



DATA SHEET

# IM30-15NUS-ZUD

IMO  
Inductive proximity sensors

# SICK

Sensor Intelligence



Illustration may differ

INDUCTIVE PROXIMITY SENSORS

# IM30-15NUS-ZUD

ORDERING INFORMATION

| Type           | part no. |
|----------------|----------|
| IM30-15NUS-ZUD | 6022058  |

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



DETAILED TECHNICAL DATA

FEATURES

|                          |                                            |
|--------------------------|--------------------------------------------|
| Housing                  | Metric                                     |
| Housing                  | Standard design                            |
| Thread size              | M30 x 1.5                                  |
| Diameter                 | Ø 30 mm                                    |
| Sensing range $S_n$      | 15 mm                                      |
| Safe sensing range $S_a$ | 12.15 mm                                   |
| Installation type        | Non-flush                                  |
| Switching frequency      | 25 Hz <sup>1)</sup><br>30 Hz <sup>2)</sup> |
| Connection type          | Cable, 2-wire, 6 m                         |
| Output function          | NO                                         |
| Electrical wiring        | AC/DC 2-wire                               |
| Enclosure rating         | IP67 <sup>3)</sup>                         |
| Items supplied           | Mounting nut, brass, nickel-plated (2x)    |

<sup>1)</sup> AC.

<sup>2)</sup> DC.

<sup>3)</sup> According to EN 60529.

**MECHANICS/ELECTRONICS**

|                                         |                                                                                           |
|-----------------------------------------|-------------------------------------------------------------------------------------------|
| Supply voltage                          | 20 V AC/DC ... 250 V AC/DC                                                                |
| Voltage drop                            | $\leq 6.5$ V AC, $\leq 6$ V DC                                                            |
| Time delay before availability          | $\leq 8$ ms                                                                               |
| Hysteresis                              | 1 % ... 15 %                                                                              |
| Reproducibility                         | $\leq 10$ % <sup>1)</sup><br><sup>2)</sup><br><sup>3)</sup>                               |
| Temperature drift (of S <sub>i</sub> )  | $\pm 10$ %                                                                                |
| EMC                                     | According to EN 60947-5-2<br>As per EN 55011, class B                                     |
| Continuous current I <sub>a</sub>       | $\leq 350$ mA <sup>4)</sup><br>$\leq 250$ mA <sup>5)</sup><br>$\leq 100$ mA <sup>6)</sup> |
| Off-state current                       | $\leq 2.5$ mA (AC 250 V)<br>$\leq 1.3$ mA (AC 110 V)<br>$\leq 0.8$ mA (DC 24 V)           |
| Minimum load current                    | $\geq 5$ mA                                                                               |
| Short-time withstand current            | 2.2 A <sup>7)</sup>                                                                       |
| Cable material                          | PUR/PVC                                                                                   |
| Conductor size                          | 0.5 mm <sup>2</sup>                                                                       |
| Short-circuit protection                | <sup>8)</sup>                                                                             |
| 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                        | Brass, nickel-plated                                                                      |
| Sensing face material                   | Plastic, PBT                                                                              |
| Housing length                          | 81 mm                                                                                     |
| Thread length                           | 44 mm                                                                                     |
| Tightening torque, max.                 | $\leq 50$ Nm                                                                              |
| Protection class                        | II                                                                                        |
| Rated insulation voltage U <sub>i</sub> | 250 V AC                                                                                  |
| Usage category                          | AC-140 <sup>9)</sup><br>DC-13 <sup>10)</sup>                                              |
| Contamination rating                    | 3                                                                                         |
| Rated impulse withstand voltage         | 4 kV                                                                                      |

