



IM18-10NPP-ZC1

IM Standard

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
IM18-10NPP-ZC1	6020965

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

Detailed technical data

Features

Housing	Metric
Housing	Standard design
Thread size	M18 x 1
Diameter	Ø 18 mm
Sensing range S_n	10 mm
Safe sensing range S_a	8 mm
Installation type	Non-flush
Switching frequency	300 Hz
Connection type	Male connector M12, 4-pin
Switching output	PNP
Switching output detail	PNP
Output function	Complementary
Electrical wiring	DC 4-wire
Enclosure rating	IP67 ¹⁾

¹⁾ According to EN 60529.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 %
Voltage drop	≤ 1 V ¹⁾
Time delay before availability	≤ 100 ms
Hysteresis	1 % ... 20 %
Reproducibility	≤ 5 % ²⁾ ³⁾

¹⁾ At I_a max.

²⁾ Supply voltage U_B and constant ambient temperature T_a .

³⁾ Of S_r .

Temperature drift (of S_r)	± 10 %
EMC	According to EN 60947-5-2
Continuous current I_a	≤ 400 mA
Short-circuit protection	✓
Power-up pulse protection	✓
Shock and vibration resistance	30 g, 11 ms/10 ... 55 Hz
Ambient operating temperature	-25 °C ... +70 °C
Housing material	Brass, Nickel-plated brass
Sensing face material	Plastic
Housing length	64 mm
Thread length	40 mm
Tightening torque, max.	≤ 30 Nm

¹⁾ At I_a max.

²⁾ Supply voltage U_B and constant ambient temperature T_a.

³⁾ Of S_r.

Safety-related parameters

MTTF_D	93 years
DC_{avg}	0 %

Reduction factors

St37 steel (Fe)	1
Stainless steel (V2A, 304)	Approx. 0.8
Aluminum (Al)	Approx. 0.45
Copper (Cu)	Approx. 0.4
Brass (Br)	Approx. 0.4

Installation note

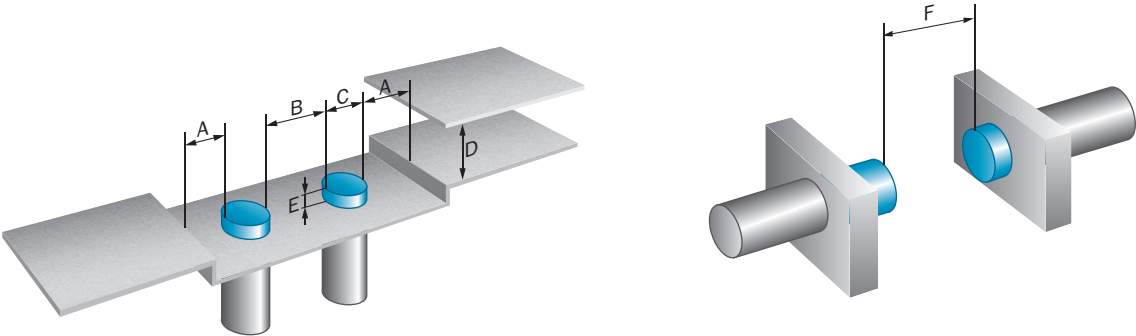
Remark	Associated graphic see "Installation"
A	18 mm
B	36 mm
C	18 mm
D	24 mm
E	12 mm
F	64 mm

Classifications

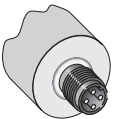
ECLASS 5.0	27270101
ECLASS 5.1.4	27270101
ECLASS 6.0	27270101
ECLASS 6.2	27270101
ECLASS 7.0	27270101
ECLASS 8.0	27270101
ECLASS 8.1	27270101

