

## Proximity switch SMEO-1

**FESTO**



Type code

<b>001</b>	<b>Series</b>	
<b>SMEO-1</b>	Proximity switch, block design, magnetic, reed	
<b>002</b>	<b>Temperature range</b>	
<b>S6</b>	Heat-resistant seals max. 120 °C	
<b>003</b>	<b>Electrical connection, cable length</b>	
<b>S</b>	Plug M8x1 with cable, 0.3 m	
<b>K5</b>	Cable, 5.0 m	

<b>004</b>	<b>Switching status indication</b>	
	None	
<b>LED</b>	Yellow LED	
<b>005</b>	<b>Rated operating voltage</b>	
<b>24</b>	24 V DC	
<b>230</b>	230 V AC	
<b>006</b>	<b>Generation</b>	
<b>B</b>	Series B	
<b>C</b>	Series C	

## Datasheet

### General technical data

Design	Block design
Mounting position	optional
Based on standard	–
Approval	RCM trademark
CE mark (see declaration of conformity)	To EU Low Voltage 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
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364-B2-L

### Input signal/measuring element

Measured variable	Position
Measuring principle	Magnetic reed
Ambient temperature	-50 ... 120°C
Ambient temperature with moving cable	-40 ... 120°C

### Switching output

Switching output	Contacting, bipolar	
Switching element function	N/O contact	
Hysteresis	–	
Repetition accuracy	0.2 mm	
Switch-on time	0.5 ms	≤0.5 ms
Switch-off time	0.03 ms	–
Max. switching frequency	500 Hz	
Max. output current	1,000 A	
Max. switching capacity DC	27 ... 40 W	27 W
Voltage drop	≤4.5 V	–
Inductive protective circuit	–	

### Output, further data

Short circuit current rating	no
Overload protection	Not available

### Electronics

Operational voltage range DC	0 ... 200 V
Residual ripple	–
Reverse polarity protection	no

### Electromechanics

Electrical connection 1, connection type	Cable	Plugs
Electrical connection 1, function	Power supply, Switching output	
Electrical connection 1, connector system	Open end	M8x1, A-coded, to EN 61076-2-104
Electrical connection 1, number of connections/cores	2, 3	3
Electrical connection 1, used connections/cores	2, 3	
Connection outlet orientation	In-line	
Cable length	2.5 ... 5 m	–
Cable characteristic	–	
Cable sheath colour	grey	–
Material cable sheath	PVC, TPE-S, TPE-U(PUR)	–
Material insulating sheath	–	
Wire ends	–	

## Datasheet

**Display/operation**

Switching status indication	Yellow LED
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**Mechanics**

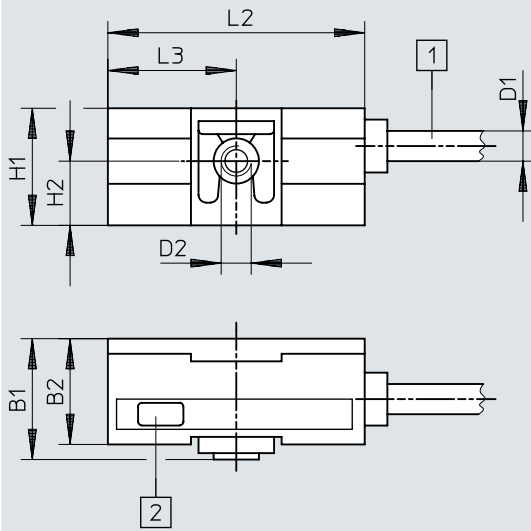
Electrical connection 1, connection type	Cable	Plugs
Type of mounting	With accessories	
Product weight	85 ... 130 g	20 g
Material housing	Epoxy resin, PC, PET, Reinforced PET, Steel, TPE-O, Die-cast zinc	Epoxy resin, PET, Steel, Die-cast zinc
Housing colour	Black	

**Immission/emission**

Degree of protection	IP67
Corrosion resistance class CRC	1 - Low corrosion stress

