MV-ID3016XM

1.6 MP Industrial Code Reader

Introduction

With functions of image acquisition, code recognition and output, MV-ID3016XM industrial code reader can read different types of 1D codes and 2D codes with reading speed up to 110 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-ID3016XM-08M-RBN
- 12 mm focal length: MV-ID3016XM-12M-RBN
- 16 mm focal length: MV-ID3016XM-16M-RBN
- 25 mm focal length: MV-ID3016XM-25M-RBN

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.

Note

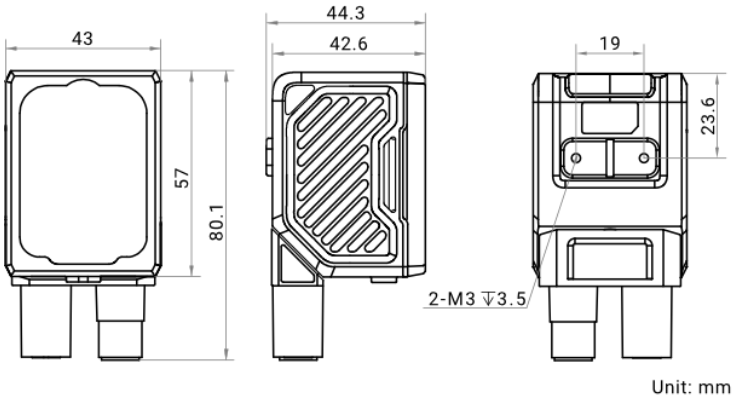
- Do not directly touch cooling parts of the device to avoid scald.
- Looking directly at the device may cause harm to the eyes. Protective measures like wearing protective glasses should be taken in the process of installation, maintenance and debugging.

Specification

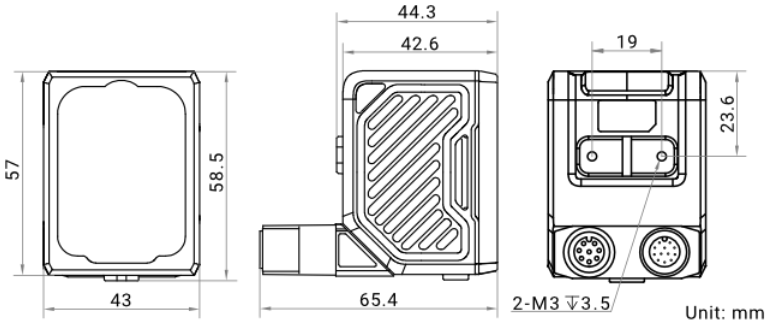
Model	MV-ID3016XM-08M-RBN	MV-ID3016XM-12M-RBN	MV-ID3016XM-16M-RBN	MV-ID3016XM-25M-RBN
Performance				
Symbologies	1D codes: Code 39, Code 93, Code 128, CodaBar, EAN 8, EAN 13, ITF 14, ITF 25, MATRIX 25, UPCA, UPCE, MSI, Code 11, Industrial 25, China Post, and Pharmacode			
	2D codes: QR Code, Data Matrix, and Micro QR			
	Stacked codes: PDF 417			
Max. frame rate	60 fps			
Max. reading speed	110 codes/sec			
Sensor type	CMOS, global shutter			
Pixel size	3.45 μm × 3.45 μm			
Sensor size	1/2.9"			
Resolution	1408 × 1024			
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) × 3, opto-isolated output (LineOut 3/4/5) × 3, and RS-232 × 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 × 43 mm × 44.3 mm (3.2" × 1.7" × 1.7") Right angle: 58.5 mm × 43 mm × 65.4 mm (2.3" × 1.7" × 2.6")			
Weight	Approx. 195 g (0.4 lb.)			
Ingress protection	IP67 (under proper installation of waterproof lens cap)			
Temperature	Working temperature: 0 °C to 50 °C (32 °F to 122 °F) Storage temperature: -30 °C to 70 °C (-22 °F to 158 °F)			
Humidity	20% to 95% RH, non-condensing			
General				
Client software	IDMVS			
Certification	CE, RoHS, KC			

