

MV-RS-Base-M Galvanometer Laser 3D Camera

MV-RS-Base-M galvanometer laser 3D camera adopts laser and high-precision galvanometer technology, combined with high-resolution color imaging system and built-in 3D image processing algorithm with high robustness to obtain the RGB-D image with sub-millimeter measurement accuracy.



RoHS

Key Features

- Customized optical system provides high-quality image.
- Supports high-uniformity laser module to provide a more detailed point cloud.
- Supports multi-core parallel processing with high precision and high image acquisition rate.
- Supports alignment between depth images and RGB images, convenient for secondary development.
- Adopts light-weight design and small size with high stability for flexible installation and use.

Typical Application

- Workpiece loading and unloading
- Random bin picking
- Alignment assembly

Available Model

- MV-RS-Base-M V3.0



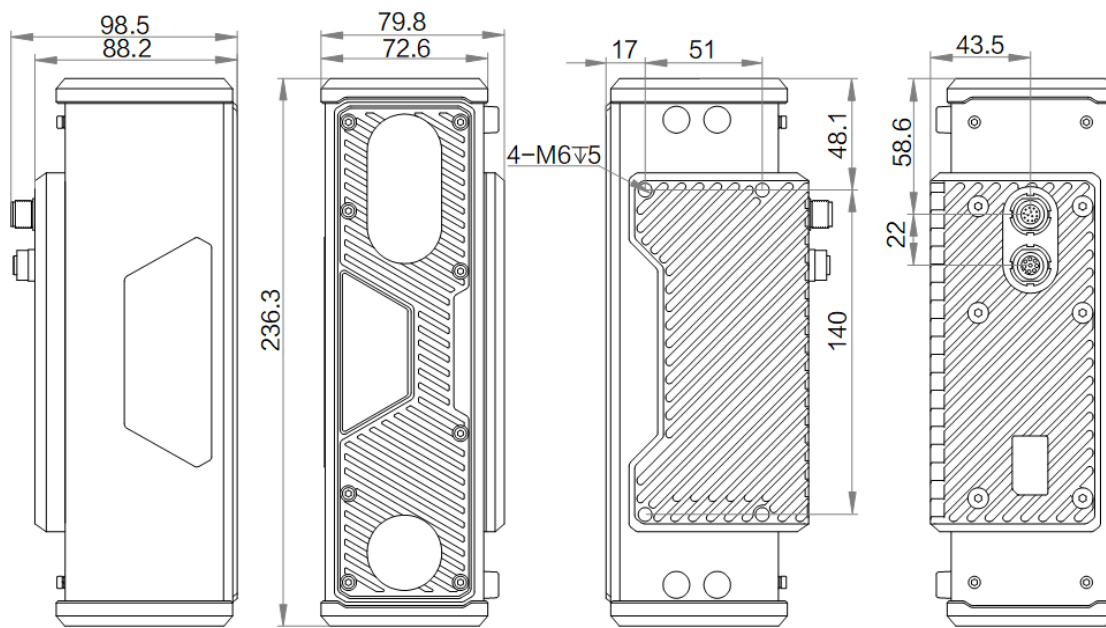
Specification

Model	MV-RS-Base-M
Performance	
Near field of view	430 mm × 380 mm @ 800 mm
Typical field of view	570 mm × 480 mm @ 1000 mm
Far field of view	720 mm × 580 mm @ 1200 mm
Clearance distance (CD)	800 mm
Measurement range (MR)	400 mm
Repeatability (Z-axis) ¹	0.08 mm @ 1000 mm
VDI/VDE accuracy ²	0.10 mm @ 1000 mm
Resolution	RGB: 3200 × 1944 Depth: 1632 × 1264
Data acquisition time	0.4 s to 0.9 s
Image output delay	0.8 s to 1.5 s
Data type	Original image (mono and color images), depth image, RGB-D image
Electrical feature	
Data interface	Gigabit Ethernet (1000 Mbit/s)
Digital I/O	12-pin M12 interface provides power and I/O, including opto-isolated input × 3 (Line 0/3/6), opto-isolated output × 3 (Line 1/4/7)
Power supply	24 VDC
Power consumption	Typ. 12 W @ 24 VDC
Mechanical	
Dimension	236.3 mm × 79.8 mm × 98.5 mm (9.3" × 3.1" × 3.9")
Weight	Approx. 1.3 kg (2.9 lb.)
Ingress protection	IP65
Temperature	Working temperature: 0 °C to 45 °C (32 °F to 113 °F) Storage temperature: -30 °C to 80 °C (-22 °F to 176 °F)
Humidity	20% RH to 85% RH (no condensation)
Laser	
Laser safety class	Class 2
Wavelength	450 nm
General	
Client software	RobotPilot, HiViewer
Operating system	32/64-bit Windows 7/10, 64-bit Windows 11
Certification	RoHS

1: This value is the standard deviation of 100 depth value measurements. The measurement target is a ceramic plate.

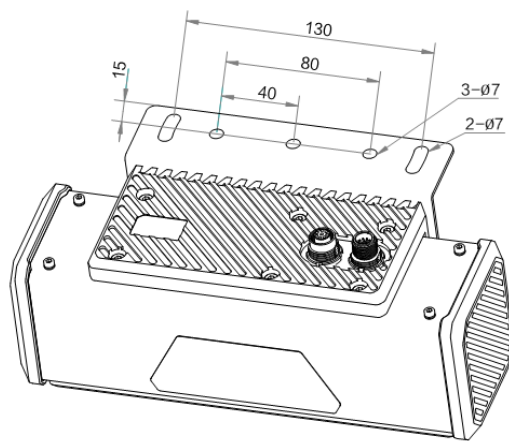
2: The measurement targets are double ceramic balls with a diameter of 30 mm and a ball spacing of 100 mm. Refer to VDI/VDE 2634 Part II standard.

Dimension



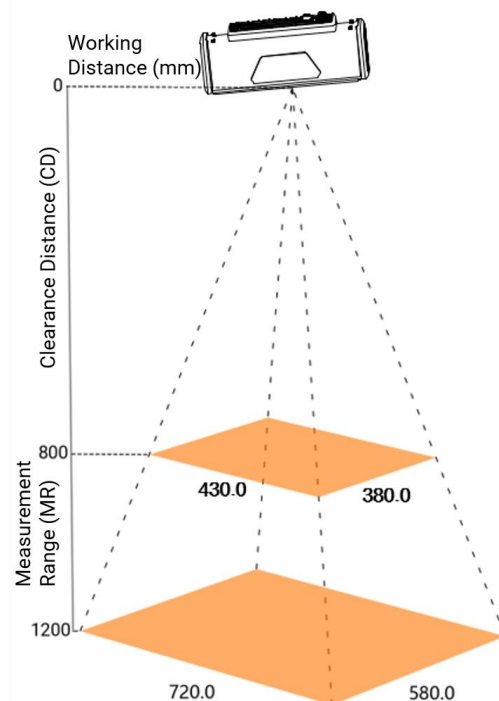
Unit:mm

Installation Axonometric Drawing



Unit:mm

Measurement Range Diagram



HIKROBOT

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