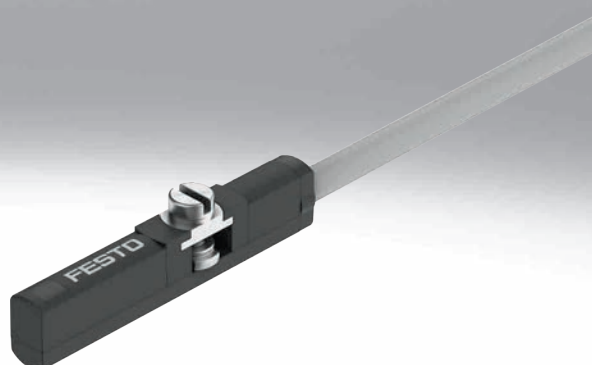


Proximity switch SDBC-MSB for C-slot

FESTO



Type codes

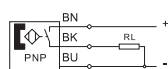
001	Series	
SDBC	Proximity sensor	
002	Sensor version	
M	Can be inserted in the slot	
003	Sensor principle	
S	Contactless (solid state)	
004	Additional features	
B	Basic	
005	Nominal operating voltage	
1	24 V DC	
006	Display	
L	LED	

007	Digital switching output	
PU	3-wire N/O contact, PNP	
NU	3-wire N/O contact, NPN	
ZU	2-wire N/O contact	
008	Cable characteristic	
K	Standard/suitable for energy chains	
009	Cable length [m]	
0.3	0.3 m	
2	2 m	
010	Electrical connection	
LE	Open end	
M8	Plug M8	

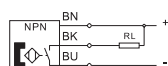
Data sheet – Magneto-resistive

Function

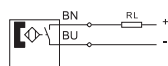
...-PU-...-2-LE



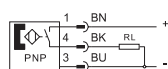
...-NU-...-2-LE



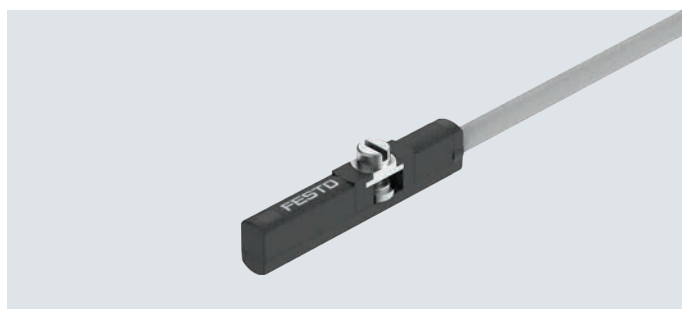
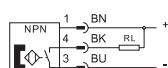
...-ZU-...-2-LE



...-PU-...-0.3-M8



...-NU-...-0.3-M8



General technical data	-PU-...-2-LE	-NU-...-2-LE	-ZU-...-2-LE	-PU-...-0.3-M8	-NU-...-0.3-M8
Design	For C-slot				
Conforms to standard	EN 60947-5-2				
Certification	RCM				
KC marking	KC EMC				
CE marking	To EU EMC Directive				
(see declaration of conformity)	To EU RoHS Directive				
Special characteristics	Oil-resistant				
Application information	Cable flame-protected and flame-retardant as per UL Standard 758 Horizontal Flame Test, does not comply with fire protection to IEC 61010-1:2017, Edition 3.1, Section 9.3.				
Variants	Metals with copper, zinc or nickel as the main constituent are excluded from use. Exceptions are nickel in steels, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils.			–	
Wire ends	Cut off bluntly			–	
Note on materials	Contains paint-wetting impairment substances				
	RoHS-compliant				
	Free of copper				
	Halogen-free				

Input signal/measuring element	
Measuring principle	Magneto-resistive
Measured variable	Position
Ambient temperature with flexible cable installation [°C]	–10 ... +70

