

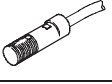



Proximity sensors, round design

Product range overview



Measuring principle	Version	Type	Assembly	Switching element function		Switch output	Electrical connection	
				N/O contact	N/C contact		Cable	Plug
Magneto-inductive	Operating voltage range 10 ... 30 V DC							
		SMT0-4U	Via accessories	■	-	PNP	3-wire	M8x1, 3-pin
				■	-	NPN	3-wire	M8x1, 3-pin
Magnetic reed	Operating voltage range 12 ... 30 V AC/DC							
		SME0-4U	Via accessories	■	-	Contacting	3-wire	M8x1, 3-pin
		CRSME0-4 Corrosion resistant	Via accessories	■	-	Contacting	3-wire	-
	Operating voltage range 12 ... 250 V AC/DC							
	SME0-4U	Via accessories	■	-	Contacting	2-wire	-	

Proximity sensors, round design

Product range overview



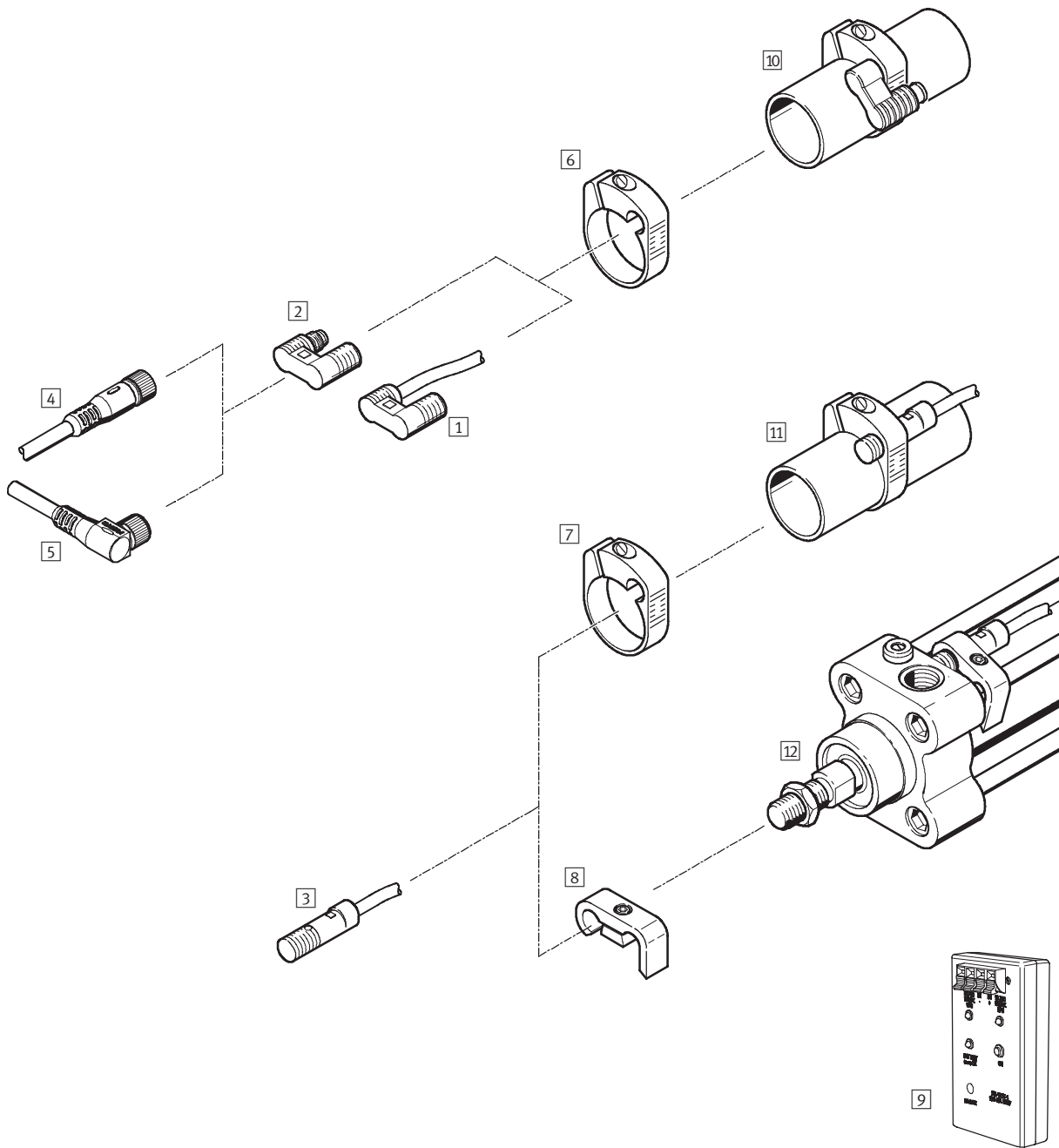
Sensors
Sensors for drive units

1.1

Type	Connection direction		Switching status display via LED	Free of copper and PTFE	→ Page
	In-line	Lateral			
Operating voltage range 10 ... 30 V DC					
SMT0-4U	■	-	■	■	6
	■	-	■	-	
Operating voltage range 12 ... 30 V AC/DC					
SME0-4U	■	-	■	■	8
CRSME0-4 Corrosion resistant	■	-	■	-	10
Operating voltage range 12 ... 250 V AC/DC					
SME0-4U	■	-	■	-	8

Proximity sensors, round design

Peripherals overview



Proximity sensors, round design

Peripherals overview

Mounting attachments and accessories			
	Brief description	→ Page	
Proximity sensors			
1	SMT0-4U-K SME0-4U-K	Magneto-inductive, with cable Magnetic reed, with cable	6 8
2	SMT0-4U-S SME0-4U-S	Magneto-inductive, with plug M8x1 Magnetic reed, with plug M8x1	6 8
3	CRSMEO-4	Magnetic reed, corrosion resistant, with cable	10
Accessories			
4	Plug socket with cable NEBU-M83GD-...	Straight socket, M8x1, 3-pin	www.festo.com
