

Proximity switches SDBT-MSB

FESTO



Type codes

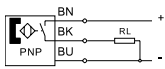
001	Series	
SDBT	Sensor, position, binary, T series	
002	Sensor version	
M	Can be inserted in the slot	
003	Sensor principle	
S	Contactless (solid state)	
004	Additional features	
B	Basic	
005	Nominal operating voltage	
1	24 V DC	
006	Display	
L	LED	

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	

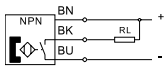
Datasheet – Magneto-resistive

Function

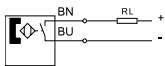
...-PU-K-2-LE



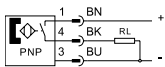
...-NU-K-2-LE



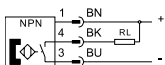
...-ZU-K-2-LE



...-PU-K-0.3-M8



...-NU-K-0.3-M8



General technical data	-PU-K-2-LE	-NU-K-2-LE	-ZU-K-2-LE	-PU-K-0.3-M8	-NU-K-0.3-M8
Design	For T-slot				
Conforms to standard	EN 60947-5-2				
Certification	RCM				
KC mark	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)	To UK RoHS instructions				
Special characteristics	Oil-resistant				
Note on materials	Copper-free				
	Halogen-free				
	RoHS-compliant				
	Contains paint-wetting impairment substances				
PWIS conformity	VDMA24364 zone III				
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			-	


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

Datasheet – Magneto-resistive

Switching output	-PU-K-2-LE	-NU-K-2-LE	-ZU-K-2-LE	-PU-K-0.3-M8	-NU-K-0.3-M8
Switching output	PNP	NPN	Contactless, 2-wire	PNP	NPN
Switching element function	N/O contact				
Switch-on time [ms]	≤ 2.5				
Switch-off time [ms]	≤ 2.5				
Repetition accuracy [mm]	0.2				
Max. switching frequency [Hz]	480				
Voltage drop [V]	≤ 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-K-2-LE	-NU-K-2-LE	-ZU-K-2-LE	-PU-K-0.3-M8	-NU-K-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	

Electromechanical systems	-PU-K-2-LE	-NU-K-2-LE	-ZU-K-2-LE	-PU-K-0.3-M8	-NU-K-0.3-M8
Electrical connection 1					
Connection type	Cable			Cable with plug	
Number of pins/wires	3		2	3	
Connection technology	Open end			M8x1, A-coded to EN 61076-2-104	
Type of mounting	–			Screw-type lock	
Plug pattern	–				
Connection outlet direction	In-line				
Cable length [m]	2			0.3	
Cable characteristic	Standard Suitable for energy chains				

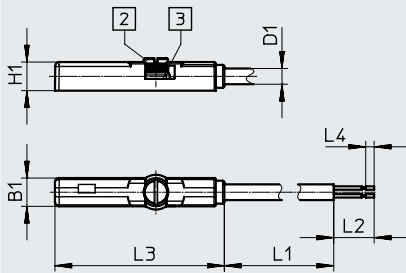
Mechanical systems	-PU-K-2-LE	-NU-K-2-LE	-ZU-K-2-LE	-PU-K-0.3-M8	-NU-K-0.3-M8
Type of mounting	Screw-clamped Inserted in slot from above				
Mounting position	any				
Max. tightening torque [Nm]	0.3				
Housing material	PC				
Union nut material	High-alloy stainless steel				
Cable sheath material	PUR				
Insulating sheath material	PP				
Wire ends	Cut off bluntly			–	

Display/operation	
Switching status indication	Yellow LED

Immission/emission	
Degree of protection	IP67 To IEC 60529

Datasheet

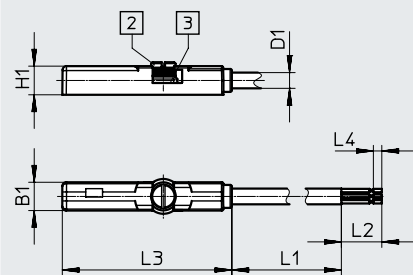
Dimensions, open end

Download CAD data a www.festo.com

[2] Screw
[3] Socket

Type	B1 +0.08 -0.05	D1 ∅	H1 +0.15 -0.05	L1	L2 ±2	L3 ±0.3	L4 ±1
SDBT-MSB-1L-ZU-K-2-LE	5	2.8	5.1	1975	25	30.2	7

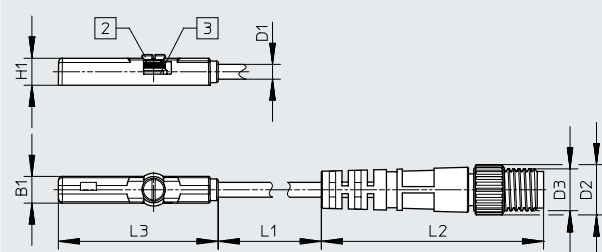
Dimensions, open end

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[2] Screw
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SDBT-MSB-1L-NU-K-2-LE							

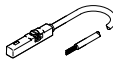

Dimensions with plug

Download CAD data a www.festo.com

[2] Screw
[3] Socket

Type	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	258	42	30.2
SDBT-MSB-1L-NU-K-0.3-M8								

Datasheet – Magneto-resistive

Ordering data		Cable length	Weight	Part no.	Type
Switching output		[m]	[g]		
N/O contact					
	PNP	2	26.5	8150171	SDBT-MSB-1L-PU-K-2-LE
	NPN	2	26.5	8150172	SDBT-MSB-1L-NU-K-2-LE
	Contactless, 2-wire	2	24	8150173	SDBT-MSB-1L-ZU-K-2-LE
	PNP	0.3	9.5	8150174	SDBT-MSB-1L-PU-K-0.3-M8
	NPN	0.3	9.5	8150175	SDBT-MSB-1L-NU-K-0.3-M8