



IMF08-02BPPNC0S

IMF

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
IMF08-02BPPNC0S	1076748

Other models and accessories → www.sick.com/IMF

Illustration may differ



Detailed technical data

Features

Housing	Cylindrical thread design
Housing	Standard
Thread size	M8 1
Diameter	Ø 8 mm
Sensing range S_n	2 mm
Safe sensing range S_a	1.62 mm
Installation type	Flush
Switching frequency	4,000 Hz
Connection type	Male connector M12, 4-pin ¹⁾
Switching output	PNP
Output function	Complementary
Electrical wiring	DC 4-wire
Enclosure rating	IP68 ²⁾ IP69K ³⁾
Special features	Suitable for use in the food industry, Resistant to cleaning agents Capable of communication via IO-Link 1.0

¹⁾ With gold plated contact pins.

²⁾ According to EN 60529.

³⁾ According to ISO 20653:2013-03.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
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¹⁾ At I_a max.

²⁾ Without load.

³⁾ U_b and T_a constant.

⁴⁾ Of S_r .

Ripple	≤ 10 %
Voltage drop	≤ 2 V ¹⁾
Current consumption	≤ 10 mA ²⁾
Hysteresis	3 % ... 20 %
Reproducibility	≤ 2 % ^{3) 4)}
Temperature drift (of S_r)	± 10 %
EMC	According to EN 60947-5-2
Continuous current I_a	≤ 200 mA
Short-circuit protection	✓
Reverse polarity protection	✓
Power-up pulse protection	✓
Shock and vibration resistance	100 g / 11 ms / 1000 cycles; 150 g / 1 Mio cycles; 10 Hz ... 55 Hz, 1 mm / 55 z ... 500 Hz / 15 g
Ambient operating temperature	-40 °C ... +100 °C
Housing material	Stainless steel, V4A (1.4404, AISI 316L)
Sensing face material	Plastic, LCP (FDA certified)
Housing length	50 mm
Thread length	38 mm
Tightening torque, max.	Typ. 14 Nm
UL File No.	E181493

1) At I_a max.

2) Without load.

3) U_b and T_a constant.

4) Of S_r.

Reduction factors

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

Installation note

Remark	Associated graphic see "Installation"
B	6.5 mm
C	8 mm
D	6 mm
F	16 mm

Classifications

ECl@ss 5.0	27270101
ECl@ss 5.1.4	27270101
ECl@ss 6.0	27270101
ECl@ss 6.2	27270101

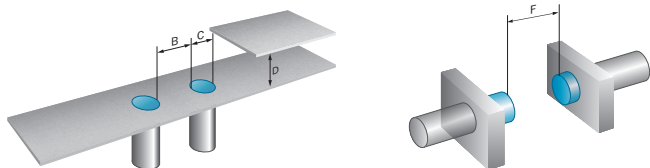
ECl@ss 7.0	27270101
ECl@ss 8.0	27270101
ECl@ss 8.1	27270101
ECl@ss 9.0	27270101
ETIM 5.0	EC002714
ETIM 6.0	EC002714
UNSPSC 16.0901	39122230

Communication interface

Communication interface	IO-Link V1.0
Communication Interface detail	COM2 (38,4 kBaud)
Process data length	2 Byte
Process data structure	Bit 0 = Sr reached Bit 1 = Sa reached

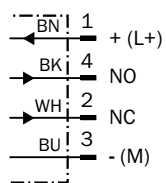
Installation note

Flush installation



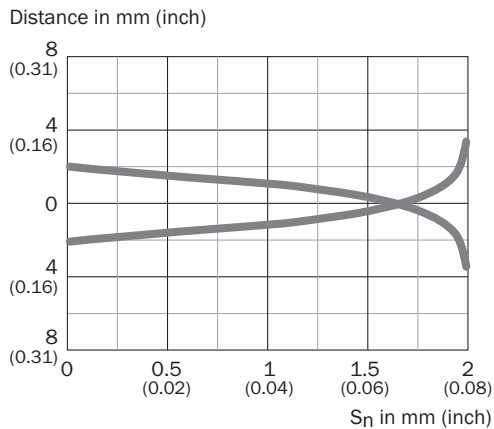
Connection diagram

cd-006



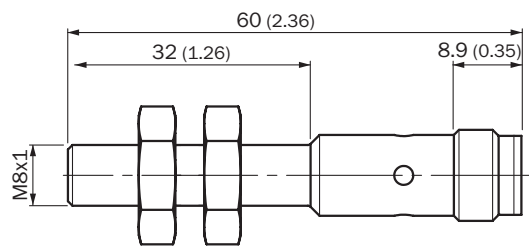
Characteristic curve

Flush installation






Dimensional drawing (Dimensions in mm (inch))





IMF08, flush



Recommended accessories

Other models and accessories → www.sick.com/IMF

	Brief description	Type	Part no.
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
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 H ₂ O ₂ and CH ₂ O ₂ . 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 (H ₂ O ₂)	DOL-1204-G02MRN	6058291

	Brief description	Type	Part no.
	<p>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)</p>	DOL-1204-G05MRN	6058476
	<p>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)</p>	DOL-1204-L02MRN	6058482
	<p>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)</p>	DOL-1204-L05MRN	6058483
	<p>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)</p>	DOL-1204-W02MRN	6058474
	<p>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)</p>	DOL-1204-W05MRN	6058477
	<p>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)</p>	DSL-1204-B02MRN	6058502
	<p>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)</p>	DSL-1204-B05MRN	6058503
	<p>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)</p>	DSL-1204-G02MRN	6058499

	Brief description	Type	Part no.
	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

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:

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