

## Proximity switch SMEO-4U

**FESTO**



## Type code

001	Series
<b>SMEO</b>	Proximity sensor, magnetic, reed
002	Design type
<b>4U</b>	Round shape, U-shaped housing
003	Electrical connection, cable length
<b>K</b>	Cable, 2.5 m
<b>K5</b>	Cable, 5 m
<b>S</b>	Plug M8x1

004	Switching status indication
<b>LED</b>	Yellow LED
005	Rated operating voltage
<b>24</b>	24 V DC
<b>230</b>	230 V AC
006	Generation
<b>B</b>	Series B

## Datasheet

**General technical data**

Electrical connection 1, connection type	Cable	Plugs
Design	Round	
Mounting position	optional	
Conforms to standard	DIN EN 60947-5-2	–
Approval	RCM trademark	
CE mark (see declaration of conformity) <sup>1)</sup>	To EU EMC Directive, To EU Low Voltage Directive, In accordance with EU RoHS Directive	To EU EMC Directive, In accordance with EU RoHS Directive
CE marking (see declaration of conformity)	To UK regulations for electrical equipment, To UK RoHS instructions, To UK instructions for EMC	To UK RoHS instructions, To UK instructions for EMC
Note on materials	–	

1) For information about the area of use, see the declaration of conformity: [www.festo.com/catalogue/...](http://www.festo.com/catalogue/...) → Support/Downloads. 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**

Measuring principle	Magnetic reed	
Ambient temperature	-20 ... 60 °C	

**Switching output**

Electrical connection 1, connection type	Cable	Plugs
Switching output	Contacting, bipolar, Without LED function	Contacting, bipolar
Switching element function	N/O contact	
Reproducibility of switching value	–	
Repetition accuracy	0.2 mm	
Switch-on time	≤2 ms	0.5 ms
Switch-off time	0.03 ... 0.05 ms	0.03 ms
Max. switching frequency	500 ... 800 Hz	800 Hz
Max. output current	500 mA	
Max. output current DC	120 mA	–
Max. output current AC	250 mA	–
Max. switching capacity DC	10 W	
Max. switching capacity AC	10 VA	–
Voltage drop	4.5 V	

**Output, additional data**

Electrical connection 1, connection type	Cable	Plugs
Short circuit current rating	no	
Overload protection	Not available	–

**Electronics**

Electrical connection 1, connection type	Cable	Plugs	
Rated operating voltage	24 V DC	230 V AC	24 V DC
Operational voltage range DC	12 ... 27 V	12 ... 250 V	12 ... 27 V
Operational voltage range AC	–	12 ... 250 V	–
Reverse polarity protection	no		

## Datasheet

**Electromechanics**

Electrical connection 1, connection type	Cable		Plugs
Electrical connection 1, number of connections/cores	2	3	
Electrical connection 1, connector system	Open end		M8x1, A-coded, to EN 61076-2-104
Cable length	2.5 m	2.5 ... 5 m	–
Connection outlet orientation	In-line		–
Material cable sheath	PVC	TPE-U(PUR)	–

**Mechanics**

Electrical connection 1, connection type	Cable		Plugs
Electrical connection 1, number of connections/cores	2	3	
Type of mounting	With accessories		
Tightening torque	0.8 Nm	–	
Product weight	70 g	70 ... 130 g	6 g
Material housing	PET, TPE-O	PET	

**Display/operation**

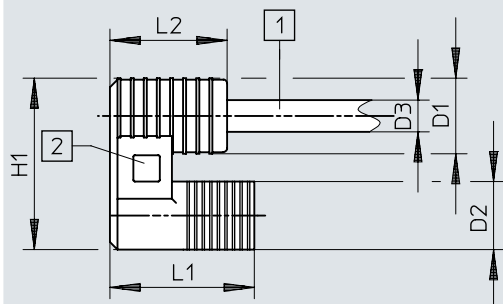
Switching status indication	–
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**Immission/emission**

Electrical connection 1, connection type	Cable		Plugs
Ambient temperature with moving cable	-5 ... 60 C		–
Degree of protection	IP67		
Immunity to surge	4 kV		–
Pollution degree	3		–
LABS (PWIS) conformity	VDMA24364-B2-L		

