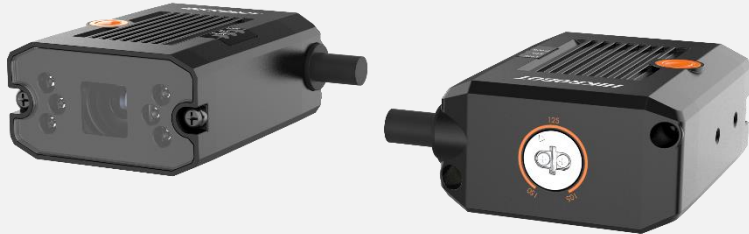


# MV-ID2013M (Long Focal Length)

## 1.3 MP Industrial Code Reader



RoHS



### Introduction

MV-ID2013M (Long Focal Length) industrial code reader can read different types of 1-dimensional and 2-dimensional codes, and its max. reading speed reaches 45 codes/sec. It adopts deep learning algorithm to process images with good robustness, and can recognize various codes.

### Available Model

- 16 mm focal length: MV-ID2013M-16S-RBN
- 25 mm focal length: MV-ID2013M-25S-RBN

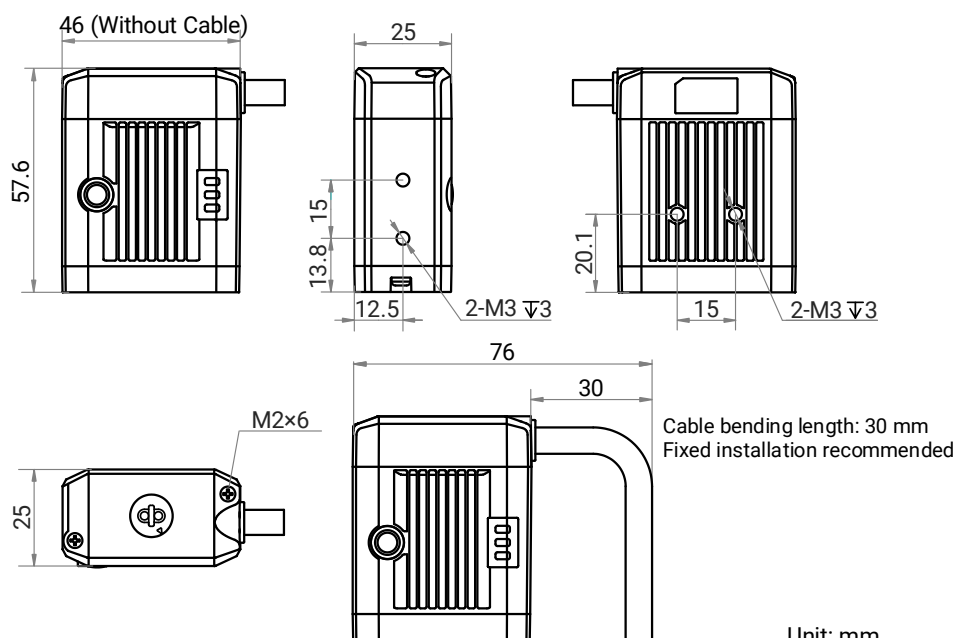
### Applicable Industry

Consumer electronics, food and pharmaceutical, electronic semiconductor, new energy, etc.

### Key Feature

- Compact design and small in size.
- Adopts focus knob for adjusting focusing manually.
- Adopts multiple I/O interfaces and plug-in power interface.
- Supports multiple communication protocols, including SmartSDK, TCP Server, Serial, FTP, TCP Client, Profinet, Melsec/SLMP, Ethernet/IP, Modbus, UDP, and Fins.

