraulic stop elements YSRWJ	■	-	-
Electrical positioning systems			
Toothed belt axes DGE-ZR	■	-	-
Spindle axes DGE-SP	■	-	-
System components			
Heavy-duty guides HD	■	-	-
Valve actuators			
Copac linear actuators DLP-A	■	-	-
Technical data → Page	15	31	50

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

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

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

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
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Switch 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

Rated operating voltage

24V	24 V DC
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Cable attribute

K	Standard
E	Suitable for drag chain
R	Suitable for robots

Cable length [m]

Connection technology

OE	Open end
M5D	Cable with plug M5x0.5, turnable
M8	Cable with plug M8x1, snap-on flange
M8D	Cable with plug M8x1, turnable
M12	Cable with plug M12x1, turnable

Proximity sensors SMT-8M, for T-slot

Technical data – Magneto-resistive

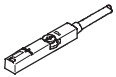


Technical data				
Type of mounting	Screwed in slot, insertable from above, flush with cylinder profile			
Electrical connection	Cable, 3-wire	Cable with plug, turnable		
		M5x0.5, 3-pin	M8 x 1, 3-pin	M12 x 1, 3-pin
Cable length [m]	0.2 ... 30			
Cable attribute ¹⁾	Standard			
	Suitable for drag chain			
	Suitable for robots			
Test conditions for standard cables	Drag chain: 5 million cycles, bending radius 75 mm			
	Resistance to bending: To Festo standard; test conditions on request			
Test conditions for suitability for drag chain	Drag chain: 5 million cycles, bending radius 28 mm			
	Resistance to bending: To Festo standard; test conditions on request			
Test conditions for suitability for robots	Drag 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			
Operating voltage range DC [V]	10 ... 30			
Max. output current [mA]	100			
Max. switching capacity DC [W]	3.0			
Protection against short circuit	Pulsed			
Protection against overloading	Yes			
Protection against polarity reversal	For all electrical connections			
Protection class	IP65, IP68			

1) If the relevant option is selected → Modular products16

Operating and environmental conditions		
Ambient temperature [°C]	-20 ... +70	
Ambient temperature with flexible cable installation [°C]	-5 ... +70	
CE mark (see declaration of conformity)	In accordance with EU EMC directive	
Certification	c UL us - Listed (OL) C-Tick	

Materials	
Housing	Polyamide; polyurethane; high-alloy stainless steel
Cable sheath	Polyurethane

Ordering data								
	Switch output	Electrical connection			Cable length [m]	Part No.	Type	
		Cable	Cable with plug, turnable					
			M5x0.5	M8x1				M12x1
	N/O contact							
	PNP	3-wire	-	-	-	2.5	543 867	SMT-8M-PS-24V-K-2,5-OE
			-	-	-	5.0	543 868	SMT-8M-PS-24V-K-5,0-OE
		-	3-pin	-	-	0.3	543 865	SMT-8M-PS-24V-K-0,3-M5D
		-	-	3-pin	-		543 866	SMT-8M-PS-24V-K-0,3-M8D
		-	-	-	3-pin		543 869	SMT-8M-PS-24V-K-0,3-M12
	NPN	3-wire	-	-	-	2.5	543 870	SMT-8M-NS-24V-K-2,5-OE
		-	-	3-pin	-	0.3	543 871	SMT-8M-NS-24V-K-0,3-M8D
	N/C contact							
	PNP	3-wire	-	-	-	7.5	543 873	SMT-8M-PO-24V-K-7,5-OE

Proximity sensors SMT-8M, for T-slot

Modular products – Magneto-resistive



M Mandatory data

Module No.	Function	Switch output	Nominal operating voltage	Cable attribute	Cable length	Connection technology
543 893	SMT-8M	PS NS PO	24V	K E R	0.2 ... 30	OE M8D M8 M12
Order example						
543 893	SMT-8M	- NS	- 24V	- E	- 3	- M8D

Ordering table

Size	8	Condi- tions	Code	Enter code
M Module No.	543 893			
Function	Proximity sensor for T-slot, contactless		SMT-8M	SMT-8M
			-	-
Switch output	3-wire PNP N/O contact		PS	
	3-wire NPN N/O contact		NS	
	3-wire PNP N/C contact		PO	
			-	-
Nominal operating voltage [V DC]	24		24V	24V
			-	-
Cable attribute	Standard		K	
	Suitable for drag chain		E	
	Suitable for robots		R	
			-	-
Cable length [m]	0.2 ... 30 (0.2 ... 2.5 m in 0.1 m steps, 2.5 ... 15 m in 0.5 m steps, 15 ... 30 m in 1 m steps)		...	
			-	-
Connection technology	Open end		OE	
	M8, turnable		M8D	
	M8, snap flange		M8	
	M12, turnable		M12	

Transfer order code

543 893	SMT-8M	-		-	24V	-		-		-	
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Proximity sensors SME-8M, for T-slot

Technical data – Magnetic reed

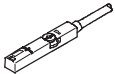
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Technical data			
Type of mounting	Screwed in slot, insertable from above, flush with cylinder profile		
Electrical connection	Cable, 3-wire	Cable with plug, turnable	
		M5x0.5, 3-pin	M8 x 1, 3-pin
Cable length [m]	0.2 ... 10		
Cable attribute ¹⁾	Standard		
	Suitable for drag chain		
	Suitable for robots		
Test conditions for standard cables	Drag chain: 5 million cycles, bending radius 75 mm		
	Resistance to bending: To Festo standard; test conditions on request		
Test conditions for suitability for drag chain	Drag chain: 5 million cycles, bending radius 28 mm		
	Resistance to bending: To Festo standard; test conditions on request		
Test conditions for suitability for robots	Drag 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		
Operating voltage range DC [V]	5 ... 30		
Operating voltage range AC [V]	5 ... 30		
Max. output current [mA]	500	80	
Max. output current in mounting kits [mA]	80		
Max. switching capacity DC [W]	10.0	2.4	
Max. switching capacity AC [VA]	10.0	2.4	
Max. switching capacity DC in mounting kits [W]	2.4		
Max. switching capacity AC in mounting kits [VA]	2.4		
Protection against short circuit	No		
Protection against overloading	Not available		
Protection against polarity reversal	No		
Protection class	IP65, IP68		

1) If the relevant option is selected → Modular products18

Operating and environmental conditions	
Ambient temperature [°C]	–20 ... +70
Ambient temperature with flexible cable installation [°C]	–5 ... +70
CE mark (see declaration of conformity)	In accordance with EU EMC directive
Certification	c UL us - Listed (OL) C-Tick

Materials	
Housing	Polyamide; polyurethane; high-alloy stainless steel
Cable sheath	Polyurethane

Ordering data							
	Switch output	Electrical connection			Cable length [m]	Part No.	Type
		Cable	Cable with plug, turnable				
			M5x0.5	M8x1			
	N/O contact						
	Contacting, bipolar	3-wire	–	–	2.5	543 862	SME-8M-DS-24V-K-2,5-OE
			–	–	5.0	543 863	SME-8M-DS-24V-K-5,0-OE
			–	–	7.5	543 876	SME-8M-DS-24V-K-7,5-OE
	–	3-pin	–	–	0.3	543 864	SME-8M-DS-24V-K-0,3-M5D
	–		–	3-pin		543 861	SME-8M-DS-24V-K-0,3-M8D
–	2-wire	–	–	2.5	543 872	SME-8M-ZS-24V-K-2,5-OE	

