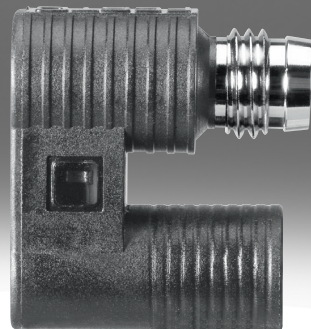


Proximity switch SMT0-4U

FESTO



Type code

001	Series	
SMT0	Proximity sensor, magnetoresistive	
002	Design type	
4U	Round shape, U-shaped housing	
003	Switching output, switching element function	
PS	PNP, N/O contact, 3-wire	
NS	NPN, N/O contact, 3-wire	

004	Electrical connection, cable length	
K	Cable, 2.5 m	
S	Plug M8x1	
005	Switching status indication	
LED	Yellow LED	
006	Rated operating voltage	
24	24 V DC	

Datasheet

General technical data

Design	Round
Mounting position	optional
Based on standard	EN 60947-5-2
Approval	RCM trademark
CE marking (see declaration of conformity)	To UK RoHS instructions, To UK instructions for EMC
CE mark (see declaration of conformity) ¹⁾	To EU EMC Directive, In accordance with EU RoHS Directive
Note on materials	RoHS-compliant

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

Measured variable	Position
Measuring principle	Magneto-inductive
Ambient temperature	-25 ... 70°C

Switching output

Electrical connection 1, connection type	Cable	Plugs
Switching output	NPN, PNP	
Switching element function	N/O contact	
Reproducibility of switching value ¹⁾	–	
Switch-on time	≤5 ms	0.5 ms
Switch-off time	≤5 ms	0.5 ms
Repetition accuracy	0.2 mm	
Max. output current	200 mA	
Max. switching capacity DC	6 W	
Voltage drop	≤2 V	
Off-state current	≤0.01 mA	
Min. load current	0.1 mA	
Inductive protective circuit	Integrated	

1) Only applies to drives protected against rotation.

Output, additional data

Short circuit current rating	Pulsed
Overload protection	Available

Electronics

Operational voltage range DC	10 ... 30 V
Residual ripple	10%
Reverse polarity protection	For all electrical connections

Electromechanics

Electrical connection 1, connection type	Cable	Plugs
Electrical connection 1, connector system	Open end	M8x1, A-coded, to EN 61076-2-104
Electrical connection 1, number of connections/cores	3	
Connection outlet orientation	In-line	
Max. tightening torque	0.8 Nm	
Cable length	2.5 m	–
Cable characteristic	Standard	–
Material cable sheath	PVC	–

Datasheet

Mechanics

Electrical connection 1, connection type	Cable	Plugs
Type of mounting	With accessories	
Max. tightening torque	0.8 Nm	
Product weight	70 g	6 g
Material housing	PET	PA, PET, PUR
Housing colour	Black	
Cable sheath colour	grey	–
Material cable sheath	PVC	–
Material insulating sheath	PVC	–
Wire ends	Tin-plated	–

Display/operation

Switching status indication	Yellow LED
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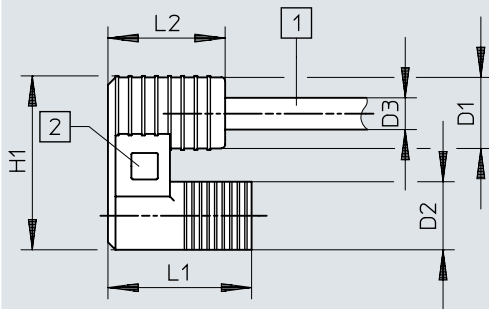
Immission/emission

Electrical connection 1, connection type	Cable	Plugs
Ambient temperature with moving cable	-5 ... 70°C	–
Degree of protection	IP67	
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress	
LABS (PWIS) conformity	VDMA24364-B2-L	

