

Proximity switch SIES-8M

FESTO



Type code

001	Series	
SIE	Proximity switch, inductive	
002	Design type	
S	Special design	
003	Design	
8M	For T-slot	
004	Switching input/output	
N	NPN	
P	PNP	
005	Switching element function	
O	N/C contact	
S	N/O contact	

006	Rated operating voltage	
24V	24 V	
007	Cable characteristic	
K	Standard/suitable for energy chains	
008	Cable length [m]	
0.3	0.3	
2.5	2.5	
5	5	
7.5	7.5	
10	10	
009	Electrical connection	
M8D	Cable with M8x1 plug, 3-pin, rotatable thread	
OE	Open end	

Datasheet

General technical data

Design	For T-slot
Size	Slot 8
Measured variable	Position
Measuring principle	Inductive
Mounting type	Flush
Mounting position	optional
Type of mounting	Flush with T-slot Screw-clamped Insertable in the slot from above
Connection outlet orientation	In-line
Conforms to standard	EN 60947-5-2
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)
Cleanroom suitability, measured according to ISO 14644-14	Class 4 according to ISO 14644-1
Cable characteristic	Standard/suitable for energy chains
Test conditions cable	Bending strength: to Festo standard Test conditions on request Energy chain: > 5 million cycles, bending radius 75 mm
Pollution degree	3
Tightening torque	0.6 Nm

Electrical data

Electrical connection 1, connection type	Cable	Cable with plug
Electrical connection 1, connector system	Open end	M8x1, A-coded, to EN 61076-2-104
Electrical connection 1, number of connections/cores	3	
Electrical connection 1, type of mounting	–	Screw-type lock, Rotatable
Electrical connection 1, compatible type of mounting	–	Compatible with rotatable/non-rotatable screw-type lock
Switching output	NPN, PNP	
Switching element function	N/C contact, N/O contact	
Max. switching frequency	4,500 Hz	
Switching status indication	Yellow LED	
Operational voltage range DC	10 ... 30 V	
Insulation voltage	50 V	
Max. output current	150 mA	
Immunity to surge	0.8 kV	
No-load supply current	≤10 mA	
Degree of protection	IP65, IP67	
Switch-on time	≤0.1 µs	
Max. switching capacity DC	4.5 W	
Voltage drop	≤2 V	
Inductive protective circuit	Integrated	
Min. load current	0	
Off-state current	≤10 µA	
Short circuit current rating	Pulsed	
Reverse polarity protection	For all electrical connections	
Overload protection	Available	
Residual ripple	10%	
Connection outlet orientation	In-line	
Cable length	7.5 m	0.3 ... 10 m

Datasheet

Sensor technology

Rated operating distance	1.5 mm
Repetition accuracy with constant conditions	<= 0.05 mm, approach from the side
Reduction factors	Aluminium = 0.62

Operating and environmental conditions

Ambient temperature	-25 ... 70°C
Ambient temperature with moving cable	-5 ... 70°C
Approval	RCM trademark, c UL us listed (OL)
CE mark (see declaration of conformity) ¹⁾	To EU EMC Directive, In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC, To UK RoHS instructions
KC mark	KC-EMV
LABS (PWIS) conformity	VDMA24364-B2-L
Corrosion resistance class CRC	2 - Moderate corrosion stress, 3 - high corrosion stress

¹⁾ For information about the area of use, see the declaration of conformity at: www.festo.com/catalogue/sies-8m → Support/Downloads.

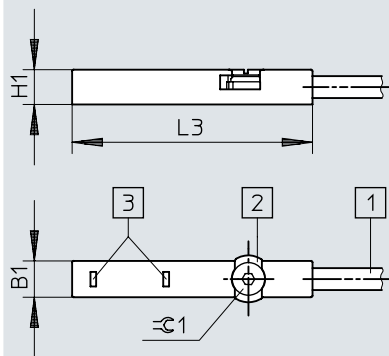
If the devices are subject to usage restrictions in residential, commercial or industrial environments as well as small businesses, further measures for reducing the emitted interference may be necessary.

