Baumer

Quick Start Guide
VLXT.FO cameras (10 Gigabit Ethernet)

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

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

Product Specification

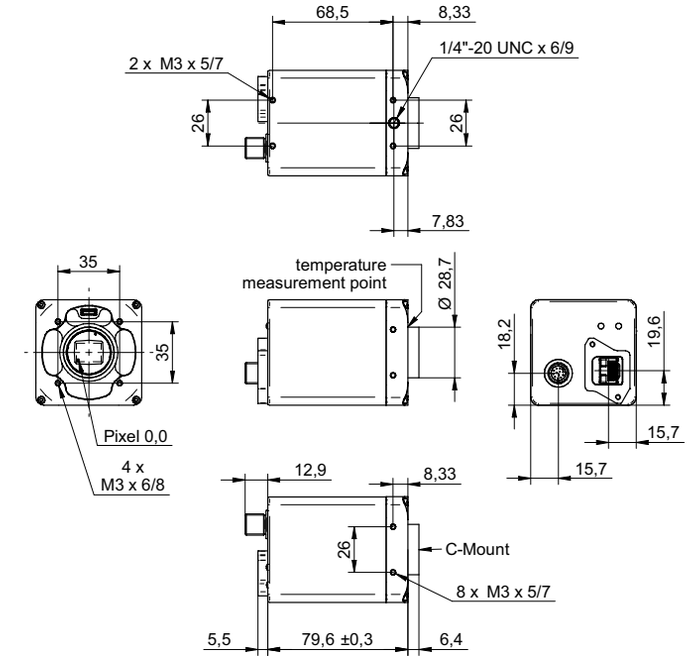
VLXT.FO cameras – Extremely functionality and high frame rates

- Up to 12 megapixel and 216 fps
- Power supply: 12 – 24 V ± 20 %
- GigE Vision™ standard compliant
- SFP+ (Enhanced small form-factor pluggable)
- Optional: Protection classes IP65 / IP67 (with installed tube and Harting adapter)
- Optional: Modular tube system
- M12 industry connector
- PWM on outputs for direct controlled illuminations
- 4 outputs with maximum 1.5 A (2.5 A with 40% periode time)

Notice

Further technical details are available in the respective data sheets.

Dimensions



Conformity / Safety

Conformity

CE

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

RoHS COMPLIANT

All VLXT.FO cameras complies with the recommendation of the European Union concerning RoHS Rules.

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The camera has been tested by UL (Underwriters Laboratories) and complies with the requirements of the standards.

Please see the User's Guide for further information.

Safety Precautions

Notice

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

Caution

Observe precautions for handling electrostatically sensitive devices!

Environmental Requirements

Storage temp.	-10 °C ... +70 °C
Operating temp.	see Heat Transmission
Humidity	10 % ... 90 % Non-condensing

Further Information

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

Technical data has been fully checked, but accuracy of printed matter not guaranteed.

Subject to change without notice. Printed in Germany 11/19. v2 11214141

System Requirements

	Recommended for GigE	Recommended for 10 GigE
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!

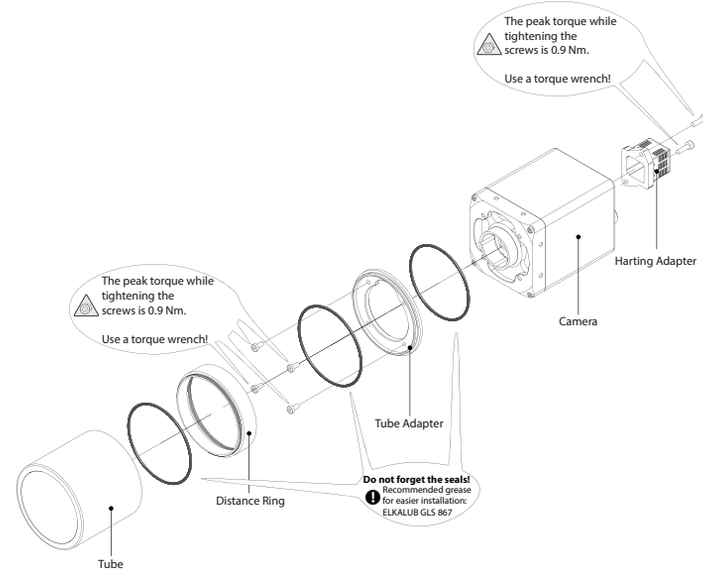
The following points are very important:
- Install the camera in an environment that is as dust free as possible!
- Keep the dust cover (bag) on the camera for as long as possible!
- Hold the camera with the sensor downwards if the sensor is uncovered.
- Avoid contact with any of the camera's optical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

