



PLB

Flexible part localization for bin picking and depalletizing

SICK
Sensor Intelligence.



Technical data overview

Image resolution	0.1 mm ... 5 mm (depending on the distance to the camera) (depending on type)
Part localization time	1 s ... 10 s (typical) (depending on type)
Localization accuracy	$< \pm 3 \text{ mm}$ and $< \pm 2^\circ$ (typical) $< \pm 0.5 \text{ mm}$ and $< \pm 0.5^\circ$ (typical) $< \pm 0.7 \text{ mm}$ and $< \pm 0.7^\circ$ (typical) $< \pm 0.3 \text{ mm}$ and $< \pm 0.3^\circ$ (typical) $< \pm 1 \text{ mm}$ and $< \pm 1^\circ$ (typical)
Enclosure rating	IP67 IP65 / IP67 IP54 IP65 (depending on type)

Product description

The PLB robot guidance system is designed for precise localization of parts stored in boxes or on pallets. The system is very flexible with a selection of 3D cameras to choose from. In combination with multiple localization algorithms, this ensures reliable operation in a large range of applications from small-part handling and depalletizing through to handling of large foundry parts. PLB supports easy configuration through a user interface tailored for part localization. It also includes functions to support simple integration with the robot controller, making it straightforward to integrate the system in production. Both the software and the pre-calibrated cameras are designed to be used right out of the box, so the system can be ready within minutes.

At a glance

- All functions tailored to target applications
- Several localization algorithms based on CAD, geometric part features, and AI
- Selection of various pre-calibrated 3D cameras for immediate use
- Thorough check for collision avoidance
- Easy integration with any robot model

Your benefits

- User-friendly system which, thanks to its tailored functions, allows new applications to be created quickly
- Reliable part handling regardless of the shape or orientation of the parts thanks to a range of localization functions
- Choice of various 3D cameras for high image quality regardless of the component size
- System with collision avoidance and overlap detection for ensuring reliable robot operation and short cycle times
- Flexible robot integration functions enable the system to be used in arbitrary robot models

Fields of application

- Part handling in foundry and forging operations
- Part loading of machine tools
- Part picking in assembly tasks
- Depalletizing of goods
- Picking of boxes in intralogistics operations

Ordering information

Other models and accessories → www.sick.com/PLB

Field of view	Type	Part no.
1,000 mm x 900 mm x 1,000 mm	PLB-510-L-PL	1112945
1,200 mm x 800 mm x 800 mm	PLB-530-L	1126572
	PLB-530-L-PL	1127781
	PLB-530-L-PP	1127780
	PLB-530-L-S	1130429
	PLB-530-L-SC	1130419

Field of view	Type	Part no.
1,300 mm x 1,200 mm x 1,000 mm	PLB-520-5MP-L	1109364
	PLB-520-5MP-L-PL	1115867
	PLB-520-5MP-L-PP	1115868
	PLB-520-5MP-L-S	1115869
	PLB-520-5MP-L-SC	1109367
1000 mm x 900 mm x 1000 mm	PLB-540-L-PL	1132360
	PLB-540-L-PP	1132881
	PLB-540-L-S	1132382
280 mm x 170 mm x 300 mm	PLB-530-S	1126574
	PLB-530-S-PL	1127785
	PLB-530-S-PP	1127784
	PLB-530-S-S	1130431
	PLB-530-S-SC	1130421
300 mm x 200 mm x 500 mm	PLB-515-S	1114997
	PLB-515-S-PL	1136649
	PLB-515-S-PP	1136648
	PLB-515-S-S	1136650
	PLB-515-S-SC	1136651
400 mm x 300 mm x 200 mm	PLB-520-5MP-S	1109366
	PLB-520-5MP-S-PL	1115873
	PLB-520-5MP-S-PP	1115874
	PLB-520-5MP-S-S	1115875
	PLB-520-5MP-S-SC	1109370
400 mm x 300 mm x 400 mm	PLB-515-M	1114996
	PLB-515-M-PP	1116954
	PLB515-M-PL	1116955
500 mm x 310 mm x 600 mm	PLB-530-M	1126573
	PLB-530-M-PL	1127783
	PLB-530-M-PP	1127782
	PLB-530-M-S	1130430
	PLB-530-M-SC	1130420
600 mm x 500 mm x 500 mm	PLB-515-L	1114995
	PLB-515-L-PL	1129627
	PLB-515-L-PP	1129626
	PLB-515-L-S	1136652
	PLB-515-L-SC	1136653

Field of view	Type	Part no.
750 mm x 440 mm x 400 mm	PLB-535-M	1123971
	PLB-535-M-PL	1127779
	PLB-535-M-PP	1127778
	PLB-535-M-S	1131528
	PLB-535-M-SC	1133617
790 mm x 650 mm x 500 mm	PLB-536-M	1136782
	PLB-536-M-PL	1136784
	PLB-536-M-PP	1136783
	PLB-536-M-S	1136785
	PLB-536-M-SC	1136786
800 mm x 600 mm x 400 mm	PLB-520-5MP-M	1109365
	PLB-520-5MP-M-PL	1115870
	PLB-520-5MP-M-PP	1115871
	PLB-520-5MP-M-S	1115872
	PLB-520-5MP-M-SC	1109368

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