



# WLL260-E240

WLL260

FIBER-OPTIC SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

| Type        | part no. |
|-------------|----------|
| WLL260-E240 | 6020063  |

**Included in delivery:** BEF-W260 (1)

Other models and accessories → [www.sick.com/WLL260](http://www.sick.com/WLL260)

### Detailed technical data

#### Features

|                                        |                                                                                                                                                                  |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Device type</b>                     | Fiber-optic amplifier                                                                                                                                            |
| <b>Device type detail</b>              | Stand-alone                                                                                                                                                      |
| <b>Dimensions (W x H x D)</b>          | 25 mm x 77.8 mm x 63 mm                                                                                                                                          |
| <b>Housing design (light emission)</b> | Rectangular                                                                                                                                                      |
| <b>Sensing range max.</b>              | 0 mm ... 65 mm (Proximity system) <sup>1) 2)</sup><br>0 mm ... 110 mm (Proximity system) <sup>1) 3)</sup><br>0 mm ... 800 mm (Through-beam system) <sup>2)</sup> |
| <b>Sensing range</b>                   | 0 mm ... 50 mm, Proximity system <sup>2)</sup><br>0 mm ... 90 mm, Proximity system <sup>3)</sup><br>0 mm ... 700 mm, Through-beam system <sup>2)</sup>           |
| <b>Type of light</b>                   | Visible red light                                                                                                                                                |
| <b>Light source</b>                    | LED <sup>4)</sup>                                                                                                                                                |
| <b>Adjustment</b>                      | Potentiometer, 270°                                                                                                                                              |
| <b>Indication</b>                      | LED                                                                                                                                                              |

<sup>1)</sup> Object with 90% remission (based on standard white, DIN 5033).

<sup>2)</sup> LIS/LIB.

<sup>3)</sup> With special fibre-optic cable.

<sup>4)</sup> Average service life: 100,000 h at T<sub>U</sub> = +25 °C.

## Mechanics/electronics

|                                        |                                                                          |
|----------------------------------------|--------------------------------------------------------------------------|
| <b>Supply voltage <math>U_B</math></b> | 10 V DC ... 30 V DC <sup>1)</sup>                                        |
| <b>Ripple</b>                          | $\leq 5 \text{ V}_{pp}$ <sup>2)</sup>                                    |
| <b>Current consumption</b>             | 35 mA <sup>3)</sup>                                                      |
| <b>Switching output</b>                | NPN                                                                      |
| <b>Switching mode</b>                  | Light/dark switching                                                     |
| <b>Switching mode selector</b>         | Selectable via light/dark selector                                       |
| <b>Response time</b>                   | $\leq 0.7 \text{ ms}$ <sup>4)</sup>                                      |
| <b>Switching frequency</b>             | 700 Hz <sup>5)</sup>                                                     |
| <b>Connection type</b>                 | Cable gland                                                              |
| <b>Circuit protection</b>              | A <sup>6)</sup><br>B <sup>7)</sup><br>C <sup>8)</sup><br>D <sup>9)</sup> |
| <b>Protection class</b>                | II <sup>10)</sup>                                                        |
| <b>Weight</b>                          | 120 g                                                                    |
| <b>Housing material</b>                | Plastic, ABS                                                             |
| <b>Enclosure rating</b>                | IP66                                                                     |
| <b>Items supplied</b>                  | Mounting bracket BEF-W260                                                |
| <b>Test input sender off</b>           | TE to 0 V                                                                |
| <b>Ambient operating temperature</b>   | -25 °C ... +55 °C                                                        |
| <b>Ambient temperature, storage</b>    | -40 °C ... +70 °C                                                        |
| <b>UL File No.</b>                     | NRNT2.E128350 & NRNT8.E128350                                            |

<sup>1)</sup> Limit values when operated in short-circuit protected network: max. 8 A.

<sup>2)</sup> May not fall below or exceed  $U_y$  tolerances.

<sup>3)</sup> Without load.

<sup>4)</sup> Signal transit time with resistive load.

<sup>5)</sup> With light/dark ratio 1:1.

<sup>6)</sup> A =  $V_S$  connections reverse-polarity protected.

