

# MV-CT120G-9GM/GC01

## 12 MP GigE Area Scan Camera



**GEN*i*CAM**

**GigE**  
VISION

### Introduction

Designed for industrial applications, MV-CT120G-9GM/GC01 camera offers industry-leading performance and reliability, with various versions to meet diverse application needs. It supports IP67 protection, expanded interfaces, and integration of liquid/electric lenses, light sources, and lens cap, creating a more flexible and efficient system.

### Key Feature

- The devices with PRO version and MAX version support waterproof connector.
- The devices with PRO version and MAX version adopt precision temperature control design for fast heat balance.
- The color devices with PRO version and MAX version support auto color correction based on multi-spectral fusion technology.
- The device with MAX version integrates lens and light source, enabling lens focusing and light source control.
- Adopts GigE interface and max. transmission distance of 100 meters without relay.
- Compatible with GigE Vision V2.0 Protocol, GenlCam Standard, and third-party software based on the protocol and standard.

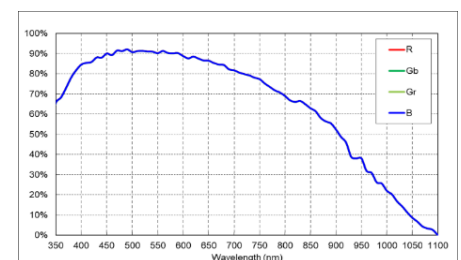
### Applicable Industry

Electronic semiconductor, factory automation, food and beverage, medicine packaging, etc.

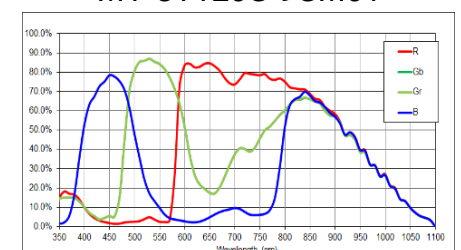
### Available Model

- Mono camera (BASE):  
MV-CT120G-9GM01-BASE
- Color camera (BASE):  
MV-CT120G-9GC01-BASE
- Mono camera (PRO):  
MV-CT120G-9GM01-PRO
- Color camera (PRO):  
MV-CT120G-9GC01-PRO
- Mono camera (MAX):  
MV-CT120G-9GM01-MAX
- Color camera (MAX):  
MV-CT120G-9GC01-MAX

