



# PLB-51B0700

PLB

ROBOT GUIDANCE SYSTEMS

**SICK**  
Sensor Intelligence.



### Ordering information

| Type        | part no. |
|-------------|----------|
| PLB-51B0700 | 1141938  |

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



### Detailed technical data

#### Features

|   |  |
|---|--|
| <b>Product version</b>                    | PLB-522  |
| <b>Field of view</b>                      | Large  |
| <b>Classification</b>                     | Secondary camera   |
| <b>Tasks</b>                              | Position determination                                     |
| <b>Applications</b>                       | Robot guidance   |
| <b>Camera type</b>                        | 3D snapshot  |
| <b>Example volume of view (L x W x H)</b> | 700 mm x 600 mm x 600 mm                                   |
| <b>Image resolution</b>                   | 0.3 mm ... 0.6 mm, depending on the distance to the camera |
| <b>Light source</b>                       | LED, blue, 465 nm  |
| <b>LED class</b>                          | Risk group 1   |
| <b>3D CAD format</b>                      | IGES, STEP   |
| <b>Technology</b>                         | 3D snapshot, image analysis                                |

#### Mechanics/electronics

|                               |                                 |
|-------------------------------|---------------------------------|
| <b>Connection type</b>        | PoE++                           |
| <b>Supply voltage</b>         | 24 V DC or PoE PD class 8 (90W) |
| <b>Current consumption</b>    | 10 A                            |
| <b>Dimensions (L x W x H)</b> | 506 mm x 58 mm x 100 mm         |
| <b>Weight</b>                 | 1,160 g                         |
| <b>Enclosure rating</b>       | IP65/ IP67                      |

#### Performance

|                                    |                                   |
|------------------------------------|-----------------------------------|
| <b>Part localization time</b>      | 0.1 s ... 10 s, typical           |
| <b>Part size</b>                   | (approx.) > 20 mm x 20 mm x 20 mm |
| <b>Part characteristics</b>        | Simple and complex part shapes    |
| <b>2D colour sensor resolution</b> | 2 MP (1920 px x 1200 px)          |
| <b>3D sensor resolution</b>        | 5 MP (2472 px x 2064 px)          |

#### Interfaces

|                        |  |
|------------------------|--|
| <b>Ethernet</b>        | ✓ (2), camera <--> PC, PC<--> robot      |
| Data transmission rate | 1 Gbit/s (camera), 10/100 Mbit/s (robot) |

|                       |                                      |
|-----------------------|--------------------------------------|
| Protocol              | TCP/IP (camera)                      |
| Electrical connection | M12 female connector, 8-pin, X-coded |

#### Ambient data

|                                       |  |
|---------------------------------------|--|
| <b>Ambient temperature, operation</b> | 0 °C ... +40 °C, Non-condensing          |
| <b>Shock load</b>                     | 60 g / 1,9 ms, 25 g / 6 ms <sup>1)</sup> |
| <b>Vibration load</b>                 | 30-500 Hz / 5 g                          |

<sup>1)</sup> IEC 60068-2-27.

#### General notes

|                           |  |
|---------------------------|--|
| <b>Items supplied</b>     | C57 camera<br>PLB Application Software |
| <b>Factory calibrated</b> | ✓                                      |