Dimension

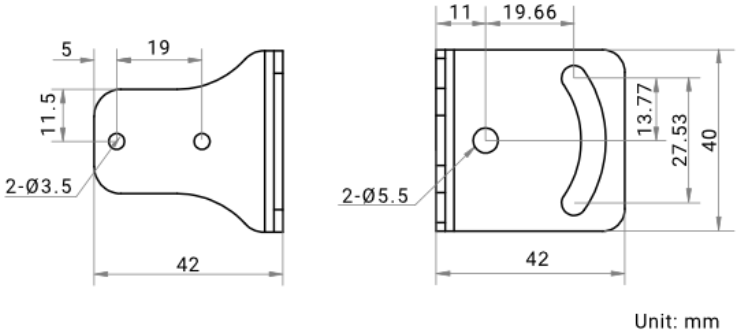
Device (Straight Angle):



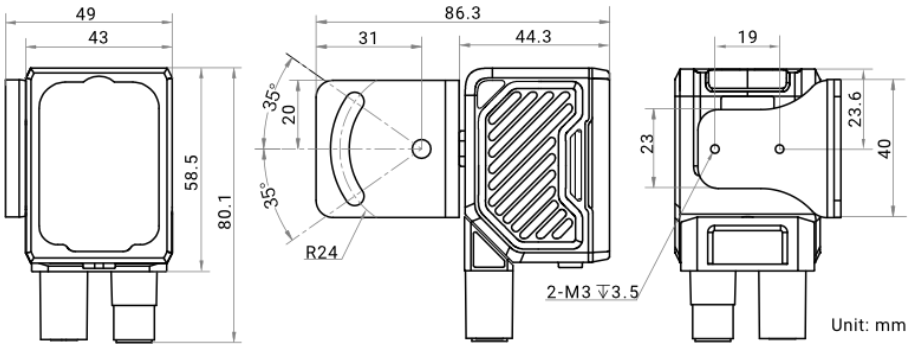
Device (Right Angle):



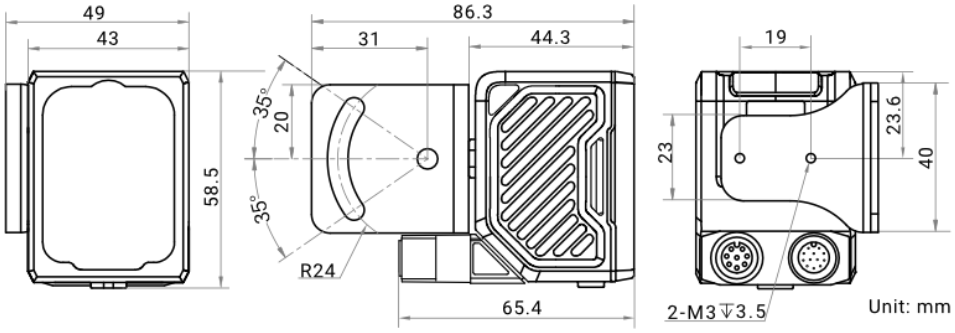
Installation Bracket:



Device and Installation Bracket (Straight Angle):

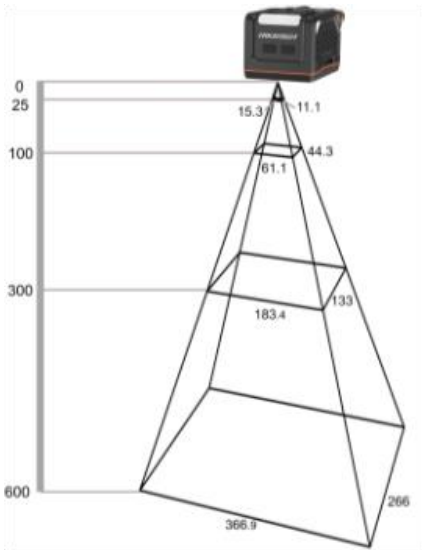


Device and Installation Bracket (Right Angle):

