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DATA SHEET

IM18-08NUO-ZU0

IMO
Inductive proximity sensors

SICK Sensor Intelligence



Illustration may differ

INDUCTIVE PROXIMITY SENSORS

IM18-08NUO-ZU0

ORDERING INFORMATION

Type	part no.
IM18-08NUO-ZU0	7902125

Further device versions and accessories at www.sick.com/IMO

DETAILED TECHNICAL DATA

FEATURES

Housing	Metric
Housing	Standard 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	Non-flush
Switching frequency	25 Hz [1] 50 Hz [2]
Connection type	Cable, 2-wire, 2 m
Output function	NC
Electrical wiring	AC/DC 2-wire
Enclosure rating	IP67 [3]
Items supplied	Mounting nut, brass, nickel-plated (2x)

[1] AC.

[2] DC.

[3] According to EN 60529.

MECHANICS/ELECTRONICS

Supply voltage	20 V AC/DC ... 250 V AC/DC
Voltage drop	≤ 6.5 V AC, ≤ 6 V DC
Time delay before availability	≤ 8 ms
Hysteresis	1 % ... 15 %
Reproducibility	≤ 10 % [1] [2] [3]
Temperature drift (of S_r)	± 10 %
EMC	According to EN 60947-5-2 As per EN 55011, class B
Continuous current I_a	≤ 350 mA [4] ≤ 250 mA [5] ≤ 100 mA [6]
Off-state current	≤ 2.5 mA (AC 250 V) ≤ 1.3 mA (AC 110 V) ≤ 0.8 mA (DC 24 V)
Minimum load current	≥ 5 mA
Short-time withstand current	2.2 A [7]
Cable material	PUR
Conductor size	0.5 mm²
Short-circuit protection	[8]
Power-up pulse protection	✓
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
Ambient operating temperature	–25 °C ... +80 °C
Housing material	Brass, nickel-plated
Sensing face material	Plastic, PBT
Housing length	80 mm
Thread length	50 mm
Tightening torque, max.	≤ 35 Nm
Protection class	II
Rated insulation voltage U_i	250 V AC
Usage category	AC-140 [9] DC-13 [10]
Contamination rating	3
Rated impulse withstand voltage	4 kV

[1] Supply voltage U_B and constant ambient temperature Ta.

[2] Of Sr.

[3] Repeatability (T_a not constant).

[4] AC (+50 °C).

[5] AC (+80 °C).

[6] DC.

[7] 20 ms / 0.5 Hz.

[8] Miniature fuse to IEC 60217-2 Sheet 1, ≤ 2 A (quick-blow).

[9] Control of small electromagnetic loads with holding currents < 200 mA.

[10] Control of solenoids.

SAFETY-RELATED PARAMETERS

$MTTF_D$	966 years

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

REDUCTION FACTORS

Note	The values are reference values which may vary
Stainless steel (V2A, 304)	Approx. 0.8
Aluminum (Al)	Approx. 0.45
Copper (Cu)	Approx. 0.4

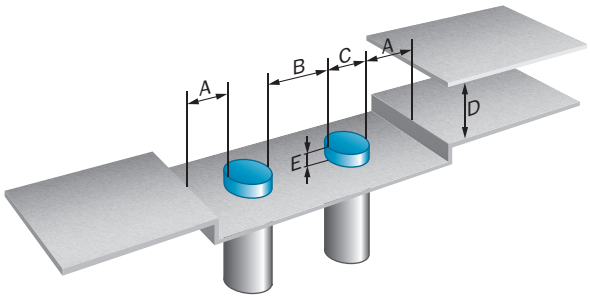
INSTALLATION NOTE

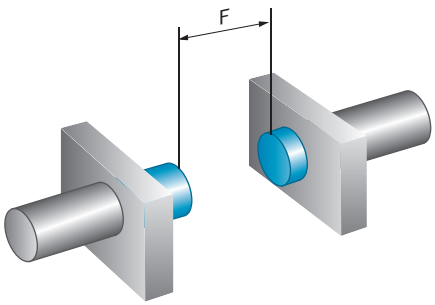
Remark	Associated graphic see "Installation"
A	18 mm
B	36 mm
C	18 mm
D	24 mm
E	16 mm
F	64 mm

CERTIFICATES

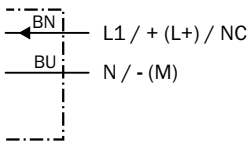
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
CCC certificate	✓

INSTALLATION NOTE NON-FLUSH INSTALLATION



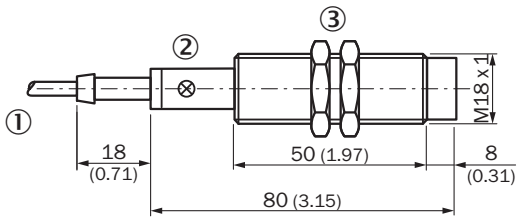


CONNECTION DIAGRAM CD-039



Miniature fuse to IEC60127-2
sheet 1, ≤ 2 A (fast acting)

DIMENSIONAL DRAWING



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

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/7902125

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SICK AT A GLANCE

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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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