



# T40-E0121K

T4000 Direct

NON-CONTACT SAFETY SWITCHES

**SICK**  
Sensor Intelligence.



actuator not supplied with delivery



## Ordering information

Type	part no.
T40-E0121K	6035042

Other models and accessories → [www.sick.com/T4000\\_Direct](http://www.sick.com/T4000_Direct)

## Detailed technical data

### Features

<b>System part</b>	sensor
<b>Sensor principle</b>	RFID
<b>Number of safe outputs</b>	2
<b>Assured switch on distance <math>S_{ao}</math></b>	15 mm <sup>1)</sup> 18 mm <sup>2)</sup> 19 mm <sup>3)</sup>
<b>Assured switch off distance <math>S_{ar}</math></b>	45 mm <sup>1)</sup> 55 mm <sup>2)</sup> 55 mm <sup>3)</sup>
<b>Active sensor surfaces</b>	1
<b>Actuation directions</b>	5
<b>Monitoring time minimum dwell time</b>	≥ 0.5 s
<b>Coding</b>	Uniquely coded

<sup>1)</sup> With actuator T4000-1KBA.

<sup>2)</sup> With actuator T4000-1KBQ.

<sup>3)</sup> With actuator T4000-1KBR.

### Safety-related parameters

<b>Category</b>	Category 4 (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>	$2.1 \times 10^{-9}$
<b>T<sub>M</sub> (mission time)</b>	20 years (EN ISO 13849)
<b>Type</b>	Type 4 (EN ISO 14119)
<b>Actuator coding level</b>	High coding level (EN ISO 14119)
<b>Classification in compliance with IEC/EN 60947-5-3</b>	PDF-M

## Functions

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

<b>Connection type</b>	Plug connector, M12, 8-pin
Long connecting cable	≤ 200 m
Coupling nut material	Fiber-glass-reinforced polyamide
<b>Display elements</b>	
Error indication	✓
Status display	✓

## Electronics

<b>Protection class</b>	III
<b>Classification according to cULus</b>	Class 2
Note on supply voltage $U_s$	Operation with UL-class 2 power supply only
External fuse	At supply voltage $V_s$ 0.25 A ... 4 A
<b>Usage category</b>	EN 60947-5-2
<b>Rated operating current (voltage)</b>	0.4 A (24 V DC)
<b>Rated insulation voltage <math>U_i</math></b>	75 V
<b>Rated impulse withstand voltage <math>U_{imp}</math></b>	1,500 V AC
<b>Supply voltage <math>V_s</math></b>	24 V DC (20.4 V DC ... 27.6 V DC)
<b>Power consumption</b>	80 mA
<b>Type of output</b>	Self-monitoring semiconductor outputs (OSSDs)
<b>Response time</b>	≤ 290 ms
<b>Switch-on time</b>	10 s <sup>1)</sup>

<sup>1)</sup> After switching on the operating voltage, the semiconductor outputs are switched off during the ready delay and the alarm outputs are at LOW potential.

## Mechanics

<b>Design</b>	Rectangular
<b>Dimensions (W x H x D)</b>	40 mm x 57 mm x 40 mm
<b>Weight</b>	0.4 kg
<b>Housing material</b>	Plastic PTB VO GF30

## Ambient data

<b>Enclosure rating</b>	IP67
<b>Ambient operating temperature</b>	-20 °C ... +55 °C
<b>Storage temperature</b>	-20 °C ... +70 °C

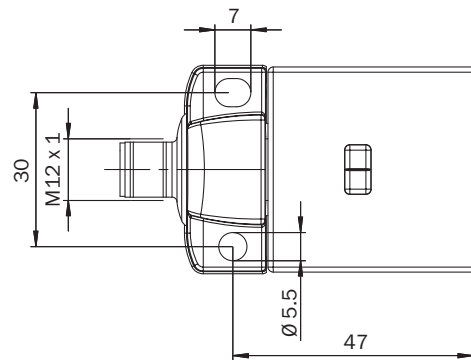
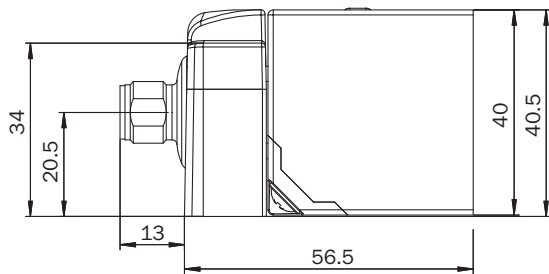
## Certificates

<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>China RoHS</b>	✓
<b>cULus certificate</b>	✓

Classifications

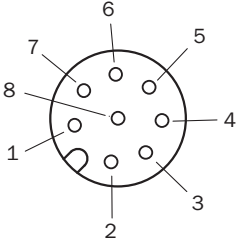
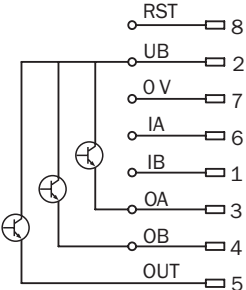
<b>ECLASS 5.0</b>	27272403
<b>ECLASS 5.1.4</b>	27272403
<b>ECLASS 6.0</b>	27272403
<b>ECLASS 6.2</b>	27272403
<b>ECLASS 7.0</b>	27272403
<b>ECLASS 8.0</b>	27272403
<b>ECLASS 8.1</b>	27272403
<b>ECLASS 9.0</b>	27272403
<b>ECLASS 10.0</b>	27272403
<b>ECLASS 11.0</b>	27272403
<b>ECLASS 12.0</b>	27274601
<b>ETIM 5.0</b>	EC001829
<b>ETIM 6.0</b>	EC001829
<b>ETIM 7.0</b>	EC001829
<b>ETIM 8.0</b>	EC001829
<b>UNSPSC 16.0901</b>	39122205

Dimensional drawing



Dimensions in mm (inch)

Pinouts



## SICK AT A GLANCE

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.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)