### Dimension



## Specification

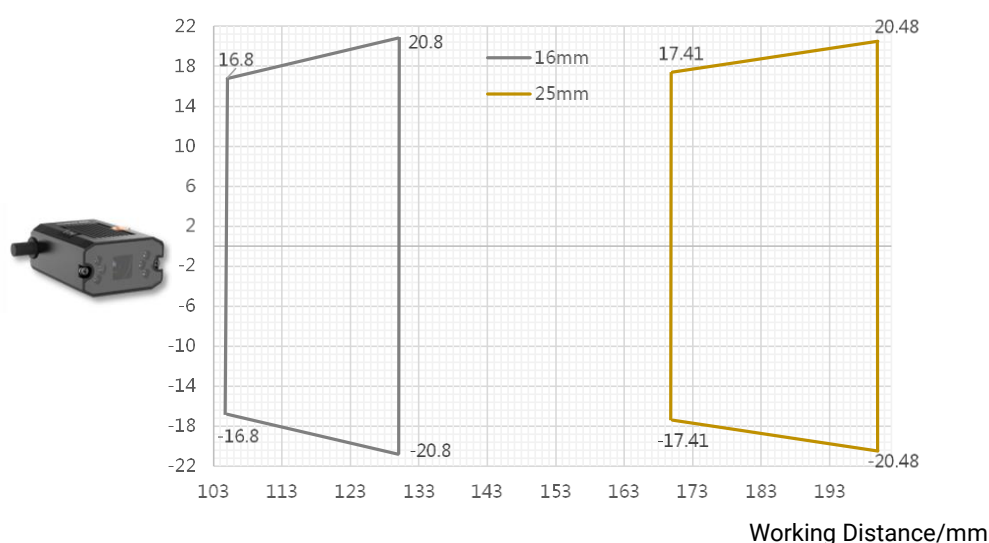
| Model                  | MV-ID2013M-16S-RBN                                                                                                                                                                                                                                            | MV-ID2013M-25S-RBN |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| Performance            |                                                                                                                                                                                                                                                               |                    |
| Symbologies            | 1-dimensional codes: Code 39, Code 93, Code 128 (include GS1-128), ITF 14, ITF 25, CodaBar, EAN 8, EAN 13, UPCA, UPCE, Matrix 25, MSI, China Post, Code 11, Industrial 2of5, Pharmacode                                                                       |                    |
|                        | 2-dimensional codes: QR Code (include GS1-QR), Data Matrix (include GS1-DM), MicroQR, AZTEC, HanXin                                                                                                                                                           |                    |
|                        | Stacked codes: PDF 417                                                                                                                                                                                                                                        |                    |
| Max. frame rate        | 60 fps                                                                                                                                                                                                                                                        |                    |
| Max. reading speed     | 45 codes/sec                                                                                                                                                                                                                                                  |                    |
| Sensor type            | CMOS, global shutter                                                                                                                                                                                                                                          |                    |
| Pixel size             | 4 μm × 4 μm                                                                                                                                                                                                                                                   |                    |
| Sensor size            | 1/2.7"                                                                                                                                                                                                                                                        |                    |
| Resolution             | 1280 × 1024                                                                                                                                                                                                                                                   |                    |
| Exposure time          | 35 μs to 1 sec                                                                                                                                                                                                                                                |                    |
| Gain                   | 0 dB to 15 dB                                                                                                                                                                                                                                                 |                    |
| Mono/color             | Mono                                                                                                                                                                                                                                                          |                    |
| Communication protocol | SmartSDK, TCP Server, Serial, FTP, TCP Client, Profinet, Melsec/SLMP, Ethernet/IP, Modbus, UDP, and Fins                                                                                                                                                      |                    |
| Electrical feature     |                                                                                                                                                                                                                                                               |                    |
| Data interface         | Fast Ethernet (100 Mbit/s)                                                                                                                                                                                                                                    |                    |
| Digital I/O            | 17-pin M12 connector provides power and I/O, including non-isolated input × 1 (Line 2), non-isolated output × 1 (Line 3), configurable bi-directional non-isolated I/O × 2 (Line 0/1), RS-232 × 1.<br>Supports device triggering via pressing button on side. |                    |
| Power supply           | 12 VDC to 24 VDC                                                                                                                                                                                                                                              |                    |
| Max. power consumption | Approx. 24 W @ 24 VDC                                                                                                                                                                                                                                         |                    |
| Mechanical             |                                                                                                                                                                                                                                                               |                    |
| Focal length           | 16 mm                                                                                                                                                                                                                                                         | 25 mm              |
| Lens mount             | M12-mount, adjusting focus manually supported                                                                                                                                                                                                                 |                    |
| Working distance       | 105 mm to 150 mm                                                                                                                                                                                                                                              | 170 mm to 200 mm   |
| Ambient illumination   | 0 lux to 50000 lux                                                                                                                                                                                                                                            |                    |
| Light source           | Red                                                                                                                                                                                                                                                           |                    |
| Aiming system          | Not supported                                                                                                                                                                                                                                                 |                    |
| Indicator              | Power indicator (PWR), network indicator (LNK), and status indicator (STS).                                                                                                                                                                                   |                    |
| Dimension              | 46 mm × 25 mm × 57.6 mm (1.8" × 1.0" × 2.3")                                                                                                                                                                                                                  |                    |
| Weight                 | Approx. 215 g (0.5 lb.)                                                                                                                                                                                                                                       |                    |
| Ingress protection     | IP65                                                                                                                                                                                                                                                          |                    |
| Temperature            | Working temperature: 0 °C to 50 °C (32 °F to 122 °F)<br>Storage temperature: −30 °C to 70 °C (−22 °F to 158 °F)                                                                                                                                               |                    |
| Humidity               | 20% RH to 95% RH (no condensation)                                                                                                                                                                                                                            |                    |
| General                |                                                                                                                                                                                                                                                               |                    |
| Client software        | IDMVS                                                                                                                                                                                                                                                         |                    |
| Certification          | CE, RoHS, KC                                                                                                                                                                                                                                                  |                    |

