Baumer

Quick Start Guide
VCXG cameras (Gigabit Ethernet)

Latest software version and technical documentation available at:

www.baumer.com/vision/login

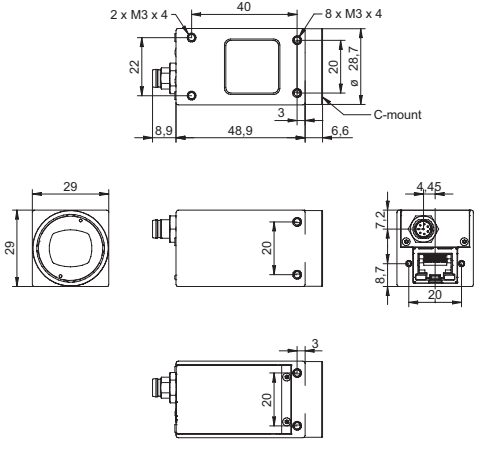
Product Specification

Camera type	Sensor Size	Resolution	Full Frames[1] [max. fps]
Monochrome			
VCXG-02M	1/4"	640 × 480	595 I 403
VCXG-13M	1/2"	1280 × 1024	145 I 94
VCXG-24M	1/1.2"	1920 × 1200	38.5
VCXG-25M	2/3"	1920 × 1200	59 I 53
VCXG-51M	2/3"	2448 × 2048	35
VCXG-53M	1"	2592 × 2048	28 I 23
Color			
VCXG-02C	1/4"	640 × 480	595 I 403
VCXG-13C	1/2"	1280 × 1024	145 I 94
VCXG-24C	1/1.2"	1920 × 1200	38.5
VCXG-25C	2/3"	1920 × 1200	59 I 53
VCXG-53C	1"	2592 × 2048	28 I 23

[1] Burst Mode (image acqusition in the camera's internal memory) I interface

Notice
Further technical details are available in the respective data sheets.

Dimensions



Safety

Conformity:
CE, RoHS

CE

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

RoHS

All VCXG cameras comply with the recommendation 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 Transmission
Humidity	10 % ... 90 % Non-condensing

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 (OS)	Microsoft® Windows® 7 (32 / 64 bit systems) Microsoft® Windows® 8 (32 / 64 bit systems) Microsoft® Windows® 10 (32 / 64 bit systems)	

Installation

Lens mount

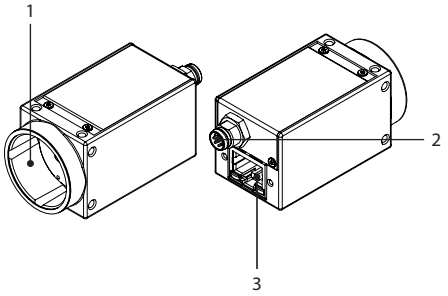
Notice
Ensure the sensor and lens are not contaminated with dust and airborne particles when mounting the support or the lens to the device!

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!

Further Information

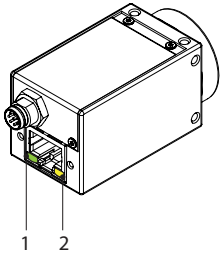
For further information about our products, please visit www.baumer.com
For technical issues, please contact our technical support:
support.cameras@baumer.com · Phone +49 (0)3528 4386-845 · Fax +49 (0)3528 4386-86

General Description



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

LED Signals



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

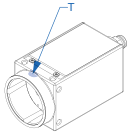
Heat Transmission

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)

Data Interface / Digital IOs

Notice

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

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

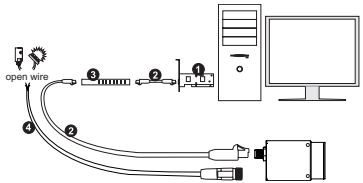
Power Supply

Power Supply	
Power VCC	12 … 24 VDC ± 20%

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