1) More information www.festo.com/x/topic/kbk

Dimensions

Dimensions – Cable

Download CAD data → www.festo.com

[1] 2-wire cable, 3-wire cable for SME0-4U-K-LED-220

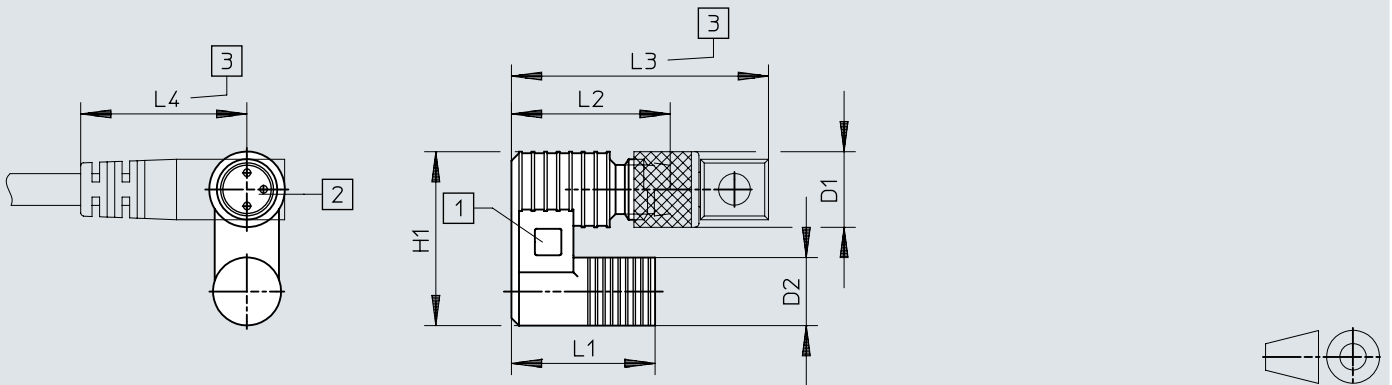
[2] Yellow LED switching status

	L1	L2	D1 ∅	D2 ∅	D3 ∅	H1
SMT0-4U- ... -K-LED-24	19	15,5	9,4	9	4,2	23

Dimensions

Dimensions – Plug M8x1

Download CAD data → www.festo.com

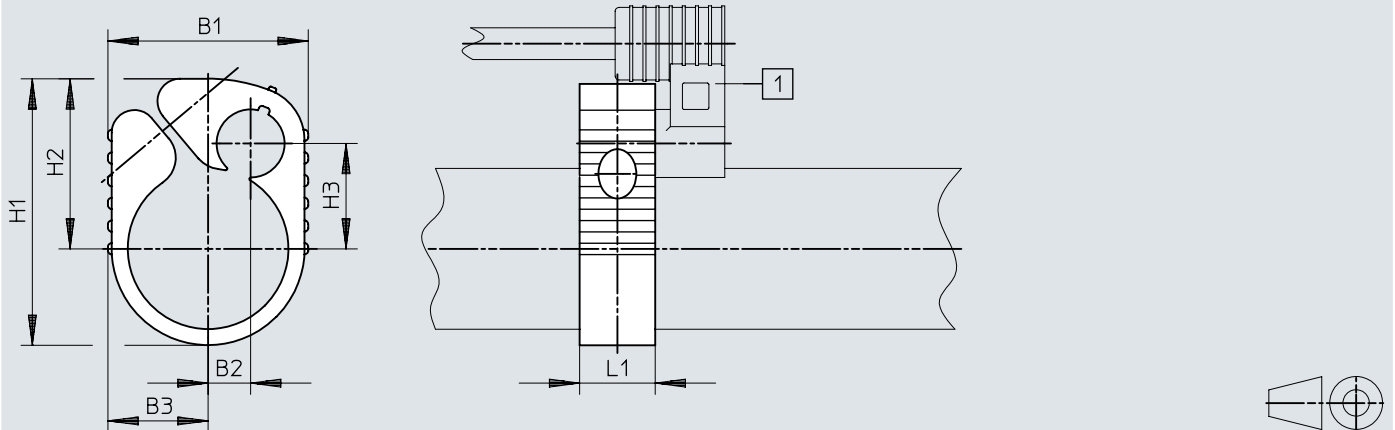


- [1] Yellow LED switching status
- [2] Suitable for plug socket SIM-8-...
- [3] Installation space for plug socket with 90° corner bracket

