



# IMB08-02BN0VC0S

IMB

INDUCTIVE PROXIMITY SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



## Ordering information

Type	Part no.
IMB08-02BNOVC0S	1072676

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

## Detailed technical data

### Features

<b>Housing</b>	Cylindrical thread design
<b>Housing</b>	Standard
<b>Thread size</b>	M8 1
<b>Diameter</b>	Ø 8 mm
<b>Sensing range <math>S_n</math></b>	2 mm
<b>Safe sensing range <math>S_a</math></b>	1.62 mm
<b>Installation type</b>	Flush
<b>Switching frequency</b>	4,000 Hz
<b>Connection type</b>	Male connector M12, 4-pin <sup>1)</sup>
<b>Switching output</b>	NPN
<b>Output function</b>	NC
<b>Electrical wiring</b>	DC 3-wire
<b>Enclosure rating</b>	IP68 <sup>2)</sup> IP69K <sup>3)</sup>
<b>Special features</b>	Resistant against coolant lubricants, Optical adjustment indicator

<sup>1)</sup> With gold plated contact pins.

<sup>2)</sup> According to EN 60529.

<sup>3)</sup> According to ISO 20653:2013-03.

### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Ripple</b>	≤ 10 %
<b>Voltage drop</b>	≤ 2 V <sup>1)</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> Valid if toothed side of nut is used.

<b>Current consumption</b>	≤ 10 mA <sup>2)</sup>
<b>Hysteresis</b>	3 % ... 20 %
<b>Reproducibility</b>	≤ 2 % <sup>3) 4)</sup>
<b>Temperature drift (of S<sub>r</sub>)</b>	± 10 %
<b>EMC</b>	According to EN 60947-5-2
<b>Continuous current I<sub>a</sub></b>	≤ 200 mA
<b>Short-circuit protection</b>	✓
<b>Reverse polarity protection</b>	✓
<b>Power-up pulse protection</b>	✓
<b>Shock and vibration resistance</b>	100 g / 11 ms / 1000 cycles; 150 g / 1 Mio cycles; 10 Hz ... 55 Hz, 1 mm / 55 z ... 500 Hz / 15 g
<b>Ambient operating temperature</b>	-40 °C ... +100 °C
<b>Housing material</b>	Stainless steel, V2A (1.4305)
<b>Sensing face material</b>	Plastic, LCP
<b>Housing length</b>	60 mm
<b>Thread length</b>	32 mm
<b>Tightening torque, max.</b>	Typ. 14 Nm <sup>5)</sup>
<b>UL File No.</b>	E181493

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

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

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

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

<sup>5)</sup> Valid if toothed side of nut is used.

## Reduction factors

<b>Note</b>	The values are reference values which may vary
<b>Stainless steel (V2A, 304)</b>	Approx. 0.74
<b>Aluminum (Al)</b>	Approx. 0.43
<b>Copper (Cu)</b>	Approx. 0.33
<b>Brass (Br)</b>	Approx. 0.46

## Installation note

<b>Remark</b>	Associated graphic see "Installation"
<b>B</b>	6.5 mm
<b>C</b>	8 mm
<b>D</b>	6 mm
<b>F</b>	16 mm

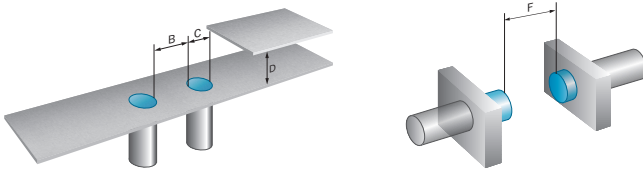
## Classifications

<b>ECI@ss 5.0</b>	27270101
<b>ECI@ss 5.1.4</b>	27270101
<b>ECI@ss 6.0</b>	27270101
<b>ECI@ss 6.2</b>	27270101
<b>ECI@ss 7.0</b>	27270101

<b>ECI@ss 8.0</b>	27270101
<b>ECI@ss 8.1</b>	27270101
<b>ECI@ss 9.0</b>	27270101
<b>ETIM 5.0</b>	EC002714
<b>ETIM 6.0</b>	EC002714
<b>UNSPSC 16.0901</b>	39122230