## Detection Range

| Focal Length<br>(mm) | Working Distance<br>(mm) | Field of View |        | 1D Min. Resolution<br>(mm)* | 2D Min. Resolution<br>(mm)△ |
|----------------------|--------------------------|---------------|--------|-----------------------------|-----------------------------|
|                      |                          | H (mm)        | V (mm) |                             |                             |
| 16                   | 105                      | 33.60         | 26.88  | 0.026                       | 0.079                       |
|                      | 110                      | 35.20         | 28.16  | 0.028                       | 0.083                       |
|                      | 115                      | 36.80         | 29.44  | 0.029                       | 0.086                       |
|                      | 120                      | 38.40         | 30.72  | 0.030                       | 0.090                       |
|                      | 125                      | 40.00         | 32.00  | 0.031                       | 0.094                       |
|                      | 130                      | 41.60         | 33.28  | 0.033                       | 0.098                       |
| 25                   | 170                      | 34.82         | 27.85  | 0.027                       | 0.082                       |
|                      | 175                      | 35.84         | 28.67  | 0.028                       | 0.084                       |
|                      | 180                      | 36.86         | 29.49  | 0.029                       | 0.086                       |
|                      | 185                      | 37.89         | 30.31  | 0.030                       | 0.089                       |
|                      | 195                      | 39.94         | 31.95  | 0.031                       | 0.094                       |
|                      | 200                      | 40.96         | 32.77  | 0.032                       | 0.096                       |

1D Min. Resolution (mm)\*: Field of view (long side) / resolution (long side) × 1  
 2D Min. Resolution (mm)△: Field of view (long side) / resolution (long side) × 3

Horizontal Field of View/mm



## Note

- The integrated cable of the device is a static cable by default that cannot be used in moving scene, such as drag chain. Therefore, it is recommended to fix the cable during installation.
- It is recommended to provide separate power supply to the device when the device is in use.
- When the device firmware is V3.3.0.R 241012,240924e0,00 and above, all codes in the symbologies can be recognized.