## Dimensions

## Dimensions – SMEO-1 – cable

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

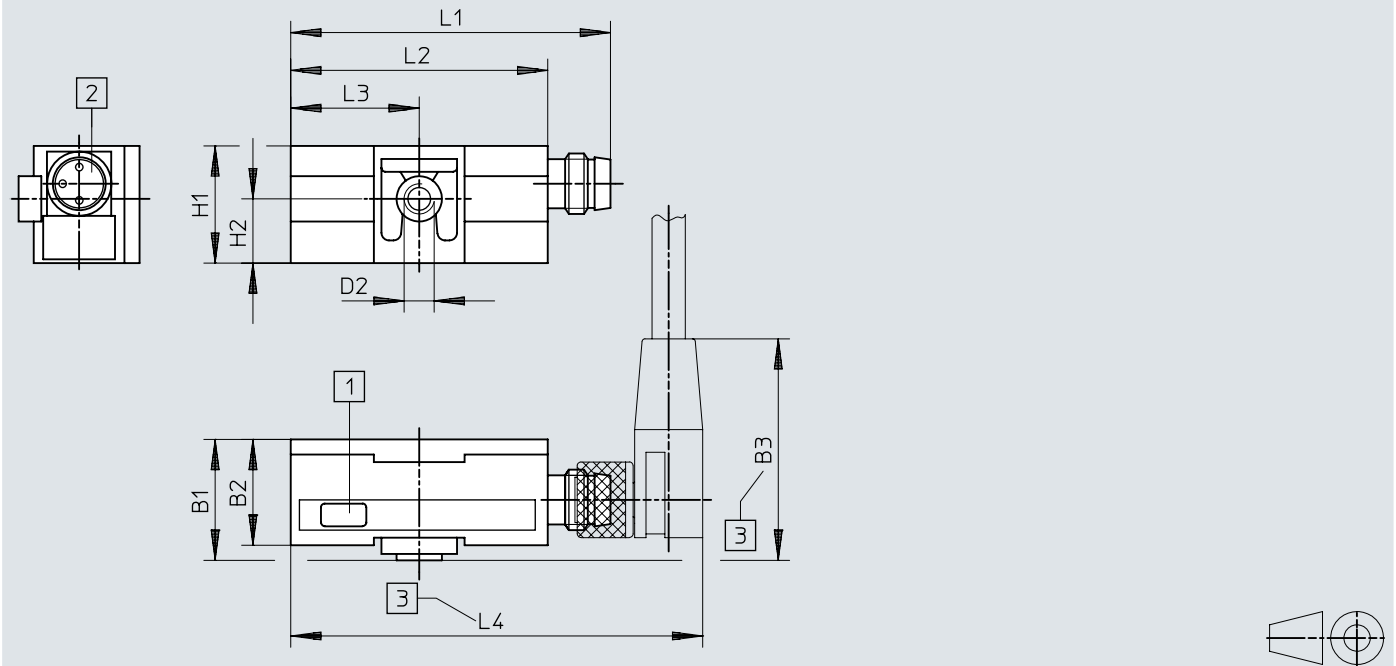
- [1] Connecting cable  
[2] Yellow light emitting diode

	B1	B2	D1 ∅	D2	H1	H2	L2	L3
	-0,2	±0,3	+0,3		±0,2	±0,1	±0,2	-0,1
SMEO-1-S6-C	16	14	4,2	M4	15,5	8,5	34	17
SMEO-1-B								
SMEO-1-LED-24-K5-B								
SMEO-1-LED-230-B								
SMEO-1-LED-230-K5-B								
SMEO-1-LED-24-B								

