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DATA SHEET

IMX30-50NPSZC0S

IMX
Inductive proximity sensors

SICK Sensor Intelligence

INDUCTIVE PROXIMITY SENSORS

IMX30-50NPSZC0S

ORDERING INFORMATION

| Type | part no. |
|-----------------|----------|
| IMX30-50NPSZC0S | 1107443 |

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



Illustration may differ



DETAILED TECHNICAL DATA

FEATURES

| | |
|--------------------------|--|
| Housing | Metric |
| Housing | Standard design |
| Thread size | M30 x 1.5 |
| Diameter | Ø 30 mm |
| Sensing range S_n | 50 mm |
| Safe sensing range S_s | 40.5 mm |
| Installation type | Non-flush |
| Switching frequency | 10 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 | IP68 ¹⁾ |
| Special features | Quadruple sensing range, Resistant against coolant lubricants, Visual adjustment indicator |
| Special applications | Zones with coolants and lubricants |
| Items supplied | Mounting nut, brass, nickel-plated (2x) |

¹⁾ According to EN 60529.

MECHANICS/ELECTRONICS

| | | |
|--|---|-----------------------|
| Supply voltage | 10 V DC ... 30 V DC | |
| Ripple | ≤ 10 % | |
| Voltage drop | ≤ 2 V ¹⁾ | |
| Time delay before availability | ≤ 150 ms | |
| Hysteresis | 5 % ... 15 % | |
| Reproducibility | ≤ 5 % ²⁾ ³⁾ | |
| Temperature drift (of S _i) | ± 10 % | |
| EMC | According to EN 60947-5-2 | |
| Continuous current I _s | ≤ 200 mA | |
| No load current | ≤ 50 mA | |
| Short-circuit protection | ✓ | |
| Power-up pulse protection | ✓ | |
| Shock and vibration resistance | 30 g, 11 ms / 10 ... 55 Hz, 1 mm | |
| Display | LED yellow | Output state (on/off) |
| | LED green | Stable on/off state |
| Ambient operating temperature | -25 °C ... +75 °C | |
| Housing material | Nickel-plated brass | |
| Sensing face material | Plastic, LCP | |
| Housing length | 70.2 mm | |
| Thread length | 40.2 mm | |
| Tightening torque, max. | ≤ 70 Nm | |
| Protection class | III | |
| UL File No. | E181493 | |
| Service interface | IO-Link as a service interface. The interface can only be used by SICK Service. | |

¹⁾ At I_s max.

²⁾ Supply voltage U_s and constant ambient temperature T_a.

³⁾ Of S_i.

SAFETY-RELATED PARAMETERS

| | |
|-------------------------------|-----------|
| MTTF _D | 411 years |
| DC _{avg} | 0 % |
| T _M (mission time) | 20 years |

REDUCTION FACTORS

| | |
|----------------------------|--|
| Note | The values are reference values which may vary |
| St37 steel (Fe) | 1 |
| Stainless steel (V2A, 304) | 1.1 |
| Aluminum (Al) | 0.5 |
| Copper (Cu) | 0.3 |
| Brass (Br) | 0.6 |

INSTALLATION NOTE

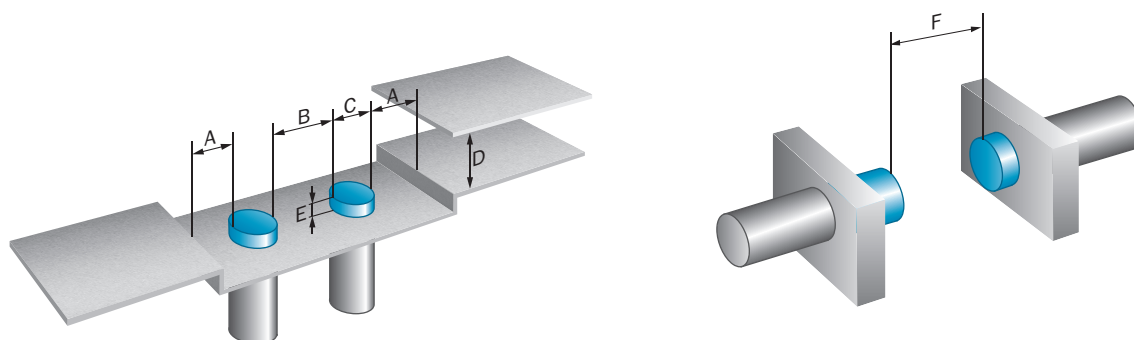
| | |
|--------|---------------------------------------|
| Remark | Associated graphic see "Installation" |
| A | 80 mm |
| B | 30 mm |