Proximity sensors SME-8M, for T-slot

Modular products – Magnetic reed



Sensors
Sensors for drive units

1.1

M Mandatory data

Module No.	Function	Switch output	Nominal operating voltage	Cable attribute	Cable length	Connection technology
543 892	SME-8M	DS ZS	24V	K E R	0.2 ... 10	OE M8D M8 M12
Order example						
543 892	SME-8M	ZS	24V	K	0.8	OE

Ordering table

Size	8	Condi- tions	Code	Enter code
M Module No.	543 892			
Function	Proximity sensor for T-slot, contacting		SME-8M	SME-8M
			–	–
Switch output	3-wire N/O contact		DS	
	2-wire N/O contact		ZS	
			–	–
Nominal operating voltage [V DC]	24		24V	24V
			–	–
Cable attribute	Standard		K	
	Suitable for drag chain		E	
	Suitable for robots		R	
			–	–
Cable length [m]	0.2 ... 10 (0.2 ... 2.5 m in 0.1 m steps, 2.5 ... 10 m in 0.5 m steps)		...	
			–	–
Connection technology	Open end		OE	
	M8, turnable		M8D	
	M8, snap flange		M8	
	M12, turnable		M12	

Transfer order code

543 892	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
---	---

Switch 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
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Rated operating voltage

24	24 V DC
230	230 V AC

Variant

S6	Heat-resistant
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Generation

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

Switch output, switching element function

PS	PNP, N/O contact, 3-wire
----	--------------------------

Switching status display

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

Rated operating voltage

24	24 V DC
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Proximity sensors SMT/CRSMT/SME-8, for T-slot

Type codes



Sensors for drive units

1.1

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
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Design

8	For T-slot, insertable in slot lengthwise
---	---

Switch 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
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SME-8-ZS-230V

SME – 8 – ZS – 230V – K2,5Q – OE

Function

SME	Proximity sensor, magnetic reed
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Design

8	For T-slot, insertable in slot lengthwise
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Switch output, switching element function

ZS	N/O contact, 2-wire
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Rated operating voltage

230V	230 V AC/DC
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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
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Proximity sensors SMT-8/CRSMT-8, for T-slot

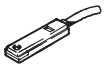

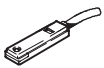
Technical data – Magneto-resistive



Technical data		SMT-8	SMT-8-SL	CRSMT-8, corrosion-resistant
Type of mounting		Clamped in T-slot, insertable in slot lengthwise		
		Flush with cylinder profile	–	Flush with cylinder profile
Electrical connection		Cable, 3-wire	Plug, M8x1, 3-pin	Cable, 3-wire
		Cable with plug, turnable M8x1, 3-pin		
Operating voltage range DC	[V]	10 ... 30		
Max. output current	[mA]	100	200	100
Max. switching capacity DC	[W]	3.0	6.0	3.0
Protection against short circuit		Yes		
Protection against overloading		Not available		
Protection against polarity reversal		For all electrical connections		
Protection class		IP65, IP67		

Operating and environmental conditions		SMT-8	SMT-8-SL	CRSMT-8, corrosion-resistant
Ambient temperature	[°C]	–20 ... +60	–25 ... +70	–20 ... +60
Ambient temperature with flexible cable installation	[°C]	–5 ... +60	–	–5 ... +60
CE mark (see declaration of conformity)		In accordance with EU EMC directive		

Materials		SMT-8	SMT-8-SL	CRSMT-8, corrosion-resistant
Housing		Polyurethane	Polyamide	Polypropylene, thermoplastic styrene elastomer
Cable sheath		Polyurethane	–	Polyurethane

Ordering data							
	Switch output	Electrical connection			Cable length [m]	Part No.	Type
		Cable	Cable with plug, turnable M8x1	Plug M8x1			
N/O contact, basic version							
	PNP	3-wire	–	–	2.5	175 436	SMT-8-PS-K-LED-24-B
			–	3-pin	–	5.0	175 434
	NPN	3-wire	–	–	2.5	171 180	SMT-8-NS-K-LED-24-B
			–	3-pin	–	0.3	171 181
	PNP	–	–	3-pin	–	531 145	SMT-8-SL-PS-LED-24
N/O contact, corrosion-resistant							
	PNP	3-wire	–	–	2.5	525 563	CRSMT-8-PS-K-LED-24
			–	–	–	5.0	525 564

Proximity sensors SME-8, for T-slot

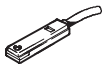

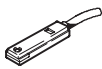
Technical data – Magnetic reed



Technical data		SME-8-K...	SME-8-S	SME-8-ZS	SME-8-SL	SME-8-O
Type of mounting		Clamped in T-slot, insertable in slot lengthwise				
		Flush with cylinder profile			–	Flush with cylinder profile
Switch output		Contacting, bipolar				
Switching element function		N/O contact				N/C contact
Electrical connection		Cable, 3-wire	Cable with plug M8x1, 3-pin	Cable, 2-wire	Plug, M8x1, 3-pin	Cable, 3-wire
Operating voltage range DC	[V]	12 ... 30		12 ... 27	10 ... 30	12 ... 30
Operating voltage range AC	[V]	12 ... 30		–	10 ... 30	12 ... 30
Max. output current	[mA]	500		80	500	50
Max. switching capacity DC	[W]	10.0		2.0	10.0	1.5
Protection against short circuit		No				
Protection against overloading		Not available				
Protection against polarity reversal		No				
Protection class		IP65, IP67				IP67

Operating and environmental conditions		SME-8-K...	SME-8-S	SME-8-ZS	SME-8-SL	SME-8-O
Ambient temperature	[°C]	–20 ... +70		–20 ... +60	–20 ... +60	–20 ... +60
Ambient temperature with flexible cable installation	[°C]	–5 ... +70		–5 ... +60	–	–5 ... +60
CE mark (see declaration of conformity)		In accordance with EU EMC directive				

Materials		SME-8-K...	SME-8-S	SME-8-ZS	SME-8-SL	SME-8-O
Housing		Polyethylene terephthalate			Polyamide	Polyethylene terephthalate
Cable sheath		Polyurethane			–	Polyurethane

Ordering data		Electrical connection			Cable length [m]	Part No.	Type
Switch output		Cable	Cable with plug M8x1	Plug M8x1			
N/O contact, basic version							
	Contacting, bipolar	3-wire	–	–	2.5	150 855	SME-8-K-LED-24
			–	–	5.0	175 404	SME-8-K5-LED-24
			–	–	7.5	530 491	SME-8-K-7,5-LED-24
		–	3-pin	–	0.3	150 857	SME-8-S-LED-24
	Contacting, bipolar	2-wire	–	–	2.5	171 169	SME-8-ZS-KL-LED-24
		–	–	3-pin	–	526 622	SME-8-SL-LED-24
N/C contact							
	Contacting, bipolar	3-wire	–	–	7.5	160 251	SME-8-O-K-LED-24

