

# MV-RS-Pro-XL

## Galvanometer Laser 3D Camera



**RoHS** **CE**

### Introduction

MV-RS-Pro-XL 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.

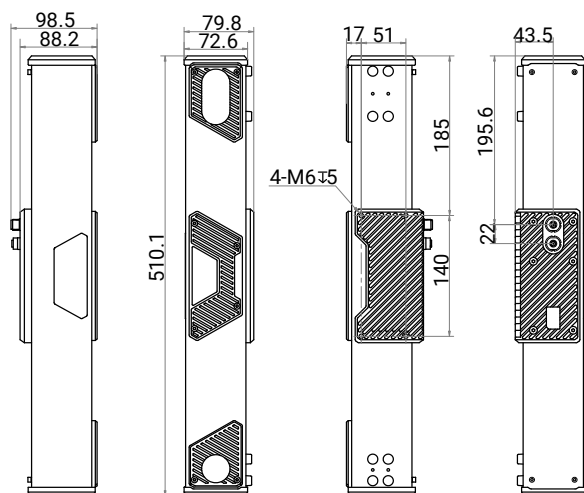
### Available Model

MV-RS-Pro-XL

### Applicable Industry

Workpiece loading and unloading, random bin picking, large parts assembly.

### Dimension

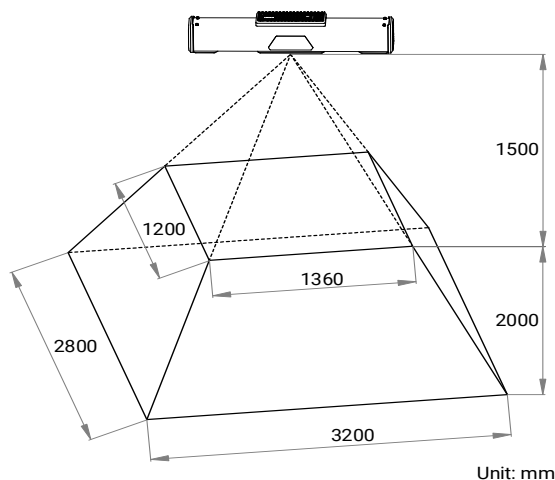


Unit: mm

### 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 high-strength carbon fiber design with high stability.
- Adopts large field of view for the long-distance scenarios.

### Measurement Range Diagram



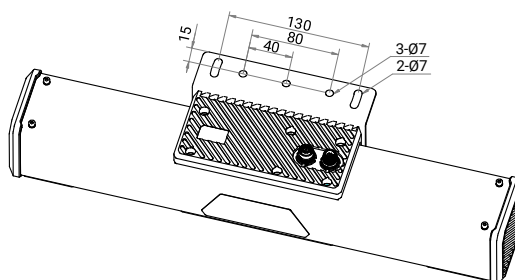
Unit: mm

|                                 |                                                                                                                                    |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Model</b>                    | <b>MV-RS-Pro-XL</b>                                                                                                                |
| <b>Performance</b>              |                                                                                                                                    |
| <b>Near field of view</b>       | 1360 mm × 1200 mm @ 1500 mm                                                                                                        |
| <b>Typical field of view</b>    | 2200 mm × 2000 mm @ 2500 mm                                                                                                        |
| <b>Far field of view</b>        | 3200 mm × 2800 mm @ 3500 mm                                                                                                        |
| <b>Clearance distance (CD)</b>  | 1500 mm                                                                                                                            |
| <b>Measurement range (MR)</b>   | 2000 mm                                                                                                                            |
| <b>Repeatability (Z-axis)*1</b> | 0.2 mm @ 2500 mm                                                                                                                   |
| <b>VDI/VDE accuracy*2</b>       | 0.3 mm @ 2500 mm                                                                                                                   |
| <b>Resolution</b>               | RGB: 3968 × 3000<br>Depth: 1920 × 1536                                                                                             |
| <b>Data acquisition time</b>    | 0.4 s to 0.9 s                                                                                                                     |
| <b>Image output delay</b>       | 0.9 s to 1.6 s                                                                                                                     |
| <b>Data type</b>                | Original image (mono and color images), depth image, RGB-D image                                                                   |
| <b>Electrical feature</b>       |                                                                                                                                    |
| <b>Data interface</b>           | Gigabit Ethernet (1000 Mbit/s)                                                                                                     |
| <b>Digital I/O</b>              | 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) |
| <b>Power supply</b>             | 24 VDC                                                                                                                             |
| <b>Power consumption</b>        | Typ. 16 W @ 24 VDC                                                                                                                 |
| <b>Mechanical</b>               |                                                                                                                                    |
| <b>Dimension</b>                | 510.1 mm × 79.8 mm × 98.5 mm (20.1" × 3.1" × 3.9")                                                                                 |
| <b>Weight</b>                   | Approx. 1.68 kg (3.7 lb.)                                                                                                          |
| <b>Ingress protection</b>       | IP65                                                                                                                               |
| <b>Temperature</b>              | Working temperature: 0 °C to 45 °C (32 °F to 113 °F)<br>Storage temperature: -30 °C to 80 °C (-22 °F to 176 °F)                    |
| <b>Humidity</b>                 | 20% RH to 85% RH (no condensation)                                                                                                 |
| <b>Laser</b>                    |                                                                                                                                    |
| <b>Laser safety class</b>       | Class 2                                                                                                                            |
| <b>Wavelength</b>               | 638 nm                                                                                                                             |
| <b>General</b>                  |                                                                                                                                    |
| <b>Client software</b>          | RobotPilot, HiViewer                                                                                                               |
| <b>Operating system</b>         | 32/64-bit Windows 7/10, 64-bit Windows 11                                                                                          |
| <b>Certification</b>            | 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