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

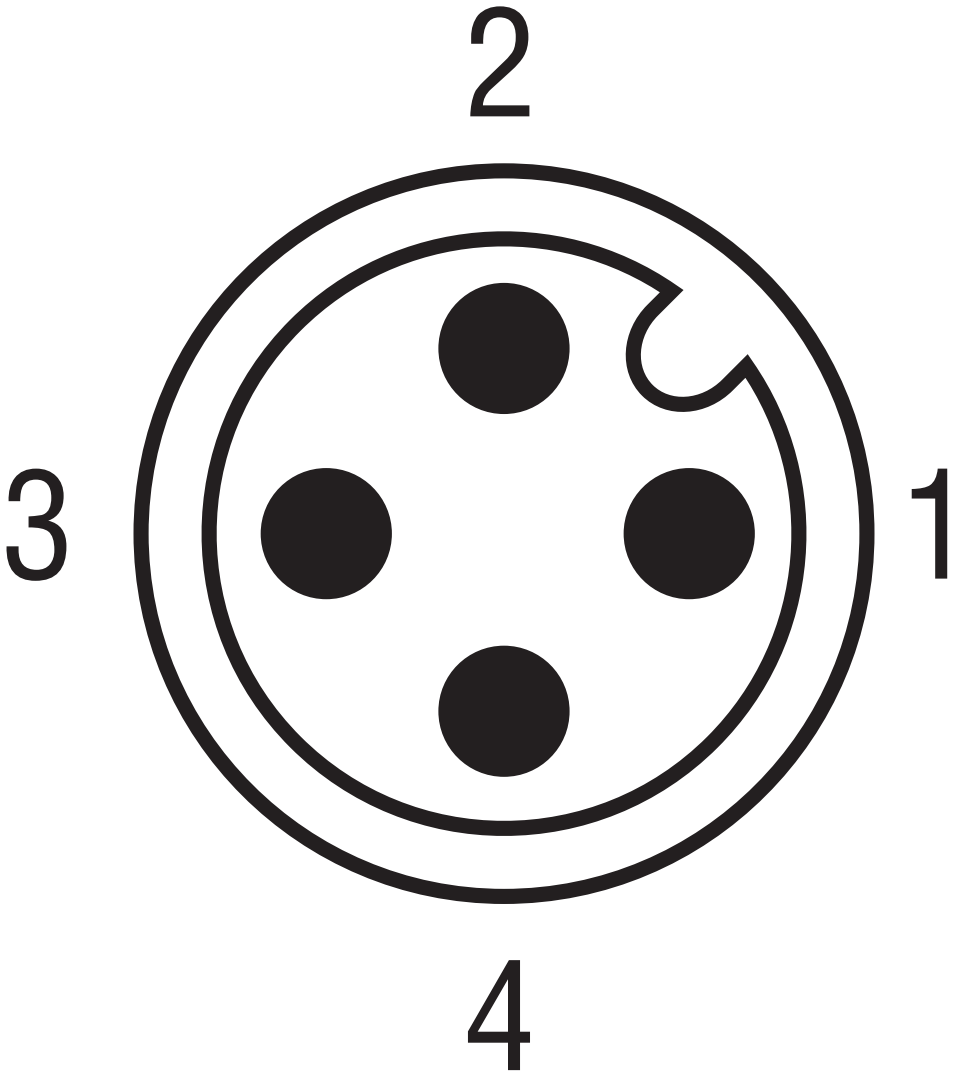
Installation note Non-flush installation



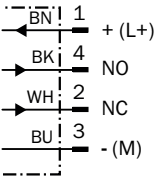
Connection type



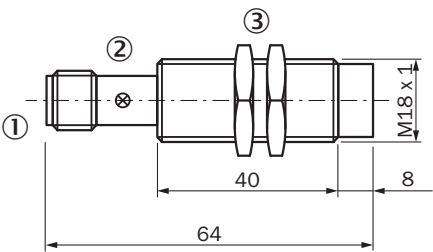
Connection diagram



Connection diagram Cd-006



Dimensional drawing IM18, DC 2-wire, male connector, non-flush



Dimensions in mm (inch)
① Connection
② Display LED
③ Fastening nuts (2x); width across 24, metal

Recommended accessories

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

	Brief description	Type	part no.
Mounting systems			
	• Description: Clamping block for round sensors M18, without fixed stop • Material: Plastic • Details: Plastic (PA12), glass-fiber reinforced • Items supplied: Mounting hardware included • Suitable for: GR18, MH15V, V180-2, V18	BEF-KH-M18	2051481
	• Description: Mounting plate for M18 sensors • Material: Steel • Details: Steel, zinc coated • Items supplied: Without mounting hardware • Suitable for: GR18, V180-2, V18, W15, Z1, Z2	BEF-WG-M18	5321870
	• Description: Mounting bracket for M18 sensors • Material: Steel • Details: Steel, zinc coated • Items supplied: Without mounting hardware • Suitable for: GR18, V180-2, V18, W15, Z1, Z2	BEF-WN-M18	5308446
	• Description: Mounting bracket for M18 sensors • Material: Stainless steel • Details: Stainless steel • Items supplied: Without mounting hardware	BEF-WN-M18N	5320947

	Brief description	Type	part no.
connectors and cables			
	Strich		On request
	Strich		On request
	Strich		On request
	Strich		On request
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	Strich		On request

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