Proximity sensors SME-8, for T-slot

Technical data – Magnetic reed

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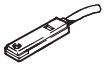
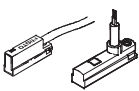
Sensors
Sensors for drive units

1.1

Technical data		SME-8-...-S6	SME-8-...-230	SME-8-ZS-230V-...
Type of mounting		Clamped, insertable in the slot lengthwise		
		Flush with cylinder profile	–	
Electrical connection		Cable, 2-wire		
Connection direction		In-line		Lateral
Operating voltage range DC	[V]	0 ... 30	3 ... 250	5 ... 250
Operating voltage range AC	[V]	0 ... 30	3 ... 250	5 ... 250
Max. output current	[mA]	500	120	120
Max. switching capacity DC	[W]	10.0	10.0	10.0
Max. switching capacity AC	[VA]	10.0	10.0	10.0
Protection against short circuit		No		
Protection against overloading		Not available		
Protection against polarity reversal		No		
Protection class		IP67		IP65, IP67

Operating and environmental conditions		SME-8-...-S6	SME-8-...-230	SME-8-ZS-230V-...
Ambient temperature	[°C]	–40 ... +120	–20 ... +60	
Ambient temperature with flexible cable installation	[°C]	–5 ... +120	–5 ... +60	
CE mark (see declaration of conformity)		In accordance with EU EMC directive		
		–	In accordance with EU Low Voltage Directive	

Materials		SME-8-...-S6	SME-8-...-230	SME-8-ZS-230V-...
Housing		Polyethylene terephthalate		
Cable sheath		Thermoplastic styrene elastomer	Polyvinyl chloride	Polyurethane

Ordering data						
	Switch 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	161 756	SME-8-K-24-S6
N/O contact, operating voltage range 3 ... 250 V AC/DC						
	Contacting, bipolar	2-wire	Lateral	2.5	538 816	SME-8-ZS-230V-K2,5Q-OE
				5.0	538 817	SME-8-ZS-230V-K5,0Q-OE
			In-line	2.5	152 820	SME-8-K-LED-230

Proximity sensors SMTO/SMTSO/SMEO-8E, for T-slot

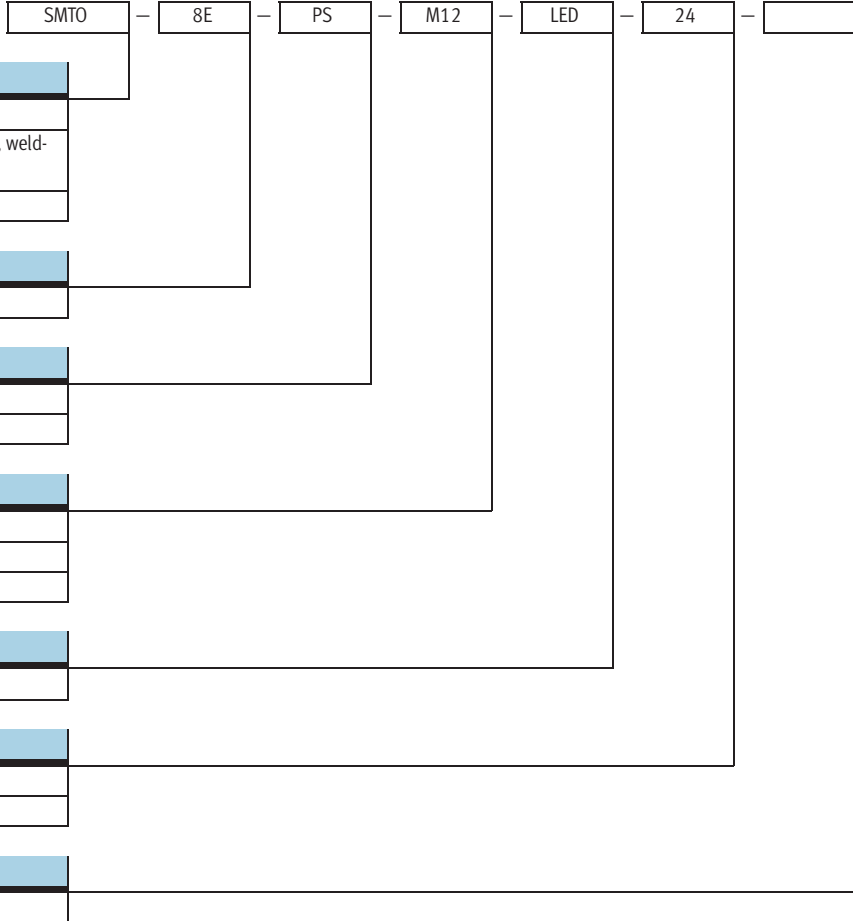
Type codes



Sensors
Sensors for drive units

1.1

SMTO/SMTSO/SMEO-8E





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


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		Not available	
Protection against polarity reversal		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)		In accordance with EU EMC directive	

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

Ordering data					
	Switch output	Electrical connection		Part No.	Type
		Plug M8x1	Plug M12x1		
N/O contact, basic version					
	PNP	3-pin	–	171 178	SMTO-8E-PS-S-LED-24
		–	3-pin	171 179	SMTO-8E-PS-M12-LED-24
	NPN	3-pin	–	171 166	SMTO-8E-NS-S-LED-24
		–	3-pin	171 176	SMTO-8E-NS-M12-LED-24
N/O contact, welding field immune					
	PNP	–	3-pin	191 986	SMTSO-8E-PS-M12-LED-24
	NPN	–	3-pin	175 825	SMTSO-8E-NS-M12-LED-24

 Note
 Mounting kit not included in scope of delivery. Corresponding mounting kits → Peripherals overview 28

Proximity sensors SMEO-8E, for T-slot

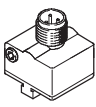
Technical data – Magnetic reed




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	Not available	
Protection against polarity reversal	No	
Protection class	IP65, IP67	

Operating and environmental conditions		
Ambient temperature	[°C]	-20 ... +60
CE mark (see declaration of conformity)	In accordance with EU EMC directive	

Materials	
Housing	Polyurethane

Ordering data					
	Switch output	Electrical connection		Part No.	Type
		Plug M8x1	Plug M12x1		
N/O contact, basic version					
	Contacting, bi-polar	3-pin	-	171 163	SMEO-8E-S-LED-24
		-	3-pin	171 164	SMEO-8E-M12-LED-24

-  - Note
 Mounting kit not included in scope of delivery. Corresponding mounting kits → Peripherals overview 28

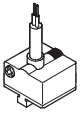
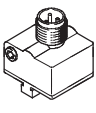
Proximity sensors SMEO-8E, for T-slot


Technical data – Magnetic reed

Technical data		SMEO-8E...-S6	SMEO-8E...-230
Type of mounting		Via accessories, insertable in the 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		Not available	
Protection against polarity reversal		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	In accordance with EU EMC directive In accordance with EU Low Voltage Directive

