

SICK.COM



DATA SHEET

IME18-20NPSZC0K

IME
Inductive proximity sensors

SICK Sensor Intelligence

INDUCTIVE PROXIMITY SENSORS

IME18-20NPSZC0K

ORDERING INFORMATION

| Type | part no. |
|-----------------|----------|
| IME18-20NPSZC0K | 1071269 |

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



DETAILED TECHNICAL DATA

FEATURES

| | |
|--------------------------|-----------------------------------------|
| Housing | Metric |
| Housing | Short-body |
| Thread size | M18 x 1 |
| Diameter | Ø 18 mm |
| Sensing range S_n | 20 mm |
| Safe sensing range S_s | 16.2 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⁾ |
| Special features | Triple sensing range |
| 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 | ≤ 100 ms |
| Hysteresis | 1 % ... 15 % |
| Reproducibility | ≤ 5 % ²⁾ ³⁾ |
| Temperature drift (of S _i) | ± 10 % |
| EMC | According to EN 60947-5-2 |
| Continuous current I _a | ≤ 200 mA |
| No load current | ≤ 10 mA |
| Short-circuit protection | ✓ |
| Power-up pulse protection | ✓ |
| Shock and vibration resistance | 30 g, 11 ms/10 Hz ... 55 Hz, 1 mm |
| Ambient operating temperature | -25 °C ... +75 °C |
| Ambient temperature, storage | -25 °C ... +75 °C |
| Housing material | Brass, nickel-plated |
| Sensing face material | Plastic, PA 66 |
| Housing length | 50 mm |
| Thread length | 23 mm |
| Tightening torque, max. | ≤ 30 Nm |
| UL File No. | NRKH.E181493 |

¹⁾ At I_a max.

²⁾ Supply voltage U_s and constant ambient temperature T_a.

³⁾ Of S_r.

SAFETY-RELATED PARAMETERS

| | |
|-------------------|-------------|
| MTTF _D | 1,735 years |
| DC _{avg} | 0 % |

REDUCTION FACTORS

| | |
|----------------------------|------------------------------------------------|
| Note | The values are reference values which may vary |
| St37 steel (Fe) | 1 |
| Stainless steel (V2A, 304) | Approx. 0.78 |
| Aluminum (Al) | Approx. 0.43 |
| Copper (Cu) | Approx. 0.37 |
| Brass (Br) | Approx. 0.4 |

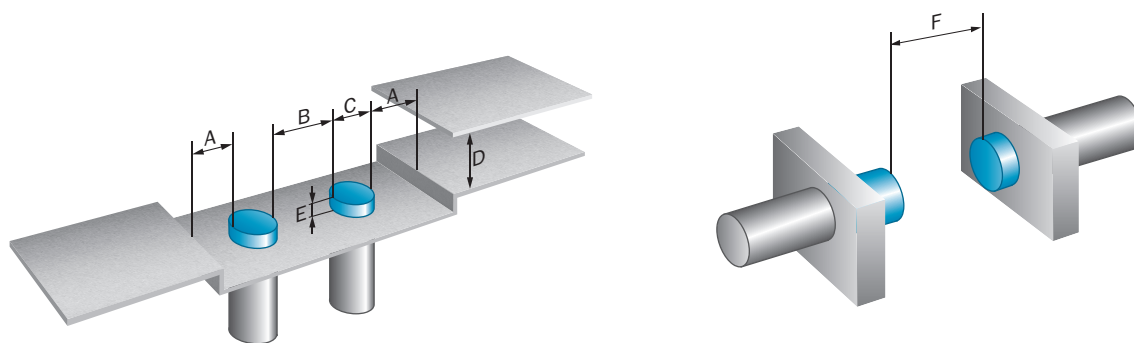
INSTALLATION NOTE

| | |
|--------|---------------------------------------|
| Remark | Associated graphic see "Installation" |
| A | 30 mm |
| B | 86 mm |
| C | 18 mm |
| D | 60 mm |
| E | 20 mm |
| F | 200 mm |

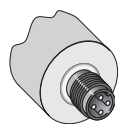
CERTIFICATES

| | |
|------------------------------------|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |
| China RoHS | ✓ |
| cULus certificate | ✓ |

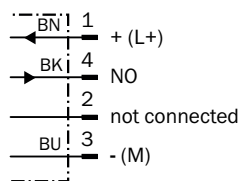
INSTALLATION NOTE NON-FLUSH INSTALLATION



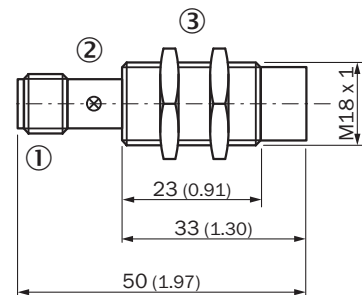
CONNECTION TYPE



CONNECTION DIAGRAM CD-007



DIMENSIONAL DRAWING IME18 SHORT-BODY HOUSING, CONNECTOR, NON-FLUSH



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/1071269



SICK AG
WALDKIRCH
GERMANY
SICK.COM

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

SICK
Sensor Intelligence