



# PLB-5140102

PLB

ROBOT GUIDANCE SYSTEMS

**SICK**  
Sensor Intelligence.



## Ordering information

Type	part no.
PLB-5140102	1109366

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



## Detailed technical data

### Features

<b>Product version</b>	PLB-520 5MP
<b>Field of view</b>	Small
<b>Classification</b>	Pro
<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>	400 mm x 300 mm x 200 mm
<b>Image resolution</b>	0.1 mm ... 0.2 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>Localization principle</b>	CAD-model, geometrical shape and edge localization
<b>Technology</b>	3D snapshot, image analysis

### Mechanics/electronics

<b>Connection type</b>	Male connector M12, 5-pin, L-coded
<b>Supply voltage</b>	24 V DC, ± 15 %
<b>Current consumption</b>	5 A
<b>Dimensions (L x W x H)</b>	488 mm x 200 mm x 80 mm
<b>Weight</b>	2,500 g
<b>Enclosure rating</b>	IP54

### Performance

<b>Part localization time</b>	3 s ... 10 s, typical
<b>Part size</b>	(approx.) > 10 mm x 10 mm x 10 mm
<b>Part characteristics</b>	Simple and complex part shapes

### Interfaces

<b>Ethernet</b>	
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
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### Ambient data

<b>Ambient temperature, operation</b>	0 °C ... +40 °C, Non-condensing
<b>Shock load</b>	80 g/1,9 ms, 25 g / 6 ms <sup>1)</sup>
<b>Vibration load</b>	30-500 Hz / 10 g <sup>2)</sup>

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

<sup>2)</sup> IEC 60068-2-6.

### General notes

<b>Items supplied</b>	X36 camera PLB Application Software
<b>Factory calibrated</b>	✓

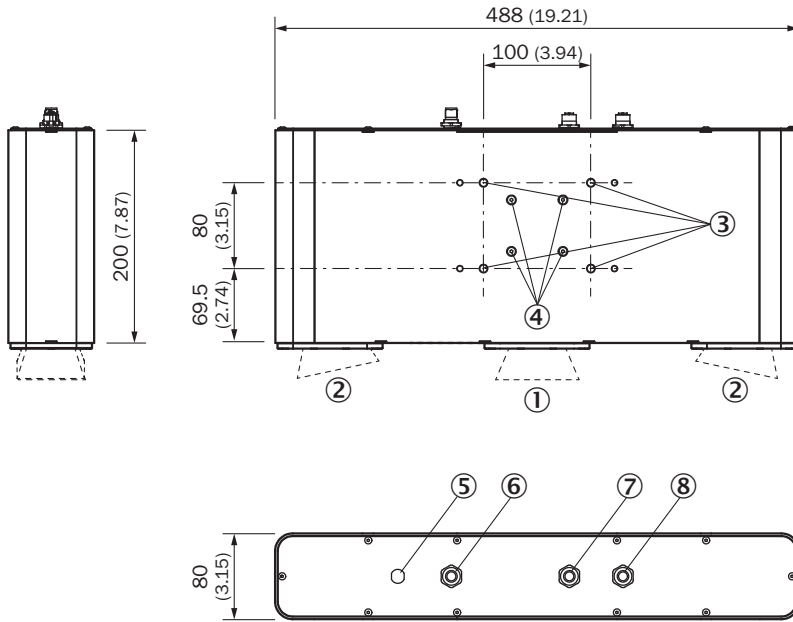
### Classifications

<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

### Certificates

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

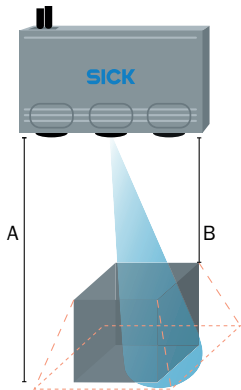
Dimensional drawing



Dimensions in mm (inch)

- ① LED projection module
- ② Image sensor
- ③ Fastening threads (M8 x 6 mm)
- ④ M8 x 1.25 mm
- ⑤ Fuse 5x20 (3,15 A / 250 V)
- ⑥ Power connector
- ⑦ Gigabit Ethernet, Camera 1
- ⑧ Gigabit Ethernet, Camera 2

Detection volume and field of view




Parameter	PLB-520 5MP small	PLB-520 5MP medium	PLB-520 5MP large
Image resolution	0.1 mm ... 0.2 mm, depending on the distance to the camera	0.2 mm ... 0.4 mm, depending on the distance to the camera	0.4 mm ... 1.0 mm, depending on the distance to the camera
Part size	(approx.) > 10 mm x 10 mm x 10 mm	(approx.) > 20 mm x 20 mm x 20 mm	(approx.) > 30 mm x 30 mm x 30 mm
Min. distance	800 mm	1400 mm	1500 mm
Max. distance	1200 mm	2200 mm	2500 mm

Parameter	PLB-520 5MP small	PLB-520 5MP medium	PLB-520 5MP large
Field of view at min. distance (L x W)	700 mm x 600 mm	800 mm x 700 mm	1400 mm x 1200 mm
Field of view at max. distance (L x W)	800 mm x 900 mm	1300 mm x 1200 mm	2200 mm x 2000 mm
Example volume of view (L x W x H)	400 mm x 300 mm x 200 mm	800 mm x 600 mm x 400 mm	Euro-pallet: 1200 mm x 8000 mm x 1000 mm US-pallet: 1016 mm x 1219 mm x 1000 mm

## Recommended accessories

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

	Brief description	Type	part no.
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)