## Dimensions

### Dimensions – SMEO-1-S – plug M8x1

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

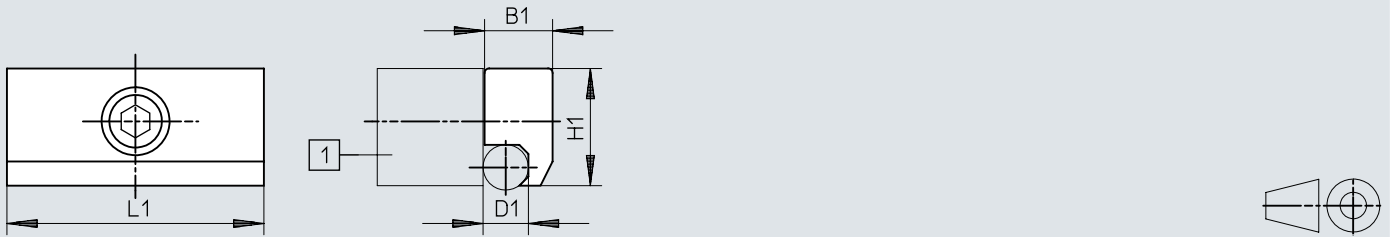


- [1] Yellow light emitting diode
- [2] Suitable for plug socket type SIM-M8
- [3] Installation space for plug socket with 90° corner bracket

	B1	B2	B3	D2	H1	H2	L1	L2	L3	L4
	-0,2	±0,3	B3	D2	±0,2	±0,1	±0,2	±0,2	-0,1	L4
SMEO-1-S-LED-24-B	16	14	~27,5	M4	15,5	8,5	42	34	17	~54,5
SMEO-1-S-24-B										

