

MV-RS-Ultra-S

Galvanometer Laser 3D Camera



RoHS **CE**

Introduction

MV-RS-Ultra-S 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.

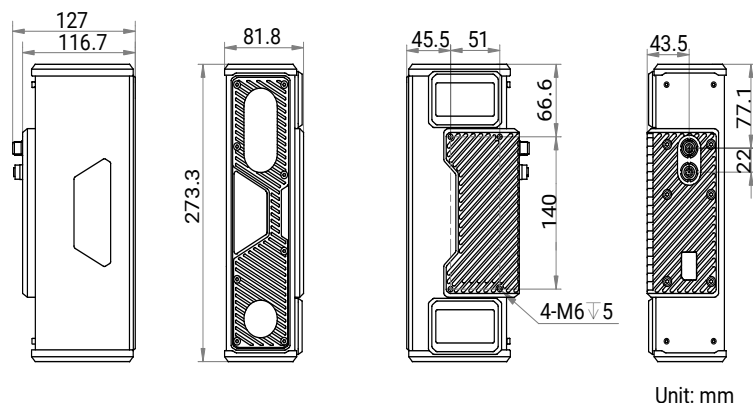
Available Model

MV-RS-Ultra-S

Applicable Industry

Workpiece loading and unloading, random bin picking, alignment assembly.

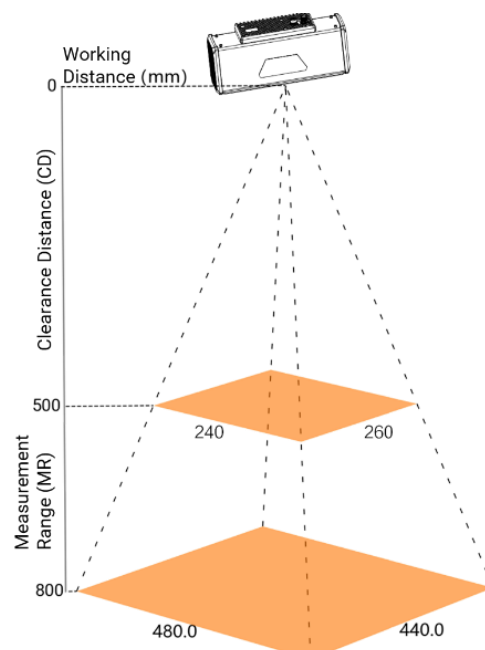
Dimension



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.

Measurement Range Diagram



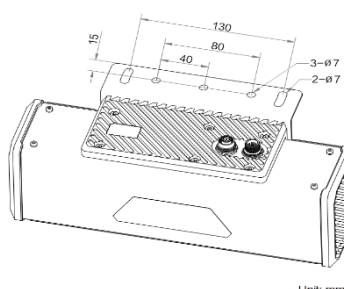
Specification

Model	MV-RS-Ultra-S
Performance	
Near field of view	240 mm × 260 mm @ 500 mm
Typical field of view	320 mm × 320 mm @ 600 mm
Far field of view	480 mm × 440 mm @ 800 mm
Clearance distance (CD)	500 mm
Measurement range (MR)	300 mm
Repeatability (Z-axis)*¹	0.03 mm @ 600 mm
VDI/VDE accuracy*²	0.05 mm @ 600 mm
Resolution	RGB: 4000 × 3000 Depth: 2448 × 2048
Data acquisition time	0.4 s to 0.9 s
Image output delay	1.0 s to 1.7 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. 15 W @ 24 VDC
Mechanical	
Dimension	273.3 mm × 81.8 mm × 127 mm (10.8" × 3.2" × 5.0")
Weight	Approx. 1.95 kg (4.3 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, CE

*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.

Installation Axonometric Drawing



Unit: mm