## Dimensions

## Dimensions – SMEO-4U-K – Cable

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

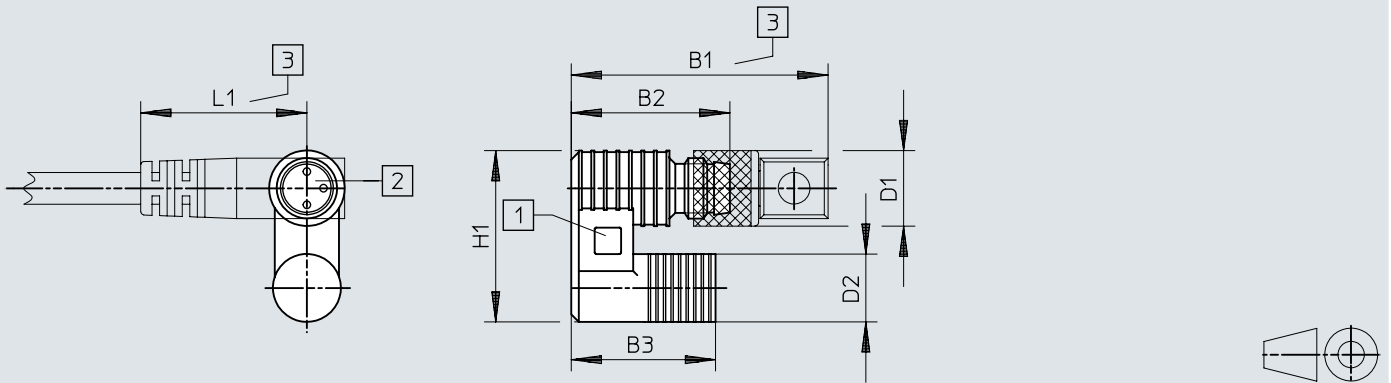
- [1] 2-wire cable, 3-wire cable for SMEO-4U-K-LED-220  
 [2] Yellow LED switching status

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

## Dimensions

Dimensions – SMEO-4U-S – Plug M8x1

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

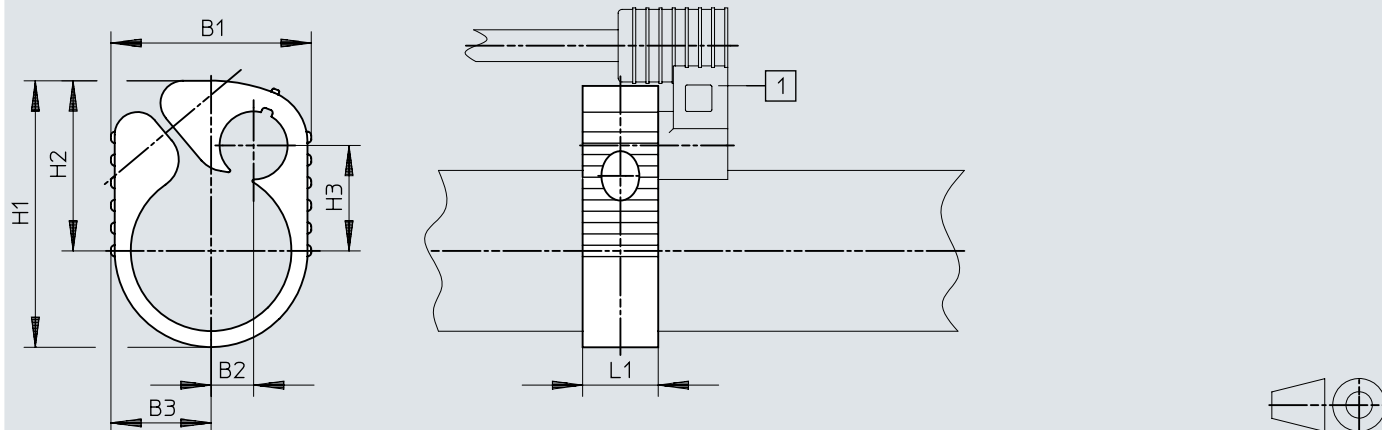


- [1] Yellow LED switching status
- [2] Suitable for plug socket SIM-8-...
- [3] Installation space for plug socket with 90° corner bracket

