MV-CT*M/CU0050/G

5 MP USB 3.0 Area Scan Camera



Introduction

Designed for industrial applications, MV-CT*M/CU0050/G 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 Features

- 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 Type-C interface and supports higher transmission bandwidth.
- Compatible with USB3 Vision Protocol, GenICam Standard, and the third-party software based on the protocol and standard.

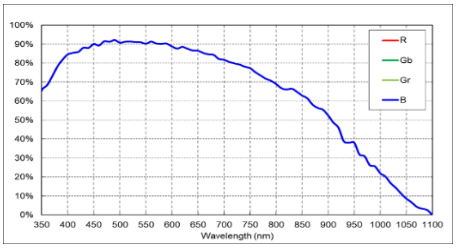
Applicable Industry

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

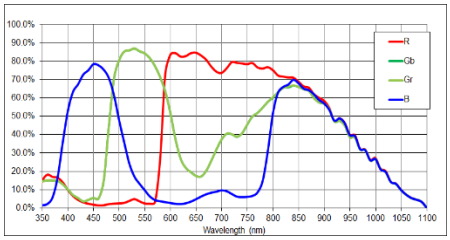
Available Model

- Mono camera (BASE): MV-CT0MU0050/G/NN/NN
- Color camera (BASE): MV-CT0CU0050/G/NN/NN
- Mono camera (PRO): MV-CT1MU0050/G/NN/NN
- Color camera (PRO): MV-CT1CU0050/G/NN/NN
- Mono camera (MAX): MV-CT2MU0050/G/NN/NN
- Color camera (MAX): MV-CT2CU0050/G/NN/NN

