



IM30-20NPO-ZC1

IM Standard

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
IM30-20NPO-ZC1	7900159

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

Detailed technical data

Features

Housing	Cylindrical thread design
Housing	Standard design
Thread size	M30 x 1.5
Diameter	Ø 30 mm
Sensing range S_n	20 mm
Installation type	Non-flush
Switching frequency	150 Hz
Connection type	Male connector M12, 4-pin
Switching output	PNP
Output function	NC
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 % ... 15 %
Reproducibility	≤ 5 % ^{3) 4)}
Temperature drift (of S_n)	± 10 %
EMC	According to EN 60947-5-2
Continuous current I_a	≤ 400 mA

¹⁾ Of V_S .

²⁾ At I_a max.

³⁾ U_b and T_a constant.

⁴⁾ Of S_r .

Short-circuit protection	✓
Reverse polarity 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) U_b and T_a constant.

4) Of S_r .

Installation note

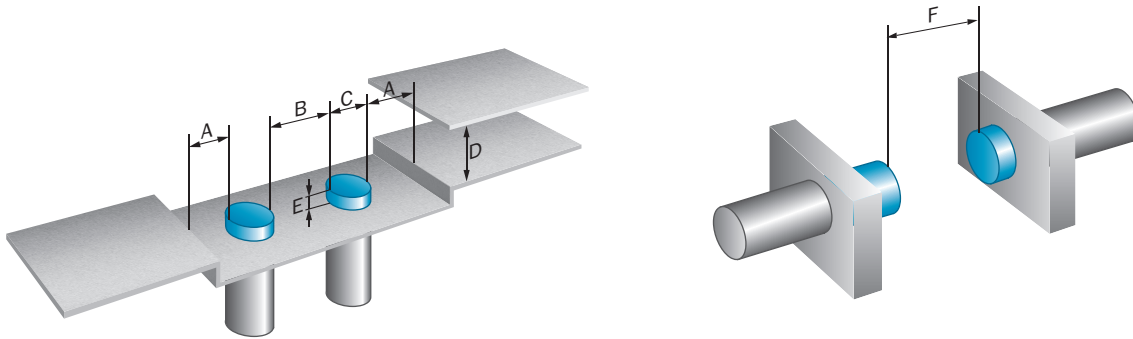
Remark	Associated graphic see "Installation"
A	20 mm
B	60 mm
C	30 mm
D	60 mm
E	20 mm
F	160 mm

Classifications

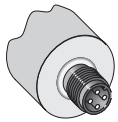
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eCl@ss 8.0	27270101
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eCl@ss 12.0	27274001
ETIM 5.0	EC002714
ETIM 6.0	EC002714
ETIM 7.0	EC002714
ETIM 8.0	EC002714
UNSPSC 16.0901	39122230

Installation note

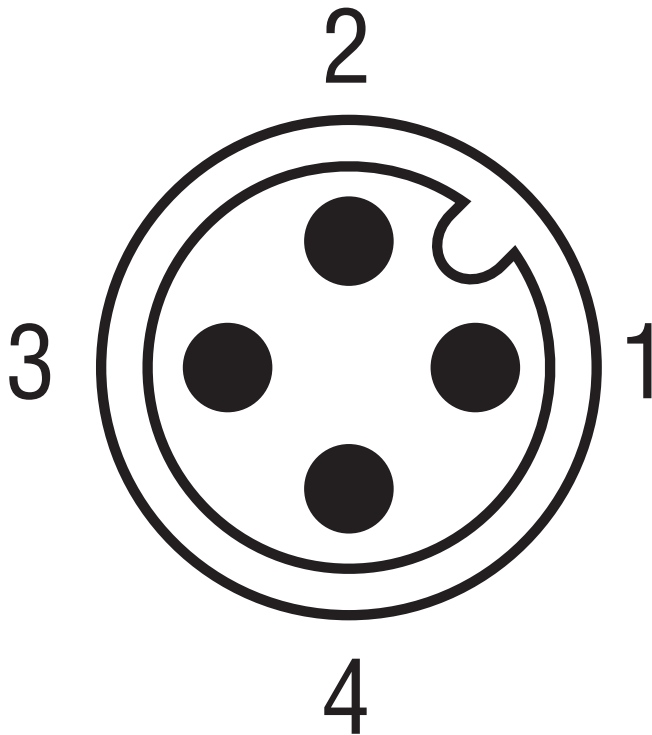
Non-flush installation



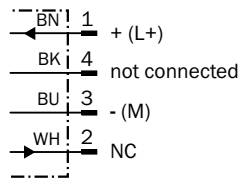
Connection type



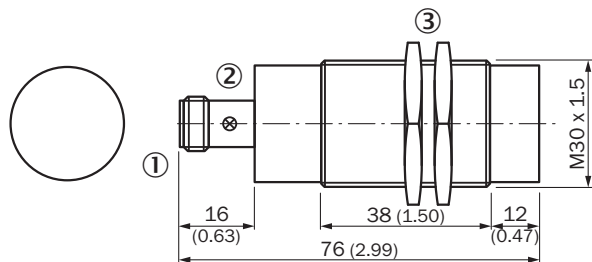
Connection diagram



Cd-008







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.
Universal bar clamp systems			
	Plate N10 for universal clamp bracket, M30, Zinc plated steel (sheet), Zinc die cast (clamping bracket), Universal clamp (5322626), mounting hardware	BEF-KHS-N10	2062372
Mounting brackets and plates			
	Mounting plate for M30 sensors, steel, zinc coated, without mounting hardware	BEF-WG-M30	5321871
	Mounting bracket for M30 sensors, steel, zinc coated, without mounting hardware	BEF-WN-M30	5308445
Plug connectors and cables			
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YF2A14-020VB3XLEAX	2096234
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A14-050VB3XLEAX	2096235

	Brief description	Type	Part no.
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YG2A14-020VB3XLEAX YG2A14-050VB3XLEAX	2095895 2095897
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m Only suitable for PNP sensors Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m Only suitable for PNP sensors	YI2A14-020VB3XLEAX YI2A14-050VB3XLEAX	2096222 2096223
	Head A: female connector, M12, 4-pin, straight Cable: unshielded	DOS-1204-G	6007302
	Head A: female connector, M12, 4-pin, angled Cable: unshielded	DOS-1204-W	6007303
	Head A: male connector, M12, 4-pin, straight Cable: unshielded	STE-1204-G	6009932
	Head A: male connector, M12, 4-pin, angled Cable: unshielded	STE-1204-W	6022084

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