



IM30-15NPS-ZC1

IM Standard

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
IM30-15NPS-ZC1	6020286

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

Detailed technical data

Features

Housing	Metric
Housing	Standard design
Thread size	M30 x 1.5
Diameter	Ø 30 mm
Sensing range S_n	15 mm
Installation type	Non-flush
Switching frequency	200 Hz
Connection type	Male connector M12, 4-pin
Switching output	PNP
Switching output detail	PNP
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP67 ¹⁾

¹⁾ According to EN 60529.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 % ¹⁾
Voltage drop	≤ 1 V ²⁾
Time delay before availability	≤ 100 ms
Hysteresis	2 % ... 10 %
Reproducibility	≤ 2 % ³⁾ ⁴⁾
Temperature drift (of S_n)	± 10 %

¹⁾ Of V_S .

²⁾ At I_a max.

³⁾ Supply voltage U_B and constant ambient temperature T_a .

⁴⁾ Of S_r .

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, 1 mm
Ambient operating temperature	-25 °C ... +70 °C
Housing material	Brass, Nickel-plated brass
Sensing face material	Plastic
Housing length	76 mm
Thread length	38 mm
Tightening torque, max.	≤ 60 Nm

1) Of V_S .

2) At I_a max.

3) Supply voltage U_B and constant ambient temperature T_a .

4) Of S_r .

Safety-related parameters

MTTF_D	828 years
DC_{avg}	0 %
T_M (mission time)	20 years

Installation note

Remark	Associated graphic see "Installation"
A	15 mm
B	45 mm
C	30 mm
D	45 mm
E	18 mm
F	120 mm

Certificates

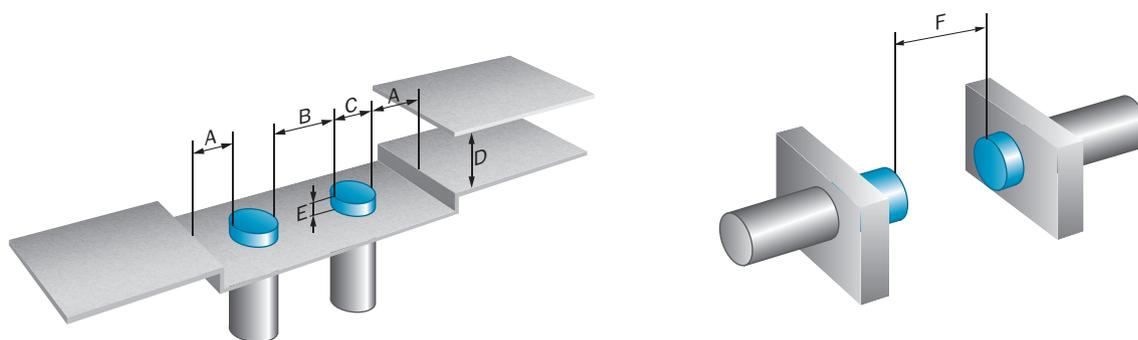
EU declaration of conformity	✓
UK declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓

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

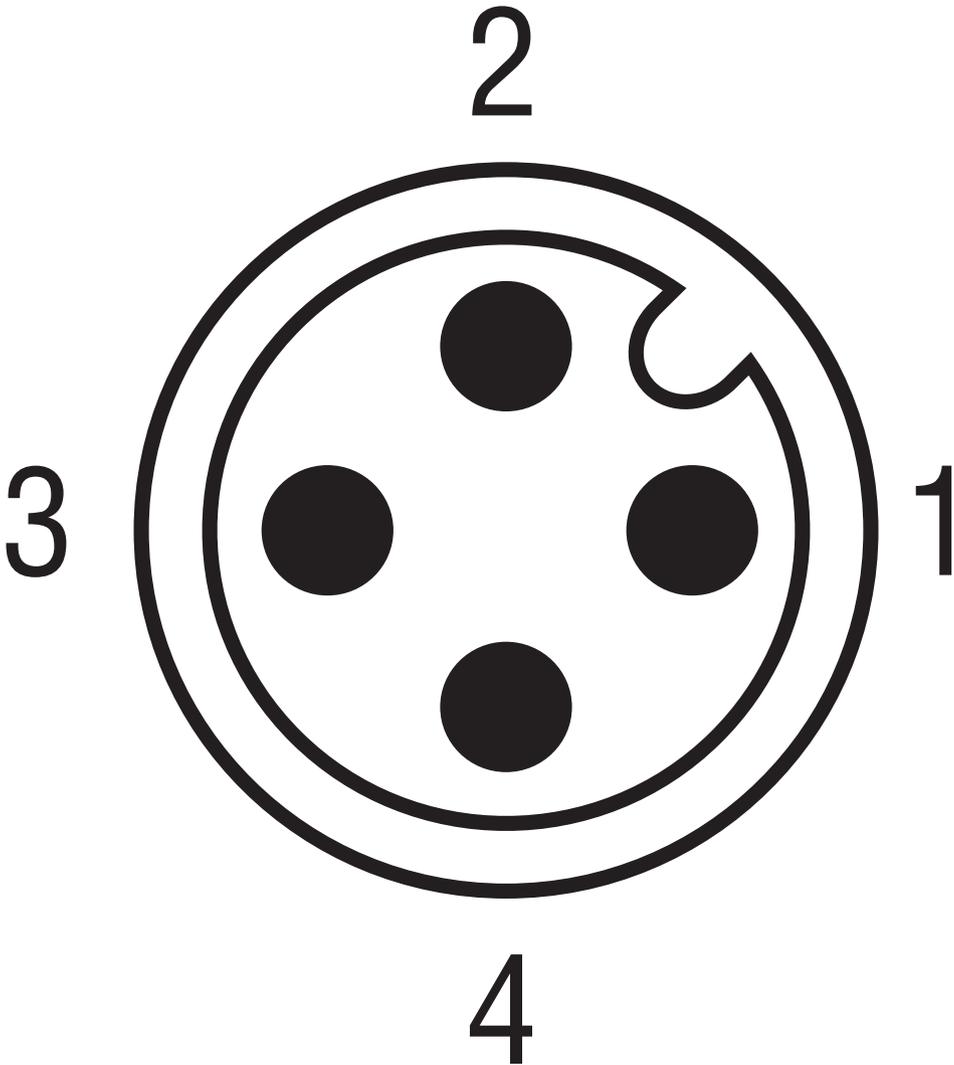
Installation note Non-flush installation