<sup>1)</sup> Supply voltage U<sub>a</sub> and constant ambient temperature T<sub>a</sub>.<sup>2)</sup> Of S<sub>r</sub>.<sup>3)</sup> Repeatability (T<sub>a</sub> not constant).<sup>4)</sup> AC (+50 °C).<sup>5)</sup> AC (+80 °C).<sup>6)</sup> DC.<sup>7)</sup> 20 ms / 0.5 Hz.<sup>8)</sup> Miniature fuse to IEC 60217-2 Sheet 1,  $\leq 2$  A (quick-blow).<sup>9)</sup> Control of small electromagnetic loads with holding currents < 200 mA.<sup>10)</sup> Control of solenoids.**SAFETY-RELATED PARAMETERS**

|                   |           |
|-------------------|-----------|
| MTTF <sub>0</sub> | 968 years |
|-------------------|-----------|

|                               |          |
|-------------------------------|----------|
| DC <sub>avg</sub>             | 0 %      |
| T <sub>M</sub> (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                                    |

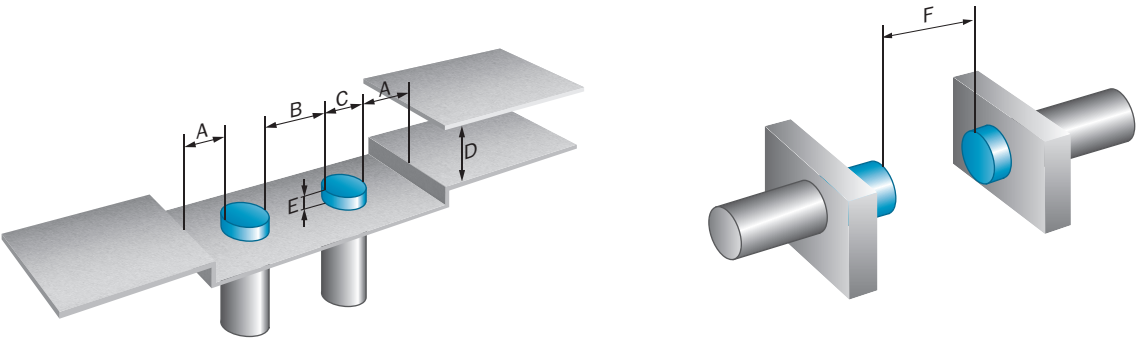
INSTALLATION NOTE

|        |                                       |
|--------|---------------------------------------|
| Remark | Associated graphic see "Installation" |
| A      | 30 mm                                 |
| B      | 60 mm                                 |
| C      | 30 mm                                 |
| D      | 45 mm                                 |
| E      | 30 mm                                 |
| F      | 120 mm                                |

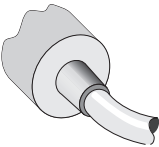
CERTIFICATES

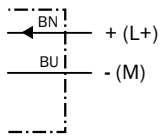
|                                    |   |
|------------------------------------|---|
| EU declaration of conformity       | ✓ |
| UK declaration of conformity       | ✓ |
| ACMA declaration of conformity     | ✓ |
| Moroccan declaration of conformity | ✓ |
| China RoHS                         | ✓ |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

INSTALLATION NOTE NON-FLUSH INSTALLATION

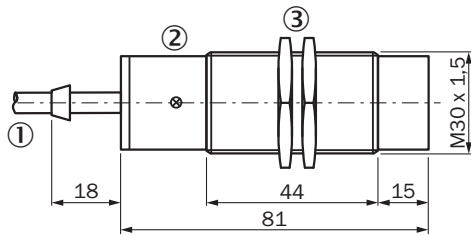


CONNECTION TYPE



**CONNECTION DIAGRAM CD-121**

Miniature fuse to IEC60127-2  
sheet 1,  $\leq 2$  A (fast acting)

**DIMENSIONAL DRAWING IM30, AC/DC 2-WIRE, CABLE, NON-FLUSH**

Dimensions in mm (inch)

- ① Connection
- ② Display LED
- ③ Fastening nuts (2x); width across 36, 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/6022058](http://www.sick.com/6022058)



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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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