Materials

Electrical connection 1, connection type	Cable	Cable with plug
Material housing	PA PUR High-alloy stainless steel	Brass, nickel-plated PA PUR High-alloy stainless steel
Housing colour	Black	
Material electrical contact	—	Gold-plated brass
Material cable sheath	TPE-U(PU)	
Cable sheath colour	Grey	
Material insulating sheath	PVC	
Note on materials	RoHS-compliant	

Dimensions

Dimensions – SIES-8M-...-OE

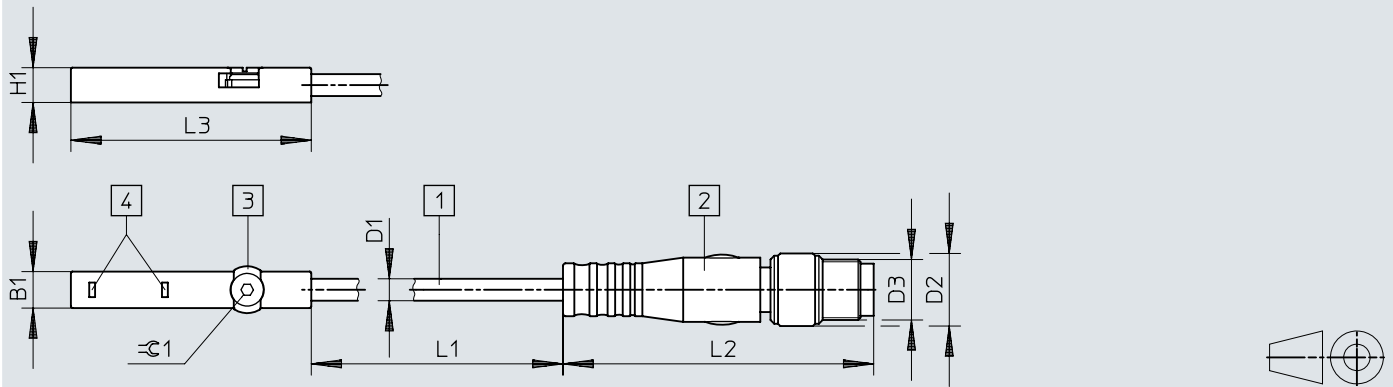
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- [1] 3-core cable (3x0.14 mm²)
- [2] Clamping piece, max. tightening torque 0.6 Nm
- [3] Yellow LED for switching status

	B1	H1	L3	Ø 1
SIES-8M-...-24V-K-7,5-OE	5	4,6	31,8	1,5

Dimensions

Dimensions – SIES-8M-...-M8D Download CAD data www.festo.com



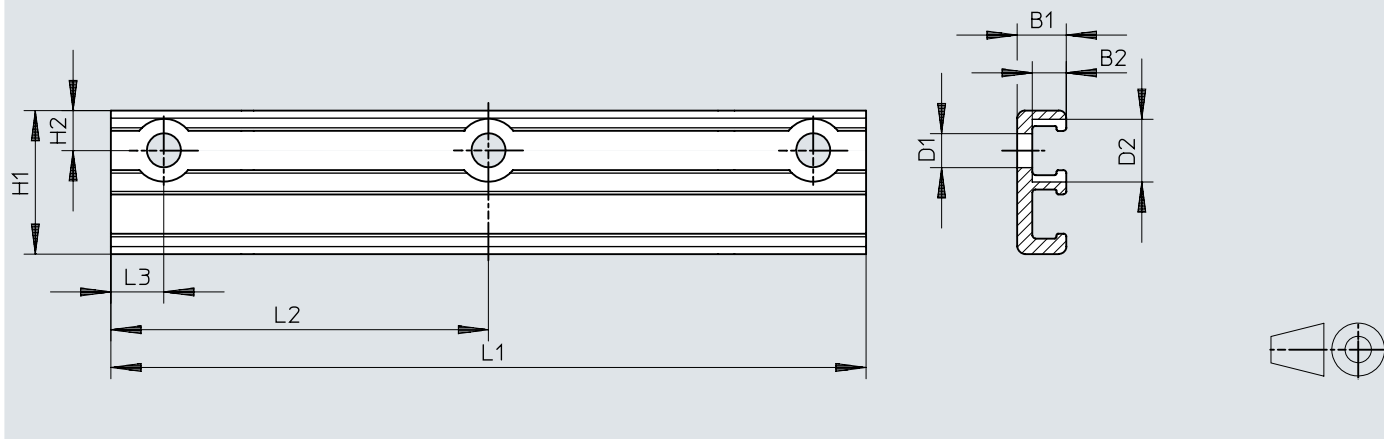
- [1] 3-core cable (3x0.14 mm²)
- [2] 3-pin plug, pin allocation to DIN EN 60947-5-2
- [3] Clamping piece, max. tightening torque 0.6 Nm
- [4] Yellow LED for switching status

