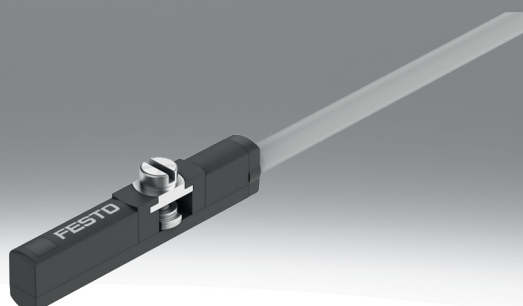


Proximity sensor SDBC-MSB

FESTO



Type code

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

Datasheet

General technical data

Design	For C-slot
Conforms to standard	EN 60947-5-2
Approval	RCM trademark
KC mark	KC-EMV
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
Special characteristics	Oil resistant
Note on materials	RoHS-compliant, Free of halogen, Free of copper
LABS (PWIS) conformity	VDMA24364 zone III
Suitability for the production of Li-ion batteries	Suitable for battery production according to the Festo internal definition of the degree of severity F1A with restrictions regarding the use of Cu/Zn/Ni
Cleanroom class	Class 4 according to ISO 14644-1

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

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

Input signal/measuring element

Measured variable	Position
Measuring principle	Magneto-resistive
Ambient temperature	-20 ... 70°C
Ambient temperature with moving cable	-20 ... 70°C

Switching output

Switching output	NPN	PNP	Non-contacting, 2-wire
Switching element function	N/O contact		
Switch-on time	≤2.5 ms		
Switch-off time	≤2.5 ms		
Repetition accuracy	0.2 mm		
Max. switching frequency	480 Hz		
Max. output current	100 mA		50 mA
Max. switching capacity DC	3 W		1.4 W
Voltage drop	≤0.5 V		≤2.8 V

Output, further data

Short circuit current rating	no
Overload protection	Not available

Electronics

Switching output	NPN	PNP	Non-contacting, 2-wire
Rated operational voltage DC	24 V		
Operational voltage range DC	10 ... 30 V		10 ... 28 V
Reverse polarity protection	For all electrical connections		no

Electromechanics

Switching output	NPN	PNP	Non-contacting, 2-wire
Electrical connection 1, connection type	Cable, Cable with plug		Cable
Electrical connection 1, connector system	M8x1, A-coded, to EN 61076-2-104, Open end		Open end
Electrical connection 1, number of connections/cores	3		2
Type of mounting	Screw-clamped, Insertable in the slot from above		
Connection outlet orientation	In-line		
Cable length	0.3 ... 2 m		2 m
Cable characteristic	Standard, Suitable for energy chains		

Datasheet

Mechanics	
Type of mounting	Screw-clamped, Insertable in the slot from above
Mounting position	optional
Max. tightening torque	0.2 Nm
Material housing	PC
Material union nut	High-alloy stainless steel
Material cable sheath	PUR
Material insulating sheath	PP
Wire ends	Cut off bluntly

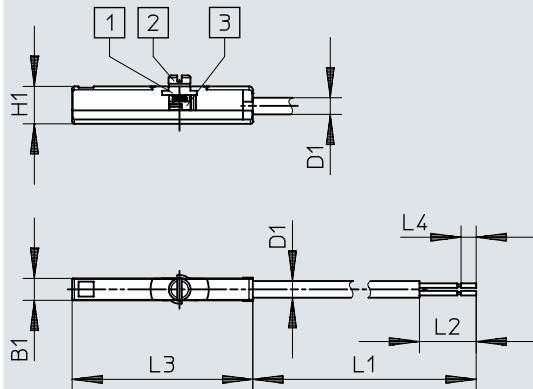
Display/operation	
Switching status indication	Yellow LED

Immission/emission	
Degree of protection	IP67, IP68, To IEC 60529

Dimensions

Dimensions – Proximity switch open end SDBC-MSB-1L-ZU-...