### Sensor Quantum Efficiency



MV-CT120G-9GM01



MV-CT120G-9GC01

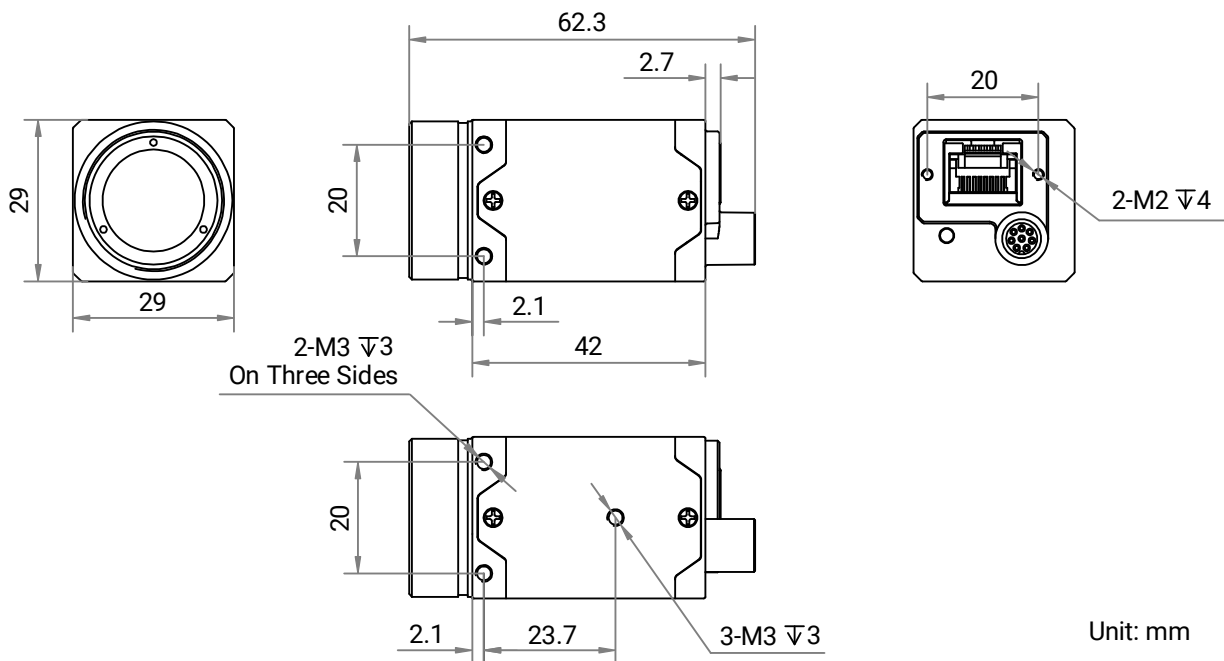
# Specification

Model	MV-CT120G-9GM01	MV-CT120G-9GC01
<b>Performance</b>		
<b>Sensor type</b>	CMOS, global shutter	
<b>Sensor model</b>	Stacked BSI	
<b>Pixel size</b>	3.45 $\mu\text{m}$ $\times$ 3.45 $\mu\text{m}$	
<b>Sensor size</b>	1.1"	
<b>Resolution</b>	4096 $\times$ 3000	
<b>Max. frame rate</b>	9.9 fps @ 4096 $\times$ 3000 Mono 8 23.9 fps @ 4096 $\times$ 3000 Mono 8 (PRO + MAX: lossless compression mode enabled)	9.9 fps @ 4096 $\times$ 3000 Bayer GB 8 23.9 fps @ 4096 $\times$ 3000 Bayer GB 8 (PRO + MAX: lossless compression mode enabled)
<b>Dynamic range</b>	67.2 dB	
<b>SNR</b>	44.2 dB	
<b>Gain</b>	0 dB to 12 dB	
<b>Exposure time</b>	UltraShort exposure mode: 10 $\mu\text{s}$ to 19 $\mu\text{s}$ Standard exposure mode: 20 $\mu\text{s}$ to 10 sec	
<b>Exposure mode</b>	Off/Once/Continuous exposure mode, supports Trigger Width and Trigger Controlled	
<b>Mono/color</b>	Mono	Color
<b>Pixel format</b>	Mono 8/10/10Packed/12/12Packed	Mono 8, Bayer GB 8/10/10Packed/12/12Packed, YUV422Packed, YUV422_YUYV_Packed, RGB 8, BGR 8
<b>Binning</b>	Supports 1 $\times$ 1, 2 $\times$ 2, 4 $\times$ 4	
<b>Decimation</b>	Supports 1 $\times$ 1, 2 $\times$ 2, 4 $\times$ 4	
<b>Reverse image</b>	Supports horizontal and vertical reverse image output	
<b>Electrical features</b>		
<b>Data interface</b>	Gigabit Ethernet (1000 Mbit/s), compatible with Fast Ethernet (100 Mbit/s)	
<b>Data interface type</b>	BASE: RJ45 connector PRO + MAX: 8-pin M12 X-Code waterproof aviation connector	
<b>Control interface</b>	BASE + PRO: Not support MAX: 8-pin M12 A-Code waterproof aviation connector	
<b>Digital I/O</b>	8-pin M8 A-Code aviation connector provides power and I/O, including opto-isolated input $\times$ 1 (Line 0), opto-isolated output $\times$ 1 (Line 1), bi-directional non-isolated I/O $\times$ 1 (Line 2).	
<b>Power supply</b>	9 VDC to 24 VDC, supports PoE	
<b>Power consumption</b>	BASE: Typ. 1.7 W @ 12 VDC PRO: Typ. 1.8 W @ 12 VDC (fast heat balance not enabled) MAX: Typ. 1.9 W @ 24 VDC(fast heat balance not enabled and external device not be controlled)	BASE: Typ. 1.8 W @ 12 VDC PRO: Typ. 1.9 W @ 12 VDC (fast heat balance not enabled) MAX: Typ. 2.0 W @ 24 VDC(fast heat balance not enabled and external device not be controlled)