	B1	D1 ø	D2 ø	D3	H1	L1	L2	L3	±C 1
SIES-8M-...-0,3-M8D	5	2,9	9,6	M8x1	4,6	300 ⁺⁵⁰	41,1	31,8	1,5
SIES-8M-...-2,5-M8D						2500 ⁺⁵⁰			
SIES-8M-...-5,0-M8D						5000 ⁺⁵⁰			
SIES-8M-...-7,5-M8D						7500 ⁺⁷⁵			
SIES-8M-...-10-M8D						10000 ⁺¹⁰⁰			

Dimensions

Dimensions – Sensor bracket SIEZ-8M

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	L1	L2	L3	D1 Ø	D2 Ø	H1	H2	B1	B2
SIEZ-8M-200	200	–	7	4,5	8,3	19	5,3	6,5	4,5
SIEZ-8M-400	400	200	7	4,5	8,3	19	5,3	6,5	4,5

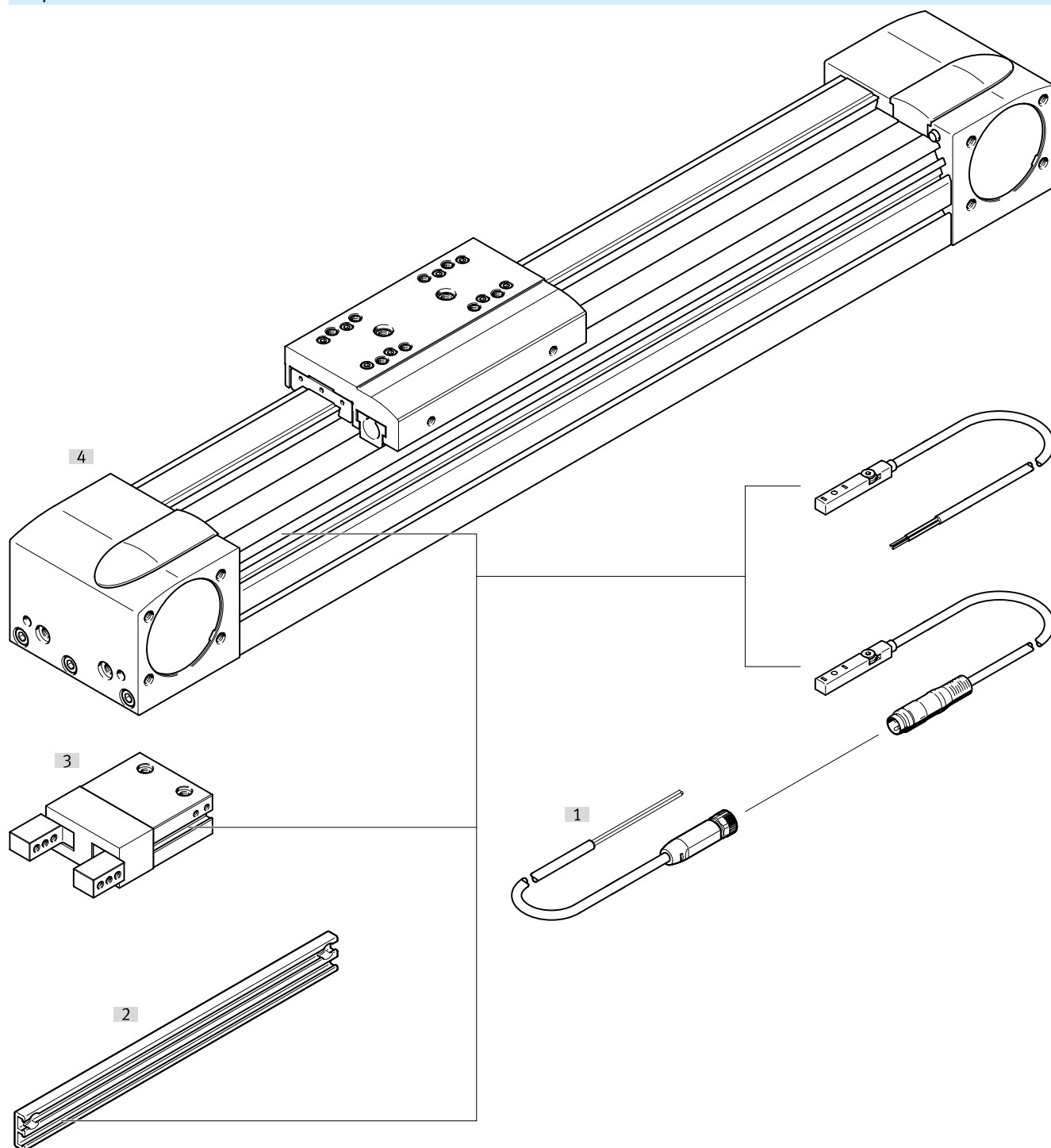
Ordering data

Ordering information – Cable						
	Rated operating distance	Mounting type	Switching output	Switching element function	Part no.	Type
	1.5 mm	Flush	NPN	N/C contact	551401	SIES-8M-NO-24V-K-7,5-OE
				N/O contact	551396	SIES-8M-NS-24V-K-7,5-OE
			PNP	N/C contact	551391	SIES-8M-PO-24V-K-7,5-OE
				N/O contact	551386	SIES-8M-PS-24V-K-7,5-OE