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

Ordering data						
	Switch output	Electrical connection		Cable length [m]	Part No.	Type
		Cable	Plug			
N/O contact, heat-resistant						
	Contacting, bipolar	2-wire	-	2.5	171 158	SMEO-8E-K-24-S6
N/O contact, operating voltage range 3 ... 250 V AC/DC						
	Contacting, bipolar	-	3-pin	-	171 160	SMEO-8E-M12-LED-230

 Note
Mounting kit not included in scope of delivery. Corresponding mounting kits → Peripherals overview 28

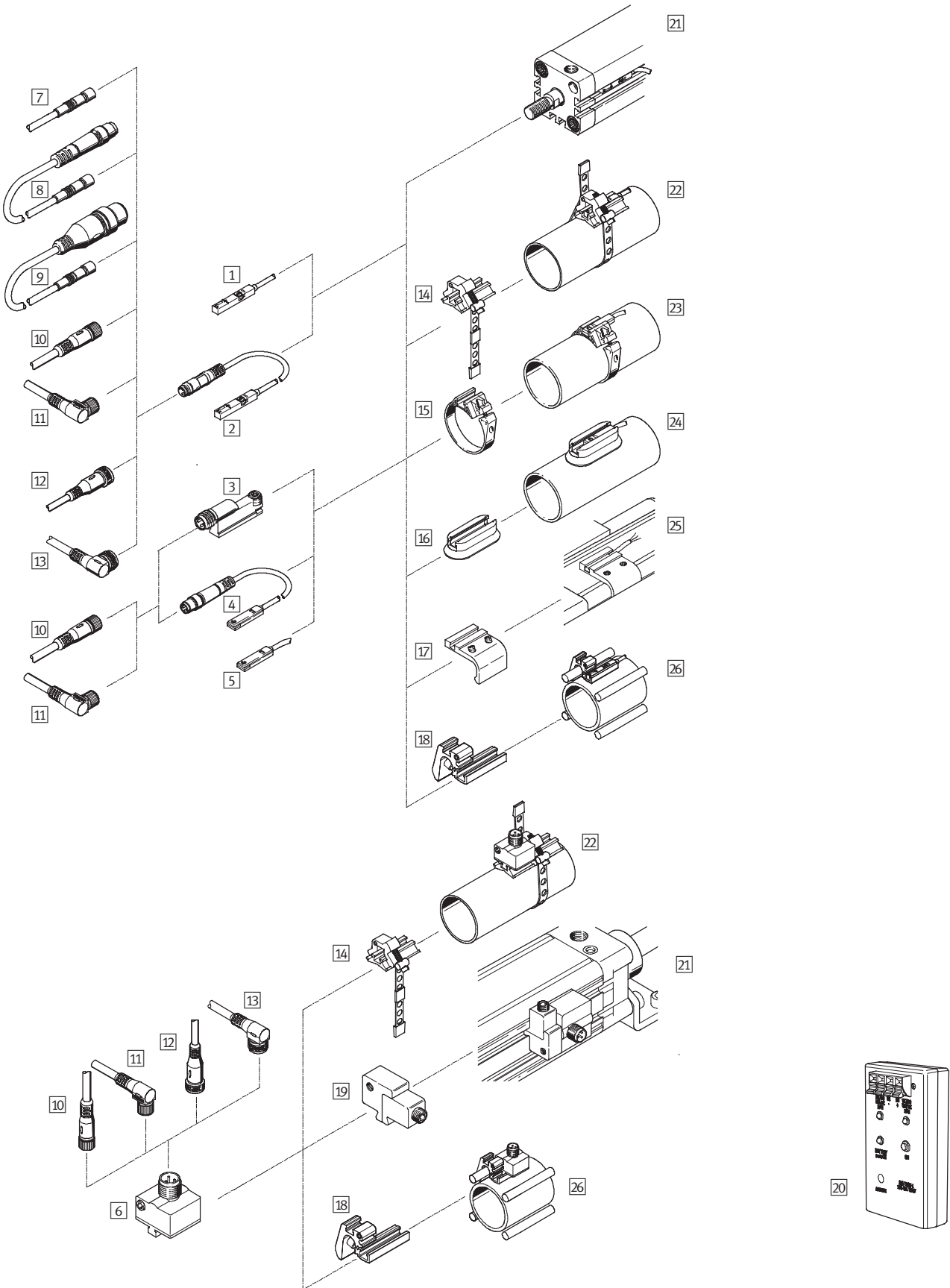
Proximity sensors SMT/SME-8, for T-slot

Peripherals overview



Sensors
Sensors for drive units

1.1



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

Accessories



Mounting attachments and accessories	
Proximity sensors	
1	SMT/SME-8M-...-OE, with cable
2	SMT/SME-8M-...-M..., with cable and plug
3	SMT/SME-8-SL-..., with plug
4	SMT/SME-8-S-..., with cable and plug
5	SMT/SME-8-K-..., with cable CRSMT-8-K-..., with cable, corrosion-resistant
6	SMT/SMTSO/SMEO-8E, with cable or plug
Connecting cables	
7	NEBU-M5...-5-Q3-LE3
8	NEBU-M5...-1-Q3-M8G3
9	NEBU-M5...-1-Q3-M12G4
10	NEBU-M8G3, SIM-M8-3GD
11	NEBU-M8W3, SIM-M8-3WD
12	NEBU-M12G5, SIM-M12-3GD
13	NEBU-M12W5, SIM-M12-3WD

Ordering data – Connecting cables		Technical data → 261		
	Number of wires	Cable length [m]	Part No.	Type
M5x0.5, straight socket				
	3	2.5	539 508	NEBU-M5G4-K-5-Q3-LE3
		1.0	539 510	NEBU-M5G4-K-1-Q3-M8G3
	4	1.0	539 512	NEBU-M5G4-K-1-Q3-M12G4
M8x1, straight socket				
	3	2.5	541 333	NEBU-M8G3-K-2.5-LE3
		5	541 334	NEBU-M8G3-K-5-LE3
M8x1, angled socket				
	3	2.5	541 338	NEBU-M8W3-K-2.5-LE3
		5	541 341	NEBU-M8W3-K-5-LE3
M12x1, straight socket				
	3	2.5	541 363	NEBU-M12G5-K-2.5-LE3
		5	541 364	NEBU-M12G5-K-5-LE3
M12x1, angled socket				
	3	2.5	541 367	NEBU-M12W5-K-2.5-LE3
		5	541 370	NEBU-M12W5-K-5-LE3

Ordering data – Inscription labels, safety clips				
	Size	Part No.	Type	PU ¹⁾
	18x4 mm	546 111	ASLR-L-418	57
	23x4 mm	541 598	ASLR-L-423	51
	M8	548 067	NEAU-M8-GD	1
	M12	548 068	NEAU-M12-GD	1

1) Packaging unit in quantity per frame

Mounting attachments and accessories	
Mounting kits and accessories	
14	Mounting kit SMBR-8-8/100-S6, heat-resistant
15	Mounting kit SMBR
16	Mounting kit CRSMB, corrosion-resistant
17	Mounting kit SMB-8-FENG
18	Mounting SMBZ-8-...
19	Mounting kit SMB-8E
20	Sensor tester SM-TEST-1
-	Clip SMBK-8
Drive units	
21	Drives with T-slot
22	Round cylinders
23	Round cylinders
24	Round cylinders
25	Standard cylinders DNC, DNCB, DNCCE
26	Drives with tie or mounting rod