5	Plug socket with cable NEBU-M83WD-...	Angled socket, M8x1, 3-pin	
6	Mounting kit SMBR-...	For round cylinders	12
7	Mounting kit CRSMBR-...	Corrosion resistant, for round cylinders	12
8	Mounting kit CRSMB-...	Corrosion resistant	13
9	Sensor tester SM-TEST-1		www.festo.com
Drives			
10	Round cylinders	∅ 8 ... 63 mm	-
11	Round cylinders CRDG, CRDSW, CRDSNU, stainless steel	∅ 12 ... 63 mm	
12	Standard cylinders CRDNG, CRDNGS, stainless steel	∅ 32 ... 125 mm	

Proximity sensors, round design

Type codes

SMT0 – 4U – PS – K – LED – 24 –

Function

SMT0	Proximity sensor, magneto-inductive
SME0	Proximity sensor, magnetic reed
CRSME0	Proximity sensor, magnetic reed, corrosion resistant

Design

4U	Round design, U-shaped housing
4	Round design, straight housing

Switch output, switching element function

PS	PNP, N/O contact, 3-wire
NS	NPN, N/O contact, 3-wire
	N/O contact, 2- or 3-wire

Electrical connection, cable length

K	Cable, 2.5 m
K5	Cable, 5 m
S	Plug M8x1

Switching status display

LED	Yellow LED
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Rated operating voltage

24	24 V DC
230	230 V AC

Generation

B	B series
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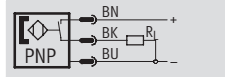
Proximity sensors SMT0-4U, round design, magneto-resistive



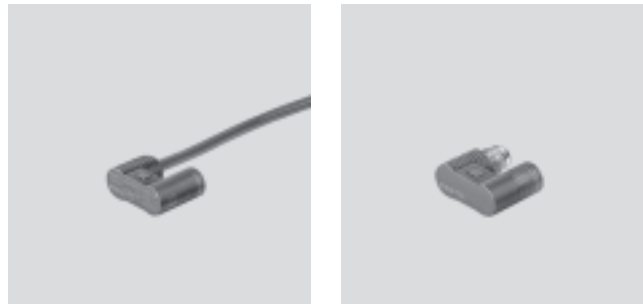
Technical data

Function

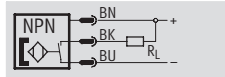
e.g. PNP, N/O contact, with plug



- Magneto-inductive measuring principle



e.g. NPN, N/O contact, with plug



Design	
Constructional design	Round
Type of mounting	Via accessories
Connection direction	In-line
Reproducibility of switching point ¹⁾ [mm]	±0.1
Switching status display	Yellow LED

