



Quick Start Guide
VCXG cameras (Gigabit Ethernet)

Latest software version and technical
documentation available at:

www.baumer.com/vision/login

Safety

Conformity:
CE, RoHS



CE

We declare, under our sole responsibility, that
the previously described Baumer VCXG camera
as conform with the directives of the CE.

RoHS

All VCXG cameras comply with the recom-
mendation of the European Union concerning
RoHS Rules.

Safety Precautions

Notice

See the User's Guide for the
complete safety instructions!



Caution

Observe precautions for
handling electrostatically
sensitive devices!

- Protect the sensor from dirt and
moisture.
- Do not allow the camera to become
contaminated with foreign objects.

Environmental Requirements

Storage temp. -10°C ... +70°C
Operating temp. see Heat Trans-
mission

Humidity 10 % ... 90 %
Non-condensing

Further Information

For further information about our products, please visit www.baumer.com
For technical issues, please contact our technical support:
support.cameras@baumer.com · Phone +49 (0)3528 4386-845 · Fax +49 (0)3528 4386-86
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The information in this document is subject to change without notice.

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Product Specification

Camera type	Sensor Size	Resolution	Full Frames ¹⁾ [max. fps]
Monochrome / Color			
VCXG-02M / VCXG-02C	1/4"	640 × 480	595 403
VCXG-13M / VCXG-13C	1/2"	1280 × 1024	145 94
VCXG-23M / VCXG-23C	1/1.2"	1920 × 1200	81.5 53.5
VCXG-24M / VCXG-24C	1/1.2"	1920 × 1200	38.5
VCXG-25M / VCXG-25C	2/3"	1920 × 1200	59 53
VCXG-32M / VCXG-32C	1/1.8"	2048 × 1536	55.5 39.5
VCXG-51M / VCXG-51C	2/3"	2448 × 2048	35 23.5
VCXG-53M / VCXG-53C	1"	2592 × 2048	28 23.5
VCXG-124M / VCXG-124C	1/1"	4096 × 3000	15 10

¹⁾ Burst Mode (image acquisition in the camera's internal memory) | interface

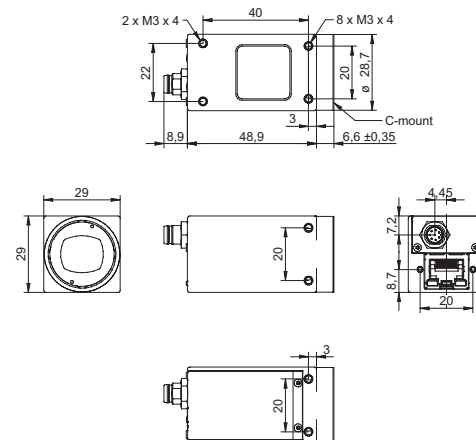
Notice

Further technical details are available in the respective data sheets.

System Requirements

	Single-camera system Recommended	Multi-camera system Recommended
CPU	Intel® Core™ i5-2520M CPU @ 2.50 GHz, Cores: 4	Intel® Core™ i7-3770 CPU @ 3.40 GHz, Cores: 8
RAM	4 GB	8 GB
Operating system	Microsoft® Windows® 7 (32 / 64 bit systems) Microsoft® Windows® 8 (32 / 64 bit systems)	
(OS)	Microsoft® Windows® 10 (32 / 64 bit systems)	

Dimensions



Installation

Lens mount

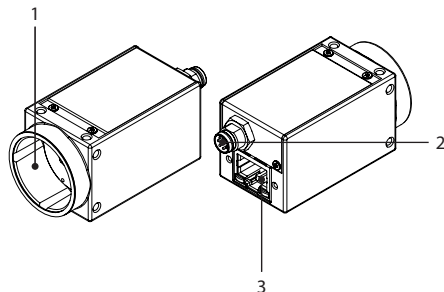
Notice

Ensure the sensor and lens are not contaminated with dust and airborne
particles when mounting the support or the lens to the device!

The following points are very important:

- Install the camera in an environment that is as dust free as possible!
- Keep the dust cover (bag) on the camera for as long as possible!
- Hold the camera with the sensor downwards if the sensor is uncovered.
- Avoid contact with any of the camera's optical surfaces!

General Description



No.	Description	No.	Description
1	Lens mount (C-mount)	3	Ethernet port (PoE) / Signaling LED's
2	Power Supply / Digital IO		

Data Interface / Digital IOs

8P8C mod jack with LEDs



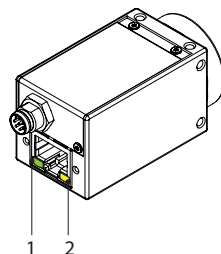
1	green/white	MX1+	(negative / positive V_{port})
2	green	MX1-	(negative / positive V_{port})
3	orange/white	MX2+	(positive / negative V_{port})
4	blue	MX3+	
5	blue/white	MX3-	
6	orange	MX2-	(positive / negative V_{port})
7	brown/white	MX4+	
8	brown	MX4-	

Power supply / Digital IOs (on camera side) M8 / 8 pins / wire colors of the connecting cable (ordered separately)



1	GPIO (Line2)	white	5	Power VCC OUT1	grey
2	Power V_{CC}	brown	6	OUT1 (Line3)	pink
3	IN1 (Line0)	green	7	GND (Power, GPIO)	blue
4	GND IN1	yellow	8	GPIO (Line1)	red

LED Signals



LED	Signal	Meaning
1	green	link active
	green flash	receiving
2	yellow static	error
	yellow flash	transmitting

Power Supply

Power Supply

Power VCC	12 ... 24 VDC \pm 20%
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Notice

The camera supports PoE (Power over Ethernet) IEEE 802.3af Clause 33, 48 V power supply.

If the camera is simultaneously powered by the Power supply / Digital-IO port and the Ethernet port (PoE), then the power supply via the Power supply / Digital-IO port is prioritized.

Heat Transmission

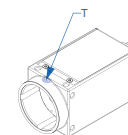
Caution

Heat can damage the camera. Heat must be dissipated adequately to ensure that the temperatures do not exceed the values in the table below.



As there are numerous possibilities for installation, Baumer recommends no specific method for proper heat dissipation, but suggest the following principles:

- operate the cameras only in mounted condition
- mounting in combination with forced convection may provide proper heat dissipation

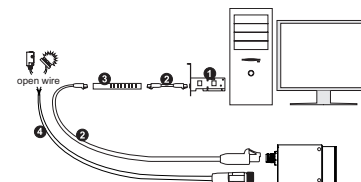


Measurement Point	Maximum Temperature
Measurement Point (T)	65 °C (149 °F)

Installation

Installation of the camera:

- without PoE:** Connect the camera using an appropriate cable (at least Cat-5e) to the GigE board on your PC.
- PoE:** Connect the camera using an appropriate cable (at least Cat-5e) to a free port of a PoE capable ethernet switch. Establish the connection between switch and GigE board on your PC.
- If required, connect a trigger and / or flash to process interface.
- Connect the camera to power supply.



Installation sample

- 1 - PCI board
- 2 - GigE cable
- 3 - PoE capable ethernet switch or Baumer PoE components
- 4 - Cable for trigger and flash