Ordering data – Mounting attachments			
	For Ø	Part No.	Type
	8 ... 100	538 937	SMBR-8-8/100-S6
	8	175 091	SMBR-8-8
	10	175 092	SMBR-8-10
	12	175 093	SMBR-8-12
	16	175 094	SMBR-8-16
	20	175 095	SMBR-8-20
	25	175 096	SMBR-8-25
	32	175 097	SMBR-8-32
	40	175 098	SMBR-8-40
	50	175 099	SMBR-8-50
	63	175 100	SMBR-8-63
	32 ... 100	525 565	CRSMB-8-32/100
	32/40	175 705	SMB-8-FENG-32/40
	50/63	175 706	SMB-8-FENG-50/63
	80/100	175 707	SMB-8-FENG-80/100
	32 ... 100	537 806	SMBZ-8-32/100
	125 ... 320	537 808	SMBZ-8-125/320
	-	178 230	SMB-8E
	-	534 254	SMBK-8

Ordering data – Sensor tester	
	Part No. Type
	158 481 SM-TEST-1

Sensors
Sensors for drive units

1.1

Proximity sensors SMT/SME-10F, for C-slot

Type codes



SMT/SME-10F

SMT		–	10F		–	PS		–	24V		–	K2,5L		–	OE		
Function																	
SMT		Proximity sensor, magneto-resistive															
SME		Proximity sensor, magnetic reed															
Design																	
10F		For C-slot, insertable in slot from above															
Switch output, switching element function																	
PS		PNP, N/O contact, 3-wire															
NS		NPN, N/O contact, 3-wire															
DS		N/O contact, 3-wire															
ZS		N/O contact, 2-wire (SMT)															
		N/O contact, 2-wire (SME)															
Rated operating voltage																	
24V		24 V DC															
Cable length, connection direction																	
K0,3L		0.3 m, in-line															
K0,3Q		0.3 m, lateral															
K2,5L		2.5 m, in-line															
K2,5Q		2.5 m, lateral															
Electrical connection																	
OE		Cable															
M5D		Cable with plug M5x0.5															
M8D		Cable with plug M8x1															

Proximity sensors SMT-10F, for C-slot

Technical data – Magneto-resistive

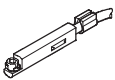
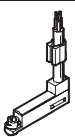


Technical data				
Type of mounting	Clamped in C-slot, insertable in slot from above, flush with cylinder profile ¹⁾			
Electrical connection	Cable, 3-wire	Cable with plug, turnable		Cable, 2-wire
		M5x0.5, 3-pin	M8 x 1, 3-pin	
Operating voltage range DC	[V]	5 ... 30		10 ... 30
Max. output current	[mA]	200		50
Max. switching capacity DC	[W]	6.0		1.5
Protection against short circuit	Yes			
Protection against overloading	Yes			
Protection against polarity reversal	For all electrical connections			
Protection class	IP65, IP67			

1) Applies to in-line connection.

Operating and environmental conditions	
Ambient temperature	[°C] -20 ... +60
Ambient temperature with flexible cable installation	[°C] -5 ... +60
CE mark (see declaration of conformity)	In accordance with EU EMC directive
Certification	c UL us - Listed (OL) C-Tick

Materials	
Housing	Polyamide
Cable sheath	Polyurethane

Ordering data							
	Switch output	Electrical connection			Cable length [m]	Part No.	Type
		Cable	Cable with plug, turnable				
			M5x0.5	M8x1			
In-line connection							
	N/O contact						
	PNP	3-wire	-	-	2.5	525 915	SMT-10F-PS-24V-K2,5L-OE
		-	3-pin	-	0.3	539 495	SMT-10F-PS-24V-K0,3L-M5D
		-	-	3-pin		525 916	SMT-10F-PS-24V-K0,3L-M8D
	NPN	3-wire	-	-	2.5	526 678	SMT-10F-NS-24V-K2,5L-OE
		-	-	3-pin	0.3	526 679	SMT-10F-NS-24V-K0,3L-M8D
Contactless, 2-wire	2-wire	-	-	2.5	526 677	SMT-10F-ZS-24V-K2,5L-OE	
Lateral connection							
	N/O contact						
	PNP	3-wire	-	-	2.5	526 674	SMT-10F-PS-24V-K2,5Q-OE
		-	-	3-pin	0.3	526 675	SMT-10F-PS-24V-K0,3Q-M8D
	NPN	3-wire	-	-	2.5	526 680	SMT-10F-NS-24V-K2,5Q-OE
		-	-	3-pin	0.3	526 681	SMT-10F-NS-24V-K0,3Q-M8D
	Contactless, 2-wire	2-wire	-	-	2.5	526 676	SMT-10F-ZS-24V-K2,5Q-OE

Proximity sensors SME-10F, for C-slot

Technical data – Magnetic reed

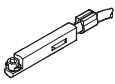
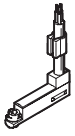


Technical data			
Type of mounting	Clamped in C-slot, insertable in slot from above, flush with cylinder profile ¹⁾		
Electrical connection	Cable, 3-wire	Cable with plug, turnable M8x1, 3-pin	Cable, 2-wire
Operating voltage range DC	[V]	10 ... 30	5 ... 30
Operating voltage range AC	[V]	10 ... 30	5 ... 30
Max. output current	[mA]	500	100
Max. switching capacity DC	[W]	10.0	3.0
Max. switching capacity DC	[VA]	10.0	3.0
Protection against short circuit	No		
Protection against overloading	Not available		
Protection against polarity reversal	No		
Protection class	IP65, IP67		

1) Applies to in-line connection.

Operating and environmental conditions		
Ambient temperature	[°C]	-20 ... +60
Ambient temperature with flexible cable installation	[°C]	-5 ... +60
CE mark (see declaration of conformity)	In accordance with EU EMC directive	
Certification	c UL us - Listed (OL)	

Materials	
Housing	Polyamide
Cable sheath	Polyurethane

Ordering data							
	Switch output	Electrical connection			Cable length [m]	Part No.	Type
		Cable	Cable with plug, turnable				
			M5x0.5	M8x1			
In-line connection							
	N/O contact						
	Contacting, bi-polar	3-wire	-	-	2.5	525 913	SME-10F-DS-24V-K2,5L-OE
		-	3-pin	-	0.3	539 494	SME-10F-DS-24V-K0,3L-M5D
		-	-	3-pin		525 914	SME-10F-DS-24V-K0,3L-M8D
	2-wire	-	-	2.5	526 672	SME-10F-ZS-24V-K2,5L-OE	
Lateral connection							
	N/O contact						
	Contacting, bi-polar	3-wire	-	-	2.5	526 670	SME-10F-DS-24V-K2,5Q-OE
		-	-	3-pin	0.3	526 671	SME-10F-DS-24V-K0,3Q-M8D
		2-wire	-	-	2.5	526 673	SME-10F-ZS-24V-K2,5Q-OE

