





### Ordering information

Type	Part no.
IN40-D0304K	6037684

The devices conform to Category 3 as well as PFH<sub>D</sub>  $1.0 \times 10^{-8}$ . Please check whether the device meets the safety requirements of your application as a result. If you have any questions, please consult your sales organization.

Other models and accessories → [www.sick.com/IN4000\\_Standard](http://www.sick.com/IN4000_Standard)



### Detailed technical data

#### Features

<b>Sensor principle</b>	Inductive
<b>Number of safe outputs</b>	1
<b>Switching delay from state change</b>	T <sub>2</sub> + 20 ms <sup>1)</sup>
<b>Housing diameter</b>	M18
<b>Enable zone</b>	1 mm ... 4 mm <sup>2)</sup>
<b>Safe switch off distance S<sub>ar</sub></b>	10 mm <sup>2)</sup>
<b>Actuation directions</b>	5
<b>Active sensor surfaces</b>	1
<b>Monitoring time minimum dwell time</b>	≥ 0.2 s

<sup>1)</sup> During this time the output is switched off (Logical "0"), see response range.

<sup>2)</sup> Dependent on material. The indicated values refer to steel ST37.

#### Safety-related parameters

<b>Safety integrity level</b>	SIL3 (IEC 61508)
<b>Category</b>	Category 3 (EN ISO 13849)
<b>Performance level</b>	PL e (EN ISO 13849)
<b>PFH<sub>D</sub> (mean probability of a dangerous failure per hour)</b>	$1.0 \times 10^{-8}$
<b>T<sub>M</sub> (mission time)</b>	10 years (EN ISO 13849) <sup>1)</sup> 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)
<b>Classification in compliance with IEC/EN 60947-5-3</b>	PDF-M

<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.

## Functions

<b>Safe series connection</b>	With T-connector (without diagnostics)
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## Interfaces

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

## Electrical data

<b>Protection class</b>	III (EN 50178)
<b>Supply voltage <math>V_s</math></b>	24 V DC (19.2 V DC ... 30 V DC)
<b>Power consumption</b>	15 mA
<b>Type of output</b>	Semiconductor, pulsed

## Mechanical data

<b>Design</b>	Cylindrical
<b>Housing diameter</b>	M18
<b>Housing length</b>	90.5 mm
<b>Thread length</b>	65 mm
<b>Weight</b>	0.06 kg
<b>Material</b>	
	Housing Specially coated brass (housing), PBT (cover)
<b>Installation type</b>	Flush

## Ambient data

<b>Enclosure rating</b>	IP69K (IEC 60529)
<b>Ambient operating temperature</b>	-25 °C ... +70 °C
<b>Storage temperature</b>	-25 °C ... +70 °C
<b>Vibration resistance</b>	10 Hz ... 55 Hz, 1 mm (EN 60947-5-3)
<b>Shock resistance</b>	30 g, 11 ms (EN 60947-5-3)

## Classifications

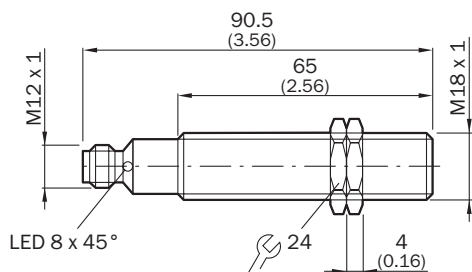
<b>eCl@ss 5.0</b>	27272401
<b>eCl@ss 5.1.4</b>	27272401
<b>eCl@ss 6.0</b>	27272401
<b>eCl@ss 6.2</b>	27272401
<b>eCl@ss 7.0</b>	27272401
<b>eCl@ss 8.0</b>	27272401
<b>eCl@ss 8.1</b>	27272401
<b>eCl@ss 9.0</b>	27272401
<b>eCl@ss 10.0</b>	27272401
<b>eCl@ss 11.0</b>	27272401
<b>eCl@ss 12.0</b>	27274101
<b>ETIM 5.0</b>	EC001818

# IN40-D0304K | IN4000 Standard

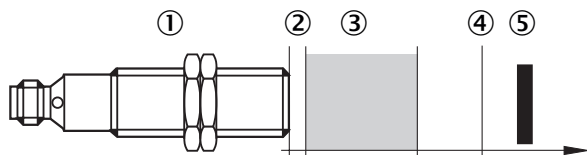
NON-CONTACT SAFETY SWITCHES

<b>ETIM 6.0</b>	EC001818
<b>ETIM 7.0</b>	EC001818
<b>ETIM 8.0</b>	EC001818
<b>UNSPSC 16.0901</b>	39122205

Dimensional drawing (Dimensions in mm (inch))



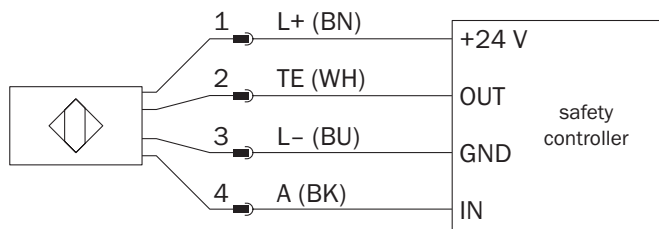
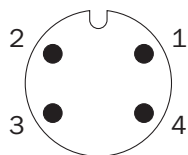
Response range



- ① Sensor
- ② Close range
- ③ Enable zone
- ④ Safe switch off distance  $S_{ar}$
- ⑤ Actuator

Pin assignment

Sensor connections



## SICK AT A GLANCE

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