



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



Detailed technical data

Features

Product version	PLB-520 5MP
Field of view	Small
Classification	Pro
Tasks	Position determination
Applications	Robot guidance
Camera type	3D snapshot
Example volume of view (L x W x H)	400 mm x 300 mm x 200 mm
Image resolution	0.1 mm ... 0.2 mm, depending on the distance to the camera
Light source	
	LED, blue, 465 nm
LED class	Risk group 1
3D CAD format	IGES, STEP
Localization principle	CAD-model, geometrical shape and edge localization
Technology	3D snapshot, image analysis

Mechanics/electronics

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

Performance

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

Interfaces

Ethernet	
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

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

¹⁾ IEC 60068-2-27.

²⁾ IEC 60068-2-6.

General notes

Items supplied	X36 camera PLB Application Software
Factory calibrated	✓

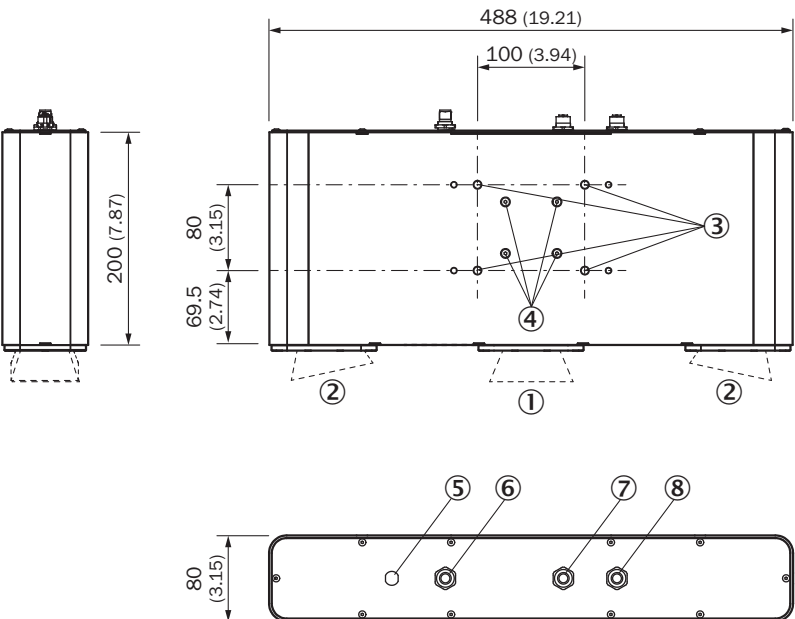
Certificates

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

Classifications

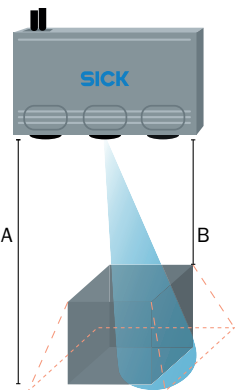
ECLASS 5.0	27381501
ECLASS 5.1.4	27381501
ECLASS 6.0	27381590
ECLASS 6.2	27381590
ECLASS 7.0	27381590
ECLASS 8.0	27381590
ECLASS 8.1	27381590
ECLASS 9.0	27381590
ECLASS 10.0	27381590
ECLASS 11.0	27381591
ECLASS 12.0	27381591

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

	Brief description	Type	part no.
Power supply units and power supply cables			
	• Input voltage: ≤ 230 V AC • Output voltage: 24 V DC • Output current: 10 A • Description: Power supply unit	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