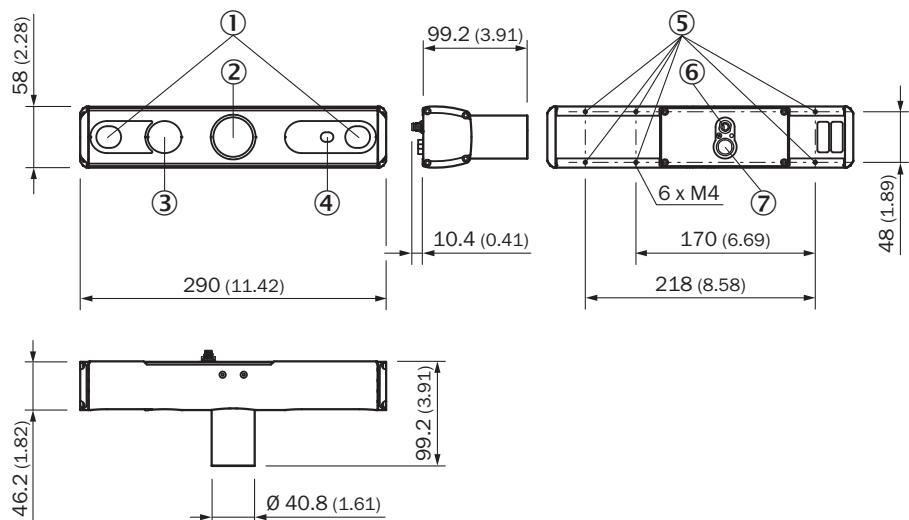
#### Certificates

|  |   |
|--|---|
| <b>EU declaration of conformity</b>  | ✓ |
| <b>UK declaration of conformity</b>  | ✓ |
| <b>ACMA declaration of conformity</b>  | ✓ |
| <b>China RoHS</b>  | ✓ |
| <b>Information according to Art. 3 of Data Act<br/>(Regulation EU 2023/2854)</b> | ✓ |

#### Classifications

|                     |          |
|---------------------|----------|
| <b>ECLASS 5.0</b>   | 27381501 |
| <b>ECLASS 5.1.4</b> | 27381501 |
| <b>ECLASS 6.0</b>   | 27381590 |
| <b>ECLASS 6.2</b>   | 27381590 |
| <b>ECLASS 7.0</b>   | 27381590 |
| <b>ECLASS 8.0</b>   | 27381590 |
| <b>ECLASS 8.1</b>   | 27381590 |
| <b>ECLASS 9.0</b>   | 27381590 |
| <b>ECLASS 10.0</b>  | 27381590 |
| <b>ECLASS 11.0</b>  | 27381591 |
| <b>ECLASS 12.0</b>  | 27381591 |

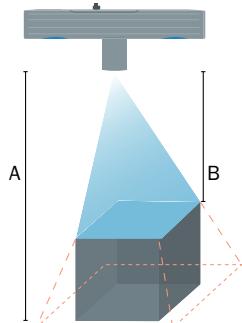
## Dimensional drawing



Dimensions in mm (inch)

- ① 3D sensors
- ② Projector
- ③ LED projection module
- ④ 2D sensor
- ⑤ Fastening threads (6x M4x0,7)
- ⑥ Power (M8, 4-pin)
- ⑦ Ethernet (M12, 8 pin, x-coded)

## Detection volume and field of view



| Parameter                              | PLB-522 small  | PLB-522 medium   | PLB-522 large  |
|--|--|--|--|
| Image resolution                       | 0.2 mm ... 0.3 mm, depending on the distance to the camera | 0.3 mm ... 0.4 mm, depending on the distance to the camera | 0.3 mm ... 0.6 mm, depending on the distance to the camera |
| Part size                              | (approx.) > 10 mm x 10 mm x 10 mm                          | (approx.) > 10 mm x 10 mm x 10 mm                          | (approx.) > 20 mm x 20 mm x 20 mm                          |
| Min. distance                          | 910 mm   | 860 mm   | 750 mm   |
| Max. distance                          | 1060 mm  | 1140 mm  | 1450 mm  |
| Field of view at min. distance (L x W) | 470 mm x 400 mm  | 660 mm x 560 mm  | 770 mm x 650 mm  |
| Field of view at max. distance (L x W) | 510 mm x 460 mm  | 800 mm x 740 mm  | 1270 mm x 1250 mm  |
| Example volume of view (L x W x H)     | 200 mm x 450 mm x 100 mm                                   | 600 mm x 550 mm x 400 mm                                   | 700 mm x 600 mm x 600 mm                                   |

## Recommended accessories

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

|   | <b>Brief description</b>  | <b>Type</b>       | <b>part no.</b> |
|---|---|-------------------|-----------------|
| Power supply units and power supply cables  |   |                   |                 |
|  | <ul style="list-style-type: none"><li><b>Input voltage:</b> ≤ 230 V AC</li><li><b>Output voltage:</b> 24 V DC</li><li><b>Output current:</b> 10 A</li><li><b>Description:</b> Power supply unit</li></ul> | Power supply unit | 6032863         |

## 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)