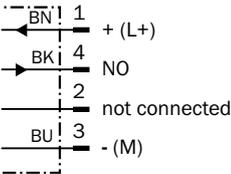
Connection type



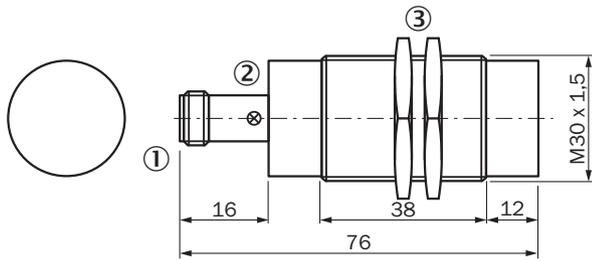
Connection diagram



Connection diagram Cd-007



Dimensional drawing



Dimensions in mm (inch)

- ① Connection
- ② Display LED
- ③ Fastening nuts (2x); width across 36, metal

Recommended accessories

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

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> • Description: Mounting plate for M30 sensors • Material: Steel • Details: Steel, zinc coated • Items supplied: Without mounting hardware 	BEF-WG-M30	5321871
	<ul style="list-style-type: none"> • Description: Mounting bracket for M30 sensors • Material: Steel • Details: Steel, zinc coated • Items supplied: Without mounting hardware 	BEF-WN-M30	5308445
	<ul style="list-style-type: none"> • Description: Plate N10 for universal clamp bracket, M30 • Material: Steel, zinc diecast • Details: Zinc plated steel (sheet), Zinc die cast (clamping bracket) • Items supplied: Universal clamp (5322626), mounting hardware • Usable for: M30 round sensors 	BEF-KHS-N10	2062372

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Description: Unshielded • Connection systems: Screw-type terminals • Permitted cross-section: ≤ 0.75 mm² 	DOS-1204-W	6007303
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, straight, A-coded • Description: Unshielded • Connection systems: Screw-type terminals • Permitted cross-section: ≤ 0.75 mm² 	DOS-1204-G	6007302
	<ul style="list-style-type: none"> • 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, PVC • Description: Sensor/actuator cable, unshielded • Connection systems: Flying leads • Note: This product is generally resistant to chemical cleaning agents (see ECOLAB). Please do not use cleaning agents of any other Kind., Not resistant against lactic acid & hydrogen peroxide (H2O2) • Application: Uncontaminated zones, Hygienic and washdown zones, Zones with chemicals 	DOL-1204-G05MNI	6052615
	<ul style="list-style-type: none"> • 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, Robot, cold bending resistant, seawater resistant 	DOL-1204-G05MRN	6058476
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Uncontaminated zones, Zones with chemicals 	YF2A14-050VB3XLEAX	2096235
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 4-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation 	YF2A14-050UB3XLEAX	2095608
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 0.6 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Uncontaminated zones, Zones with chemicals 	YG2A14-C60VB3XLEAX	2145709
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 1 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Uncontaminated zones, Zones with chemicals 	YG2A14-010VB3XLEAX	2145710
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 0.6 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Note: Only suitable for PNP sensors • Application: Uncontaminated zones, Zones with chemicals 	YI2A14-C60VB3XLEAX	2145719
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 1 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Note: Only suitable for PNP sensors 	YI2A14-010VB3XLEAX	2145720

	Brief description	Type	part no.
	<ul style="list-style-type: none"> • Application: Uncontaminated zones, Zones with chemicals • Connection type head A: Female connector, M12, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 3 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Note: Only suitable for PNP sensors • Application: Uncontaminated zones, Zones with chemicals 	YI2A14-030VB3XLEAX	2145721
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 0.6 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Uncontaminated zones, Zones with chemicals 	YF2A14-C60VB3XLEAX	2145707
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 4-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 1 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Uncontaminated zones, Zones with chemicals 	YF2A14-010VB3XLEAX	2145708

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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