Sensor Quantum Efficiency



MV-CT*MU0050/G



MV-CT*CU0050/G

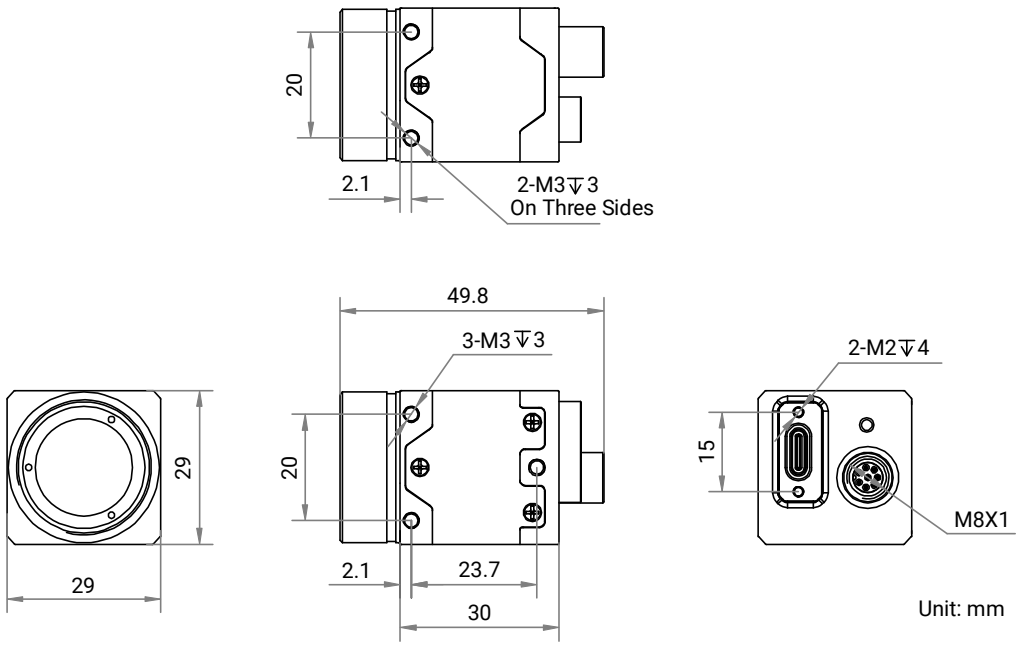
Specification

Model	MV-CT*MU0050/G	MV-CT*CU0050/G
Performance		
Sensor type	CMOS, global shutter	
Sensor model	Stacked BSI	
Pixel size	3.45 μm × 3.45 μm	
Sensor size	2/3"	
Resolution	2448 × 2048	
Max. frame rate	80 fps @ 2448 × 2048 Mono 8	80 fps @ 2448 × 2048 Bayer GR 8
Dynamic range	74.4 dB	
SNR	42.4 dB	
Gain	High full well capacity: 0 dB to 12.8 dB High sensitivity: 0 dB to 24 dB	
Exposure time	High full well capacity: 30 μs to 10 sec High sensitivity: 5 μs to 10 sec	
Exposure mode	Off/Once/Continuous exposure mode, supports Trigger Width and Trigger Controlled	
Mono/color	Mono	Color
Pixel format	Mono 8/10/10Packed/12/12Packed	Mono 8, Bayer GR 8/10/10Packed/12/12Packed, YUV422Packed, YUV422_YUYV_Packed, RGB 8, BGR 8
Binning	Supports 1 × 1, 2 × 2, 4 × 4	
Decimation	Supports 1 × 1, 2 × 2, 4 × 4	
Reverse image	Supports horizontal and vertical reverse image output	
Electrical features		
Data interface	USB 3.0, compatible with USB 2.0	
Data interface type	Type-C interface	
Control interface	BASE + PRO: Not supported MAX: 8-pin M12 A-Code waterproof aviation connector	
Digital I/O	8-pin M8 A-Code aviation connector provides power and I/O, including opto-isolated input × 1 (Line 0), opto-isolated output × 1 (Line 1), bi-directional non-isolated I/O × 1 (Line 2).	
Power supply	9 VDC to 24 VDC, supports USB power supply	
Power consumption	BASE: Typ. 1.6 W @ 5 VDC (USB 3.0 provides power supply) PRO: Typ. 1.6 W @ 5 VDC (USB 3.0 provides power supply and fast heat balance not enabled) MAX: Typ. 1.6 W @ 5 VDC (USB 3.0 provides power supply, fast heat balance not enabled, and external device not be controlled)	BASE: Typ. 1.7 W @ 5 VDC (USB 3.0 provides power supply) PRO: Typ. 1.7 W @ 5 VDC (USB 3.0 provides power supply and fast heat balance not enabled) MAX: Typ. 1.7 W @ 5 VDC (USB 3.0 provides power supply, fast heat balance not enabled, and external device not be controlled)

Mechanical	
Lens mount	C-mount
Dimension	BASE + PRO: 29 mm × 29 mm × 30 mm (1.1" × 1.1" × 1.2") MAX: 42 mm × 42 mm × 43 mm (1.7" × 1.7" × 1.7")
Weight	BASE: Approx. 72 g (0.2 lb.) PRO: Approx. 70 g (0.2 lb.) MAX: Approx. 109 g (0.2 lb.)
Ingress protection	BASE: IP40 (under proper lens installation and wiring) PRO+MAX: IP67 (under proper lens and lens cap installation and wiring)
Temperature	Working temperature: –30 °C to 60 °C (–22 °F to 140 °F) Storage temperature: –30 °C to 80 °C (–22 °F to 176 °F)
Humidity	20% RH to 95% RH (no condensation)
General	
Client software	MVS or third-party software meeting with USB3 Vision Protocol
Operating system	32/64-bit Windows 7/10, 64-bit Windows 11, 32/64-bit Linux
Compatibility	USB3 Vision, GenICam
Certification	CE, RoHS, KC