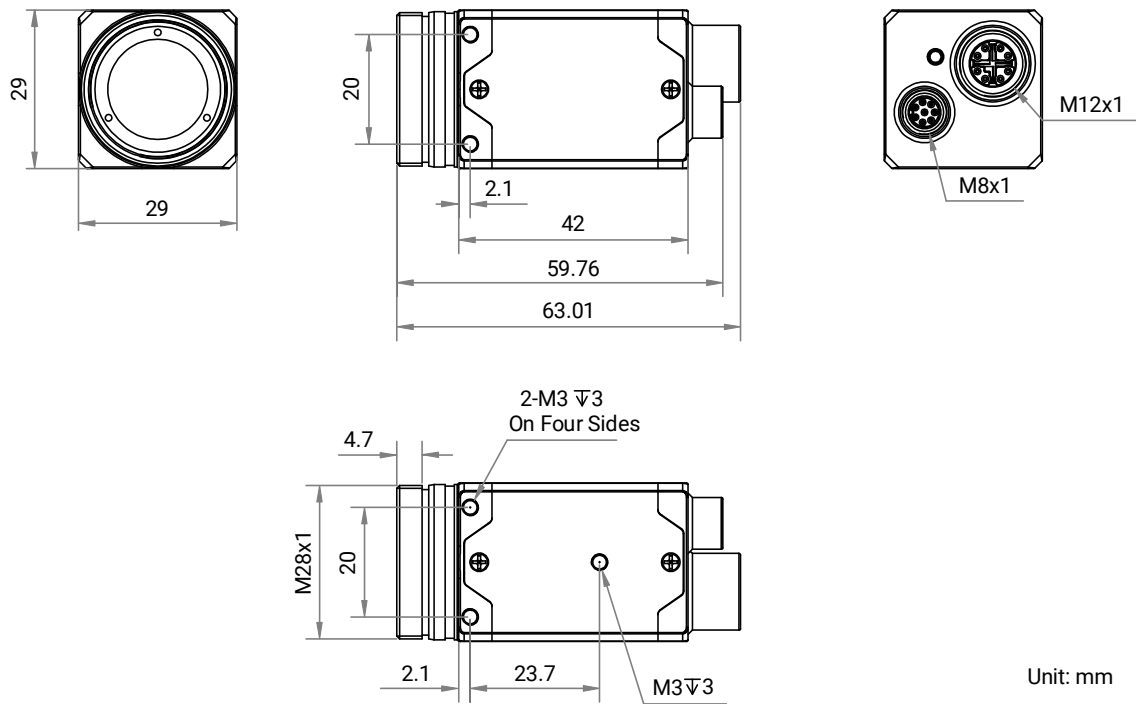
<b>Mechanical</b>	
<b>Lens mount</b>	C-mount
<b>Dimension</b>	BASE + PRO: 29 mm × 29 mm × 42 mm (1.1" × 1.1" × 1.7") MAX: 42 mm × 42 mm × 43 mm (1.7" × 1.7" × 1.7")
<b>Weight</b>	BASE: Approx. 116 g (0.3 lb.) PRO: Approx. 124 g (0.3 lb.) MAX: Approx. 120 g (0.3 lb.)
<b>Ingress protection</b>	BASE: IP40 (under proper lens installation and wiring) PRO + MAX: IP67 (under proper lens and lens cap installation and wiring)
<b>Temperature</b>	Working temperature: -30 °C to 60 °C (-22 °F to 140 °F) Storage temperature: -30 °C to 80 °C (-22 °F to 176 °F)
<b>Humidity</b>	20% RH to 95% RH (no condensation)
<b>General</b>	
<b>Client software</b>	MVS or third-party software meeting with GigE Vision Protocol
<b>Operating system</b>	32/64-bit Windows 7/10, 64-bit Windows 11, 32/64-bit Linux
<b>Compatibility</b>	GigE Vision V2.0, GenICam
<b>Certification</b>	CE, RoHS, KC

## Dimension

### BASE



## PRO



## MAX

