



# IMR08-02BPSTC0S

IMR

INDUCTIVE PROXIMITY SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
IMR08-02BPSTC0S	6069273

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



### Detailed technical data

#### Features

<b>Housing</b>	Cylindrical thread design
<b>Housing</b>	Standard
<b>Thread size</b>	M8
<b>Diameter</b>	8 mm
<b>Sensing range <math>S_n</math></b>	2 mm
<b>Safe sensing range <math>S_a</math></b>	1.6 mm
<b>Installation type</b>	Flush
<b>Switching frequency</b>	1,000 Hz
<b>Connection type</b>	Male connector M12, 4-pin
<b>Switching output</b>	PNP
<b>Output function</b>	NO
<b>Electrical wiring</b>	DC 3-wire
<b>Enclosure rating</b>	IP68
<b>Special features</b>	Reduction factor 1, Weld immune
<b>Special applications</b>	Welding range, Difficult application conditions

#### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Ripple</b>	≤ 10 %
<b>Voltage drop</b>	≤ 1.8 V <sup>1)</sup>
<b>Current consumption</b>	15 mA <sup>2)</sup>
<b>Hysteresis</b>	3 % ... 15 %
<b>Reproducibility</b>	≤ 2 % <sup>3) 4)</sup>

<sup>1)</sup> At  $I_a$  max.

<sup>2)</sup> Without load.

<sup>3)</sup>  $U_b$  and  $T_a$  constant.

<sup>4)</sup> Of  $S_r$ .

<sup>5)</sup> -25 °C ... +70 °C.

<sup>6)</sup> Reference voltage: 50 V DC.

<b>Temperature drift (of S<sub>r</sub>)</b>	≤ ± 10 % ≤ ± 15 % <sup>5)</sup>
<b>EMC</b>	According to EN 60947-5-2
<b>Continuous current I<sub>a</sub></b>	≤ 150 mA
<b>Off-state current</b>	≤ 0.1 mA
<b>Short-circuit protection</b>	✓
<b>Reverse polarity protection</b>	✓
<b>Shock and vibration resistance</b>	30 g, 11 ms / 10 ... 55 Hz, 1 mm
<b>Ambient operating temperature</b>	-30 °C ... +85 °C
<b>Housing material</b>	PTFE coating, Brass
<b>Sensing face material</b>	Plastic, PTFE coating
<b>Housing length</b>	57 mm
<b>Thread length</b>	40 mm
<b>Tightening torque, max.</b>	Typ. 5 Nm
<b>Items supplied</b>	Mounting nut, brass, PTFE coating (2x) Washer, brass, PTFE coating, with locking teeth (2x)
<b>Protection class</b>	II <sup>6)</sup>
<b>UL File No.</b>	E191603

1) At I<sub>a</sub> max.

2) Without load.

3) U<sub>b</sub> and T<sub>a</sub> constant.

4) Of S<sub>r</sub>.

5) -25 °C ... +70 °C.

6) Reference voltage: 50 V DC.

## Reduction factors

<b>Note</b>	The values are reference values which may vary
<b>Reduction factor</b>	Reduction factor 1
<b>Stainless steel (V2A, 304)</b>	1
<b>Aluminum (Al)</b>	1
<b>Copper (Cu)</b>	1
<b>Brass (Br)</b>	1

## Installation note

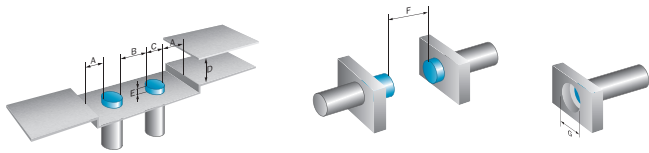
<b>Remark</b>	Associated graphic see "Installation"
<b>A</b>	8 mm
<b>B</b>	8 mm
<b>C</b>	8 mm
<b>D</b>	6 mm
<b>E</b>	0 mm
<b>F</b>	12 mm
<b>G</b>	24 mm

## Classifications

<b>ECl@ss 5.0</b>	27270101
<b>ECl@ss 5.1.4</b>	27270101

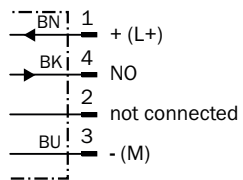
<b>ECl@ss 6.0</b>	27270101
<b>ECl@ss 6.2</b>	27270101
<b>ECl@ss 7.0</b>	27270101
<b>ECl@ss 8.0</b>	27270101
<b>ECl@ss 8.1</b>	27270101
<b>ECl@ss 9.0</b>	27270101
<b>ECl@ss 10.0</b>	27270101
<b>ECl@ss 11.0</b>	27270101
<b>ETIM 5.0</b>	EC002714
<b>ETIM 6.0</b>	EC002714
<b>ETIM 7.0</b>	EC002714
<b>UNSPSC 16.0901</b>	39122230

Installation note

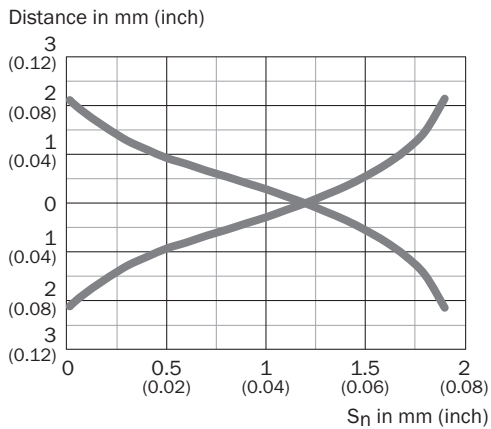


Connection diagram

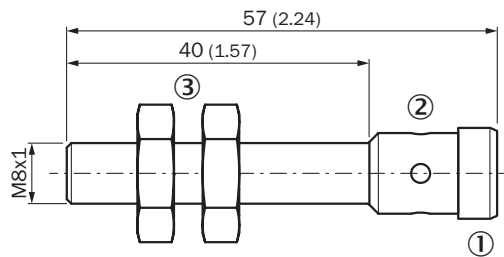
Cd-007



## Response diagram





## Dimensional drawing (Dimensions in mm (inch))




- ① M12 x 1
- ② LED output state, yellow
- ③ Fastening nuts (2 x); width across 13, stainless steel

## Recommended accessories

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

	Brief description	Type	Part no.
<b>Mounting brackets and plates</b>			
	Mounting bracket for M8 sensors, steel, zinc coated, without mounting hardware	BEF-WN-M08	5321721
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YF2A14-020UW1XLEAX	2104883
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YF2A14-050UB3XLEAX	2095608
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YF2A14-050UW1XLEAX	2104884

	<b>Brief description</b>	<b>Type</b>	<b>Part no.</b>
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YG2A14-020UW1XLEAX	2104886
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YG2A14-050UW1XLEAX	2104887

## 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)