



**IMI18-08BPSNC08**

IMI

INDUCTIVE PROXIMITY SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	part no.
IMI18-08BPSNCOS	1093931

**Included in delivery:** BEF-MU-M18N1 (1)

Other models and accessories → [www.sick.com/IMI](http://www.sick.com/IMI)

Illustration may differ



### Detailed technical data

#### Features

<b>Housing</b>	Metric
<b>Thread size</b>	M18 x 1
<b>Diameter</b>	Ø 18 mm
<b>Sensing range <math>S_n</math></b>	8 mm
<b>Safe sensing range <math>S_a</math></b>	6.48 mm
<b>Installation type</b>	Flush
<b>Switching frequency</b>	50 Hz
<b>Connection type</b>	Male connector M12, 4-pin
<b>Switching output</b>	PNP
<b>Switching output detail</b>	PNP
<b>Output function</b>	NO
<b>Electrical wiring</b>	DC 3-wire
<b>Enclosure rating</b>	IP68, IP69K <sup>1)</sup>
<b>Special features</b>	Sensing face made of stainless steel V4A, Resistant to cleaning agents
<b>Special applications</b>	Hygienic and washdown zones, Difficult application conditions
<b>Items supplied</b>	Mounting nut, V4A stainless steel (2x)

<sup>1)</sup> According to EN 60529.

#### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC
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<sup>1)</sup> Of  $V_S$ .

<sup>2)</sup> With  $I_{max}$ .

<sup>3)</sup> Of  $S_r$ .

<b>Ripple</b>	≤ 10 % <sup>1)</sup>
<b>Voltage drop</b>	≤ 2 V <sup>2)</sup>
<b>Time delay before availability</b>	≤ 300 ms
<b>Hysteresis</b>	1 % ... 20 %
<b>Reproducibility</b>	≤ 2 % <sup>3)</sup>
<b>Temperature drift (of <math>S_s</math>)</b>	≤ 10 %
<b>EMC</b>	According to EN 60947-5-2
<b>Continuous current <math>I_a</math></b>	≤ 200 mA
<b>No load current</b>	≤ 10 mA
<b>Short-circuit protection</b>	✓
<b>Power-up pulse protection</b>	✓
<b>Shock and vibration resistance</b>	100 g / 5 ms / 1000 cycles; 150 g / 1 Mio cycles; 10 Hz ... 55 Hz, 1 mm / 55 Hz ... 500 Hz / 60 g
<b>Ambient operating temperature</b>	-25 °C ... +75 °C
<b>Housing material</b>	Stainless steel V4A, DIN 1.4404 / AISI 316L
<b>Sensing face material</b>	Stainless steel V4A, DIN 1.4404 / AISI 316L
<b>Housing length</b>	64.7 mm
<b>Thread length</b>	45.7 mm
<b>Tightening torque, max.</b>	≤ 60 Nm
<b>Protection class</b>	III
<b>UL File No.</b>	E181493

<sup>1)</sup> Of  $V_s$ .

<sup>2)</sup> With  $I$  max.

<sup>3)</sup> Of  $S_r$ .

#### Safety-related parameters

<b>MTTF<sub>D</sub></b>	1,892 years
<b>DC<sub>avg</sub></b>	0 %

#### Reduction factors

<b>Note</b>	The values are reference values which may vary
<b>St37 steel (Fe)</b>	Approx. 1
<b>Stainless steel (V2A, 304)</b>	Approx. 0.83
<b>Aluminum (Al)</b>	Approx. 0.52
<b>Copper (Cu)</b>	Approx. 0.32
<b>Brass (Br)</b>	Approx. 0.6

#### Installation note

<b>Remark</b>	Associated graphic see "Installation"
<b>B</b>	25 mm
<b>C</b>	18 mm
<b>D</b>	24 mm
<b>F</b>	50 mm

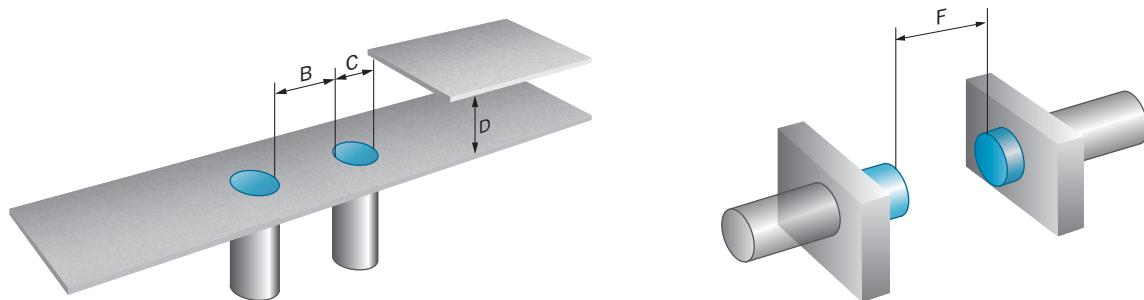
## Certificates

<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>Moroccan declaration of conformity</b>	✓
<b>China-RoHS</b>	✓
<b>ECOLAB certificate</b>	✓
<b>FDA-Certificate</b>	✓
<b>IO-Link</b>	✓