	L1	L2	L3	L4	D1 ∅	D2 ∅	H1
SMT0-4U- ... -S-LED-24	19	21	~34	~22	10	9	23

Dimensions


Dimensions – Mounting kit SMBR

Download CAD data → www.festo.com

[1] Proximity switch SM...-4, tightening torque 0.5 Nm

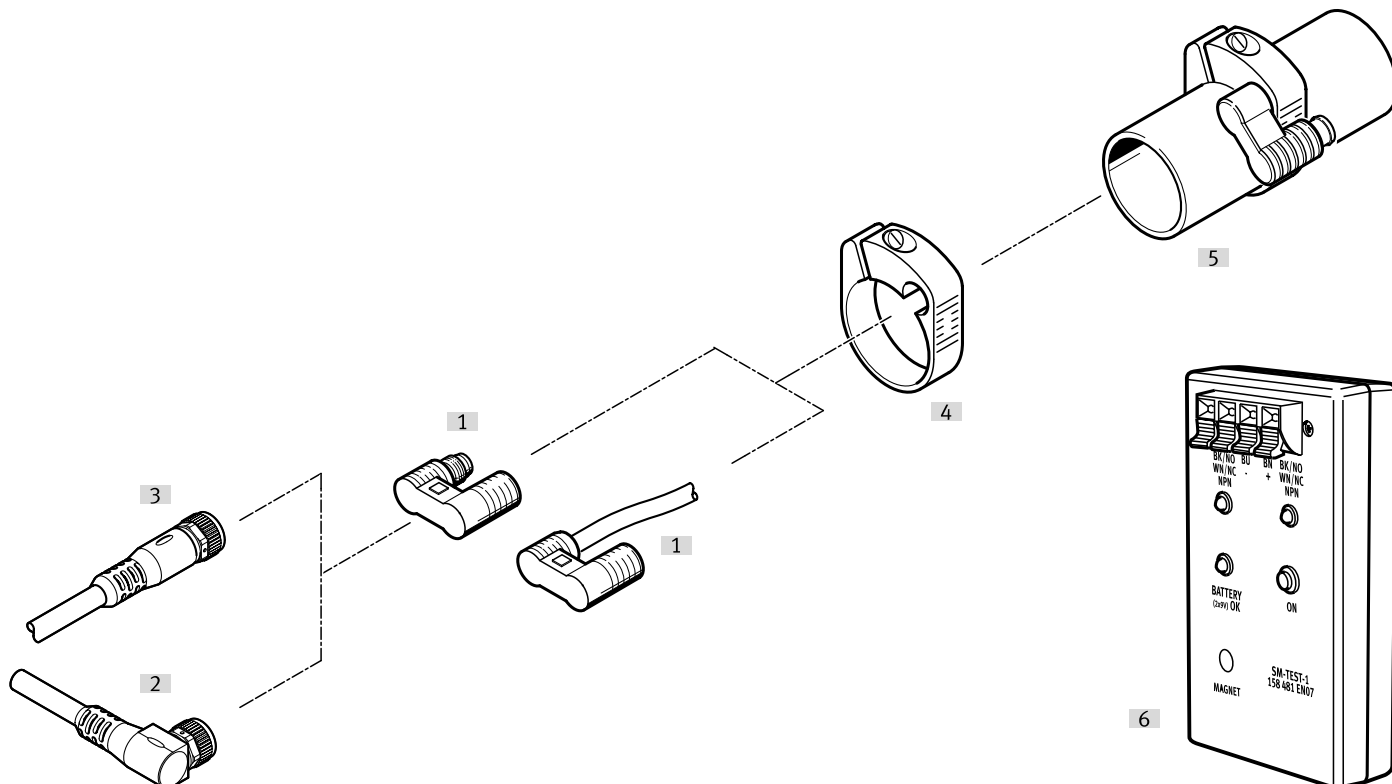
	B1	B2	B3	H1	H2	H3
SMBR-8	21	–	14	23,5	16,5	9
SMBR-10	22	0,5	14	26	18,5	10
SMBR-12	22	4	11	28,5	20	10,2
SMBR-16	22,5	4	11,5	33,5	22,5	12,4
SMBR-20	26,5	5,5	13,5	35,5	22,5	14
SMBR-25	31,5	7,5	16	40,5	25	16

Ordering data

Ordering data						
	Switching output	Electrical connection 1, connection type	Electrical connection 1, number of connections/cores	Cable length	Part no.	Type
	NPN	Cable	3	2.5 m	152837	SMTO-4U-NS-K-LED-24
		Plugs			152743	SMTO-4U-NS-S-LED-24
	PNP	Cable		2.5 m	152836	SMTO-4U-PS-K-LED-24
		Plugs			152742	SMTO-4U-PS-S-LED-24

Peripherals

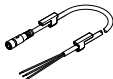
Peripherals overview




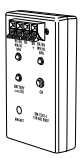
Accessories			→ Page/Internet
Type/order code		Description	
[1]	Proximity switch SMT0-4U-K	Magneto-inductive, with cable	smt0-4u
[1]	Proximity switch SMT0-4U-S	Magneto-inductive, with M8x1 plug	smt0-4u
[2]	Connecting cable NEBU-M8W3	Angled socket, M8x1, 3-pin	
[3]	Connecting cable NEBU-M8G3	Straight socket, M8x1, 3-pin	10
[4]	Mounting kit SMBR-...	Mounting example	10
[5]	Round cylinder	Application example	-
[6]	Sensor tester SM-TEST-1	Checking that the proximity switches are functioning using the built-in voltage source. Adjusting proximity switches on the cylinder.	10

Accessories

Connecting cable NEBU, socket M8x1, 3-pin, angled						
	Connection technology left, field device side	Electrical connection 1, cable outlet	Connection technology right, controller side	Cable length [m]	Part no.	Type

Connecting cable NEBU, socket M8x1, 3-pin, straight						
	Connection technology left, field device side	Electrical connection 1, cable outlet	Connection technology right, controller side	Cable length [m]	Part no.	Type
	Socket M8x1 A-coded, EN 61076-2-104	Straight	Open end	2.5 m	★ 541333	NEBU-M8G3-K-2.5-LE3
				5 m	★ 541334	NEBU-M8G3-K-5-LE3

Mounting kit SMBR				
	Size	LABS (PWIS) conformity	Part no.	Type
	8	VDMA24364-B2-L	19272	SMBR-8
	10		19273	SMBR-10
	12		19274	SMBR-12
	16		19275	SMBR-16
	20		19276	SMBR-20
	25		19277	SMBR-25

Sensor tester			
	Description	Part no.	Type
	Adjusting proximity switches on the cylinder, Checking the function of proximity switches with the help of the built-in voltage source	158481	SM-TEST-1