

MV-ID3030XM

3.1 MP Industrial Code Reader



RoHS



Introduction

With functions of image acquisition, code recognition and output, MV-ID3030XM industrial code reader can read different types of 1D codes and 2D codes with reading speed up to 90 codes/sec. It adopts Hikrobot's deep learning algorithm to process images with good robustness, and can recognize various complex codes.

Applicable Industry

Consumer electronics, lithium battery, tobacco, medicine, photovoltaics, automobile, PCB, etc.

Available Model

- 8 mm focal length: MV-ID3030XM-08M-RBN
- 12 mm focal length: MV-ID3030XM-12M-RBN
- 16 mm focal length: MV-ID3030XM-16M-RBN
- 25 mm focal length: MV-ID3030XM-25M-RBN

Note

- Do not directly touch cooling parts of the device to avoid scald.
- Looking directly at the device may cause harm to the eyes. Protective measures like wearing protective glasses should be taken in the process of installation, maintenance and debugging.

Key Feature

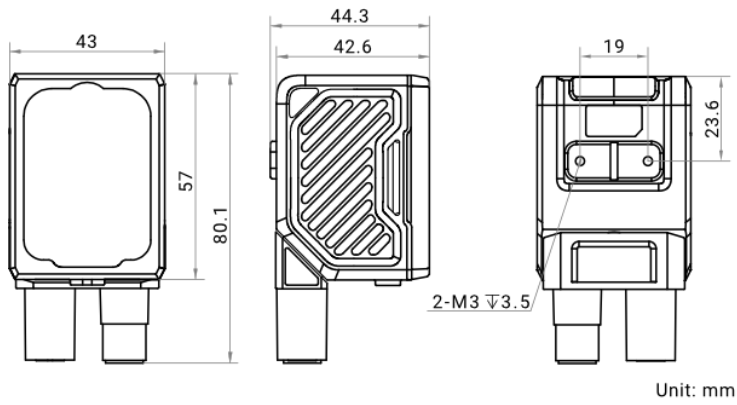
- Adopts built-in deep learning algorithm to read codes with good robustness.
- Adopts CMOS sensor to acquire high-quality images.
- Supports one-key auto adjustment and easy to operate.
- Adopts multiple indicators displaying device status from different sides.
- Good environmental compatibility with illuminating system.
- Adopts IO interfaces for input and output signals.
- Modularized light source design and easy to replace.

Specification

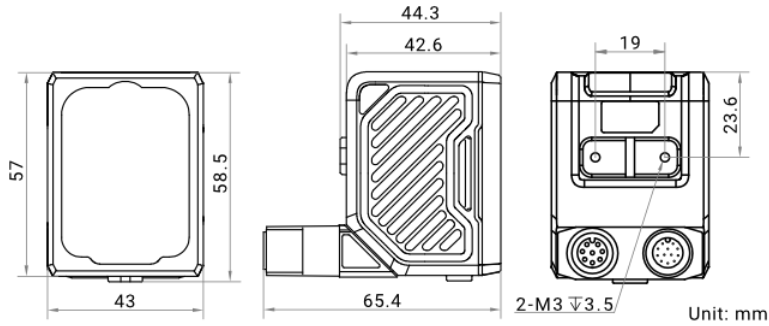
| Model | MV-ID3030XM-08M-RBN | MV-ID3030XM-12M-RBN | MV-ID3030XM-16M-RBN | MV-ID3030XM-25M-RBN |
|-------------------------------|---|---------------------|---------------------|---------------------|
| Performance | | | | |
| Symbologies | 1D codes: Code 39, Code 93, Code 128, CodaBar, EAN 8, EAN 13, ITF 14, ITF 25, MATRIX 25, UPCA, UPCE, MSI, Code 11, Industrial 25, China Post, and Pharmacode | | | |
| | 2D codes: QR Code, Data Matrix, and Micro QR | | | |
| | Stacked codes: PDF 417 | | | |
| Max. frame rate | 60 fps | | | |
| Max. reading speed | 90 codes/sec | | | |
| Sensor type | CMOS, global shutter | | | |
| Pixel size | 3.45 μm \times 3.45 μm | | | |
| Sensor size | 1/1.8" | | | |
| Resolution | 2048 \times 1536 | | | |
| Exposure time | 6 μs to 30000 μs | | | |
| Gain | 0 dB to 24 dB | | | |
| Mono/color | Mono | | | |
| Communication protocol | SmartSDK, TCP Client, TCP Server, Serial, FTP, Profinet, MELSEC/SLMP, Ethernet/IP, ModBus, Fins, UDP | | | |
| Electrical feature | | | | |
| Data interface | Fast Ethernet | | | |
| Digital I/O | 12-pin M12 connector provides power and I/O, including opto-isolated input (LineIn 0/1/2) \times 3, opto-isolated output (LineOut 3/4/5) \times 3, and RS-232 \times 1. Triggering the device is supported via pressing the top button. | | | |
| Power supply | 24 VDC | | | |
| Max. power consumption | 6.2 W@24 VDC (self-light source enabled) | | | |
| Mechanical | | | | |
| Focal length | 8 mm (0.3") | 12 mm (0.5") | 16 mm (0.6") | 25 mm (1.0") |
| Lens mount | M12-mount, mechanical autofocus | | | |
| Lens cap | Transparent + polarized + diffused lens cap | | | |
| Light source | Red point light source + white diffused light source. White/blue/IR point light source is optional. | | | |
| Aiming system | Orange LED | | | |
| Indicator | Device body indicator, reading result indicator | | | |
| Dimension | Straight angle: 80.1 mm \times 43 mm \times 44.3 mm (3.2" \times 1.7" \times 1.7") Right angle: 58.5 mm \times 43 mm \times 65.4 mm (2.3" \times 1.7" \times 2.6") | | | |
| Weight | Approx. 195 g (0.4 lb.) | | | |
| Ingress protection | IP67 (under proper installation of waterproof lens cap) | | | |
| Temperature | Working temperature: 0 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$ (32 $^{\circ}\text{F}$ to 122 $^{\circ}\text{F}$) Storage temperature: -30 $^{\circ}\text{C}$ to 70 $^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to 158 $^{\circ}\text{F}$) | | | |
| Humidity | 20% to 95% RH, non-condensing | | | |
| General | | | | |
| Client software | IDMVS | | | |
| Certification | CE, RoHS, KC | | | |