Download CAD data www.festo.com

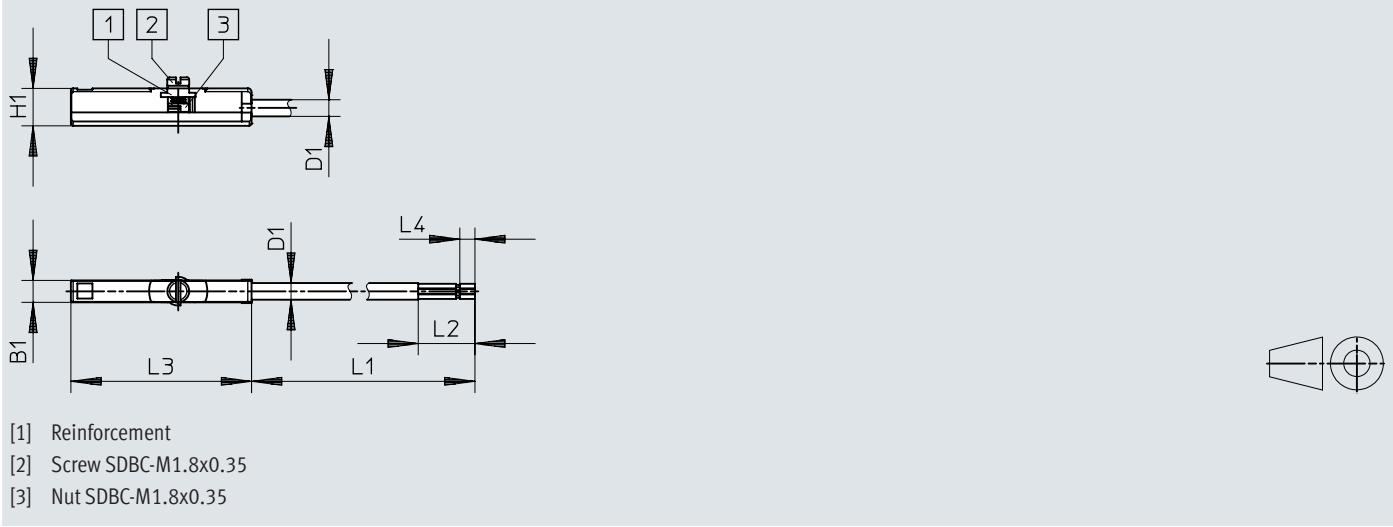


- [1] Reinforcement
- [2] Screw SDBC-M1.8x0.35
- [3] Nut SDBC-M1.8x0.35

	B1	D1	H1	L1	L2	L3	L4
	+0,1	Ø	-0,05 ... +0,10		±2		±1
SDBC-MSB-1L-ZU-K-2-LE	2,9	2,2	5	2000	25	24	7

Dimensions

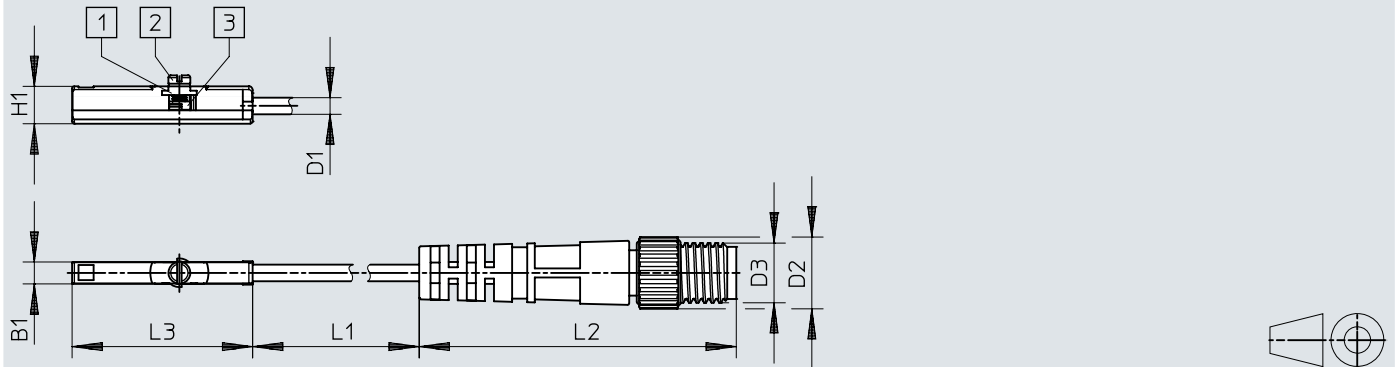
Dimensions – Proximity switch open end SDBC-MSB-1L-PU/NU-... [Download CAD data](http://www.festo.com)