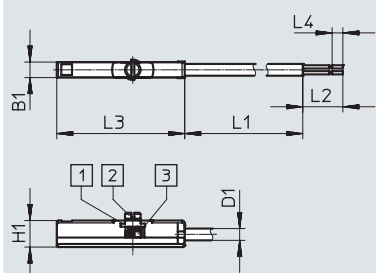
Switching output	-PU-...-2-LE	-NU-...-2-LE	-ZU-...-2-LE	-PU-...-0.3-M8	-NU-...-0.3-M8
Switching output	PNP	NPN	Contactless, 2-wire	PNP	NPN
Switching element function	N/O contact				
Switch-on time	≤ 2.5				
Switch-off time	≤ 2.5				
Repetition accuracy [mm]	0.2 mm				
Max. switching frequency [Hz]	150				
Voltage drop	≤ 0.5		≤ 2.65	≤ 0.5	
Max. output current [mA]	100		50	100	
Max. switching capacity DC [W]	3		1.4	3	

Data sheet – Magneto-resistive

Output, additional data						
Short circuit current rating		No				
Overload protection		Not provided				
Electronics		-PU-...-2-LE	-NU-...-2-LE	-ZU-...-2-LE	-PU-...-0.3-M8	-NU-...-0.3-M8
Rated operating voltage	[V DC]	24				
Operating voltage range	[V DC]	5 ... 30		10 ... 28	5 ... 30	
Reverse polarity protection		For all electrical connections		No	For all electrical connections	
Electromechanics		-PU-...-2-LE	-NU-...-2-LE	-ZU-...-2-LE	-PU-...-0.3-M8	-NU-...-0.3-M8
Electrical connection 1						
Connection type		Cable, open end			Cable with plug	
Number of pins/wires		3	3	2	3	3
Connection technology		Open end	Open end	Open end	–	–
		–	–	M8x1, A-coded to EN 61076-2-104	M8x1, A-coded, to EN 61076-2-104	M8x1, A-coded to EN 61076-2-104
		–	–	M12x1, A-coded to EN 61076-2-101	–	–
Type of mounting		–	–	–	Screw-type lock	Screw-type lock
Connection outlet direction		In-line				
Cable length	[m]	2	2	2	0.3	0.3
Cable characteristic		Standard				
		Suitable for energy chains				
Mechanics						
Type of mounting		Screw-clamped				
		Inserted in the slot from above				
Mounting position		Any				
Max. tightening torque	[Nm]	0.2				
Housing material		PC				
Union nut material		High-alloy stainless steel				
Cable sheath		PUR				
Insulating sheath		PP				
Display/operation						
Switching status indication		Yellow LED				
Immission/emission						
Degree of protection		IP67 in accordance with IEC 60529				

Data sheet

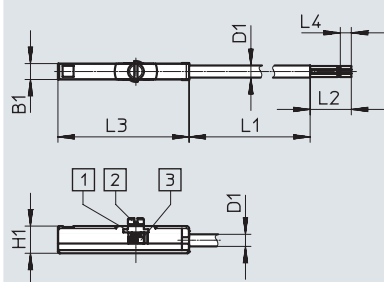
Dimensions, open end

Download CAD data → www.festo.com

- [1] Reinforcement
- [2] Screw SDBC-M1.8 x 0.35
- [3] Socket SDBC-M1.8 x 0.35

Type	B1 +0.1	D1 Ø	H1 -0.05 ... +0.10	L1	L2 ±2	L3	L4 ±1
SDBC-MSB-1L-ZU-K-2-LE	2.9	2.2	5	2000	25	24	7

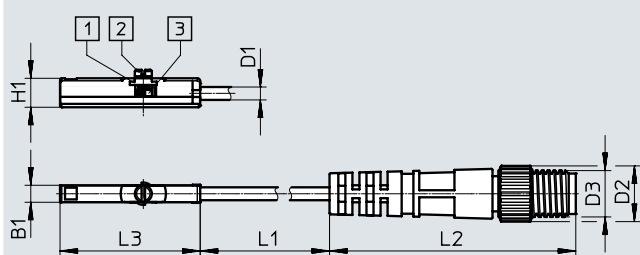
Dimensions, open end

Download CAD data → www.festo.com

- [1] Reinforcement
- [2] Screw SDBC-M1.8 x 0.35
- [3] Socket SDBC-M1.8 x 0.35

Type	B1 +0.1	D1 Ø	H1 -0.05 ... +0.10	L1	L2 ±2	L3	L4 ±1
SDBC-MSB-1L-PU-K-2-LE	2.9	2.2	5	2000	25	24	7
SDBC-MSB-1L-NU-K-2-LE							