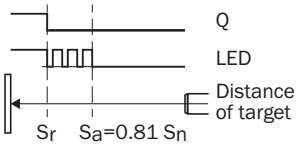
## Installation note

## Flush installation



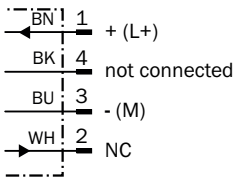
## Adjustments possible

Normally closed



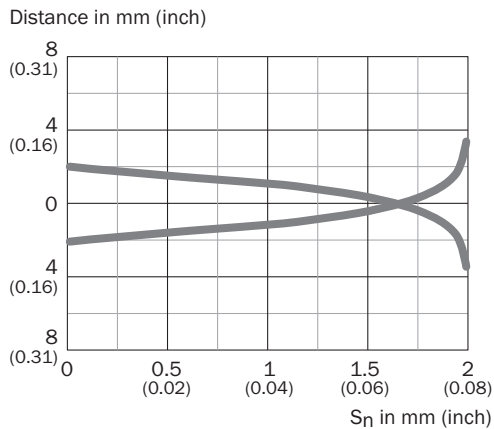
## Connection diagram

cd-008



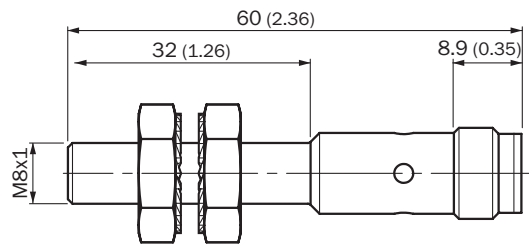
## Characteristic curve

Flush installation






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

IMB08 Standard, connector, M12, flush





## Recommended accessories

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

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate N11N for universal clamp bracket, Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp), Universal clamp (5322626), mounting hardware	BEF-KHS-N11N	2071081
Mounting brackets and plates			
	Mounting plate for M8 sensors, steel, zinc coated, without mounting hardware	BEF-WG-M08	5321722
	Mounting bracket for M8 sensors, steel, zinc coated, without mounting hardware	BEF-WN-M08	5321721

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: female connector, M12, 4-pin, straight Head B: Flying leads Cable: PP, unshielded, 2 m 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 & hydrogen peroxide (H2O2)	DOL-1204-G02MRN	6058291
	Head A: female connector, M12, 4-pin, straight Head B: Flying leads Cable: PP, unshielded, 5 m 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 & hydrogen peroxide (H2O2)	DOL-1204-G05MRN	6058476
	Head A: female connector, M12, 4-pin, angled with LED Head B: Flying leads Cable: PP, unshielded, 2 m 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 & hydrogen peroxide (H2O2)	DOL-1204-L02MRN	6058482
	Head A: female connector, M12, 4-pin, angled with LED Head B: Flying leads Cable: PP, unshielded, 5 m 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 & hydrogen peroxide (H2O2)	DOL-1204-L05MRN	6058483
	Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: PP, unshielded, 2 m 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 & hydrogen peroxide (H2O2)	DOL-1204-W02MRN	6058474
	Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: PP, unshielded, 5 m 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 & hydrogen peroxide (H2O2)	DOL-1204-W05MRN	6058477
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YF2A14-020UB3XLEAX	2095607
	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, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YG2A14-050UB3XLEAX	2095767
	Head A: male connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YM2A14-020UB3XLEAX	2095867
	Head A: male connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YM2A14-050UB3XLEAX	2095858

	Brief description	Type	Part no.
	Head A: male connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YN2A14-050UB3XLEAX	2096628
	Head A: female connector, M12, 4-pin, angled Head B: male connector, M12, 4-pin, straight Cable: PP, unshielded, 2 m 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 & hydrogen peroxide (H2O2)	DSL-1204-B02MRN	6058502
	Head A: female connector, M12, 4-pin, angled Head B: male connector, M12, 4-pin, straight Cable: PP, unshielded, 5 m 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 & hydrogen peroxide (H2O2)	DSL-1204-B05MRN	6058503
	Head A: female connector, M12, 4-pin, straight Head B: male connector, M12, 4-pin, straight Cable: PP, unshielded, 2 m 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 & hydrogen peroxide (H2O2)	DSL-1204-G02MRN	6058499
	Head A: female connector, M12, 4-pin, straight Head B: male connector, M12, 4-pin, straight Cable: PP, unshielded, 5 m 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 & hydrogen peroxide (H2O2)	DSL-1204-G05MRN	6058500
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: male connector, M12, 4-pin, straight, A-coded Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YF2A14-050UB3M2A14	2096001

## 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)