Online data sheet



IM30-22BNS-ZC1

IML

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	Part no.
IM30-22BNS-ZC1	6033033

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

Detailed technical data

Features

Housing	Cylindrical thread design
Housing	Standard
Thread size	M30 1.5
Diameter	Ø 30 mm
Sensing range S_n	22 mm
Safe sensing range S_a	17.82 mm
Installation type	Quasi-flush [1]
Switching frequency	200 Hz
Connection type	Male connector M12, 4-pin
Switching output	NPN
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP67 [2]
Special features	Triple sensing range

[1] Please note the installation notes.
[2] According to EN 60529.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 20 % [1]
Voltage drop	≤ 2 V [2]

[1] Of V_S.
[2] At I_a max.
[3] Without load.
[4] Of Sr.
[5] UB = 20 V DC ... 30 V DC, TA = 23 °C ± 5 °C.

Current consumption	≤ 10 mA [3]
Time delay before availability	≤ 200 ms
Hysteresis	1 % ... 15 %
Reproducibility	≤ 5 % [4] [5]
Temperature drift (of S_r)	± 10 %
EMC	According to EN 60947-5-2
Continuous current I_a	≤ 200 mA
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	Metal, Chrome-plated brass
Sensing face material	Plastic, Plastic
Housing length	73.5 mm
Thread length	52 mm
Tightening torque, max.	70 Nm

[1] Of V_S.
[2] At I_a max.
[3] Without load.
[4] Of Sr.
[5] UB = 20 V DC ... 30 V DC, TA = 23 °C ± 5 °C.

Reduction factors

Note	The values are reference values which may vary
Stainless steel (V2A, 304)	Approx. 0.66
Aluminum (Al)	Approx. 0.4
Copper (Cu)	Approx. 0.35
Brass (Br)	Approx. 0.45

Installation note

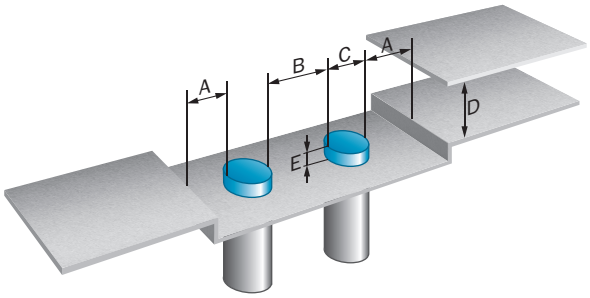
Remark	Associated graphic see "Installation"
A	22 mm
B	50 mm
C	30 mm
D	66 mm
E	6 mm
F	220 mm

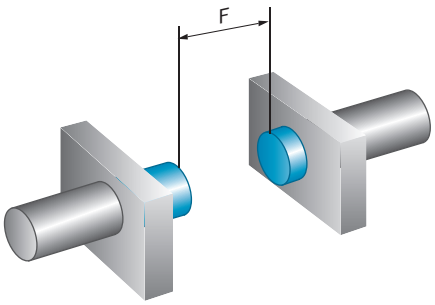
Classifications

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
ETIM 5.0	EC002714
ETIM 6.0	EC002714
UNSPSC 16.0901	39122230

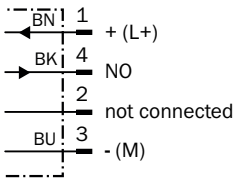
Installation note





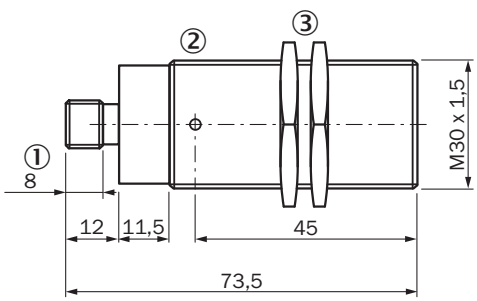
Connection diagram

cd-007



Dimensional drawing (Dimensions in mm (inch))

IM30 Triplex, connector, quasi-flush



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

Recommended accessories

Other models and accessories ➜ www.sick.com/IML

	Brief description	Type	Part no.
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
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YG2A14-020VB3XLEAX	2095895
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YG2A14-050VB3XLEAX	2095897
	Head A: female connector, M12, 4-pin, straight Head B: - Cable: unshielded	DOS-1204-G	6007302
	Head A: female connector, M12, 4-pin, angled Head B: - Cable: unshielded	DOS-1204-W	6007303

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