## Dimensions

## Dimensions – Mounting kit SMB-1

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

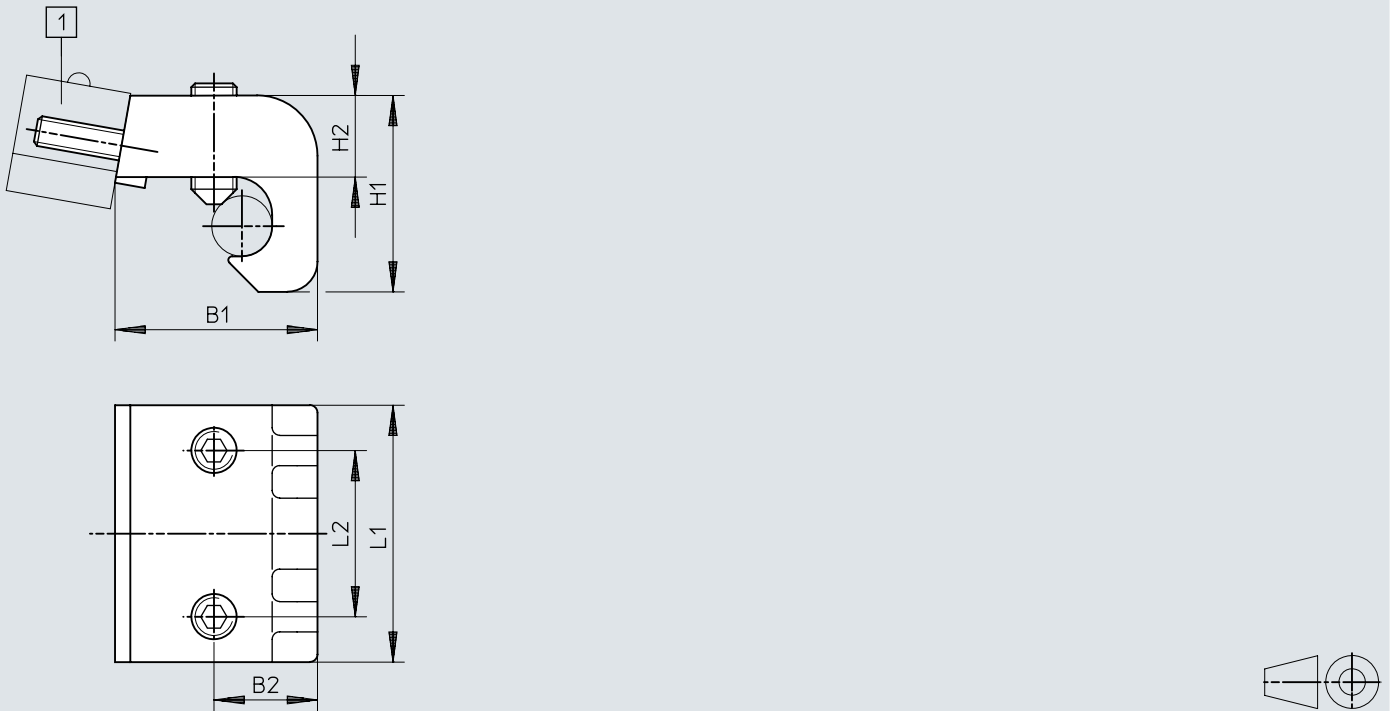
[1] Proximity switch SMEO, SMT0, SMPO-1

		B1	D1 ∅	H1	L1
SMB-1	32 ... 100	9	6	15,5	34

## Dimensions

Dimensions – Mounting kit SMB-2-B/SMB-3-B

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



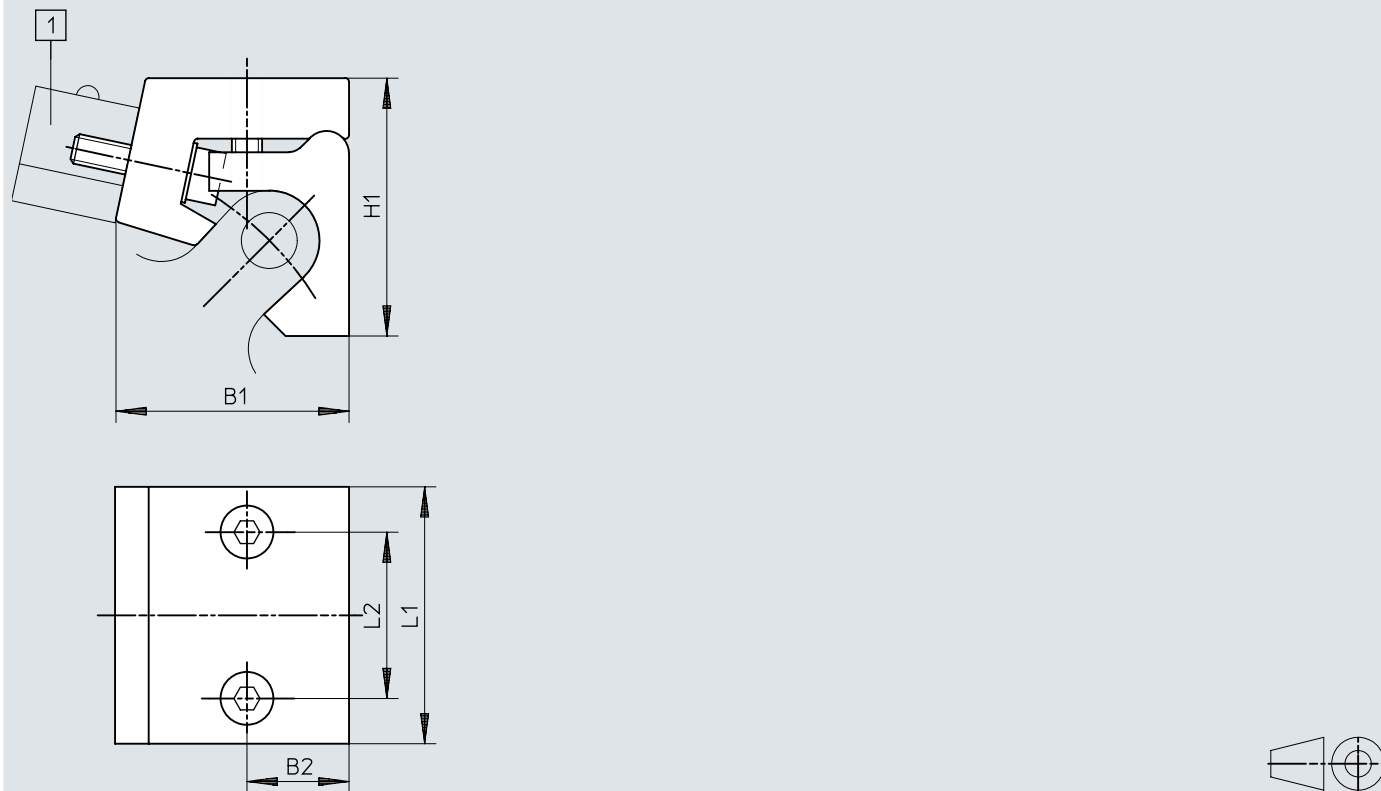
[1] Proximity switch SMEO, SMT0, SMPO-1

		B1	B2	H1	H2	L1	L2
SMB-2-B	32 ... 50	18	11	23	11,6	34	22
SMB-3-B	63 ... 100	26,8	13,7	26	10,8	34	22



## Dimensions

## Dimensions – Mounting kit SMBU


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

[1] Proximity switch SMEO, SMT0, SMPO-1

		B1	B2	H1	L1	L2
SMBU-1-B <sup>1)</sup>	32 ... 50	19	8,5	30	34	22
SMBU-2-B <sup>1)</sup>	63 ... 100	31	13,5	34	34	22
SMBU-3-B	125	31	13,5	37	34	22