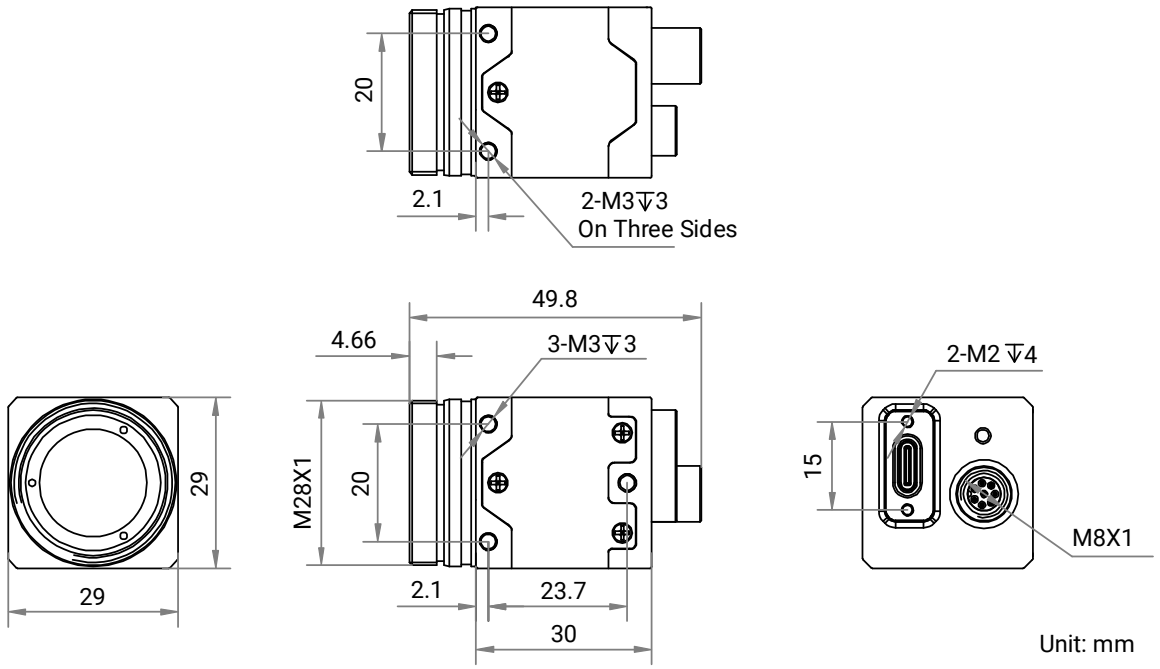
Dimension

BASE



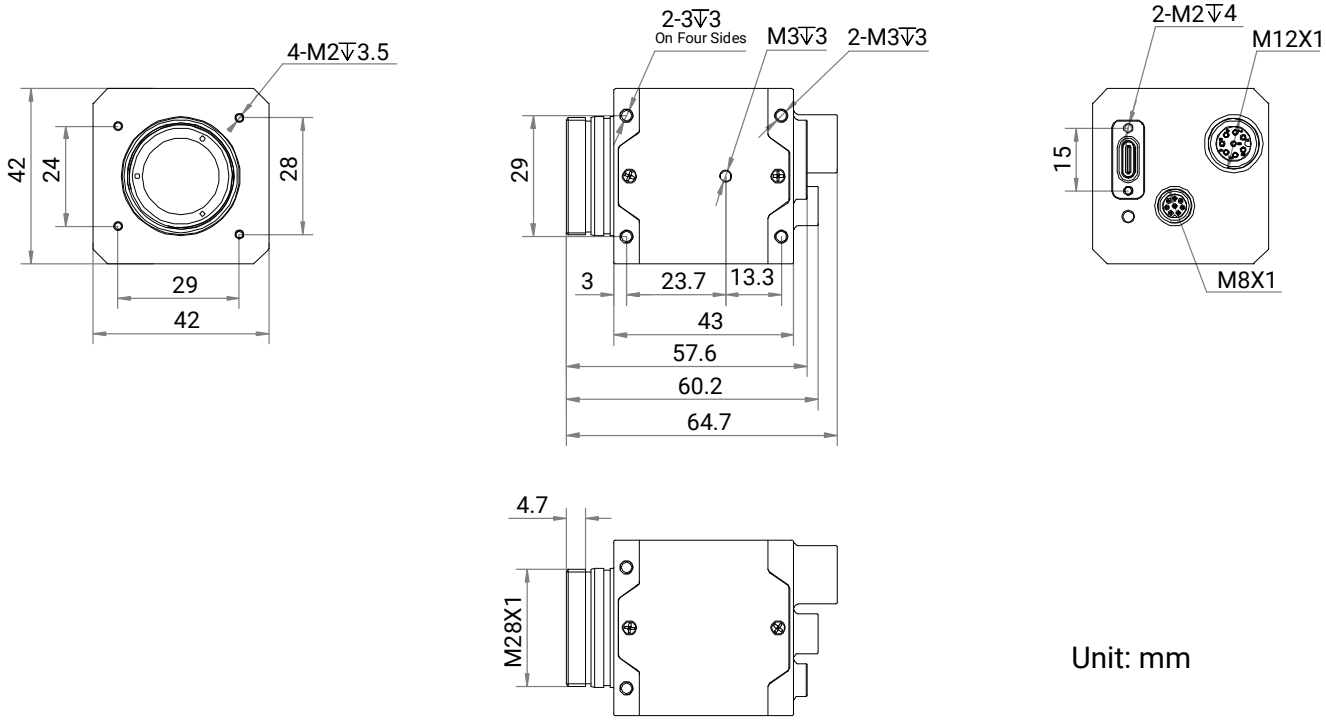
Dimension

PRO



Unit: mm

MAX



Unit: mm

MaxxVision®
Sigmaringer Str. 121
70567 Stuttgart
Tel.: 0711 997 996 3
www.maxxvision.com

Hangzhou Hikrobot Co. Ltd.
en.hikrobotics.com

© Hangzhou Hikrobot Co., Ltd. All Rights Reserved.
Hangzhou Hikrobot does not tolerate any infringement. Any organization or individual may not imitate or reproduce in whole or in part of the content. The data herein is based on Hikrobot's internal evaluation. Actual data may vary depending on specific configuration and operating condition. The information herein is subject to change without notice All the content has been checked conscientiously. Nevertheless, Hikrobot shall not be liable to damages resulting from errors, inconsistencies or omissions.