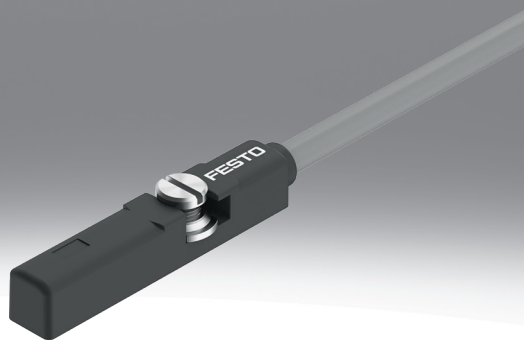


## Proximity switch SDBT-MSB

**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)	To EU EMC Directive, In accordance with EU RoHS Directive
CE 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	Metals with more than 1% by mass of 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 according to ISO 14644-1

### 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

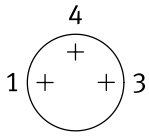
Short circuit current rating	no
Overload protection	Not available

### 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	

## 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
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 union nut	High-alloy stainless steel		
Material cable sheath	PUR		
Material insulating sheath	PP		
Wire ends	Cut off bluntly		

## Display/operation

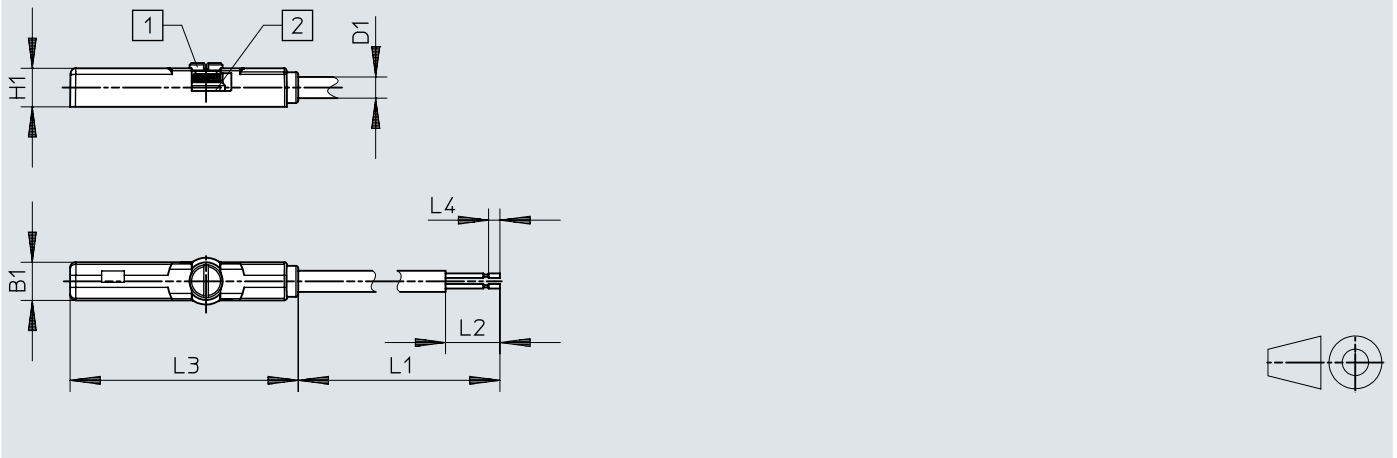
Switching status indication	Yellow LED		
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## Immission/emission

Degree of protection	IP67, IP68, To IEC 60529		
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## Dimensions