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

## Dimensions


## Dimensions – Mounting kit SMBR

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

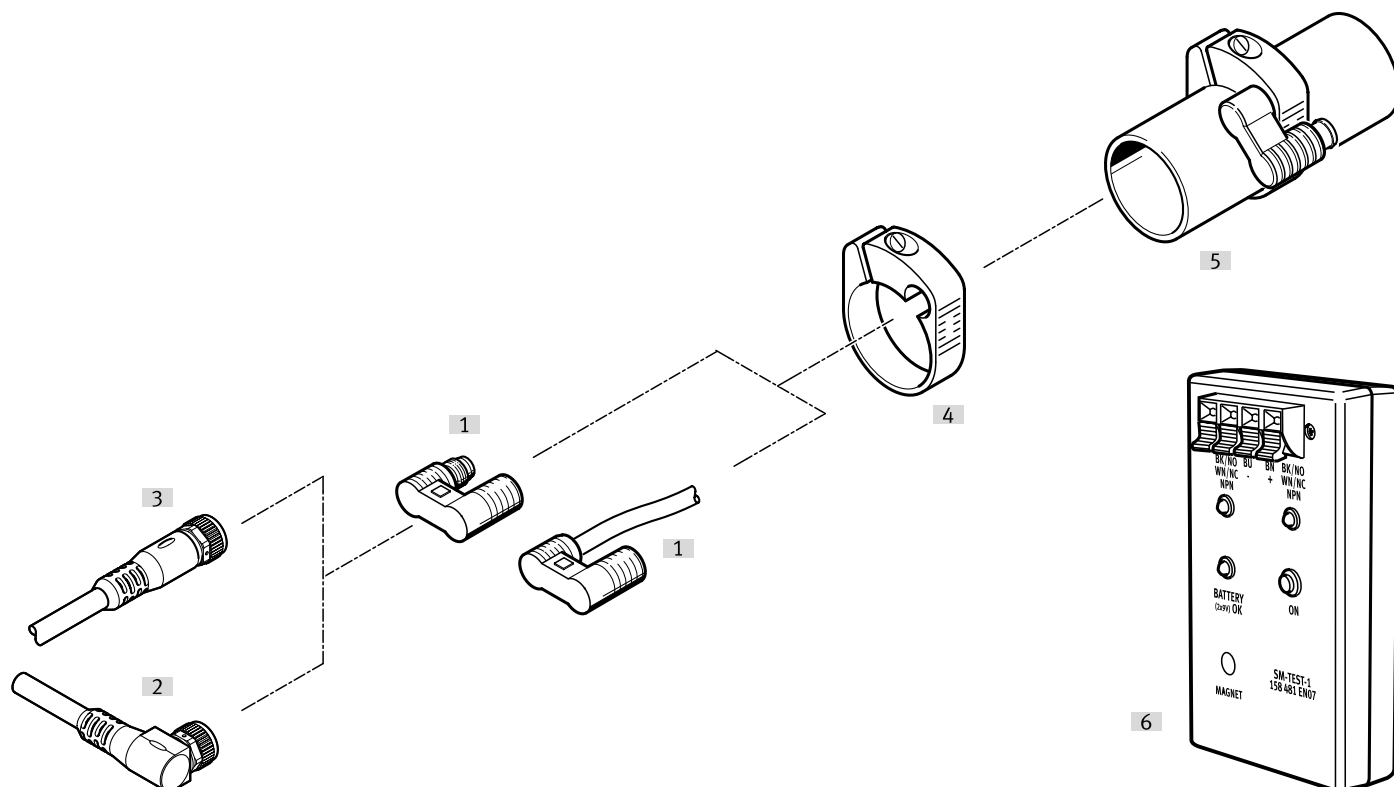
## Ordering data

Ordering data						
	Electrical connection 1, connection type	Electrical connection 1, number of connections/cores	Cable length	Product weight	Part no.	Type
	Cable	2	2.5 m	70 g	<b>150011</b>	<b>SMEO-4U-K-LED 230</b>
		3			<b>36198</b>	<b>SMEO-4U-K-LED-24</b>
	Plugs		5 m	130 g	<b>175401</b>	<b>SMEO-4U-K5-LED-24</b>
				6 g	<b>151526</b>	<b>SMEO-4U-S-LED-24 B</b>



## Peripherals


## Peripherals overview



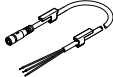
Accessories			→ Page/Internet
Type/order code		Description	
[1]	Proximity switch SMEO-4U-K	Magnetic reed, with cable	smeo-4u
[1]	Proximity switch SMEO-4U-S	Magnetic reed, with plug M8x1	smeo-4u
[2]	Connecting cable NEBU, socket M8x1, 3-pin, angled	Angled socket, M8x1, 3-pin	
[3]	Connecting cable NEBU, socket M8x1, 3-pin, straight	Straight socket, M8x1, 3-pin	10
[4]	Mounting kit SMBR	For round cylinders	10
[5]	Round cylinder	Ø 8 ... 25 mm	-
[6]	Sensor tester SM-TEST-1	Checking the function of proximity switches 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
	Socket M8x1 A-coded, EN 61076-2-104	Angled	Open end	2.5 m	★ 541338	NEBU-M8W3-K-2.5-LE3
				5 m	★ 541341	NEBU-M8W3-K-5-LE3

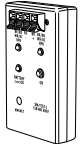
## Connecting cable NEBU, socket M8x1, 3-pin, straight

	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