	B1	D1	H1	L1	L2	L3	L4
	+0,1	Ø	-0,05 ... +0,10		±2		±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

Dimensions – Proximity switch with plug

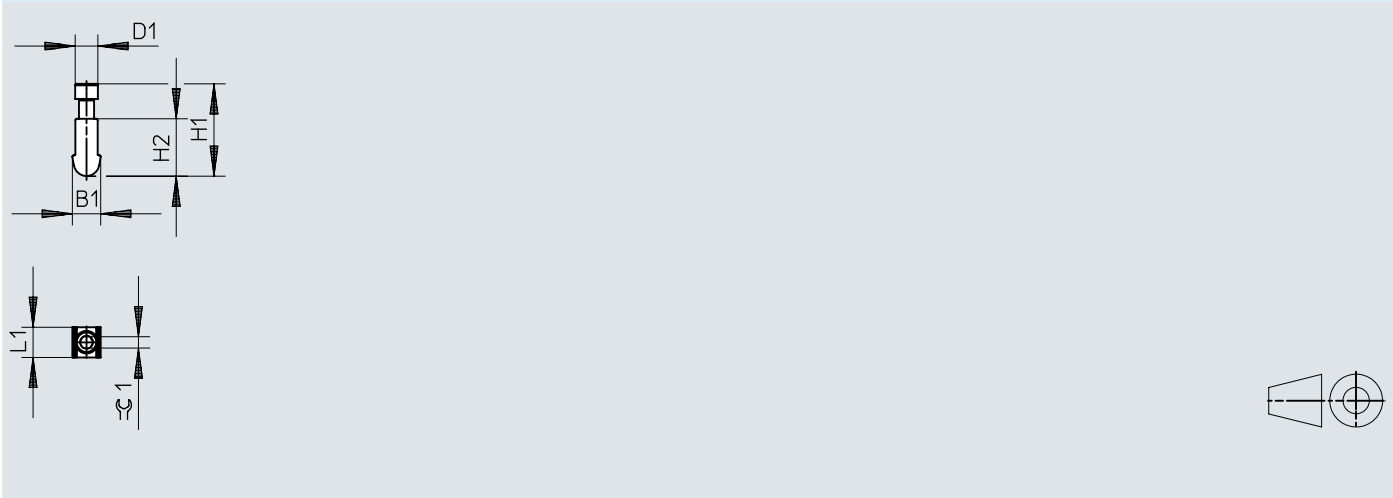
[Download CAD data](http://www.festo.com)


- [1] Reinforcement
- [2] Screw M1.8x0.35
- [3] Nut SDBC-M1.8x0.35

	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	300	42	24
SDBC-MSB-1L-NU-K-0,3-M8								

Dimensions

Dimensions – Positioning element SMM Download CAD data www.festo.com



	B1	D1	H1	H2	L1	1.5
SMM-10	3,75	3,0	12,23	7,6	4,0	1,5

Ordering data

Ordering data					
	Switching output	Cable length	Product weight	Part no.	Type
	NPN	0.3 m	10 g	8139727	SDBC-MSB-1L-NU-K-0.3-M8
		2 m	18.5 g	8139724	SDBC-MSB-1L-NU-K-2-LE
	PNP	0.3 m	10 g	8139726	SDBC-MSB-1L-PU-K-0.3-M8
		2 m	18.5 g	8139723	SDBC-MSB-1L-PU-K-2-LE
	Non-contacting, 2-wire		17 g	8139725	SDBC-MSB-1L-ZU-K-2-LE