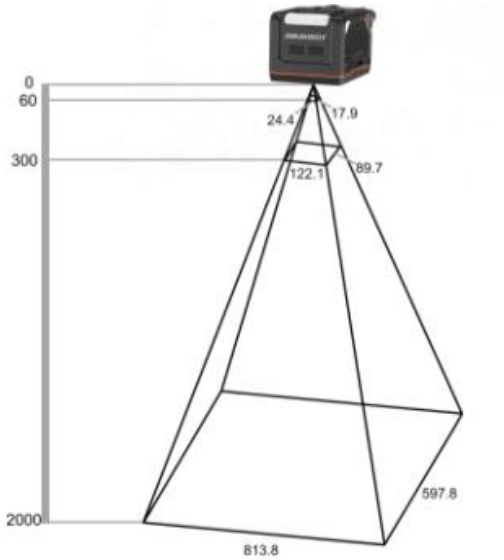


Detection Range

MV-ID3016XM (Unit: mm)					
Lens Focal Length	Working Distance	Field of View		1D Min. Resolution*	2D Min. Resolution△
		H	V		
8	25	15.3	11.1	0.011	0.032
	100	61.1	44.3	0.043	0.130
	300	183.4	133	0.130	0.390
	600	366.9	266	0.261	0.779
	1000	611.5	443.4	0.400	1.300
	2000	1222.9	886.8	0.900	2.600

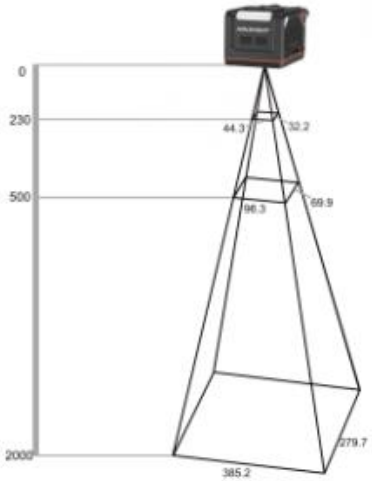


MV-ID3016XM (Unit: mm)					
Lens Focal Length	Working Distance	Field of View		1D Min. Resolution*	2D Min. Resolution△
		H	V		
12	60	24.4	17.9	0.017	0.053
	100	40.7	29.9	0.029	0.088
	300	122.1	89.7	0.087	0.263
	600	244.1	179.3	0.173	0.525
	1000	406.9	298.9	0.300	0.900
	2000	813.8	597.8	0.600	1.800



Detection Range

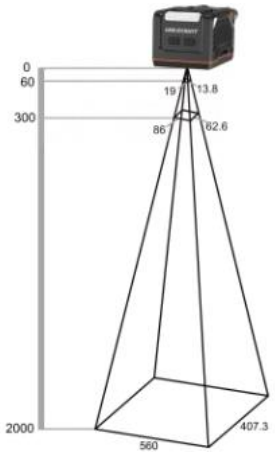
MV-ID3016XM (Unit: mm)					
Lens Focal Length	Working Distance	Field of View		1D Min. Resolution*	2D Min. Resolution△
		H	V		
25	230	44.3	32.2	0.031	0.094
	300	57.8	42	0.041	0.123
	500	96.3	69.9	0.068	0.205
	1000	192.6	139.9	0.100	0.400
	2000	385.2	279.7	0.300	0.800



MV-ID3016XM (Unit: mm)					
Lens Focal Length	Working Distance	Field of View		1D Min. Resolution*	2D Min. Resolution△
		H	V		
16	60	19	13.8	0.013	0.040
	150	44.5	32.4	0.032	0.095
	300	86	62.6	0.061	0.183
	600	170	123.6	0.121	0.362
	1000	280	203.6	0.199	0.597
	2000	560	407.3	0.398	1.193

1D Min. Resolution (mm): Field of view (long side) / resolution (long side) × number of pixels in the minimum bar width (number of pixels in the minimum bar width = 1)*

2D Min. Resolution (mm)△: Field of view (long side) / resolution (long side) × number of pixels in the side length of minimum module unit (number of pixels in the side length of minimum module unit = 3)



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