1) Only applicable to drives secured against rotation

Technical data – N/O contact		
Switch output	PNP	
	NPN	
Electrical connection	Cable, 3-wire	Plug M8x1, 3-pin
Cable length [m]	2.5	–
Operating voltage range [V DC]	10 ... 30	
Max. output current [mA]	200	
Max. switching capacity [W]	6	
Voltage drop [V]	2	
Residual current [mA]	≤0.01	
Switch-on time [ms]	≤0.5	
Switch-off time [ms]	≤0.5	
Protection against short circuit	Yes	
Protection against polarity reversal	For all electrical connections	
Protection class	IP67	

Operating and environmental conditions			
Electrical connection	Cable		Plug
Cable installation	Fixed	Flexible	
Ambient temperature [°C]	–25... +70	–5 ... +70	–25... +70
Corrosion resistance class CRC ¹⁾	4		2
CE symbol (declaration of conformity)	In accordance with EU EMC directive		

1) Corrosion resistance class 2 according to Festo standard 940 070
 Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
 Corrosion resistance class 4 according to Festo standard 940 070
 Components requiring higher corrosion resistance. Parts used with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

Materials	
Housing	Polyester
Cable sheath	Polyvinyl chloride
Note on materials	Free of copper and PTFE

Proximity sensors SMT0-4U, round design, magneto-resistive



Technical data

Product weights [g]		
Electrical connection	Cable	Cable with plug
N/O contact		
PNP	70	6
NPN	70	6

Dimensions Download CAD data → www.festo.com/en/engineering

Cable type

- 1 Connecting cable
- 2 Yellow LED

Plug type M8x1

- 2 Yellow LED
- 3 Plug suitable for plug socket with cable NEBU-M8...
- 4 Installation space for angled socket

Ordering data

	Switch output	Electrical connection		Cable length [m]	Part No.	Type
		Cable	Plug M8x1			
	N/O contact					
	PNP	3-wire	-	2.5	152 836	SMT0-4U-PS-K-LED-24
		-	3-pin	-	152 742	SMT0-4U-PS-S-LED-24
	NPN	3-wire	-	2.5	152 837	SMT0-4U-NS-K-LED-24
-		3-pin	-	152 743	SMT0-4U-NS-S-LED-24	

Proximity sensors SMEO-4U, round design, magnetic reed

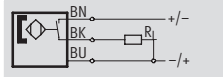
Technical data



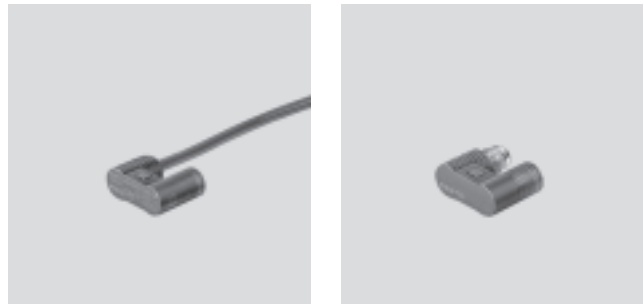
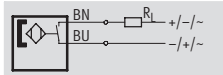
Function

- Magnetic reed measuring principle

e.g. N/O contact, 3-wire, with cable



e.g. N/O contact, 2-wire, with cable



Design	
Constructional design	Round
Type of mounting	Via accessories
Connection direction	In-line
Reproducibility of switching point ¹⁾	[mm] ±0.1
Switching status display	Yellow LED

1) Only applicable to drives secured against rotation

Technical data – N/O contact, 3-wire			
Switch output	Conventional contact, bipolar		
Electrical connection	Cable, 3-wire	Cable, 3-wire	Plug M8x1, 3-pin
Cable length	[m] 2.5	5	-
Operating voltage range	DC [V DC] 12 ... 27		
Max. output current	[mA] 500		
Max. switching capacity	DC [W] 10		
Voltage drop	[V] -		
Switch-on time	[ms] ≤0.5		
Switch-off time	[ms] 0.03		
Protection against short circuit	No		
Protection against polarity reversal	No		
Protection class	IP67		

Technical data – N/O contact, 2-wire			
Switch output	Conventional contact, bipolar ¹⁾		
Electrical connection	Cable, 2-wire		
Cable length	[m] 2.5		
Operating voltage range	DC [V DC] 12 ... 250		
	AC [V AC] 12 ... 250		
Max. output current	[mA] 500		
Max. switching capacity	DC [W] 10		
	AC [VA] 10		
Voltage drop	[V] 4.1		
Switch-on time	[ms] ≤2		
Switch-off time	[ms] 2		
Protection against short circuit	No		
Protection against polarity reversal	No		
Protection class	IP67		

