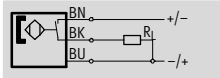


# Proximity sensors SMEO-1, block design, magnetic reed

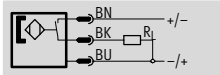
## Technical data

### Function

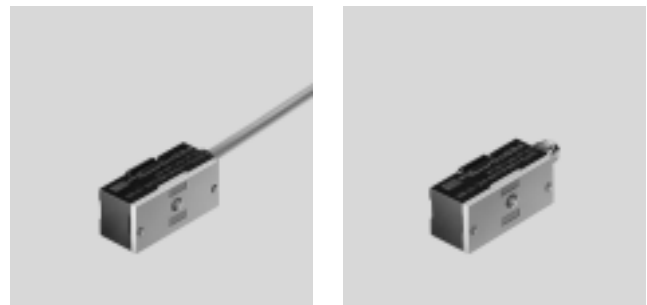
e.g. N/O contact, 3-wire, with cable



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



- Magnetic reed measuring principle



Technical data				
Electrical connection	3-wire		2-wire	
Type	SMEO-1-...-24		SMEO-1-LED-230	SMEO-1-B SMEO-1-S6, heat-resistant
Design	Block design		Block design	
Conforms to	-		EN 60947-5-2	
Certification	RCM trademark		RCM trademark	
CE mark (see declaration of conformity)	To EU EMC Directive <sup>1)</sup>		To EU EMC Directive <sup>1)</sup>	
Note on materials	Free of copper and PTFE		Free of copper and PTFE	

- 1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: [www.festo.com/sp](http://www.festo.com/sp) → User documentation.  
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

Input signal/measuring element		
Type	SMEO-1	SMEO-1-S6, heat-resistant
Measuring principle	Magnetic reed	Magnetic reed
Ambient temperature [°C]	-20 ... +70	-50 ... +120

Switching output				
Electrical connection	3-wire		2-wire	
Type	SMEO-1-...-24		SMEO-1-LED-230	SMEO-1-B SMEO-1-S6, heat-resistant
Switching output	Contacting, bipolar		Contacting, bipolar	
Switching element function	N/O contact		N/O contact	
Reproducibility of switching point <sup>1)</sup> [mm]	±0.1		±0.1	
Switch-on time [ms]	≤0.5		≤0.5	
Switch-off time [ms]	≤0.03		≤0.03	
Max. switching frequency [Hz]	-		500	500
Max. output current [mA]	1,000		-	1,000
Max. output current DC [mA]	-		120	1,000
Max. output current AC [mA]	-		250	1,000
Max. switching capacity DC [W]	27		40	
Max. switching capacity AC [VA]	-		40	
Voltage drop [V]	-		0 ... 4.5	0
Residual current [mA]	-		0	

- 1) Only applicable to drives secured against rotation.

Output, additional data	
Protection against short circuit	No
Protection against overloading	No

# Proximity sensors SMEO-1, block design, magnetic reed

FESTO

Technical data

Electronic components					
Electrical connection		3-wire		2-wire	
Type		SMEO-1-...-LED-24	SMEO-1-S-24-B	SMEO-1-LED-230	SMEO-1-B SMEO-1-S6, heat-resistant
Operating voltage range DC	[V]	12 ... 27	0 ... 30	5 ... 200	0 ... 200
Operating voltage range AC	[V]	–	–	5 ... 250	0 ... 250
Reverse polarity protection		No		No	

Electromechanical components					
Electrical connection		3-wire		2-wire	
Type		SMEO-1-LED-24	SMEO-1-S-...-B	SMEO-1-LED-230	SMEO-1-B SMEO-1-S6, heat-resistant
Electrical connection		Cable, 3-wire	Plug M8x1, 3-pin	Cable, 2-wire	
Connection direction		In-line			
Cable length	[m]	2.5	–	2.5	2.5
		5		5	–
Cable sheath materials		TPE-U (PUR)	–	PVC	PVC TPE-S

Mechanical components			
Electrical connection		3-wire	2-wire
Type of mounting		Via accessories	
Tightening torque	[Nm]	–	2.9
Product weight	[g]		
Housing materials		Die-cast zinc	Die-cast zinc
		–	Epoxy resin
			TPE-O
			Steel
			PET
			PC

Display/operation					
Electrical connection		3-wire		2-wire	
Type		SMEO-1-...-LED-24	SMEO-1-S-24-B	SMEO-1-LED-230	SMEO-1-B SMEO-1-S6, heat-resistant
Switching status display		Yellow LED	–	Yellow LED	–

Immissions/emissions					
Electrical connection		3-wire		2-wire	
Type		SMEO-1-...-LED-24	SMEO-1-S-24-B	SMEO-1-LED-230	SMEO-1-B SMEO-1-S6, heat-resistant
Ambient temperature with flexible cable installation	[°C]	–5 ... +70	–	–5 ... +70	–5 ... +70 –40 ... +120
Protection class		IP67		IP67	
Surge capacity	[kV]	–		4	
Degree of contamination		–		3	

Pin allocation to EN 60947-5-2			
M8x1, 3-pin			
N/O contact			
	Pin	Wire colour	Allocation
	1	Brown	+
	3	Blue	–
	4	Black	Output

# Proximity sensors SMEO-1, block design, magnetic reed

Technical data

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

**SMEO-1 – Cable**

1 Connecting cable  
2 Yellow LED

**SMEO-1-S – Plug M8x1**

2 Yellow LED  
3 Plug to fit connecting cable NEBU-M8  
4 Installation space for angled socket

Ordering data							
	Electrical connection		Cable length [m]	Switching status display	Product weight [g]	Part No.	Type
	Cable	Plug M8x1					
	N/O contact						
	Operating voltage range 12 ... 27 V DC						
	3-wire	–	2.5	■	85	30459	SMEO-1-LED-24-B
			5.0	■	130	151672	SMEO-1-LED-24-K5-B
	–	3-pin	–	■	20	150848	SMEO-1-S-LED-24-B
	Operating voltage range 0 ... 30 V DC						
	–	3-pin <sup>1)</sup>	–	–	20	150847	SMEO-1-S-24-B
	Operating voltage range 0 ... 250 V AC, 0 ... 200 V DC						
	2-wire	–	2.5	■	100	151671	SMEO-1-LED-230-B
			5.0	■	130	160998	SMEO-1-LED-230-K5-B
			2.5	–	100	30457	SMEO-1-B
	Heat-resistant up to 120 °C						
2-wire	–	2.5	–	100	151673	SMEO-1-S6-C	

1) The proximity sensor has 2 wires internally. One pin of the M8 plug is unused.