| | |
|---|--------|
| C | 30 mm |
| D | 150 mm |
| E | 40 mm |
| F | 150 mm |

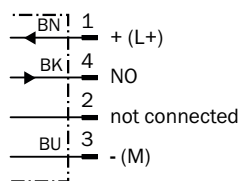
CERTIFICATES

| | |
|---|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |
| China RoHS | ✓ |
| China Compulsory Product Certification (CCC) exempt | ✓ |
| cULus certificate | ✓ |
| Information according to Art. 3 of Data Act (Regulation EU 2023/2854) | ✓ |

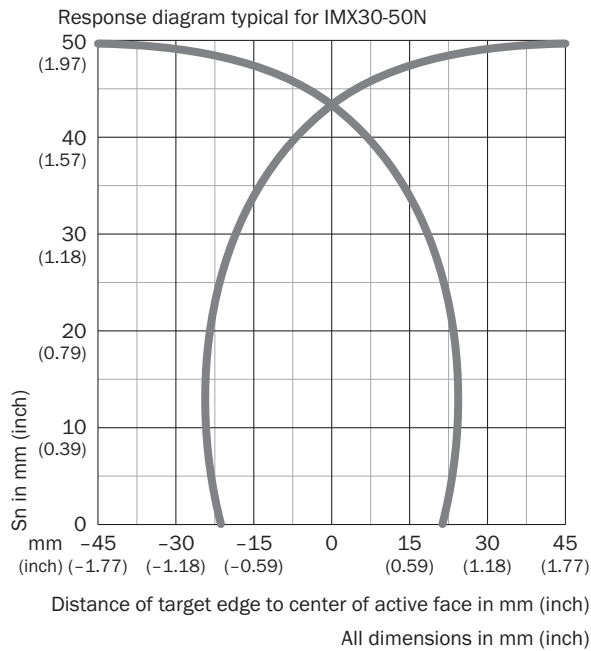
INSTALLATION NOTE NON-FLUSH INSTALLATION



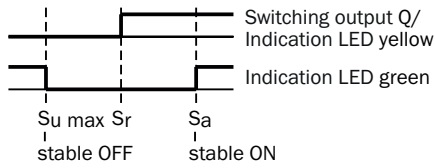
CONNECTION DIAGRAM CD-007



RESPONSE DIAGRAM

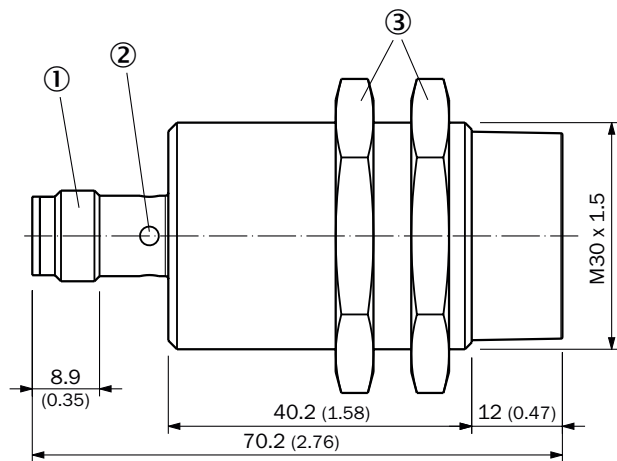


FUNCTIONAL PRINCIPLE INSTALLATION AID



| LED indicator green | LED indicator yellow | Status |
|---------------------|----------------------|---|
| ON | OFF | Output is deactivated (OFF), sensor in stable OFF state |
| OFF | OFF | Output is deactivated (OFF), no object detected |
| OFF | ON | Output is activated (ON), object detected |
| ON | ON | Output is activated (ON), sensor in stable ON state |

DIMENSIONAL DRAWING IMX30, STANDARD VARIANT, PLUG, NON-FLUSH



Dimensions in mm (inch)

- ① Connection
- ② Display LED
- ③ fastening nuts (2x); width across 36, brass nickel-plated

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/1107443



SICK AG
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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

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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