Ordering information for cable with plug						
	Rated operating distance	Mounting type	Switching output	Switching element function	Part no.	Type
	1.5 mm	Flush	NPN	N/C contact	551402	SIES-8M-NO-24V-K-0,3-M8D
					551404	SIES-8M-NO-24V-K-5,0-M8D
					551403	SIES-8M-NO-24V-K-2,5-M8D
					551405	SIES-8M-NO-24V-K-10-M8D
				N/O contact	551397	SIES-8M-NS-24V-K-0,3-M8D
					551399	SIES-8M-NS-24V-K-5,0-M8D
					551400	SIES-8M-NS-24V-K-10-M8D
					551398	SIES-8M-NS-24V-K-2,5-M8D
			PNP	N/C contact	551394	SIES-8M-PO-24V-K-5,0-M8D
					551395	SIES-8M-PO-24V-K-10-M8D
					551392	SIES-8M-PO-24V-K-0,3-M8D
					551393	SIES-8M-PO-24V-K-2,5-M8D
				N/O contact	551387	SIES-8M-PS-24V-K-0,3-M8D
					551388	SIES-8M-PS-24V-K-2,5-M8D
					551389	SIES-8M-PS-24V-K-5,0-M8D
					551390	SIES-8M-PS-24V-K-10-M8D

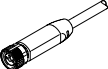
Peripherals

Peripherals overview



Accessories			→ Link
Type/order code	Description		
[1] Connecting cable NEBA-M8	-		10
[2] Sensor bracket SIEZ-8M	-		10
[3] Gripper	With T-slot		greifer
[4] Electric axis	-		achsen

Accessories

Connecting cable NEBA-M12, straight socket					
	Cable structure	Cable length	Product weight	Part no.	Type
	3 x 0.25 mm ²	0.5 m	17 g	8078282	NEBA-M8G3-U-0.5-N-M8G3
			23 g	8078278	NEBA-M8G3-U-0.5-N-M12G3
		1 m	22 g	8078222	NEBA-M8G3-U-1-N-LE3
			26 g	8078283	NEBA-M8G3-U-1-N-M8G3
			33 g	8078279	NEBA-M8G3-U-1-N-M12G3
		1.5 m	35 g	8078284	NEBA-M8G3-U-1.5-N-M8G3
		2 m	44 g	8078285	NEBA-M8G3-U-2-N-M8G3
		2.5 m	50 g	8078223	NEBA-M8G3-U-2.5-N-LE3
			54 g	8078286	NEBA-M8G3-U-2.5-N-M8G3
			60 g	8078280	NEBA-M8G3-U-2.5-N-M12G3
		5 m	96 g	8078224	NEBA-M8G3-U-5-N-LE3
			100 g	8078287	NEBA-M8G3-U-5-N-M8G3
			107 g	8078281	NEBA-M8G3-U-5-N-M12G3
		10 m	188 g	8078225	NEBA-M8G3-U-10-N-LE3
			192 g	8078288	NEBA-M8G3-U-10-N-M8G3
		20 m	373 g	8078226	NEBA-M8G3-U-20-N-LE3

Sensor bracket SIEZ-8M				
	Type of mounting	Information on materials	Part no.	Type
	Screw-clamped, With through-hole	Wrought aluminium alloy, Steel, TPE-U(PU)	551407	SIEZ-8M-400
			551406	SIEZ-8M-200

Plug NECB					
	Electrical connection 1, connector system	Electrical connection 1, number of connections/ cores	Electrical connection 1, type of mounting	Part no.	Type
	M12x1, A-coded to EN 61076-2-101	5	Screw-type lock with 18 mm hexagon and longitudinal knurl, Ro-tatable	8162296	NECB-S-M12G5-C2
				8162297	NECB-S-M12G5-C2-D
	M8x1, A-coded, to EN 61076-2-104	3	Screw-type lock with hexagon A/F 9 mm and	8162298	NECB-S-M8G3-C2
		4		8162300	NECB-S-M8G4-C2-D
					8162299

Slot cover for T-slot				
	Design	Size	Part no.	Type
	For T-slot	5	563360	ABP-5-S1