



# DT60-P111B

Dx60

MID RANGE DISTANCE SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

| Type       | Part no. |
|------------|----------|
| DT60-P111B | 1025843  |

Other models and accessories → [www.sick.com/Dx60](http://www.sick.com/Dx60)



### Detailed technical data

#### Performance

|  |  |
|--|--|
| <b>Measuring range</b>                       | 200 mm ... 2,800 mm, 6 % remission<br>200 mm ... 5,000 mm, 18 % remission<br>200 mm ... 5,300 mm, 90 % remission |
| <b>Resolution</b>                            | 1.5 mm, Teach resolution <sup>1)</sup>   |
| <b>Repeatability</b>                         | 8 mm <sup>1)</sup>   |
| <b>Accuracy</b>                              | ± 10 mm <sup>1)</sup>  |
| <b>Response time</b>                         | 20 ms ... 150 ms <sup>2)</sup>   |
| <b>Light source</b>                          | Laser, red   |
| <b>Laser class</b>                           | 2 (EN 60825-1)   |
| <b>Typ. light spot size (distance)</b>       | 10 mm x 10 mm (at 2 m)   |
| <b>Additional function</b>                   | Invertable switching output, Invertable analog output, Teach-in version  |
| <b>Average laser service life (at 25 °C)</b> | 50,000 h   |

<sup>1)</sup> 6 % ... 90 % remission.

<sup>2)</sup> Adaptiv, dependig on level of remission.

#### Interfaces

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| <b>Analog output</b>              | 4 mA ... 20 mA                    |
| Resolution analog output          | 12 bit                            |
| <b>Switching output</b>           | 1 x PNP (100 mA) <sup>1) 2)</sup> |
| <b>Multifunctional input (MF)</b> | 1x Laser off                      |

<sup>1)</sup> Output Q short-circuit protected.

<sup>2)</sup> PNP: HIGH = V<sub>S</sub> - (< 2 V) / LOW = 0 V.

#### Mechanics/electronics

|                                     |                                |
|-------------------------------------|--------------------------------|
| <b>Supply voltage V<sub>S</sub></b> | DC 11 V ... 30 V <sup>1)</sup> |
|-------------------------------------|--------------------------------|

<sup>1)</sup> Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.

<sup>2)</sup> May not fall short of or exceed V<sub>S</sub> tolerances.

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

|                          |                               |
|--------------------------|-------------------------------|
| <b>Ripple</b>            | $\leq 5 V_{pp}$ <sup>2)</sup> |
| <b>Power consumption</b> | $\leq 3 W$ <sup>3)</sup>      |
| <b>Warm-up time</b>      | $\leq 30$ min                 |
| <b>Connection type</b>   | Male connector, M12, 5-pin    |
| <b>Weight</b>            | 202 g                         |
| <b>Enclosure rating</b>  | IP 67                         |
| <b>Protection class</b>  | II                            |

1) Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.

2) May not fall short of or exceed  $V_S$  tolerances.

3) Without load.

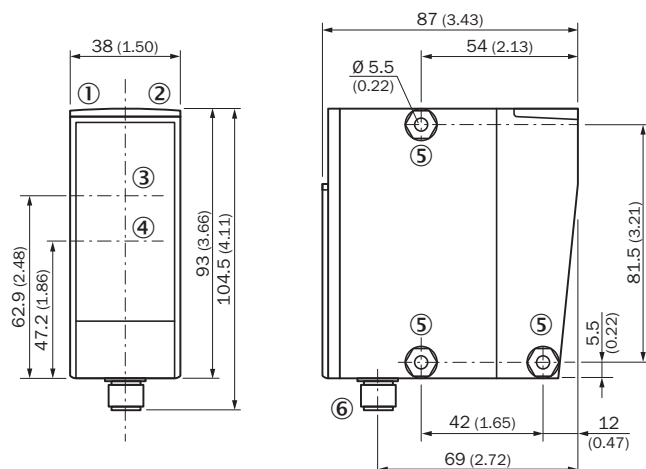
### Ambient data

|  |  |
|--|--|
| <b>Electromagnetic compatibility (EMC)</b> | EN 61000-6-2<br>EN 60947-5-2   |
| <b>Ambient temperature</b>                 | Operation: $-25\text{ °C} \dots +55\text{ °C}$<br>Storage: $-25\text{ °C} \dots +75\text{ °C}$ |

### Classifications

|                       |          |
|-----------------------|----------|
| <b>ECl@ss 5.0</b>     | 27270801 |
| <b>ECl@ss 5.1.4</b>   | 27270801 |
| <b>ECl@ss 6.0</b>     | 27270801 |
| <b>ECl@ss 6.2</b>     | 27270801 |
| <b>ECl@ss 7.0</b>     | 27270801 |
| <b>ECl@ss 8.0</b>     | 27270801 |
| <b>ECl@ss 8.1</b>     | 27270801 |
| <b>ECl@ss 9.0</b>     | 27270801 |
| <b>ETIM 5.0</b>       | EC001825 |
| <b>ETIM 6.0</b>       | EC001825 |
| <b>UNSPSC 16.0901</b> | 41111613 |

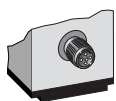
### Dimensional drawing (Dimensions in mm (inch))



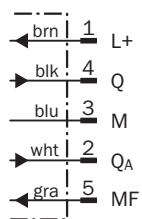
- ① Status indicator switching output
- ② Function indicator
- ③ Optical axis sender
- ④ Optical axis receiver
- ⑤ Fixing hole
- ⑥ Male connector M12, 5-pin

### Connection type

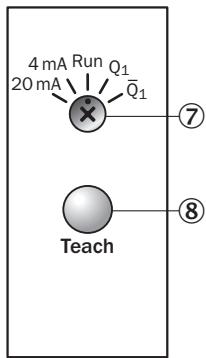
Male connector M12, 5-pin



### Connection diagram






### Adjustment possible



- ⑦ Rotary switch
- ⑧ Control element

### Recommended accessories

Other models and accessories → [www.sick.com/Dx60](http://www.sick.com/Dx60)

|   | Brief description   | Type          | Part no. |
|---|---|---------------|----------|
| <b>Mounting brackets and plates</b>   |   |               |          |
|   | Mounting bracket, steel, zinc coated, without mounting hardware                                 | BEF-WN-DS60   | 4032937  |
| <b>Plug connectors and cables</b>   |   |               |          |
|  | Head A: female connector, M12, 5-pin, straight<br>Head B: cable<br>Cable: PVC, unshielded, 2 m  | DOL-1205-G02M | 6008899  |
|  | Head A: female connector, M12, 5-pin, straight<br>Head B: cable<br>Cable: PVC, unshielded, 5 m  | DOL-1205-G05M | 6009868  |
|   | Head A: female connector, M12, 5-pin, straight<br>Head B: cable<br>Cable: PVC, unshielded, 10 m | DOL-1205-G10M | 6010544  |
|  | Head A: female connector, M12, 5-pin, angled<br>Head B: cable<br>Cable: PVC, unshielded, 2 m    | DOL-1205-W02M | 6008900  |
|   | Head A: female connector, M12, 5-pin, angled<br>Head B: cable<br>Cable: PVC, unshielded, 5 m    | DOL-1205-W05M | 6009869  |
|   | Head A: female connector, M12, 5-pin, angled<br>Head B: cable<br>Cable: PVC, unshielded, 10 m   | DOL-1205-W10M | 6010542  |

## 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)