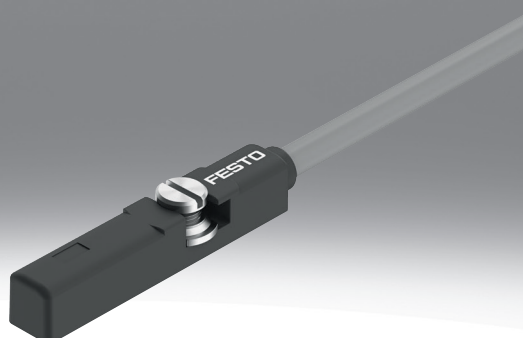


Proximity switch SDBT-MSB

FESTO



Type code

001	Series	
SDBT	Sensor, position, binary, T series	
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]	
0.3	0.3 m	
2	2 m	
010	Cable identification	
	With label holder	
011	Electrical connection	
LE	Open end	
M8	Plug M8, A-coded	

Datasheet

General technical data

Design	For T-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 with reduced Cu/Zn/Ni values (F1a)
Cleanroom suitability, measured according to ISO 14644-14	Element installed statically, no meaningful evaluation possible 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

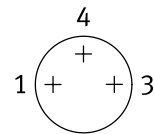
Short circuit current rating	no
Overload protection	No

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

Datasheet

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
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		–
Electrical connection 1, tightening torque	0.48 Nm		–
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		

Mechanics

Type of mounting	Screw-clamped, Insertable in the slot from above
Mounting position	optional
Max. tightening torque	0.3 Nm
Material housing	PC
Material screw-type lock	High-alloy stainless steel
Material cable sheath	PUR
Material insulating sheath	PP
Wire ends	Cut off bluntly

Display/operation

Switching status indication	Yellow LED
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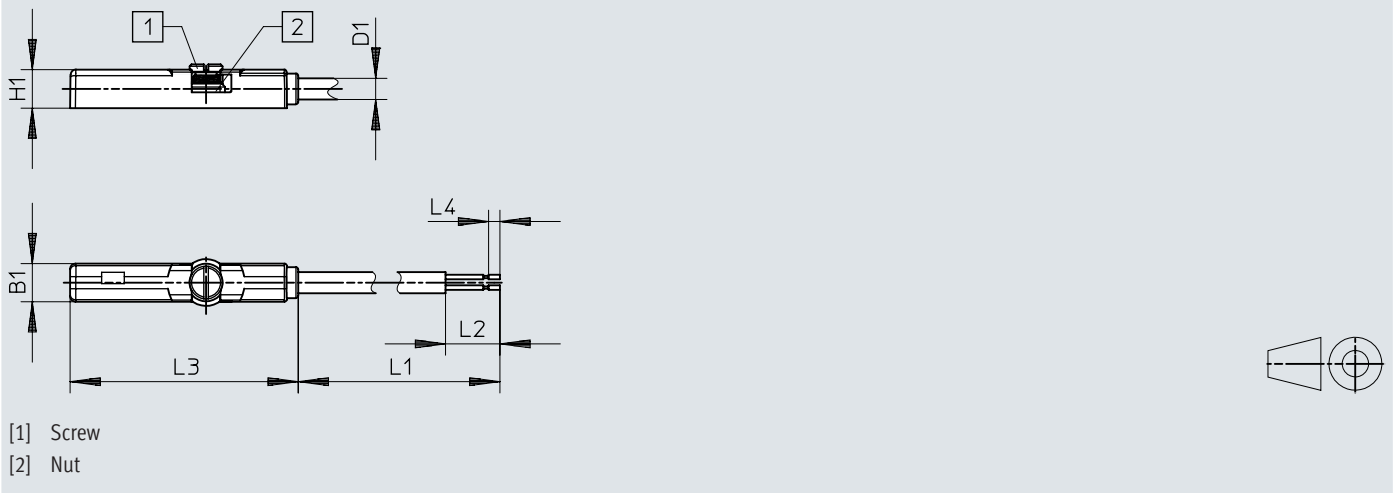
Immission/emission

Degree of protection	IP67, IP68, To IEC 60529
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Dimensions