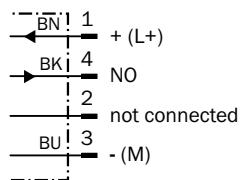
## Classifications

<b>ECLASS 5.0</b>	27270101
<b>ECLASS 5.1.4</b>	27270101
<b>ECLASS 6.0</b>	27270101
<b>ECLASS 6.2</b>	27270101
<b>ECLASS 7.0</b>	27270101
<b>ECLASS 8.0</b>	27270101
<b>ECLASS 8.1</b>	27270101
<b>ECLASS 9.0</b>	27270101
<b>ECLASS 10.0</b>	27270101
<b>ECLASS 11.0</b>	27270101
<b>ECLASS 12.0</b>	27274001
<b>ETIM 5.0</b>	EC002714
<b>ETIM 6.0</b>	EC002714
<b>ETIM 7.0</b>	EC002714
<b>ETIM 8.0</b>	EC002714
<b>UNSPSC 16.0901</b>	39122230

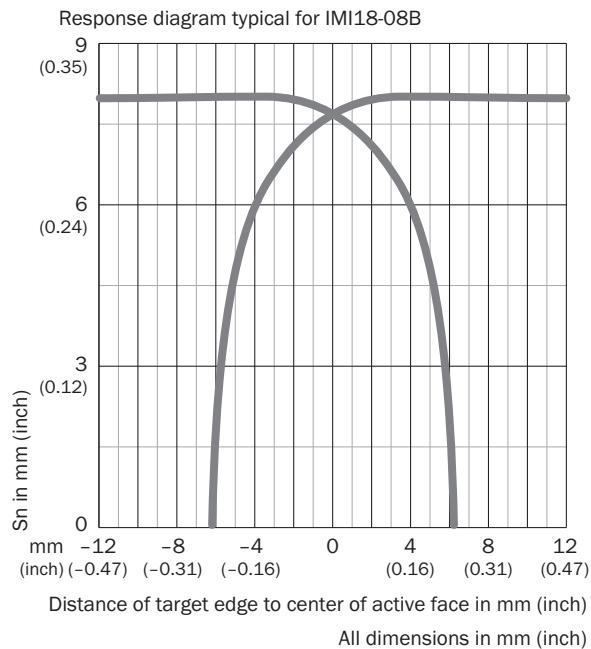
## Installation note Flush installation



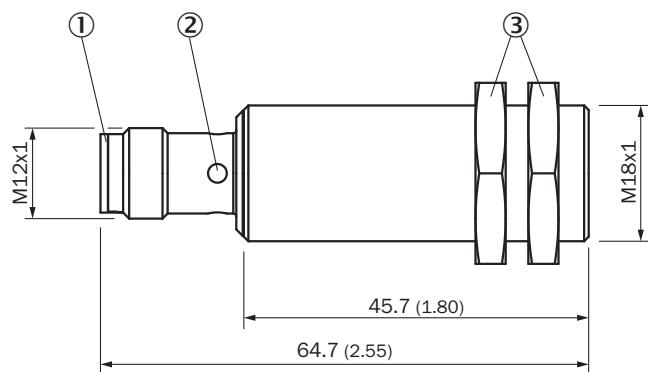
## Connection diagram Cd-007



## Response diagram



## Dimensional drawing IM18 Inox, flush



Dimensions in mm (inch)

- ① Connection
- ② Display LED
- ③ Fastening nuts (2 x); width across 24, stainless steel V4A

## Recommended accessories

Other models and accessories → [www.sick.com/IMI](http://www.sick.com/IMI)

	<b>Brief description</b>	<b>Type</b>	<b>part no.</b>
<b>Mounting systems</b>			
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket for M18 sensors</li> <li><b>Material:</b> Steel</li> <li><b>Details:</b> Steel, zinc coated</li> <li><b>Items supplied:</b> Without mounting hardware</li> <li><b>Suitable for:</b> GR18, V180-2, V18, W15, Z1, Z2</li> </ul>	BEF-WN-M18	5308446
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket for M18 sensors</li> <li><b>Material:</b> Stainless steel</li> <li><b>Details:</b> Stainless steel</li> <li><b>Items supplied:</b> Without mounting hardware</li> </ul>	BEF-WN-M18N	5320947
<b>connectors and cables</b>			
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 4-wire, PP</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Connection systems:</b> Flying leads</li> <li><b>Note:</b> This product is generally resistant to chemical cleaning agents (see ECOLAB) and other chemical compounds such as H2O2 and CH2O2. Before permanent installation is carried out, the material's resistance to the cleaning agent being used must be checked., Resistant against lactic acid &amp; hydrogen peroxide (H2O2)</li> <li><b>Application:</b> Hygienic and washdown zones, Drag chain operation</li> </ul>	DOL-1204-G05MRN	6058476
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 4-wire, PUR, halogen-free</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A14-050UB3XLEAX	2095608
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 4-wire, PVC</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YF2A14-050VB3XLEAX	2096235

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

**For us, that is "Sensor Intelligence."**

## WORLDWIDE PRESENCE:

Contacts and other locations [www.sick.com](http://www.sick.com)