



IMI18-08BPOVC0S

IMI

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
IMI18-08BPOVC0S	1093924

Included in delivery: BEF-MU-M18N (1)

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

Detailed technical data

Features

Housing	Cylindrical thread design
Thread size	M18 x 1
Diameter	Ø 18 mm
Sensing range S_n	8 mm
Safe sensing range S_a	6.48 mm
Installation type	Flush
Switching frequency	50 Hz
Connection type	Male connector M12, 4-pin
Switching output	PNP
Output function	NC
Electrical wiring	DC 3-wire
Enclosure rating	IP68, IP69K ¹⁾
Special features	Sensing face made of stainless steel V2A, Resistant against coolant lubricants
Special applications	Zones with coolants and lubricants, Difficult application conditions
Items supplied	Mounting nut, V2A stainless steel, with locking teeth (2x)

¹⁾ According to EN 60529.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 % ¹⁾
Voltage drop	≤ 2 V ²⁾
Time delay before availability	≤ 300 ms
Hysteresis	1 % ... 20 %

¹⁾ Of V_S .

²⁾ With I max.

³⁾ Of S_r .

Reproducibility	≤ 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	✓
Reverse polarity protection	✓
Power-up pulse protection	✓
Shock and vibration resistance	100 g / 5 ms / 1000 cycles; 150 g / 1 Mio cycles; 10 Hz ... 55 Hz, 1 mm / 55 Hz ... 500 Hz / 60 g
Ambient operating temperature	-25 °C ... +75 °C
Housing material	Stainless steel V2A, DIN 1.4305 / AISI 303
Sensing face material	Stainless steel V2A, DIN 1.4305 / AISI 303
Housing length	64.7 mm
Thread length	45.7 mm
Tightening torque, max.	≤ 90 Nm
Protection class	III
UL File No.	E181493

¹⁾ Of V_S.

²⁾ With I max.

³⁾ Of S_r.

Safety-related parameters

MTTF_D	1,892 years
DC_{avg}	0 %

Reduction factors

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

Installation note

Remark	Associated graphic see "Installation"
B	25 mm
C	18 mm
D	24 mm
F	50 mm

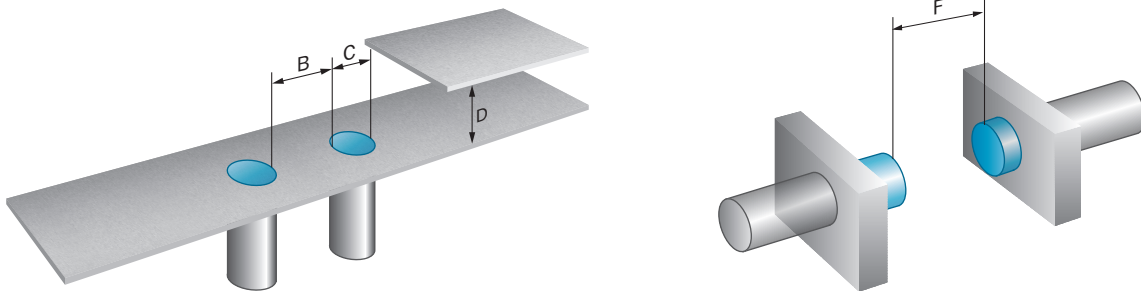
Classifications

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
eCl@ss 10.0	27270101
eCl@ss 11.0	27270101
eCl@ss 12.0	27274001
ETIM 5.0	EC002714
ETIM 6.0	EC002714
ETIM 7.0	EC002714
ETIM 8.0	EC002714
UNSPSC 16.0901	39122230

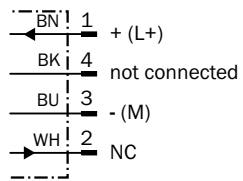
Installation note

Flush installation

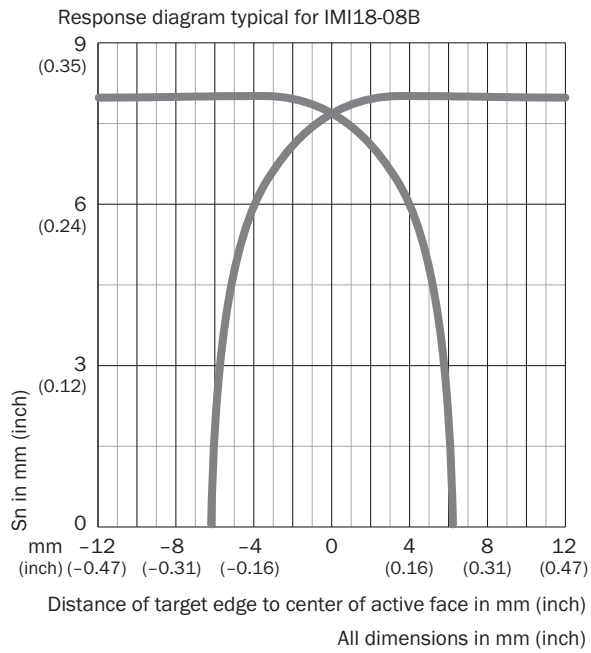


Connection diagram

Cd-008

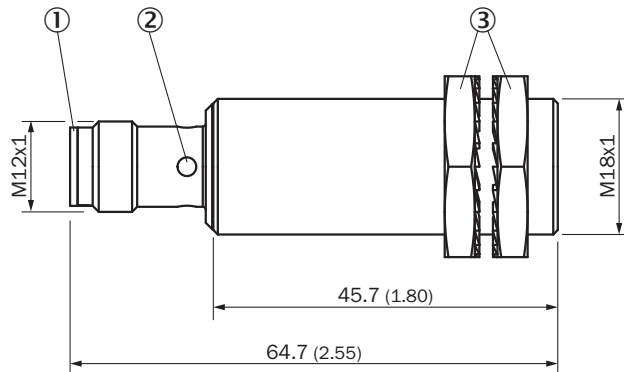


Response diagram



Dimensional drawing (Dimensions in mm (inch))





IM18 Inox, flush






- ① Connection
- ② Display LED
- ③ Fastening nuts (2 x); width across 24, stainless steel V2A

Recommended accessories

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

	Brief description	Type	Part no.
Plug connectors and cables			
	<p>Head A: female connector, M12, 4-pin, straight Head B: Flying leads Cable: Sensor/actuator 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-G02MRN	6058291
	<p>Head A: female connector, M12, 4-pin, straight Head B: Flying leads Cable: Sensor/actuator 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 Head B: Flying leads Cable: Sensor/actuator 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), only suitable for PNP sensors</p>	DOL-1204-L02MRN	6058482
	<p>Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: Sensor/actuator 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), only suitable for PNP sensors</p>	DOL-1204-L05MRN	6058483
	<p>Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: Sensor/actuator 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: Sensor/actuator 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, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m</p>	YF2A14-020UB3XLEAX	2095607
	<p>Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m</p>	YF2A14-050UB3XLEAX	2095608
	<p>Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m</p>	YG2A14-050UB3XLEAX	2095767

	Brief description	Type	Part no.
	<p>Head A: female connector, M12, 4-pin, angled Head B: male connector, M12, 4-pin, straight Cable: Sensor/actuator 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: Sensor/actuator 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: Sensor/actuator 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
	<p>Head A: female connector, M12, 4-pin, straight Head B: male connector, M12, 4-pin, straight Cable: Sensor/actuator 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-G05MRN	6058500
	<p>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</p>	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.”

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