

# MV-ID5200PM-00C-NNN

## 20 MP Smart Code Reader



### Introduction

MV-ID5200PM-00C-NNN smart code reader can read different types of codes with reading speed up to 36 codes/sec. It adopts Hikrobot's deep learning algorithm to process image with good robustness, and can recognize various complex codes.

### Key Feature

- Adopts built-in deep learning algorithm to read codes with good robustness.
- Adopts CMOS global shutter sensor to provide high quality images.
- Supports chessboard ROI and reading 200 two-dimensional codes at the same time.
- Supports multiple communication protocols, including TCP, Serial, FTP, Profinet, etc.
- Ingress protection rating 67.

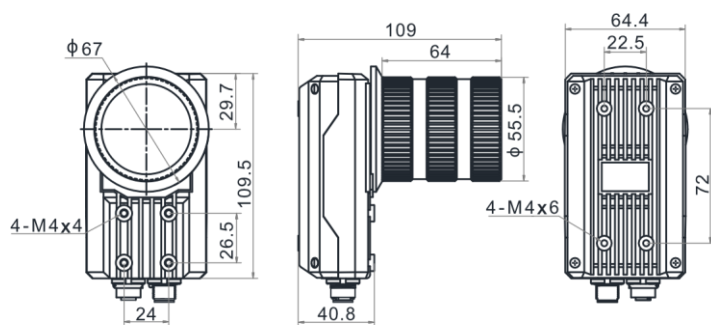
### Available Model

MV-ID5200PM-00C-NNN

### Applicable Industry

Consumer electronics, food and beverage, pharmaceutical, semiconductor, automobile, new energy, etc.

### Dimension



Unit: mm

## Specification

|                               |   |
|-------------------------------|---|
| <b>Model</b>                  | <b>MV-ID5200PM-00C-NNN</b>  |
| <b>Performance</b>            |   |
| <b>Symbologies</b>            | 1-dimensional codes: Code 39, Code 93, Code 128, CodaBar, EAN 8, EAN 13, UPCA, UPCE, ITF 14, ITF 25, Matrix 25, MSI, China Post, Code 11  |
|                               | 2-dimensional codes: QR Code, Data Matrix   |
|                               | Stack codes: PDF 417  |
| <b>Max. frame rate</b>        | 20 fps  |
| <b>Max. reading speed</b>     | 36 codes/sec  |
| <b>Sensor type</b>            | CMOS, global shutter  |
| <b>Pixel size</b>             | 2.5 $\mu\text{m}$ $\times$ 2.5 $\mu\text{m}$  |
| <b>Sensor size</b>            | 1.1"  |
| <b>Resolution</b>             | 5120 $\times$ 3968  |
| <b>Exposure time</b>          | 16 $\mu\text{s}$ to 0.5 sec   |
| <b>Gain</b>                   | 0 dB to 2.5 dB  |
| <b>Mono/color</b>             | Mono  |
| <b>Communication protocol</b> | SmartSDK, TCP Client, Serial, FTP, TCP Server, Profinet, Ethernet/IP, MELSEC, Fins, ModBus, SLMP, UDP   |
| <b>Electrical feature</b>     |   |
| <b>Data interface</b>         | Gigabit Ethernet  |
| <b>Digital I/O</b>            | 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, RS-232 input $\times$ 1, and RS-232 output $\times$ 1.                                     |
| <b>Power supply</b>           | 12 VDC to 24 VDC  |
| <b>Max. power consumption</b> | 12 W@24 VDC   |
| <b>Mechanical</b>             |   |
| <b>Lens mount</b>             | C-mount   |
| <b>Light source</b>           | Not included  |
| <b>Lens cap</b>               | Transparent lens cap  |
| <b>Indicator</b>              | Power indicator (PWR), network indicator (LNK/ACT), and user-defined indicator (U1/U2).   |
| <b>Dimension</b>              | 109.5 mm $\times$ 64.4 mm $\times$ 109 mm (4.3" $\times$ 2.5" $\times$ 4.3")  |
| <b>Weight</b>                 | Approx. 470 g (1.0 lb.)   |
| <b>Ingress protection</b>     | IP67 (under proper installation of waterproof lens cap)   |
| <b>Temperature</b>            | Working temperature: 0 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$ (32 $^{\circ}\text{F}$ to 122 $^{\circ}\text{F}$ )<br>Storage temperature: -30 $^{\circ}\text{C}$ to 70 $^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to 158 $^{\circ}\text{F}$ ) |
| <b>Humidity</b>               | 20% to 95% RH, non-condensing   |
| <b>General</b>                |   |
| <b>Client software</b>        | IDMVS   |
| <b>Certification</b>          | CE, FCC, RoHS, KC   |

## Detection Range

MV-ID5200PM-00C-NNN with MVL-KF12(16/25/35)28M-12MP Lens (Unit: mm)

| Lens Focal Length | Working Distance | FoV    |        | 1D Single Pixel Accuracy | 2D Single Pixel Accuracy | Horizontal FoV Diagram   |
|-------------------|------------------|--------|--------|--------------------------|--------------------------|--|
|                   |                  | H      | V      |                          |                          |  |
| 12                | 60               | 64     | 48     | 0.013                    | 0.038                    | <p>Horizontal FoV/mm</p> <p>Working Distance/mm</p> <p>Legend:<br/>                     - 12mm (Red)<br/>                     - 16mm (Grey)<br/>                     - 25mm (Yellow)<br/>                     - 35mm (Blue)                 </p> |
|                   | 100              | 106.67 | 80     | 0.021                    | 0.063                    |  |
|                   | 200              | 213.33 | 160    | 0.042                    | 0.125                    |  |
|                   | 300              | 320    | 240    | 0.063                    | 0.188                    |  |
|                   | 400              | 426.67 | 320    | 0.083                    | 0.250                    |  |
|                   | 500              | 533.33 | 400    | 0.104                    | 0.313                    |  |
| 600               | 640              | 480    | 0.125  | 0.375                    |                          |  |
| 16                | 80               | 64     | 48     | 0.013                    | 0.038                    |  |
|                   | 100              | 80     | 60     | 0.016                    | 0.047                    |  |
|                   | 200              | 160    | 120    | 0.031                    | 0.094                    |  |
|                   | 300              | 240    | 180    | 0.047                    | 0.141                    |  |
|                   | 400              | 320    | 240    | 0.063                    | 0.188                    |  |
|                   | 500              | 400    | 300    | 0.078                    | 0.234                    |  |
| 600               | 480              | 360    | 0.094  | 0.281                    |                          |  |
| 25                | 125              | 64     | 48     | 0.013                    | 0.038                    |  |
|                   | 200              | 102.4  | 76.8   | 0.020                    | 0.060                    |  |
|                   | 300              | 153.6  | 115.2  | 0.030                    | 0.090                    |  |
|                   | 400              | 204.8  | 153.6  | 0.040                    | 0.120                    |  |
|                   | 500              | 256    | 192    | 0.050                    | 0.150                    |  |
|                   | 600              | 307.2  | 230.4  | 0.060                    | 0.180                    |  |
| 35                | 175              | 64     | 48     | 0.013                    | 0.038                    |  |
|                   | 200              | 73.14  | 54.86  | 0.014                    | 0.043                    |  |
|                   | 300              | 109.71 | 82.29  | 0.021                    | 0.064                    |  |
|                   | 400              | 146.29 | 109.71 | 0.029                    | 0.086                    |  |
|                   | 500              | 182.86 | 137.14 | 0.036                    | 0.107                    |  |
|                   | 600              | 219.43 | 164.57 | 0.043                    | 0.129                    |  |