Proximity sensors SMT/SME-10, for C-slot

Type codes

SMT/SME-10

SMT – 10 – PS – KL – LED – 24

Function

SMT	Proximity sensor, magneto-resistive
SME	Proximity sensor, magnetic reed

Design

10	For C-slot, insertable in slot lengthwise
----	---

Switch output, switching element function

PS	PNP, N/O contact, 3-wire
NS	NPN, N/O contact, 3-wire
ZS	N/O contact, 2-wire

Electrical connection, cable length, connection direction

KL	Cable, 2.5 m, in-line
KQ	Cable, 2.5 m, lateral
SL	Plug M8x1 with cable, 0.3 m, in-line
SQ	Plug M8x1 with cable, 0.3 m, lateral

Switching status display

LED	Yellow LED
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Rated operating voltage

24	24 V DC
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Proximity sensors SMT-10, for C-slot

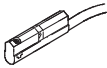
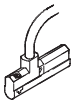
Technical data – Magneto-resistive



Technical data		
Type of mounting	Clamped in C-slot, insertable in slot lengthwise	
Electrical connection	Cable, 3-wire	Cable with plug, turnable M8x1, 3-pin
Operating voltage range DC	[V]	10 ... 30
Max. output current	[mA]	200
Max. switching capacity DC	[W]	6.0
Protection against short circuit	Yes	
Protection against overloading	Yes	
Protection against polarity reversal	For all electrical connections	
Protection class	IP65, IP67	

Operating and environmental conditions		
Ambient temperature	[°C]	-20 ... +60
Ambient temperature with flexible cable installation	[°C]	-5 ... +60
CE mark (see declaration of conformity)	In accordance with EU EMC directive	

Materials	
Housing	Polyamide
Cable sheath	Polyurethane

Ordering data						
	Switch output	Electrical connection		Cable length [m]	Part No.	Type
		Cable	Cable with plug, turnable M8x1			
In-line connection						
	N/O contact					
	PNP	3-wire	-	2.5	173 218	SMT-10-PS-KL-LED-24
		-	3-pin	0.3	173 220	SMT-10-PS-SL-LED-24
	NPN	3-wire	-	2.5	173 222	SMT-10-NS-KL-LED-24
-		3-pin	0.3	173 224	SMT-10-NS-SL-LED-24	
Lateral connection						
	N/O contact					
	PNP	3-wire	-	2.5	173 219	SMT-10-PS-KQ-LED-24
		-	3-pin	0.3	173 221	SMT-10-PS-SQ-LED-24
	NPN	3-wire	-	2.5	173 223	SMT-10-NS-KQ-LED-24
-		3-pin	0.3	173 225	SMT-10-NS-SQ-LED-24	

Proximity sensors SME-10, for C-slot

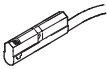

Technical data – Magnetic reed

FESTO

Technical data	
Type of mounting	Clamped in C-slot, insertable in slot lengthwise
Electrical connection	Cable, 3-wire Cable with plug, turnable M8x1, 3-pin
Operating voltage range DC [V]	12 ... 27
Operating voltage range AC [V]	12 ... 27
Max. output current [mA]	100
Max. switching capacity DC [W]	1.0
Max. switching capacity AC [VA]	1.0
Protection against short circuit	No
Protection against overloading	Not available
Protection against polarity reversal	No
Protection class	IP65, IP67

Operating and environmental conditions	
Ambient temperature [°C]	-20 ... +70
Ambient temperature with flexible cable installation [°C]	-5 ... +70
CE mark (see declaration of conformity)	In accordance with EU EMC directive

Materials	
Housing	Polyphenylene sulphide
Cable sheath	Polyurethane

Ordering data						
	Switch output	Electrical connection		Cable length [m]	Part No.	Type
		Cable	Cable with plug, turnable M8x1			
In-line connection						
	N/O contact					
	Contacting, bi-polar	3-wire	-	2.5	173 210	SME-10-KL-LED-24
		-	3-pin	0.3	173 212	SME-10-SL-LED-24
Lateral connection						
	N/O contact					
	Contacting, bi-polar	3-wire	-	2.5	173 211	SME-10-KQ-LED-24
		-	3-pin	0.3	173 213	SME-10-SQ-LED-24

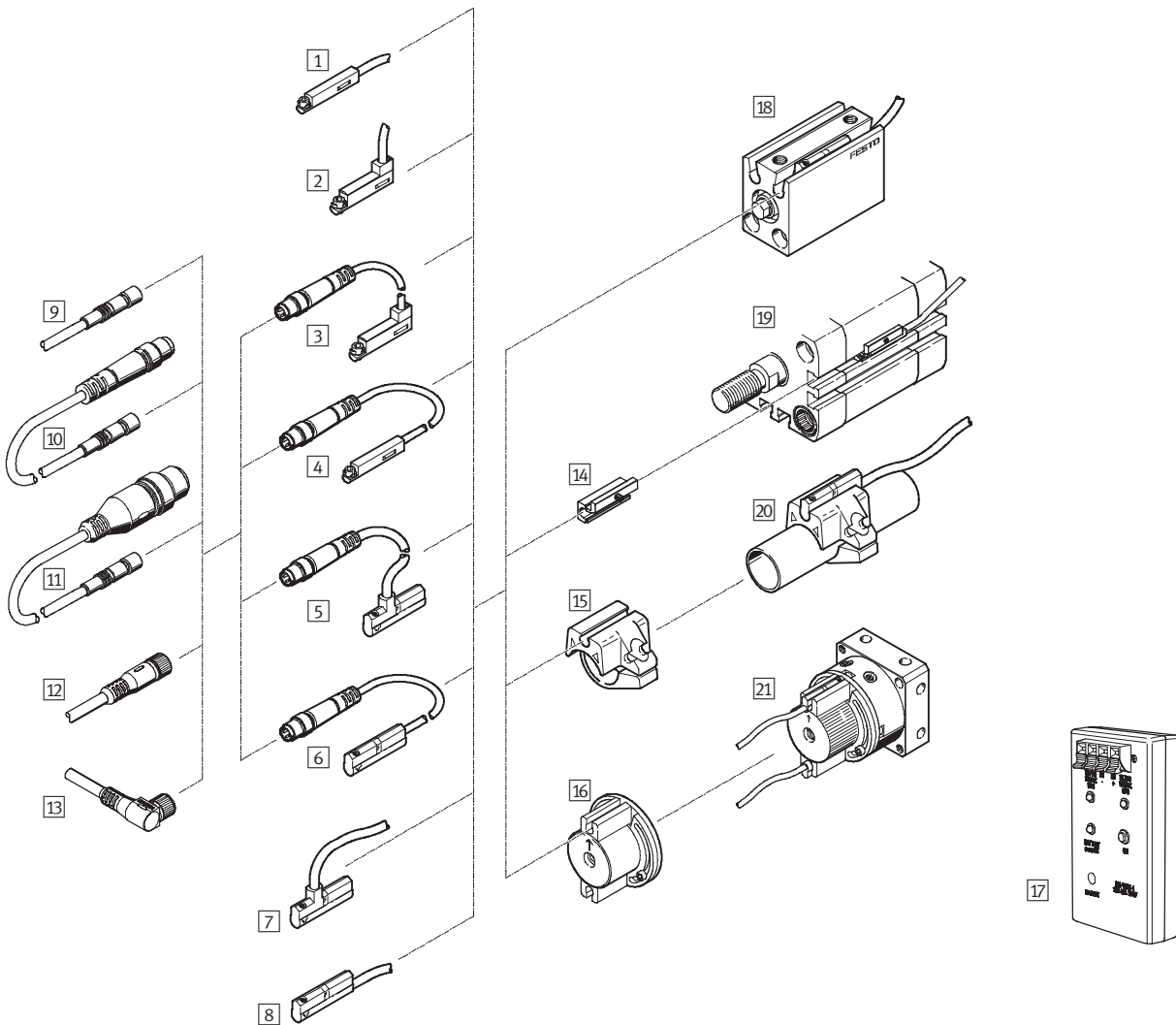
Proximity sensors SMT/SME-10, for C-slot