Dimension

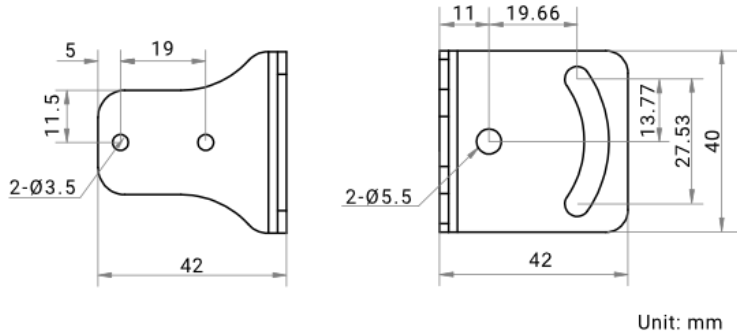
Device (Straight Angle):



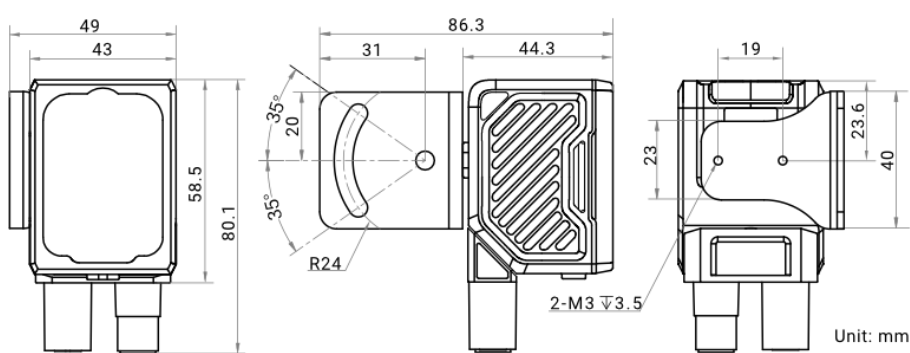
Device (Right Angle):



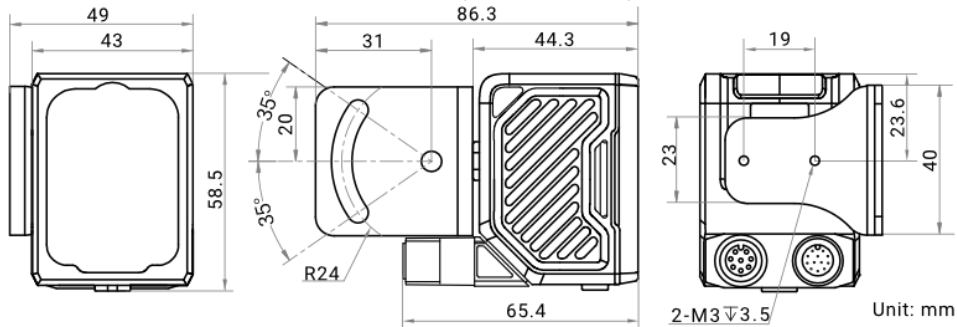
Installation Bracket:



Device and Installation Bracket (Straight Angle):

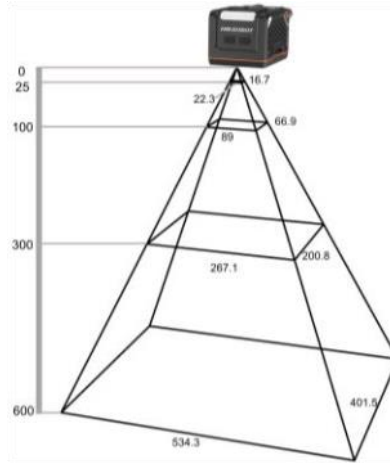


Device and Installation Bracket (Right Angle):

