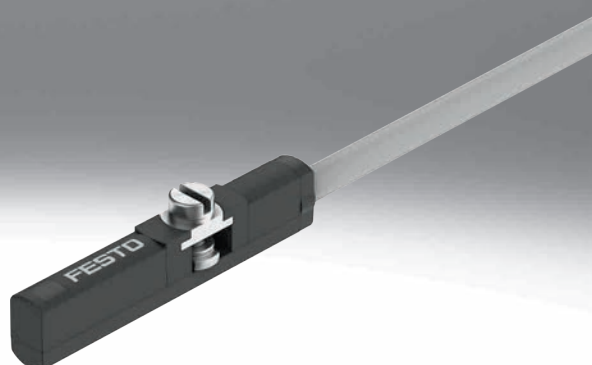


Proximity switch SDBC-MSB for C-slot

FESTO



Type codes

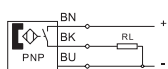
001	Series	
SDBC	Proximity sensor	
002	Sensor version	
M	Can be inserted in the slot	
003	Sensor principle	
S	Contactless (solid state)	
004	Additional features	
B	Basic	
005	Nominal operating voltage	
1	24 V DC	
006	Display	
L	LED	

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	

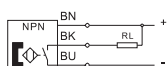
Data sheet – Magneto-resistive

Function

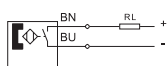
...-PU-...-2-LE



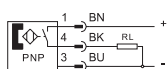
...-NU-...-2-LE



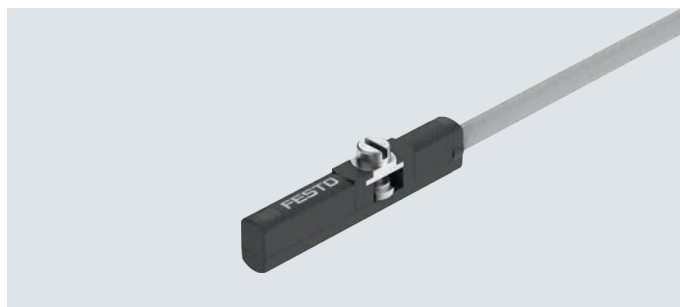
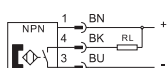
...-ZU-...-2-LE



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



...-PU-...-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				
UKCA marking	To UK instructions for EMC				
(see declaration of conformity) ¹⁾	To UK RoHS instructions				
Special characteristics	Oil-resistant				
Suitable for the production of lithium-ion batteries	Metals with more than 1% copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils			–	
Cleanroom class	Class 4 to ISO 14644-1			–	
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	RoHS-compliant				
	Free of copper				
	Halogen-free				
PWIS conformity	VDMA24364 zone III				

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

If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

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

Data sheet – Magneto-resistive

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]	480				
Voltage drop	≤ 0.5		≤ 2.65	≤ 0.5	
Max. output current [mA]	100		50	100	
Max. switching capacity DC [W]	3		1.4	3	

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]	10 ... 30		10 ... 28	10 ... 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
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				

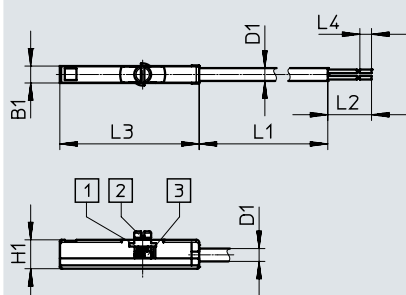
Mechanics	
Type of mounting	Screw-clamped
	Inserted in the slot from above
Mounting position	Any
Max. tightening torque [Nm]	0.2
Housing material	PC
Union nut material	High-alloy stainless steel
Cable sheath	PUR
Insulating sheath	PP

Display/operation	
Switching status indication	Yellow LED

Immission/emission	
Degree of protection	IP67 in accordance with IEC 60529

Data sheet

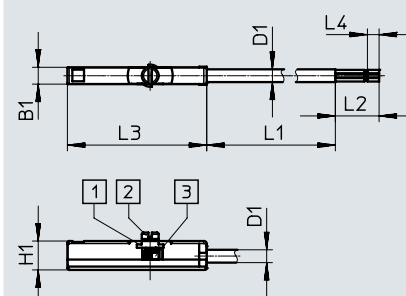
Dimensions, open end

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 ∅	H1 -0.05 ... +0.10	L1	L2 ±2	L3	L4 ±1
SDBC-MSB-1L-ZU-K-2-LE	2.9	2.2	5	1975	25	24	7

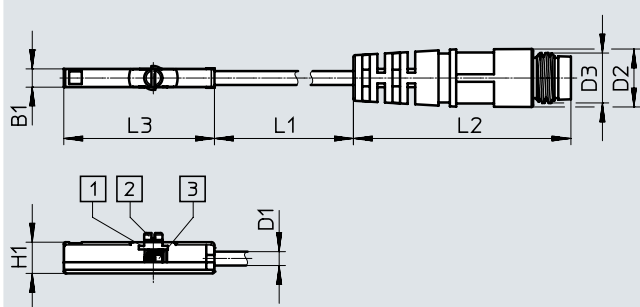
Dimensions, open end

Download CAD data → www.festo.com

- [1] Reinforcement
- [2] Screw SDBC-M1.8 x 0.35
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Type	B1 +0.1	D1 ∅	H1 -0.05 ... +0.10	L1	L2 ±2	L3	L4 ±1
SDBC-MSB-1L-PU-K-2-LE	2.9	2.2	5	1975	25	24	7
SDBC-MSB-1L-NU-K-2-LE							

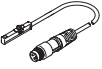
Dimensions with plug

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 ∅	D2 ∅	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

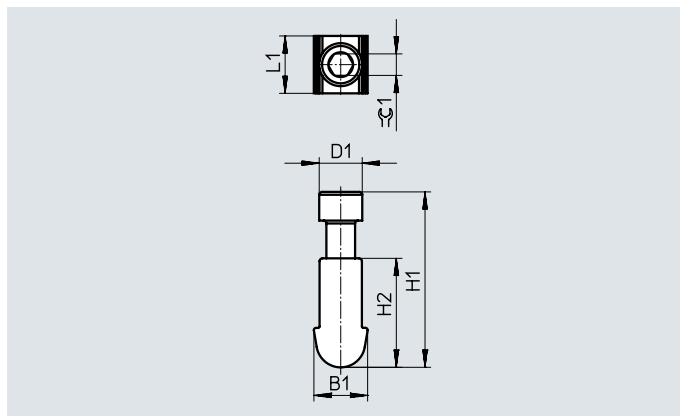
Materials:

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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