Peripherals overview



Sensors
Sensors for drive units

1.1



Mounting attachments and accessories	
Proximity sensors	
1	SM...-10F...-K2,5L-OE, with cable
2	SM...-10F...-K2,5Q-OE, with cable
3	SM...-10F...-K0,3Q-M..., with cable and plug
4	SM...-10F...-K0,3L-M..., with cable and plug
5	SM...-10-KQ-..., with cable and plug
6	SM...-10-KL-..., with cable and plug
7	SM...-10-SQ-..., with cable
8	SM...-10-SL-..., with cable
Connecting cables	
9	Connecting cable NEBU-M5...-5-Q3-LE3
10	Connecting cable NEBU-M5...-1-Q3-M8G3
11	Connecting cable NEBU-M5...-1-Q3-M12G4
12	Connecting cable NEBU-M8G3
13	Connecting cable NEBU-M8W3




Mounting attachments and accessories	
Mounting kits and accessories	
14	Mounting kit SMBN-10
15	Mounting kit SMBR-10-...
16	Mounting kit WSM-...-SME-10
17	Sensor tester SM-TEST-1
-	Clip SMBK-10
Drive units	
18	Drive units with C-slot
19	Drive units with T-slot
20	Round cylinders
21	Swivel module DSM

Proximity sensors SMT/SME-10, for C-slot



Accessories

FESTO

Ordering data – Connecting cables Technical data → 261




	Number of wires	Cable length [m]	Part No.	Type
M5x0.5, straight socket				
	3	2.5	539 508	NEBU-M5G4-K-5-Q3-LE3
		1.0	539 510	NEBU-M5G4-K-1-Q3-M8G3
	4	1.0	539 512	NEBU-M5G4-K-1-Q3-M12G4
M8x1, straight socket				
	3	2.5	541 333	NEBU-M8G3-K-2.5-LE3
		5	541 334	NEBU-M8G3-K-5-LE3
M8x1, angled socket				
	3	2.5	541 338	NEBU-M8W3-K-2.5-LE3
		5	541 341	NEBU-M8W3-K-5-LE3

Ordering data – Inscription labels, safety clips


	Size	Part No.	Type	PU ¹⁾
	18x4 mm	546 111	ASLR-L-418	57
	23x4 mm	541 598	ASLR-L-423	51
	M8	548 067	NEAU-M8-GD	1
	M12	548 068	NEAU-M12-GD	1

1) Packaging unit in quantity per frame

Ordering data – Mounting attachments

	For Ø	Part No.	Type
	6	173 205	WSM-6-SME-10
	8	173 206	WSM-8-SME-10
	10	173 207	WSM-10-SME-10
	6	173 226	SMBR-10-6
	8	175 101	SMBR-10-8
	10	173 227	SMBR-10-10
	12	175 102	SMBR-10-12
	16	173 228	SMBR-10-16
	20	175 103	SMBR-10-20
	25	175 104	SMBR-10-25
	32	175 105	SMBR-10-32
	40	175 106	SMBR-10-40
	50	175 107	SMBR-10-50
	125 ... 320	537 809	SMBN-10
		234 255	SMBK-10

Ordering data – Sensor tester

	Part No.	Type
	158 481	SM-TEST-1

Sensors
Sensors for drive units

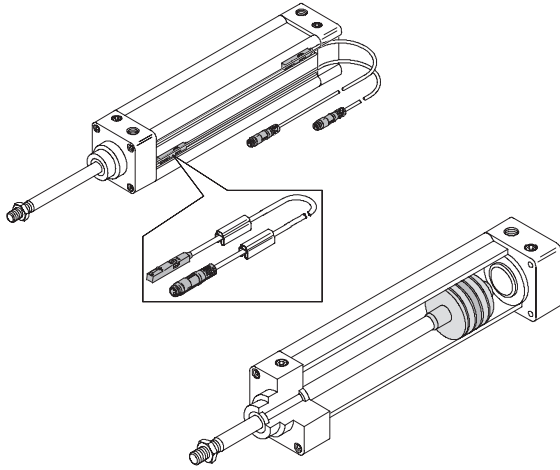
1.1

Proximity sensors SMT/SME

Application examples

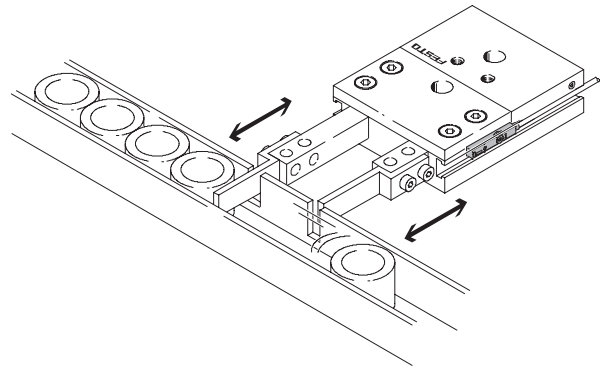


General application examples



- Proximity sensors are used for sensing the piston position of pneumatic drives. The signal is logically

linked to the controller and used for process control.



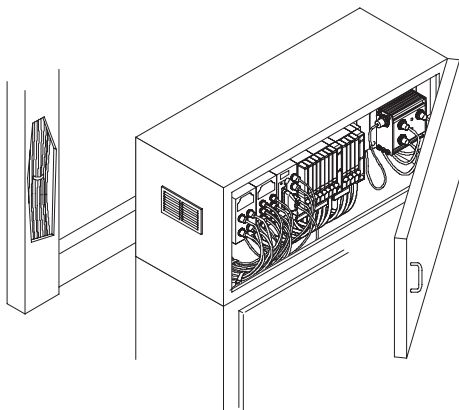
- End-position sensing for piston position detection and consequent feedback of process events

Cable attributes

The connecting cables of the proximity sensors can be configured using the modular system. You can select qua-

lities that are suited to standard, drag chain or robot applications.