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

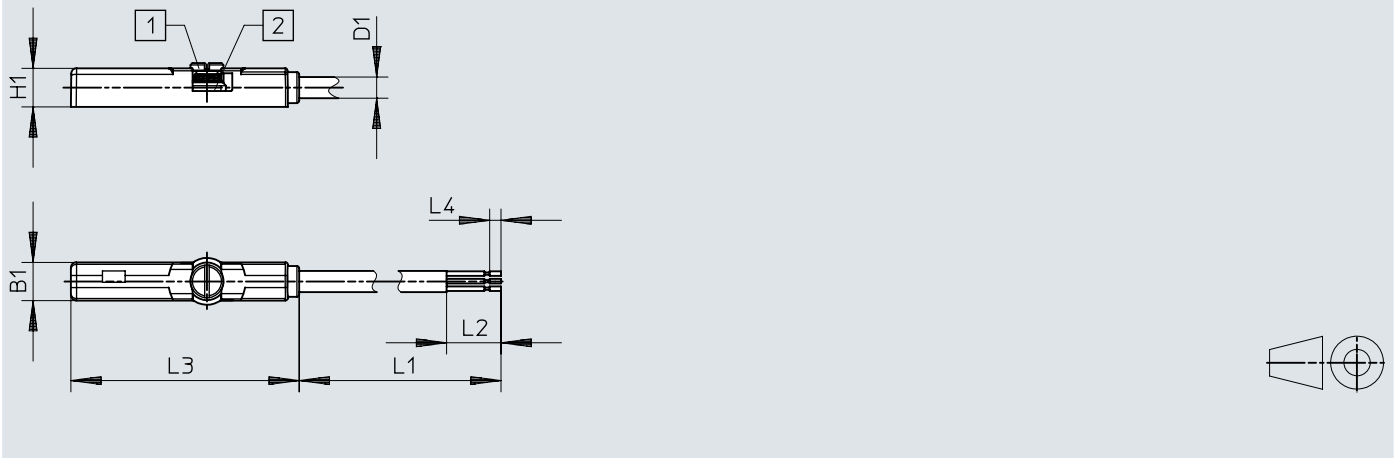
Download CAD data → [www.festo.com](http://www.festo.com)

	B1	D1	H1	L1	L2	L3	L4
	+0,08 -0,05	∅	+0,15 -0,05		±0,2	±0,3	±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-...

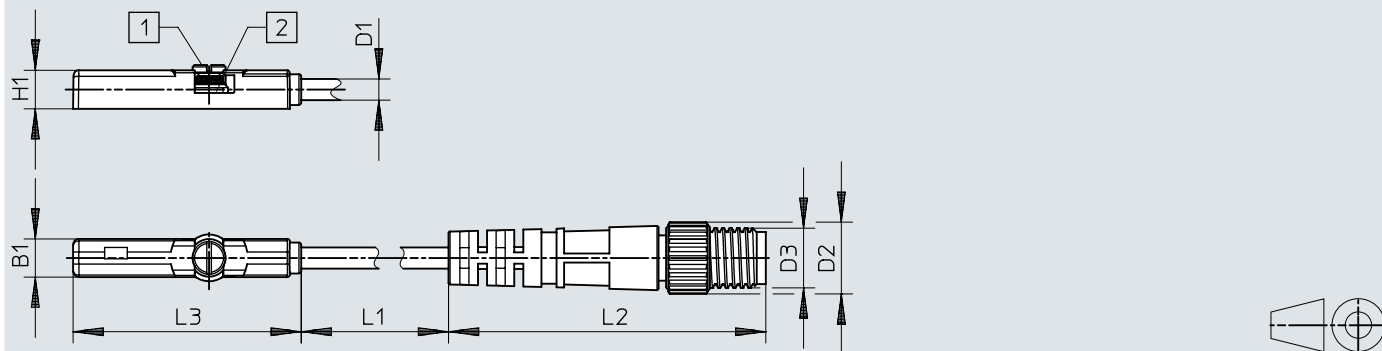
Download CAD data → [www.festo.com](http://www.festo.com)



	B1 +0,08 -0,05	D1 ∅	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

## Dimensions – Proximity switch with plug

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

	B1 +0,08 -0,05	D1 ∅	D2 ∅	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	<b>8150175</b>	<b>SDBT-MSB-1L-NU-K-0.3-M8</b>
		2 m	26.5 g	<b>8150172</b>	<b>SDBT-MSB-1L-NU-K-2-LE</b>
	PNP	0.3 m	9.5 g	<b>8150174</b>	<b>SDBT-MSB-1L-PU-K-0.3-M8</b>
		2 m	26.5 g	<b>8150171</b>	<b>SDBT-MSB-1L-PU-K-2-LE</b>
	Non-contacting, 2-wire		24 g	<b>8150173</b>	<b>SDBT-MSB-1L-ZU-K-2-LE</b>