Dimensions with plug

Download CAD data → www.festo.com

- [1] Reinforcement
- [2] Screw M1.8 x 0.35
- [3] Socket SDBC-M1.8 x 0.35

Type	B1 +0.1	D1 Ø	D2 Ø	D3	H1 -0.05 ... +0.10	L1	L2	L3
SDBC-MSB-1L-PU-K-0,3-M8	2.9	2.2	9.5	M8	5	258	42	24
SDBC-MSB-1L-NU-K-0,3-M8								

Data sheet – Magneto-resistive

Ordering data		Cable length	Weight	Part no.	Type
Switching output		[m]	[g]		
N/O contact					
	PNP, N/O contact	2	18.5	8139723	SDBC-MSB-1L-PU-K-2-LE
	NPN, N/O contact	2	18.5	8139724	SDBC-MSB-1L-NU-K-2-LE
	Contactless, 2-wire	2	17	8139725	SDBC-MSB-1L-ZU-K-2-LE
	PNP, N/O contact	0.3	10	8139726	SDBC-MSB-1L-PU-K-0.3-M8
	NPN, N/O contact	0.3	10	8139727	SDBC-MSB-1L-NU-K-0.3-M8

Accessories

Positioning element SMM

Inserted in the slot lengthwise

Ambient temperature: -40 ... +120°C

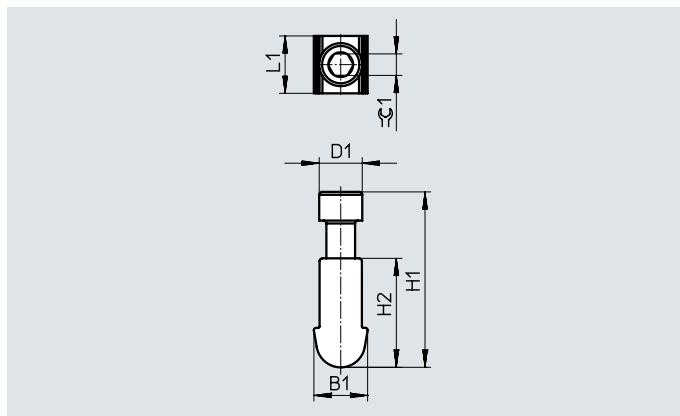
Materials:

Housing: Anodised wrought aluminium alloy

Screws: High-alloy stainless steel

Note on materials:

RoHS-compliant



Dimensions and ordering data

B1	D1	H1	H2	L1	⌀1	CRC ¹⁾	Part no.	Type	PU ²⁾
3.75	3.0	12.23	7.6	4.0	1.5	3	547942	SMM-10	10

1) Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

2) Packaging unit

Ordering data – Connecting cables

Data sheets → Internet: nebu/sim

	Number of wires	Cable length [m]	Part no.	Type
Socket M8x1, 3-pin				
	3	2.5	541333	NEBU-M8G3-K-2.5-LE3
		5	541334	NEBU-M8G3-K-5-LE3
	3	2.5	541338	NEBU-M8W3-K-2.5-LE3
		5	541341	NEBU-M8W3-K-5-LE3

Ordering data – Sensor tester

	Description	Part no.	Type
	- Testing the functionality of proximity switches using the integrated voltage supply - Adjusting proximity switches on the cylinder	158481	SM-TEST-1

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1 Festo Inc.
5300 Explorer Drive
Mississauga, ON L4W 5G4
Canada

Festo Customer Interaction Center
Tel: 1 877 463 3786
Fax: 1 877 393 3786
Email: customer.service.ca@festo.com



2 Festo Pneumatic
Av. Ceylán 3,
Col. Tequesquináhuac
54020 Tlalnepantla,
Estado de México

Multinational Contact Center
01 800 337 8669
ventas.mexico@festo.com



3 Festo Corporation
1377 Motor Parkway
Suite 310
Islandia, NY 11749

Festo Customer Interaction Center
1 800 993 3786
1 800 963 3786
customer.service.us@festo.com



4 Regional Service Center
7777 Columbia Road
Mason, OH 45040

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