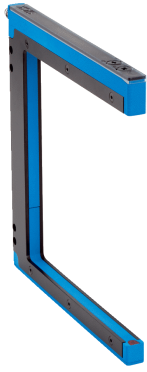


# WFE-120120B337

WFE

**FORK SENSORS**

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
WFE-120120B337	1106557

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

Illustration may differ



### Detailed technical data

#### Features

<b>Functional principle</b>	Fork sensor
<b>Dimensions (W x H x D)</b>	10 mm x 149.3 mm x 143 mm
<b>Fork width</b>	120 mm
<b>Fork depth</b>	120 mm
<b>Minimum detectable object (MDO)</b>	0.5 mm
<b>Adjustment</b>	Potentiometer, light/dark switching

#### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Current consumption</b>	< 30 mA <sup>1)</sup>
<b>Switching frequency</b>	5 kHz
<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 = $U_V - < 2$ V/Low: ≤ 2 V
<b>Switching mode</b>	Light/dark switching
<b>Switching output hysteresis</b>	< 0.2 mm
<b>Output current <math>I_{max.}</math></b>	100 mA
<b>Initialization time</b>	100 ms
<b>Connection type</b>	Connector M8, 3-pin
<b>Protection class</b>	III
<b>Circuit protection</b>	$U_V$ connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
<b>Enclosure rating</b>	IP67

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

<b>Housing material</b>	Plastic, ABS, Coated carbon steel (frame)
<b>Indication</b>	LED indicator green: power on LED indicator, yellow: Status switching output Q

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

### Safety-related parameters

<b>MTTF<sub>D</sub></b>	1,217 years
<b>DC<sub>avg</sub></b>	0 %
<b>T<sub>M</sub> (mission time)</b>	20 years

### 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>	Sunlight:
<b>Shock load</b>	According to IEC 60068-2-27 (30 g/11 ms)
<b>UL File No.</b>	NRKH.E348498 & NRKH7.E348498

### Classifications

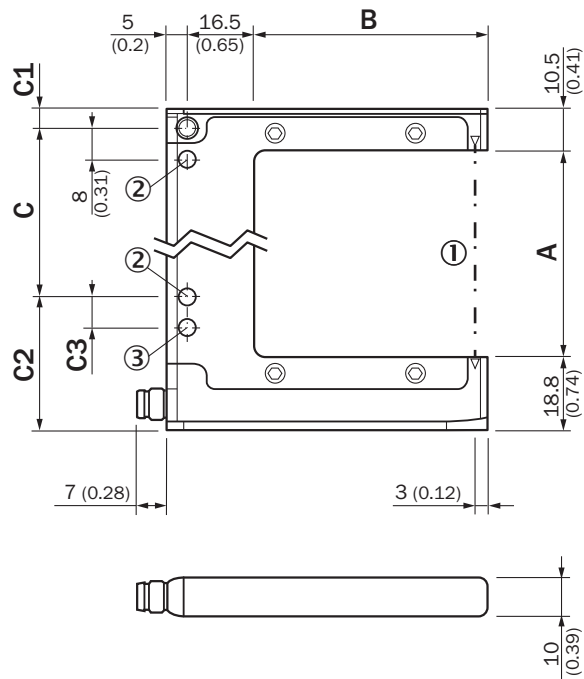
<b>ECLASS 5.0</b>	27270909
<b>ECLASS 5.1.4</b>	27270909
<b>ECLASS 6.0</b>	27270909
<b>ECLASS 6.2</b>	27270909
<b>ECLASS 7.0</b>	27270909
<b>ECLASS 8.0</b>	27270909
<b>ECLASS 8.1</b>	27270909
<b>ECLASS 9.0</b>	27270909
<b>ECLASS 10.0</b>	27270909
<b>ECLASS 11.0</b>	27270909
<b>ECLASS 12.0</b>	27270909
<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

### Connection/Pin assignment

<b>Connection type</b>	Connector M8, 3-pin
<b>Pin assignment</b>	
	BN 1 + (L+)
	BU 3 - (M)
	BK 4 Q

### Dimensional drawing (Dimensions in mm (inch))

WFE-xxxxxxx3xx

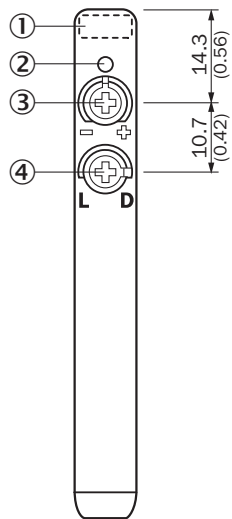


- ① Optical axis
- ② Mounting hole,  $\varnothing$  4.3 mm
- ③ Only WFE-050/-080/-120/-180

Type	A (fork width)	B (fork depth)	C	C1	C2	C3
WFE-030040xxx	30 (1.18)	39 (1.54)	30 (1.18)	5 (0.2)	24.3 (0.96)	-
WFE-050060xxx	50 (1.97)	57 (2.25)	40 (1.57)	5 (0.2)	34.3 (1.35)	8 (0.31)
WFE-080060xxx	80 (3.15)	57 (2.24)	70 (2.76)	5 (0.2)	34.3 (1.35)	8 (0.31)
WFE-120120xxx	120 (4.72)	121.5 (4.78)	100 (3.94)	15.5 (0.61)	33.8 (1.331)	10 (0.39)
WFE-180120xxx	180 (7.09)	121.5 (4.78)	152 (5.98)	20.5 (0.81)	36.8 (1.45)	8 (0.31)

## Adjustments

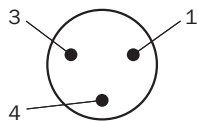
WFE-xxxxxxx7



- ① Status indicator LED, yellow: Status switching output
- ② LED indicator green: power
- ③ Potentiometer for sensitivity adjustment
- ④ Light/ dark rotary switch: L = light switching, D = dark switching

## Pin assignment



Connection type. see table: Connection/PIN assignment




Connector M8, 3-pin

## Recommended accessories

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

	Brief description	Type	Part no.
Plug connectors and cables			
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M8, 3-pin, straight, A-coded</li> <li>• <b>Connection type head B:</b> Flying leads</li> <li>• <b>Signal type:</b> Sensor/actuator cable</li> <li>• <b>Cable:</b> 5 m, 3-wire, PVC</li> <li>• <b>Description:</b> Sensor/actuator cable, unshielded</li> <li>• <b>Application:</b> Zones with chemicals</li> </ul>	YF8U13-050VA1XLEAX	2095884
	<ul style="list-style-type: none"> <li>• <b>Connection type head A:</b> Female connector, M8, 3-pin, straight</li> <li>• <b>Description:</b> Unshielded</li> <li>• <b>Connection systems:</b> Screw-type terminals</li> <li>• <b>Permitted cross-section:</b> 0.14 mm<sup>2</sup> ... 0.5 mm<sup>2</sup></li> </ul>	DOS-0803-G	7902077

	Brief description	Type	Part no.
	<ul style="list-style-type: none"><li>• <b>Connection type head A:</b> Male connector, M8, 3-pin, straight</li><li>• <b>Description:</b> Unshielded</li><li>• <b>Connection systems:</b> Screw-type terminals</li><li>• <b>Permitted cross-section:</b> 0.14 mm<sup>2</sup> ... 0.5 mm<sup>2</sup></li></ul>	STE-0803-G	6037322

## 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)