<sup>7)</sup> B = inputs and output reverse-polarity protected.

<sup>8)</sup> C = interference suppression.

<sup>9)</sup> D = outputs overcurrent and short-circuit protected.

<sup>10)</sup> Reference voltage: 50 V DC.

## Safety-related parameters

|                         |           |
|-------------------------|-----------|
| <b>MTTF<sub>D</sub></b> | 838 years |
| <b>DC<sub>avg</sub></b> | 0 %       |

## Certificates

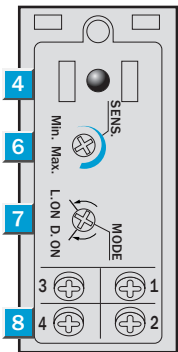
|                                           |   |
|-------------------------------------------|---|
| <b>EU declaration of conformity</b>       | ✓ |
| <b>UK declaration of conformity</b>       | ✓ |
| <b>ACMA declaration of conformity</b>     | ✓ |
| <b>Moroccan declaration of conformity</b> | ✓ |
| <b>China RoHS</b>                         | ✓ |
| <b>cRUus certificate</b>                  | ✓ |

|                                                   |   |
|---------------------------------------------------|---|
| Photobiological safety (DIN EN 62471) certificate | ✓ |
|---------------------------------------------------|---|

Classifications

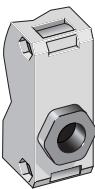
|                |          |
|----------------|----------|
| ECLASS 5.0     | 27270905 |
| ECLASS 5.1.4   | 27270905 |
| ECLASS 6.0     | 27270905 |
| ECLASS 6.2     | 27270905 |
| ECLASS 7.0     | 27270905 |
| ECLASS 8.0     | 27270905 |
| ECLASS 8.1     | 27270905 |
| ECLASS 9.0     | 27270905 |
| ECLASS 10.0    | 27270905 |
| ECLASS 11.0    | 27270905 |
| ECLASS 12.0    | 27270905 |
| ETIM 5.0       | EC002651 |
| ETIM 6.0       | EC002651 |
| ETIM 7.0       | EC002651 |
| ETIM 8.0       | EC002651 |
| UNSPSC 16.0901 | 39121528 |

Adjustments

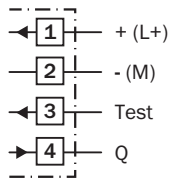


- ④ LED signal strength indicator, red
- ⑥ sensitivity control
- ⑦ Light/ dark rotary switch: L = light switching, D = dark switching

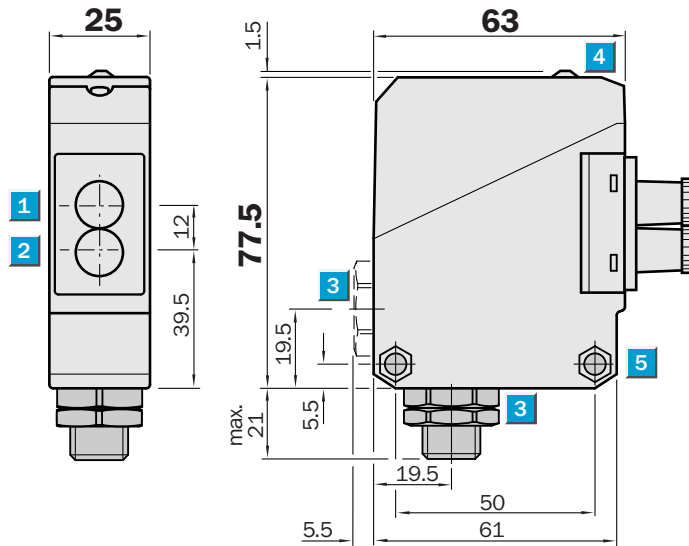
Connection type



## Connection diagram Cd-123



## Dimensional drawing



Dimensions in mm (inch)

- ① Center of optical axis, receiver
- ② Center of optical axis, sender
- ③ Cable entry gland 1/2" PF for cable diameter 6 to 10 mm optionally at bottom or rear
- ④ LED reception indicator, red
- ⑤ Mounting hole  $\varnothing$  5.2 mm, for M5 hexagon nuts on both sides

## 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)