



# WFE-030040B121

WFE

**FORK SENSORS**

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	part no.
WFE-030040B121	1106552

Other models and accessories → [www.sick.com/WFE](http://www.sick.com/WFE)

### Detailed technical data

#### Features

<b>Dimensions (W x H x D)</b>	10 mm x 59.3 mm x 60.5 mm
<b>Fork width</b>	30 mm
<b>Fork depth</b>	40 mm
<b>Minimum detectable object (MDO)</b>	0.5 mm
<b>Light source</b>	LED, red, visible red light
<b>Adjustment</b>	No adjustment possibility
<b>Safety-related parameters</b>	
	MTTF <sub>D</sub> 1,217 years
	DC <sub>avg</sub> 0 %
	T <sub>M</sub> (mission time) 20 years

#### Electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Ripple</b>	< 10 %
<b>Current consumption</b>	< 30 mA <sup>1)</sup>
<b>Switching frequency</b>	5 kHz
<b>Response time</b>	≤ 100 μs
<b>Stability of response time</b>	± 20 μs
<b>Switching output</b>	Push-pull: PNP/NPN
<b>Switching output (voltage)</b>	Push-pull: PNP/NPN High = U <sub>V</sub> - < 2 V/Low: ≤ 2 V
<b>Switching mode</b>	Dark switching
<b>Switching output hysteresis</b>	< 0.1 mm
<b>Output current I<sub>max.</sub></b>	100 mA

<sup>1)</sup> Without load.

<b>Initialization time</b>	100 ms
<b>Circuit protection</b>	U <sub>v</sub> connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
<b>Enclosure rating</b>	IP67

<sup>1)</sup> Without load.

## Mechanics

<b>Housing material</b>	ABS Coated carbon steel (frame)
<b>Display</b>	LED indicator green: power on LED indicator, yellow: Status switching output Q
<b>Connection type</b>	Cable, open-ended, 3-wire, 2 m
<b>Cable diameter</b>	4 mm
<b>Weight</b>	Approx. 90 g

## Ambient data

<b>Ambient operating temperature</b>	-20 °C ... +60 °C
<b>Ambient temperature, storage</b>	-40 °C ... +75 °C
<b>Ambient light immunity</b>	≤ 10,000 lx
<b>Shock load</b>	According to IEC 60068-2-27 (30 g/11 ms)
<b>Protection class</b>	III
<b>UL File No.</b>	NRKH.E348498 & NRKH7.E348498

## Connection type/pinouts

<b>Connection type</b>	Cable, open-ended, 3-wire, 2 m
<b>Connection type Detail</b>	
	Cable diameter 4 mm
<b>Pinouts</b>	
	BN + (L+)
	BU - (M)
	BK Q

## Certificates

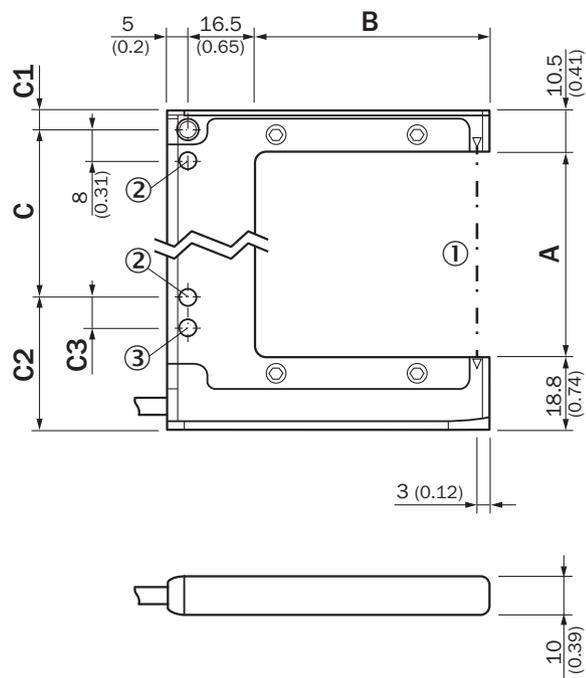
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>Moroccan declaration of conformity</b>	✓
<b>China RoHS</b>	✓
<b>cULus certificate</b>	✓
<b>Photobiological safety (IEC EN 62471)</b>	✓

## Classifications

<b>ECLASS 5.0</b>	27270909
<b>ECLASS 5.1.4</b>	27270909
<b>ECLASS 6.0</b>	27270909

<b>ECLASS 6.2</b>	27270909
<b>ECLASS 7.0</b>	27270909
<b>ECLASS 8.0</b>	27270909
<b>ECLASS 8.1</b>	27270909
<b>ECLASS 9.0</b>	27270909
<b>ECLASS 10.0</b>	27270909
<b>ECLASS 11.0</b>	27270909
<b>ECLASS 12.0</b>	27270909
<b>ETIM 5.0</b>	EC002720
<b>ETIM 6.0</b>	EC002720
<b>ETIM 7.0</b>	EC002720
<b>ETIM 8.0</b>	EC002720
<b>UNSPSC 16.0901</b>	39121528

### Dimensional drawing WFE-xxxxxxx1xx

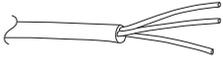


Dimensions in mm (inch)

- ① Optical axis
- ② Mounting hole,  $\varnothing$  4.3 mm
- ③ only WFE-050/-080/-120/-180

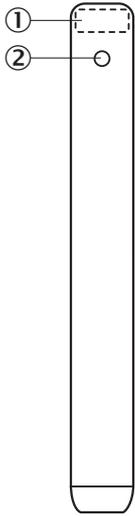
Type	A (fork width)	B (fork depth)	C	C1	C2	C3
WFE-030040xxxx	30 (1.18)	39 (1.54)	30 (1.18)	5 (0.2)	24.3 (0.96)	-
WFE-050060xxxx	50 (1.97)	57 (2.25)	40 (1.57)	5 (0.2)	34.3 (1.35)	8 (0.31)
WFE-080060xxxx	80 (3.15)	57 (2.24)	70 (2.76)	5 (0.2)	34.3 (1.35)	8 (0.31)
WFE-120120xxxx	120 (4.72)	121.5 (4.78)	100 (3.94)	15.5 (0.61)	33.8 (1.33)	10 (0.39)
WFE-180120xxxx	180 (7.09)	121.5 (4.78)	152 (5.98)	20.5 (0.81)	36.8 (1.45)	8 (0.31)

Pinouts, see table Technical data: Connection type/pinouts



Cable, 3-wire

### Adjustments WFE-xxxxxxx1



- ① Status indicator LED, yellow: Status switching output
- ② LED indicator green: power

## 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)