



DATA SHEET

# IME18-08BNSZW2S

IME  
Inductive proximity sensors

**SICK** Sensor Intelligence



INDUCTIVE PROXIMITY SENSORS

IME18-08BNSZW2S

ORDERING INFORMATION

| Type            | part no. |
|-----------------|----------|
| IME18-08BNSZW2S | 1040976  |

Further device versions and accessories at [www.sick.com/IME](http://www.sick.com/IME)



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        | Flush                                   |
| Switching frequency      | 1,000 Hz                                |
| Connection type          | Cable, 3-wire, 2 m                      |
| Switching output         | NPN                                     |
| Switching output detail  | NPN                                     |
| Output function          | NO                                      |
| Electrical wiring        | DC 3-wire                               |
| Enclosure rating         | IP67 <sup>1)</sup>                      |
| Items supplied           | Mounting nut, brass, nickel-plated (2x) |

<sup>1)</sup> According to EN 60529.

**MECHANICS/ELECTRONICS**

|                                        |                                            |
|----------------------------------------|--------------------------------------------|
| Supply voltage                         | 10 V DC ... 30 V DC                        |
| Ripple                                 | $\leq 10 \%$                               |
| Voltage drop                           | $\leq 2 \text{ V}$ <sup>1)</sup>           |
| Time delay before availability         | $\leq 100 \text{ ms}$                      |
| Hysteresis                             | 5 % ... 15 %                               |
| Reproducibility                        | $\leq 2 \%$ <sup>2)</sup><br><sup>3)</sup> |
| Temperature drift (of S <sub>r</sub> ) | $\pm 10 \%$                                |
| EMC                                    | According to EN 60947-5-2                  |
| Continuous current I <sub>a</sub>      | $\leq 200 \text{ mA}$                      |
| No load current                        | $\leq 10 \text{ mA}$                       |
| Cable material                         | PVC                                        |
| Conductor size                         | 0.25 mm <sup>2</sup>                       |
| Cable diameter                         | Ø 3.9 mm                                   |
| 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                          |
| Housing material                       | Brass, nickel-plated                       |
| Sensing face material                  | Plastic, PA 66                             |
| Housing length                         | 67 mm                                      |
| Thread length                          | 52 mm                                      |
| Tightening torque, max.                | $\leq 40 \text{ Nm}$                       |
| UL File No.                            | NRKH.E181493                               |

<sup>1)</sup> At I<sub>a</sub> max.<sup>2)</sup> Supply voltage U<sub>a</sub> and constant ambient temperature T<sub>a</sub>.<sup>3)</sup> Of S<sub>r</sub>.**SAFETY-RELATED PARAMETERS**

|                   |             |
|-------------------|-------------|
| MTTF <sub>D</sub> | 1,735 years |
| DC <sub>avg</sub> | 0 %         |

**REDUCTION FACTORS**

|                            |                                                |
|----------------------------|------------------------------------------------|
| Note                       | The values are reference values which may vary |
| St37 steel (Fe)            | 1                                              |
| Stainless steel (V2A, 304) | Approx. 0.8                                    |
| Aluminum (Al)              | Approx. 0.45                                   |
| Copper (Cu)                | Approx. 0.4                                    |
| Brass (Br)                 | Approx. 0.4                                    |

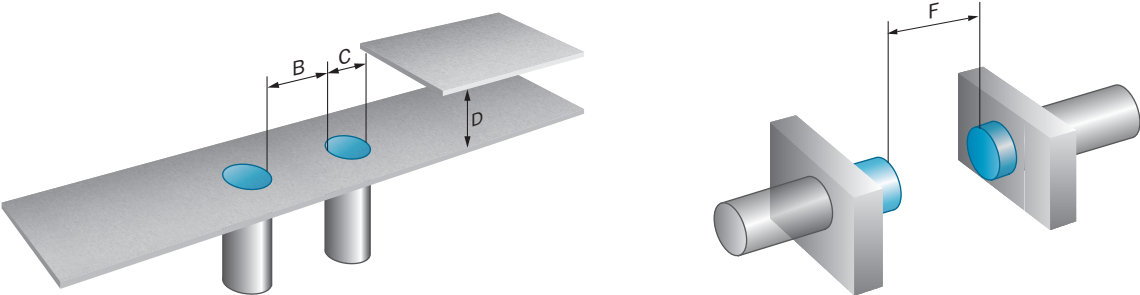
**INSTALLATION NOTE**

|        |                                       |
|--------|---------------------------------------|
| Remark | Associated graphic see "Installation" |
| B      | 36 mm                                 |
| C      | 18 mm                                 |
| D      | 24 mm                                 |
| F      | 64 mm                                 |

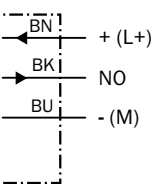
CERTIFICATES

|                                                      |   |
|------------------------------------------------------|---|
| EU declaration of conformity                         | ✓ |
| UK declaration of conformity                         | ✓ |
| ACMA declaration of conformity                       | ✓ |
| Moroccan declaration of conformity                   | ✓ |
| China RoHS                                           | ✓ |
| China Compulsory Product Certification (CCC) ex-empt | ✓ |
| cULus certificate                                    | ✓ |

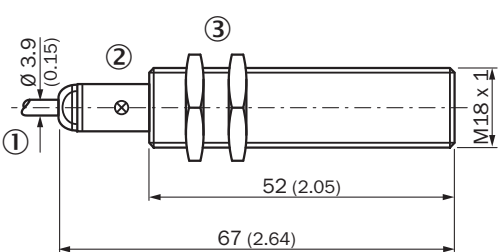
INSTALLATION NOTE FLUSH INSTALLATION



CONNECTION DIAGRAM CD-001



DIMENSIONAL DRAWING IME18 STANDARD, CABLE, 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/1040976](http://www.sick.com/1040976)



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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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