1) Without LED function

Materials	
Housing	Polyethylene terephthalate
Cable sheath	Polyvinyl chloride
Note on materials	Free of copper and PTFE

Proximity sensors SMEO-4U, round design, magnetic reed

Technical data

Operating and environmental conditions			
Electrical connection	Cable		Plug
Cable installation	Fixed	Flexible	
Ambient temperature [°C]	-20 ... +60	-5 ... +60	-20 ... +60
Corrosion resistance class CRC ¹⁾	4		2
CE symbol (declaration of conformity)	In accordance with EU EMC directive		
	In accordance with EU low voltage directive ²⁾		-

- 1) Corrosion resistance class 2 according to Festo standard 940 070
 Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.
 Corrosion resistance class 4 according to Festo standard 940 070
 Components requiring higher corrosion resistance. Parts used with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.
- 2) Only valid for N/O contact, 2-wire, operating voltage range 3 ... 250 V AC / 250 V DC

Product weights [g]			
Electrical connection	Cable		Plug
Cable length [m]	2,5	5,0	-
N/O contact			
3-wire	70	130	16
2-wire	70	-	-

Dimensions Download CAD data → www.festo.com/en/engineering

Cable type

1 Connecting cable
 2 Yellow LED

Plug type M8x1

2 Yellow LED
 3 Plug suitable for plug socket with cable NEBU-M8...
 4 Installation space for angled socket

Ordering data

	Electrical connection		Cable length [m]	Part No.	Type
	Cable	Plug M8x1			
	N/O contact				
	Operating voltage range 12 ... 27 V DC				
	3-wire	-	2.5	36 198	SMEO-4U-K-LED-24
			5	175 401	SMEO-4U-K5-LED-24
	-	3-pin	-	151 526	SMEO-4U-S-LED-24-B
Operating voltage range 12 ... 250 V AC/DC					
2-wire	-	2.5	150 011	SMEO-4U-K-LED-230	

Proximity sensors CRSMEO-4, round design, magnetic reed

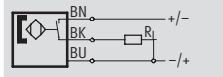


Technical data

Function

N/O contact, 3-wire, with cable

- Corrosion resistant
- Magnetic reed measuring principle



Design	
Constructional design	Round
Type of mounting	Via accessories
Connection direction	In-line
Reproducibility of switching point ¹⁾	[mm] ±0.1
Switching status display	Yellow LED

1) Only applicable to drives secured against rotation

Technical data – N/O contact, 3-wire			
Switch output	Contacting		
Electrical connection	Cable, 3-wire		
Cable length	[m]	2.5	
Operating voltage range	DC	[V DC]	12 ... 30
	AC	[V AC]	12 ... 30
Max. output current	[mA]	500	
Max. switching capacity	DC	[W]	10
	AC	[VA]	10
Switch-on time	[ms]	0.03	
Switch-off time	[ms]	≤0.5	
Protection against short circuit	No		
Protection against polarity reversal	No		
Protection class	IP65/IP67		

Operating and environmental conditions			
Electrical connection	Cable		
Cable installation	Fixed	Flexible	
Ambient temperature	[°C]	-20 ... +60	-5 ... +60
Corrosion resistance class CRC ¹⁾	4		
CE symbol (declaration of conformity)	In accordance with EU EMC directive		

1) Corrosion resistance class 4 according to Festo standard 940 070
Components requiring higher corrosion resistance. Parts used with aggressive media, e.g. food or chemical industry. These applications should be supported with special tests with the media if required.

Materials	
Housing	Polypropylene
Cable sheath	Thermoplastic rubber
Note on materials	Free of copper and PTFE

Product weights [g]	
N/O contact	
3-wire	70

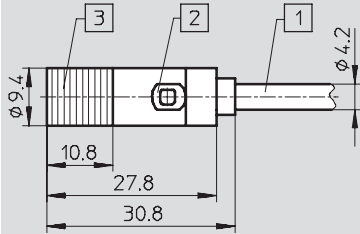
Proximity sensors CRSMEO-4, round design, magnetic reed

Technical data



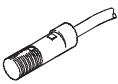
Dimensions

Download CAD data → www.festo.com/en/engineering



- 1 Connecting cable
- 2 Yellow LED
- 3 Clamping range

Ordering data

	Electrical connection	Cable length [m]	Part No.	Type
	N/O contact			
	Corrosion resistant			
	Cable, 3-wire	2.5	161 775	CRSMEO-4-K-LED-24