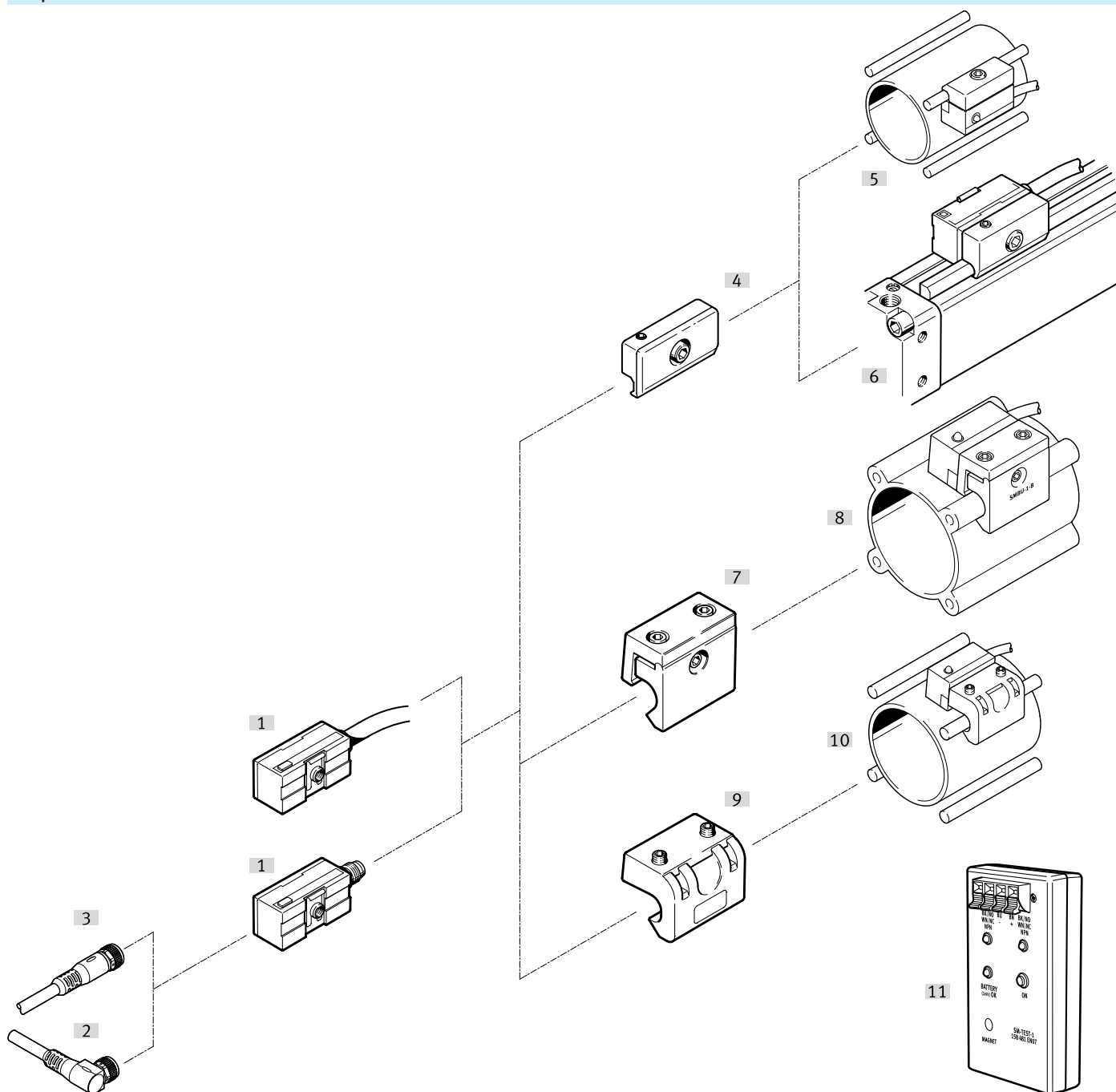
1) Free of copper and PTFE

## Ordering data

Ordering data						
	Electrical connection 1, connection type	Electrical connection 1, number of connections/cores	Switching output	Cable length	Part no.	Type
	Cable	2	Contacting, bipolar	2.5 m	30457	SMEO-1-B
					151673	SMEO-1-S6-C
					151671	SMEO-1-LED-230-B
		5 m		160998	SMEO-1-LED-230-K5-B	
		2.5 m		30459	SMEO-1-LED-24-B	
		5 m		151672	SMEO-1-LED-24-K5-B	
	Plugs				150847	SMEO-1-S-24-B
					150848	SMEO-1-S-LED-24-B

## Peripherals

## Peripherals overview




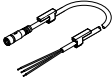
Accessories			→ Page/Internet
Type/order code	Description		
[1] Proximity switch SMEO-1, magnetic reed, with cable	Magnetic reed, with cable		smeo-1
[1] Proximity switch SMEO-1, magnetic reed, with plug M8x1	Magnetic reed, with plug M8x1		smeo-1
[2] Connecting cable NEBU, socket, M8x1, 3-pin, angled	Angled socket, M8x1, 3-pin		13
[3] Connecting cable NEBU, socket M8x1, 3-pin, straight	Straight socket, M8x1, 3-pin		13
[4] Mounting kit SMB-1	<ul style="list-style-type: none"> <li>For drives with <math>\varnothing</math> 6 mm tie rod or mounting strip</li> <li>For standards-based cylinder DSBG</li> </ul>		13
[5] Standards-based cylinder DSBG	$\varnothing$ 32 ... 125 mm		-
[6] Flat cylinder DZH	$\varnothing$ 32 ... 63 mm		-
[7] Mounting kit SMBU	For standards-based cylinder DNU		13

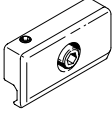
## Peripherals

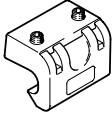
Accessories		→ Page/Internet
Type/order code	Description	
[8]	Standards-based cylinder	Ø 32 ... 125 mm
[9]	Mounting kit SMB-2-B, SMB-3-B	For standards-based cylinder DSBC
[10]	Standards-based cylinder DSBG	Ø 32 ... 125 mm
[11]	Sensor tester SM-TEST-1	Checking that the proximity switches are functioning using the built-in voltage source. Adjustment of proximity switches on the cylinder

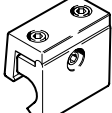
## Accessories

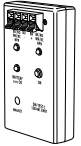
Connecting cable NEBU, socket M8x1, 3-pin, angled						
	Connection technology left, field device side	Electrical connection 1, cable outlet	Connection technology right, controller side	Cable length [m]	Part no.	Type
	Socket M8x1 A-coded, EN 61076-2-104	Angled	Open end	2.5 m	★ 541338	NEBU-M8W3-K-2.5-LE3
				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 SMB-1				
	Size	RoHS status	Part no.	Type
	1	RoHS-compliant in accordance with EU directive	11886	SMB-1

Mounting kit SMB-2-B, SMB-3-B				
	Size	RoHS status	Part no.	Type
	2	RoHS-compliant in accordance with EU directive	36162	SMB-2-B
	3		36163	SMB-3-B

Mounting kit SMBU				
	Size	RoHS status	Part no.	Type
	1	RoHS-compliant in accordance with EU directive	36173	SMBU-1-B
	2		36174	SMBU-2-B
	3		152828	SMBU-3-B

Sensor tester SM-Test-1					Further information → sm-test-1
	Operational voltage range DC	Ambient temperature	Degree of protection	Part no.	Type
	12 ... 20 V	0 ... 40 °C	IP20	158481	SM-TEST-1