



INDUCTIVE PROXIMITY SENSORS



INDUCTIVE PROXIMITY SENSORS



Ordering information

Туре	Part no.
IMF08-04NPONC0S	1076751

Included in delivery: BEF-MU-M08N1(1)

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

Illustration may differ



Detailed technical data

Features

Housing	Metric
Housing	Standard design
Thread size	M8 x 1
Diameter	Ø 8 mm
Sensing range S _n	4 mm
Safe sensing range S _a	3.24 mm
Installation type	Non-flush
Switching frequency	4,000 Hz
Connection type	Male connector M12, 4-pin ¹⁾
Switching output	PNP
Output function	NC
Electrical wiring	DC 3-wire
Enclosure rating	IP68 ²⁾ IP69K ³⁾
Special features	Resistant to cleaning agents, Visual adjustment indicator, Temperature resistance
Special applications	Hygienic and washdown zones, Difficult application conditions
Items supplied	Mounting nut, V4A stainless steel (2x)

 $^{\mbox{1}\mbox{)}}$ With gold plated contact pins.

 $^{2)}\ensuremath{\mathsf{According}}$ to EN 60529.

³⁾ According to ISO 20653:2013-03.

Mechanics/electronics

Supply voltage 10 V DC 30 V DC

¹⁾ At I_a max.

 $^{2)}\ensuremath{\,\text{Supply voltage U}_B}$ and constant ambient temperature Ta.

³⁾ Of Sr.

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Ripple	≤ 10 %
Voltage drop	$\leq 2 V^{(1)}$
Hysteresis	3 % 20 %
Reproducibility	$\leq 2 \%^{(2)(3)}$
Temperature drift (of S _r)	± 10 %
EMC	According to EN 60947-5-2
Continuous current I _a	≤ 200 mA
No load current	≤ 10 mA
Short-circuit protection	✓
Power-up pulse protection	1
Shock and vibration resistance	100 g / 11 ms / 1000 cycles; 150 g / 1 Mio cycles; 10 Hz 55 Hz, 1 mm / 55 Hz 500 Hz / 15 g
Ambient operating temperature	-40 °C +100 °C
Housing material	Stainless steel V4A, DIN 1.4404 / AISI 316L
Sensing face material	Plastic, LCP
Housing length	60 mm
Thread length	28 mm
Tightening torque, max.	Typ. 14 Nm
Protection class	III
UL File No.	E181493

¹⁾ At I_a max.

 $^{2)}$ Supply voltage U_{B} and constant ambient temperature Ta.

³⁾ Of Sr.

Safety-related parameters

MTTFD	1,971 years
DC _{avg}	0 %
T _M (mission time)	20 years

Reduction factors

Note	The values are reference values which may vary
Stainless steel (V2A, 304)	Approx. 0.69
Aluminum (Al)	Approx. 0.37
Copper (Cu)	Approx. 0.28
Brass (Br)	Approx. 0.4

Installation note

Remark	Associated graphic see "Installation"
A	8 mm
В	18 mm
c	8 mm
D	12 mm
E	8 mm
F	32 mm

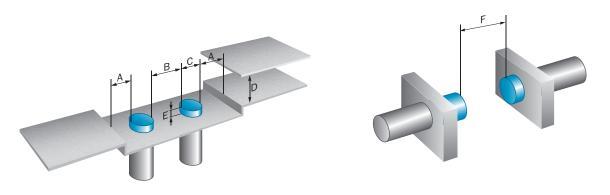
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Classifications

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

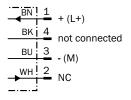
Installation note

Non-flush installation



Connection diagram

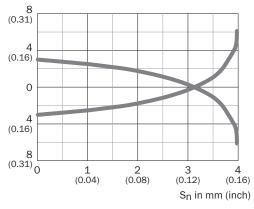
Cd-008



Response diagram

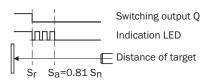
Response diagram

Distance in mm (inch)