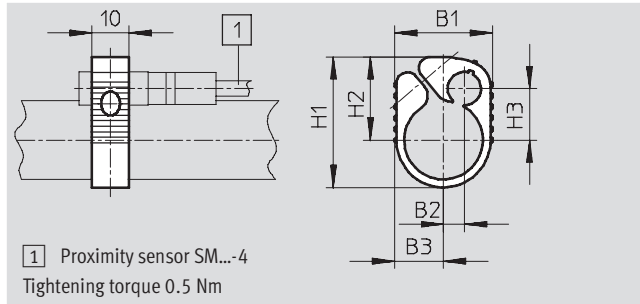
Proximity sensors, round design

Accessories



Mounting kit SMBR

Material:
Polyacetate

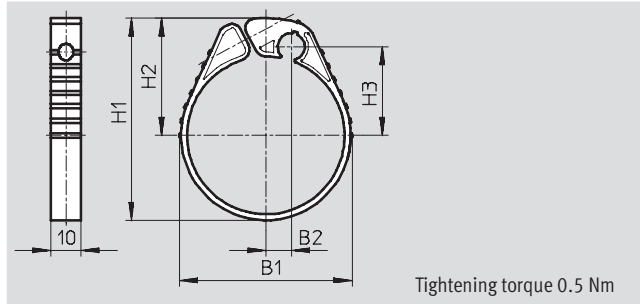


Dimensions and ordering data								
For piston \varnothing	B1	B2	B3	H1	H2	H3	Part No.	Type
8	21	-	14	23.5	16.5	9	19 272	SMBR-8
							166 398	SMBR-8-CT ¹⁾
10	22	0.5	14	26	18.5	10	19 273	SMBR-10
							166 399	SMBR-10-CT ¹⁾
12	22	4	11	28.5	20	10.2	19 274	SMBR-12
							166 400	SMBR-12-CT ¹⁾
16	22.5	4	11.5	33.5	22.5	12.4	19 275	SMBR-16
							166 401	SMBR-16-CT ¹⁾
20	26.5	5.5	13.5	35.5	22.5	14	19 276	SMBR-20
							166 402	SMBR-20-CT ¹⁾
25	31.5	7.5	16	40.5	25	16	19 277	SMBR-25
							166 403	SMBR-25-CT ¹⁾

1) Free of copper and PTFE

Mounting kit CRSMBR

Material:
Polypropylene



Dimensions and ordering data							
For piston \varnothing	B1	B2	H1	H2	H3	Part No.	Type
12	22	4.1	28.6	20	10.2	164 581	CRSMBR-12
16	22.3	4	33.2	22.5	12.4	164 582	CRSMBR-16
20	26.5	5.6	35.25	22.5	14	164 583	CRSMBR-20
25	31.5	7.4	40.2	25	16	164 584	CRSMBR-25
32	38.6	7.9	47.8	29	19.7	163 888	CRSMBR-32
40	46.6	8.1	55.8	33	23.8	163 889	CRSMBR-40
50	57.4	8.2	67.2	39	29.5	163 890	CRSMBR-50
63	70.4	8.2	80.8	45.9	36.2	163 891	CRSMBR-63

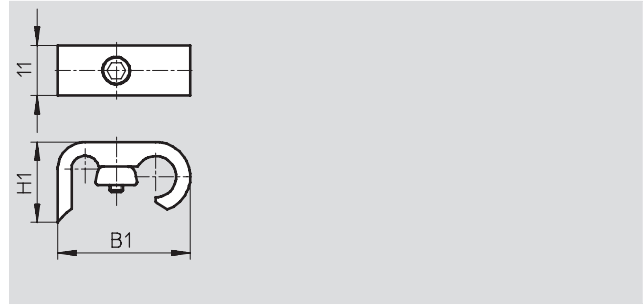
Proximity sensors, round design

Accessories



Mounting kit CRSMB

Material:
High-alloy stainless steel



Dimensions and ordering data				
For piston \varnothing	B1	H1	Part No.	Type
32	29	17.6	161 763	CRSMB-32
40	29	15.1	161 764	CRSMB-40
50	31.1	17.4	161 765	CRSMB-50
63	31.1	18.1	161 766	CRSMB-63
80	33	24.2	161 767	CRSMB-80
100	33	27.5	161 768	CRSMB-100
125	36.5	31.1	185 365	CRSMB-125