



# IN30-E0305K

IN3000 Direct

NON-CONTACT SAFETY SWITCHES

**SICK**  
Sensor Intelligence.



### Ordering information

| Type        | Part no. |
|-------------|----------|
| IN30-E0305K | 6034576  |

Other models and accessories → [www.sick.com/IN3000\\_Direct](http://www.sick.com/IN3000_Direct)



### Detailed technical data

#### Features

|  |                             |
|--|-----------------------------|
| <b>Sensor principle</b>                        | Inductive                   |
| <b>Number of safe outputs</b>                  | 2                           |
| <b>Enable zone</b>                             | 1 mm ... 8 mm <sup>1)</sup> |
| <b>Safe switch off distance S<sub>ar</sub></b> | 12 mm                       |
| <b>Actuation directions</b>                    | 5                           |
| <b>Active sensor surfaces</b>                  | 1                           |

<sup>1)</sup> Values apply for steel (FE360).

#### Safety-related parameters

|   |  |
|---|--|
| <b>Safety integrity level</b>   | SIL2 (IEC 61508), SILCL2 (EN 62061)  |
| <b>Category</b>   | Applicable up to category 3 (EN ISO 13849)                                     |
| <b>Performance level</b>  | PL d (EN ISO 13849)  |
| <b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b> | 1.0 x 10 <sup>-7</sup> (EN ISO 13849)  |
| <b>T<sub>M</sub> (mission time)</b>                                       | 10 years (EN ISO 13849) <sup>1)</sup><br>20 years (EN ISO 13849) <sup>2)</sup> |
| <b>Type</b>   | Type 3 (EN ISO 14119)  |
| <b>Actuator coding level</b>  | Uncoded (EN ISO 14119)   |

<sup>1)</sup> At -25 °C ... +70 °C and 5 % ... 95 % relative air humidity.

<sup>2)</sup> At +10 °C ... +40 °C and 5 % ... 70 % relative air humidity.

#### Interfaces

|                         |                            |
|-------------------------|----------------------------|
| <b>Connection type</b>  | Plug connector, M12, 4-pin |
| Flexi-Loop-ready        | ✓                          |
| <b>Power indication</b> | ✓                          |
| <b>Status display</b>   | ✓                          |

#### Electrical data

|                                     |                                   |
|-------------------------------------|-----------------------------------|
| <b>Protection class</b>             | III (EN 50178)                    |
| <b>Supply voltage V<sub>s</sub></b> | 24 V DC (19.2 V DC ... 28.8 V DC) |

|                       |               |
|-----------------------|---------------|
| <b>Type of output</b> | Semiconductor |
| <b>Response time</b>  | ≤ 1 ms        |

Mechanical data

|                          |                            |
|--------------------------|----------------------------|
| <b>Design</b>            | Cylindrical                |
| <b>Housing diameter</b>  | M18                        |
| <b>Weight</b>            | 0.1 kg                     |
| <b>Housing material</b>  | V4A (housing), PBT (cover) |
| <b>Installation type</b> | Non-flush                  |

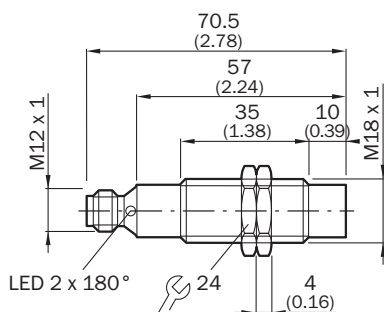
Ambient data

|                                      |                        |
|--------------------------------------|------------------------|
| <b>Enclosure rating</b>              | IP65, IP67 (IEC 60529) |
| <b>Ambient operating temperature</b> | -25 °C ... +70 °C      |
| <b>Storage temperature</b>           | -25 °C ... +70 °C      |

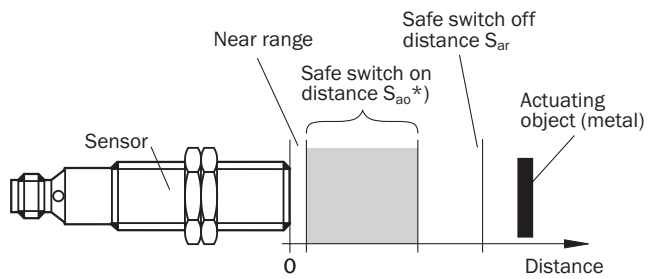
Classifications

|                       |          |
|-----------------------|----------|
| <b>ECI@ss 5.0</b>     | 27272401 |
| <b>ECI@ss 5.1.4</b>   | 27272401 |
| <b>ECI@ss 6.0</b>     | 27272401 |
| <b>ECI@ss 6.2</b>     | 27272401 |
| <b>ECI@ss 7.0</b>     | 27272401 |
| <b>ECI@ss 8.0</b>     | 27272401 |
| <b>ECI@ss 8.1</b>     | 27272401 |
| <b>ECI@ss 9.0</b>     | 27272401 |
| <b>ETIM 5.0</b>       | EC001818 |
| <b>ETIM 6.0</b>       | EC001818 |
| <b>UNSPSC 16.0901</b> | 39122205 |

Dimensional drawing (Dimensions in mm (inch))



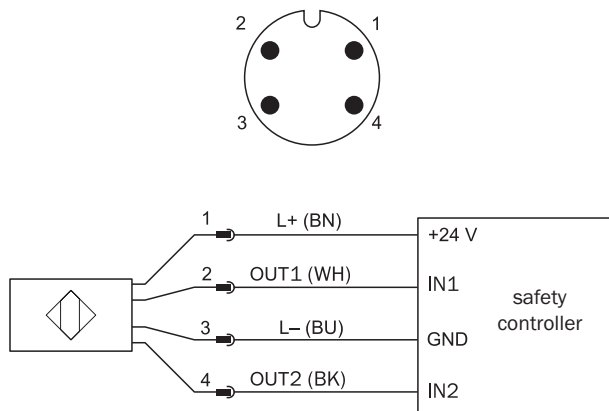
### Response range



| Material of the actuating object | Safe switch on distance $S_{ao}^*$ | Safe switch off distance $S_{ar}$ |
|----------------------------------|------------------------------------|-----------------------------------|
| Steel FE360                      | 1.0 mm ... 8.0 mm                  | 12 mm                             |
| Stainless steel 1.4302           | 0.5 mm ... 5.6 mm                  |                                   |
| AlMg 3G22                        | 0 mm ... 3.2 mm                    |                                   |
| CuZn 37                          | 0 mm ... 3.2 mm                    |                                   |
| Cu                               | 0 mm ... 2.4 mm                    |                                   |

\*) Typical values for damping with a reference target plate of 24 x 24 x 1 mm and non-flush installation according to IEC 60947-5-2 at an ambient temperature of 20 °C.

### Connection diagram



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SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

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