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

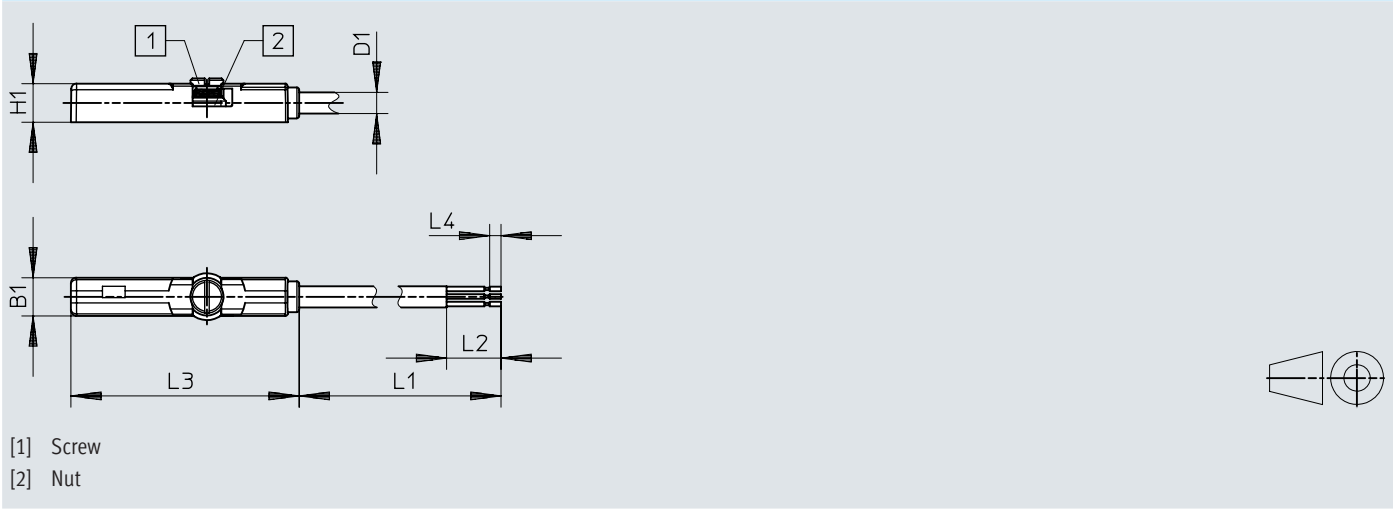
Download CAD data www.festo.com



	B1 +0,08 -0,05	D1 Ø	H1 +0,15 -0,05	L1	L2 ±0,2	L3 ±0,3	L4 ±1
SDBT-MSB-1L-ZU-K-2-LE	5	2,8	5,1	2000	25	30,2	7

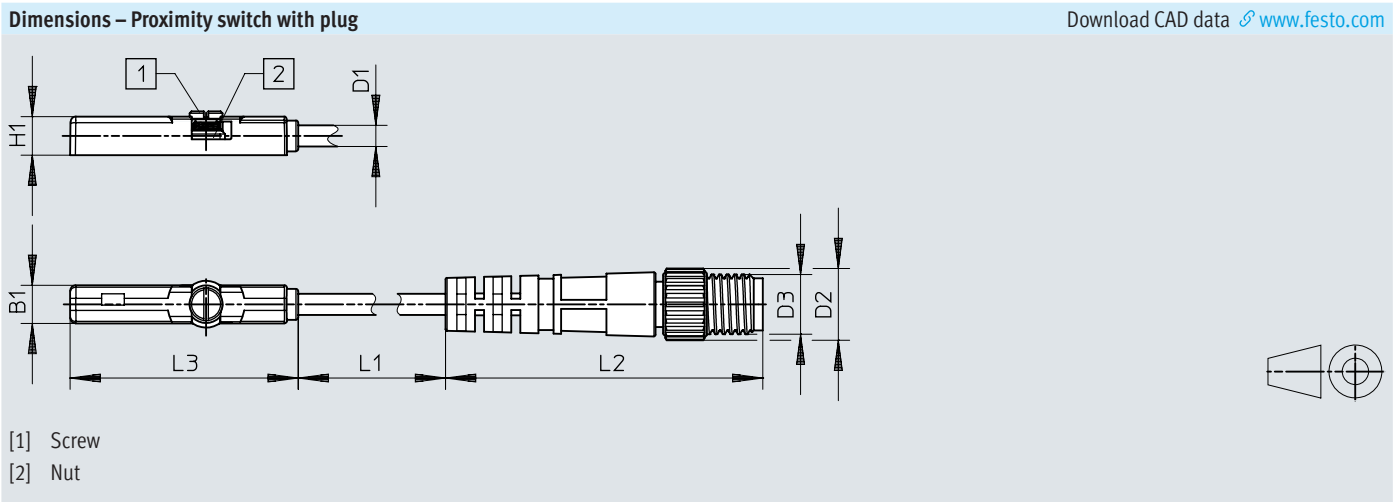
Dimensions

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



	B1 +0,08 -0,05	D1 Ø	H1 +0,15 -0,05	L1	L2 ±0,2	L3 ±0,3	L4 ±1
SDBT-MSB-1L-PU-K-2-LE	5	2,8	5,1	2000	25	30,2	7
SDBT-MSB-1L-NU-K-2-LE							

Dimensions



	B1 +0,08 -0,05	D1 Ø	D2 Ø	D3	H1 +0,15 -0,05	L1	L2	L3 ±0,3
SDBT-MSB-1L-PU-K-0,3-M8	5	2,8	9,5	M8	5,1	300	42	30,2
SDBT-MSB-1L-NU-K-0,3-M8								

Ordering data

Ordering data					
	Switching output	Cable length	Product weight	Part no.	Type
	NPN	0.3 m	9.5 g	8150175	SDBT-MSB-1L-NU-K-0.3-M8
		2 m	26.5 g	8150172	SDBT-MSB-1L-NU-K-2-LE
	PNP	0.3 m	9.5 g	8150174	SDBT-MSB-1L-PU-K-0.3-M8
		2 m	26.5 g	8150171	SDBT-MSB-1L-PU-K-2-LE
	Non-contacting, 2-wire		24 g	8150173	SDBT-MSB-1L-ZU-K-2-LE