

Quick Start Guide
VEXG cameras (Gigabit Ethernet)

Download latest camera software:
www.baumer.com/vision/software

Download latest technical documentation:
www.baumer.com/cameras/docs

Product Specification

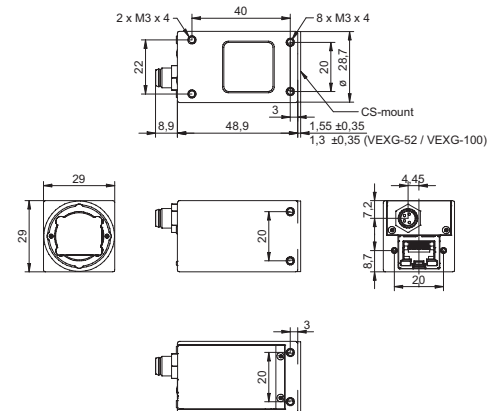
VEXG cameras – Integrating essential basic functionalities

- up to 10 Megapixel
- up to 217 fps
- 29 × 29 mm housing with all-sided M3 mount
- Global shutter architecture for minimized motion blur
- Rolling shutter sensors with Global Reset for cost effective applications
- Integrating essential basic functionalities
- GigE Vision™ standard compliant

Notice

Further technical details are available in the respective data sheets.

Dimensions



Safety

Conformity



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



All VEXG cameras comply with the recommendation of the European Union concerning RoHS Rules.



Several of the described Baumer VEXG cameras conform with the directives of the Korean Conformity.

Please refer for the User's guide or technical documentation.

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

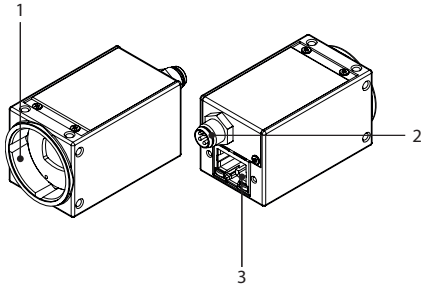
Further Information

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

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Technical data has been fully checked, but accuracy of printed matter is not guaranteed.
The information in this document is subject to change without notice.

General Description



| No. | Description | No. | Description |
|-----|----------------------------|-----|---------------------------------|
| 1 | Lens mount (C-mount) | 3 | Ethernet Port / Signaling LED's |
| 2 | Power supply / Digital-I/O | | |

Data Interface / Digital IOs

8P8C mod jack with LEDs



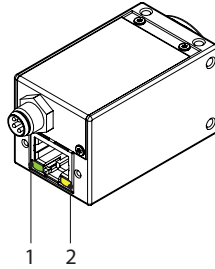
| | | | |
|---|--------------|------|-----------------------------------|
| 1 | green/white | MX1+ | (negative / positive V_{port}) |
| 2 | green | MX1- | (negative / positive V_{port}) |
| 3 | orange/white | MX2+ | (positive / negative V_{port}) |
| 4 | blue | MX3+ | |
| 5 | blue/white | MX3- | |
|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

Power Supply / Digital-IOs (on camera side) wire colors on connecting cable (ordered separately)



| | | | | | |
|---|-------------|-------|---|--------------|-------|
| 1 | Power VCC | brown | 3 | GND | blue |
| 2 | IN1 (Line0) | white | 4 | OUT1 (Line1) | black |

LED signals



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

Power Supply

Power Supply

| | |
|--------------|------------------------------|
| Power Supply | VCC: 12 ... 24 VDC \pm 20% |
|--------------|------------------------------|

Heat Transmission

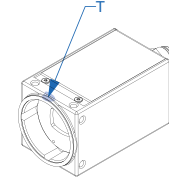
Caution

Heat can damage the camera. Heat must be dissipated adequately to ensure that the temperature does 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

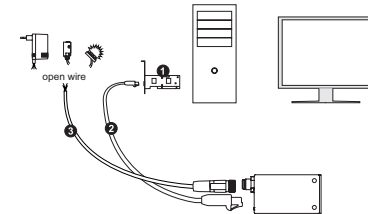


| Measurement Point | Maximum Temperature |
|-----------------------|------------------------------------|
| Measurement Point (T) | 65 °C (149 °F) |
| | VEXG-100 / VEXG-52: 60 °C (140 °F) |

Installation

Installation of the camera:

- Connect the camera using an appropriate cable (at least Cat-5e) to the 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 - Power cable / Digital-IO