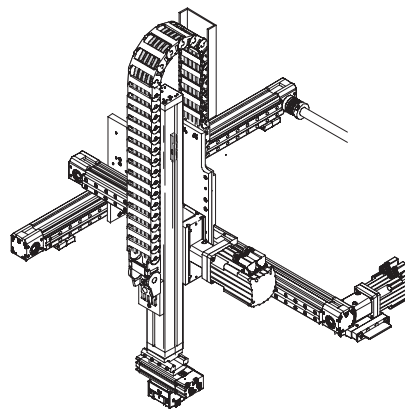
Standard application



- Standard applications are characterised by fixed cable installation or small to medium mechanical loads.

Above a bending radius of 75 mm, the Festo standard qualities are also suitable for drag chains.

Drag chain application



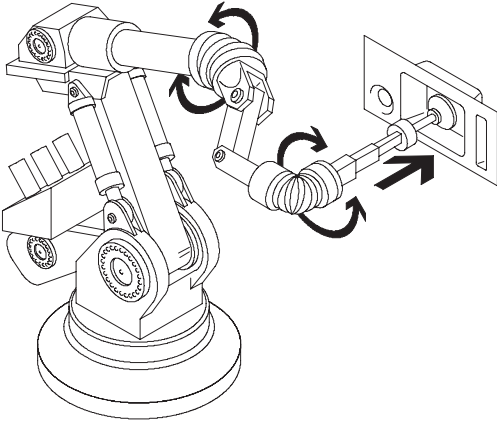
- High mechanical loads occur in the case of drag chain applications,

particularly when the drag chain has small radii.

Proximity sensors SMT/SME

Application examples

Robot application

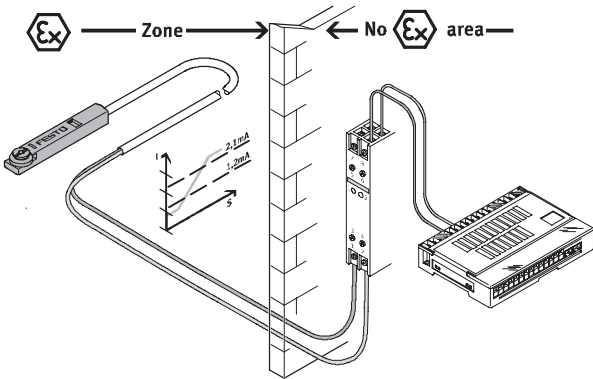


- Robot applications are characterised by high mechanical loads, which are primarily caused by torsion.

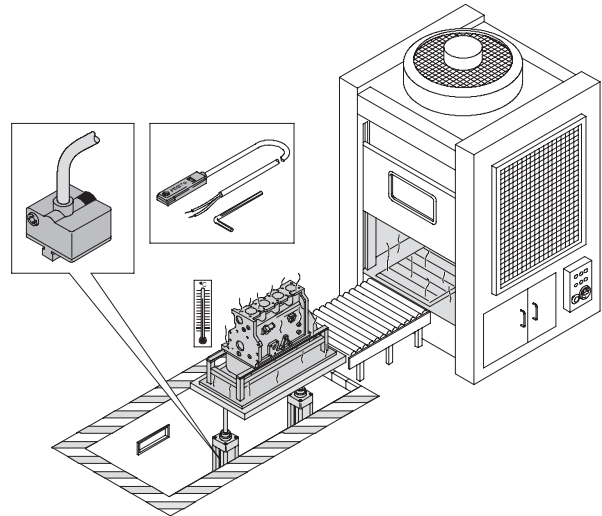
Special application

Areas at risk of explosion → www.festo.com

Extreme temperature ranges



- The range also includes sensors for device categories 1GD and 3GD.
- The sensor meets the high requirements of device category 1GD thanks to its Namur interface. The sensor must be operated with an isolation amplifier to analyse the signal. The isolation amplifier analyses the proximity sensor signal and provides the conventional binary output signal.
- Proximity sensors for device category 3GD have a normal switch output and can be connected directly to the fieldbus unit or PLC.



- Proximity sensors with the identifier "S6" in the type code are for increased temperature range and for use up to 120 °C. Some of these sensors are also suitable for a temperature range down to -40 °C.

Proximity sensors SMT/SME

Application examples



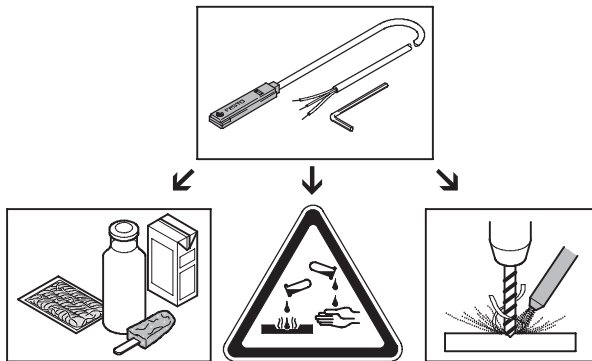
Special proximity sensors

CRSMT-8 – Corrosion-resistant

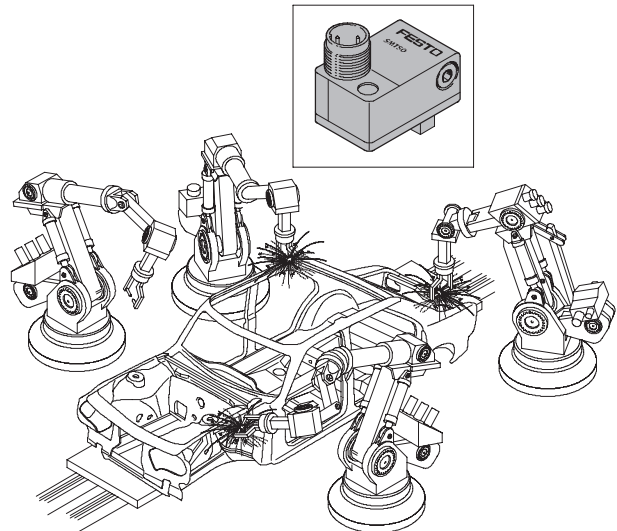
SMTSO-8E – Welding field immune

Sensors
Sensors for drive units

1.1



- The sensor is suitable for the food industry and ideal for use in the food sector.
- The sensor is acid-resistant and can be used in electroplating, for example.
- The sensor demonstrates very good resistance to lubricant coolants.
- The sensor has the highest corrosion resistance class (Festo CRC4).
- Good resistance to media such as:
 - Acids, for example phosphoric acid
 - Alkalines, for example caustic soda lye
 - Disinfectants, for example sodium hypochlorite
 - Polar solvents, for example esters, ketones, alcohols
 - Brake fluids
 - Lubricant coolants
 - Water (60°C/hydrolysis)
- Limited resistance to media such as:
 - Aliphatic hydrocarbons, for example fats and oils
- No resistance to media such as:
 - Fuels
 - Aromatic hydrocarbons



- The SMTSO-8E series provides welding field immune proximity sensors.
- This electronic proximity sensor is designed for use in welding areas with alternating fields from 45 ... 65 Hz. The switching signal is

“frozen” as soon as the proximity sensor detects an alternating magnetic field. This prevents incorrect switching during welding operations.