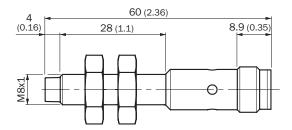
Functional principle

Installation aid



Dimensional drawing (Dimensions in mm (inch))

IMF08, non flush



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Recommended accessories

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

	Brief description	Туре	Part no.
Mounting br	rackets 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
Others			
¢¢	 Connection type head A: Female connector, M12, 4-pin, straight Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 4-wire, PP Description: Sensor/actuator cable, unshielded Connection systems: Flying leads Note: 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) Application: Hygienic and washdown zones, Drag chain operation 	DOL-1204-G02MRN	6058291
~	 Connection type head A: Female connector, M12, 4-pin, straight Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PP Description: Sensor/actuator cable, unshielded Connection systems: Flying leads Note: 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) Application: Hygienic and washdown zones, Drag chain operation 	DOL-1204-G05MRN	6058476
	 Connection type head A: Female connector, M12, 4-pin, angled Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 4-wire, PP Description: Sensor/actuator cable, unshielded Connection systems: Flying leads Note: 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) Application: Hygienic and washdown zones, Drag chain operation 	DOL-1204-W02MRN	6058474
6	 Connection type head A: Female connector, M12, 4-pin, angled Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PP Description: Sensor/actuator cable, unshielded Connection systems: Flying leads Note: 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) Application: Hygienic and washdown zones, Drag chain operation 	DOL-1204-W05MRN	6058477

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	Brief description	Туре	Part no.
500	 Connection type head A: Female connector, M12, 4-pin, angled Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 4-wire, PP Description: Sensor/actuator cable, unshielded, LED function display Connection systems: Flying leads Note: 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), only suitable for PNP sensors Application: Hygienic and washdown zones, Drag chain operation 	DOI-1204-L02MRN	6058482
	 Connection type head A: Female connector, M12, 4-pin, angled Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PP Description: Sensor/actuator cable, unshielded, LED function display Connection systems: Flying leads Note: 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), only suitable for PNP sensors Application: Hygienic and washdown zones, Drag chain operation 	DOL-1204-L05MRN	6058483
6	 Connection type head A: Female connector, M12, 4-pin, straight Connection type head B: Male connector, M12, 4-pin, straight Signal type: Sensor/actuator cable Cable: 2 m, 4-wire, PP Description: Sensor/actuator cable, unshielded Note: 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) Application: Hygienic and washdown zones, Drag chain operation 	DSL-1204-G02MRN	6058499
6	 Connection type head A: Female connector, M12, 4-pin, straight Connection type head B: Male connector, M12, 4-pin, straight Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PP Description: Sensor/actuator cable, unshielded Note: 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) Application: Hygienic and washdown zones, Drag chain operation 	DSL-1204-G05MRN	6058500
A	 Connection type head A: Female connector, M12, 4-pin, angled Connection type head B: Male connector, M12, 4-pin, straight Signal type: Sensor/actuator cable Cable: 2 m, 4-wire, PP Description: Sensor/actuator cable, unshielded Note: 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) Application: Hygienic and washdown zones, Drag chain operation 	DSL-1204-B02MRN	6058502
	 Connection type head A: Female connector, M12, 4-pin, angled Connection type head B: Male connector, M12, 4-pin, straight Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PP Description: Sensor/actuator cable, unshielded Note: 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) Application: Hygienic and washdown zones, Drag chain operation 	DSL-1204-B05MRN	6058503

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	Brief description	Туре	Part no.
69	 Connection type head A: Female connector, M12, 4-pin, straight Connection type head B: Male connector, M12, 4-pin, straight Signal type: Sensor/actuator cable Cable: 20 m, 4-wire, PP Description: Sensor/actuator cable, unshielded Note: 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) Application: Hygienic and washdown zones, Drag chain operation 	YF2AP4- 020PA2M2AP4	2143765

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."

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