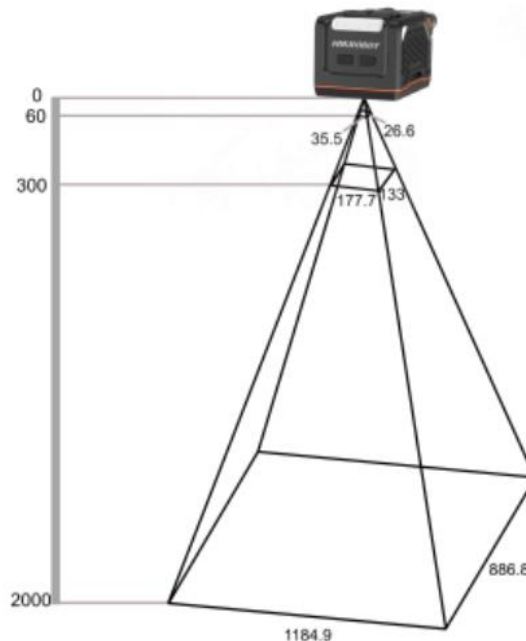


Detection Range

| MV-ID3030XM (Unit: mm) | | | | | |
|------------------------|------------------|--------|--------|--------------------------|--------------------------|
| Lens Focal Length | Working Distance | FoV | | 1D Single Pixel Accuracy | 2D Single Pixel Accuracy |
| | | H | V | | |
| 8 | 25 | 22.3 | 16.7 | 0.011 | 0.033 |
| | 100 | 89.0 | 66.9 | 0.043 | 0.131 |
| | 300 | 267.1 | 200.8 | 0.130 | 0.392 |
| | 600 | 534.3 | 401.5 | 0.261 | 0.784 |
| | 1000 | 883.2 | 662.4 | 0.400 | 1.300 |
| | 2000 | 1766.4 | 1324.8 | 0.900 | 2.600 |

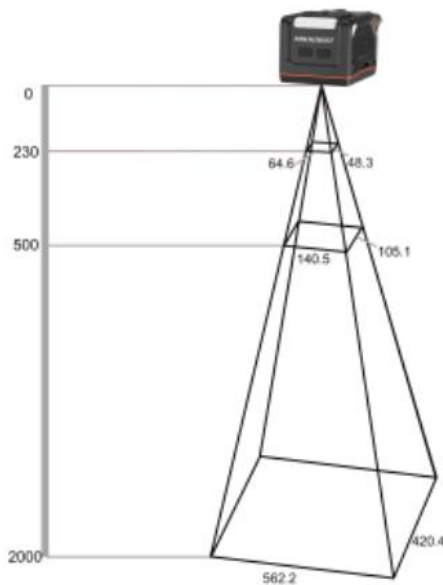


| MV-ID3030XM (Unit: mm) | | | | | |
|------------------------|------------------|--------|-------|--------------------------|--------------------------|
| Lens Focal Length | Working Distance | FoV | | 1D Single Pixel Accuracy | 2D Single Pixel Accuracy |
| | | H | V | | |
| 12 | 60 | 35.5 | 26.6 | 0.017 | 0.052 |
| | 100 | 59.2 | 44.3 | 0.029 | 0.087 |
| | 300 | 177.7 | 133.0 | 0.087 | 0.260 |
| | 600 | 355.5 | 266.0 | 0.174 | 0.520 |
| | 1000 | 592.4 | 443.4 | 0.300 | 0.900 |
| | 2000 | 1184.9 | 886.8 | 0.600 | 1.700 |



Detection Range

| MV-ID3030XM (Unit: mm) | | | | | |
|------------------------|------------------|-------|-------|--------------------------|--------------------------|
| Lens Focal Length | Working Distance | FoV | | 1D Single Pixel Accuracy | 2D Single Pixel Accuracy |
| | | H | V | | |
| 25 | 230 | 64.6 | 48.3 | 0.032 | 0.094 |
| | 300 | 84.3 | 63.1 | 0.041 | 0.123 |
| | 500 | 140.5 | 105.1 | 0.069 | 0.205 |
| | 1000 | 281.1 | 210.2 | 0.100 | 0.400 |
| | 2000 | 562.2 | 420.4 | 0.300 | 0.800 |



| MV-ID3016XM (Unit: mm) | | | | | |
|------------------------|------------------|-------|-------|--------------------------|--------------------------|
| Lens Focal Length | Working Distance | FoV | | 1D Single Pixel Accuracy | 2D Single Pixel Accuracy |
| | | H | V | | |
| 16 | 60 | 27.6 | 20.7 | 0.013 | 0.040 |
| | 150 | 64.7 | 48.5 | 0.032 | 0.095 |
| | 300 | 125.1 | 93.8 | 0.061 | 0.183 |
| | 600 | 247.3 | 185.5 | 0.121 | 0.362 |
| | 1000 | 407.3 | 296.2 | 0.199 | 0.579 |
| | 2000 | 814.5 | 592.4 | 0.398 | 1.157 |