10 GiGE VISION

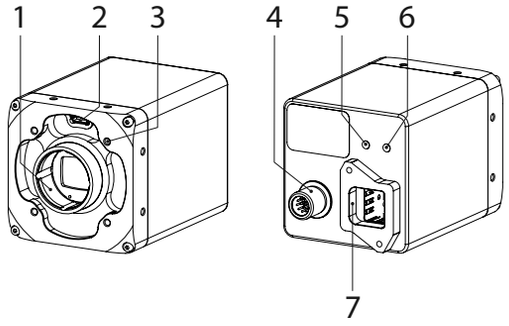
GEN<i>CAM

Installation

Modular tube system and Harting Adapter (ordered separately)

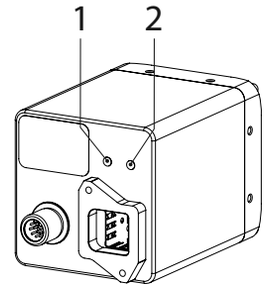


General Description



No.	Description	No.	Description
1	Lens mount (C-mount)	**5**	GigE LED
2	Lens control (not connected)	**6**	Camera LED
3	4 x Tube Adapter /front mounting threads	**7**	SFP+ Socket
4	Power- and process interface		

LED Signaling



LED		Signal	Meaning
1	GigE LED	green static	link active
		green flash	receiving
2	Camera LED	yellow static	error
		yellow flash	transmitting
		orange static	overheated

Heat Transmission

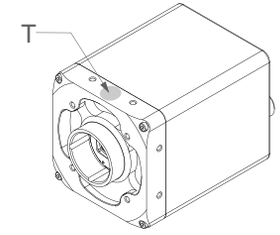
Caution

Provide adequate dissipation of heat, to ensure that the temperature does not exceed the values in the table below.

The surface of the camera may be hot during operation and immediately after use. Be careful when handling the camera and avoid contact over a longer period.

As there are numerous possibilities for installation, Baumer do not specifiy a specific method for proper heat dissipation, but suggest the following principles:

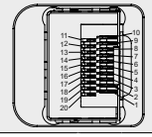
- operate the cameras only in mounted condition
- mounting in combination with forced convection may provide proper heat dissipation



Measure Point	Maximal Temperature
T	+65 °C (149 °F)

Data Interface

SFP+ Socket



1	VEET	**11**	VEER
2	TX_FAULT	**12**	RD-
3	TX_DISABLE	**13**	RD+
4	SDA	**14**	VEER
5	SCL	**15**	VCCR
6	MOD_ABS	**16**	VCCT
7	RS0	**17**	VEET
8	RX_LOS	**18**	TD+
9	RS1	**19**	TD-
10	VEER	**20**	VEET

Power Supply

Power Supply	
Power V_{CC}	12 V ... 24 V ± 20 % For UL conform installation: Class 2 per NEC / Protection Class III The device is intended to be supplied from an isolated Limited Energy Source per UL61010-1, 3rd ed cl. 9.4 or Limited Power Source per UL60950-1 or Class 2 per NEC.

Digital IOs

Power supply / Digital IOs (on camera side)
(SACC-CI-M12MS-12CON-L180)

M12 / 12 pins / wire colors of the connecting cable (ordered separately)

1	Power V_{CC}	brown	**7**	OUT3 (Line6)	black
2	GND (Power)	blue	**8**	RS232 Txd (Line2)	grey
3	IN1 (Line0)	white	**9**	OUT4 (Line7)	red
4	OUT1 (Line4)	green	**10**	RS232 RxD (Line3)	violet
5	IN2 (Line1)	pink	**11**	GND (IO)	grey-pink
6	OUT2 (Line5)	yellow	**12**	Power (IO)	red-blue

Caution

In order to achieve the mentioned IP protection level, the M12 connector need to be tightened with a torque value of 0.4 Nm.

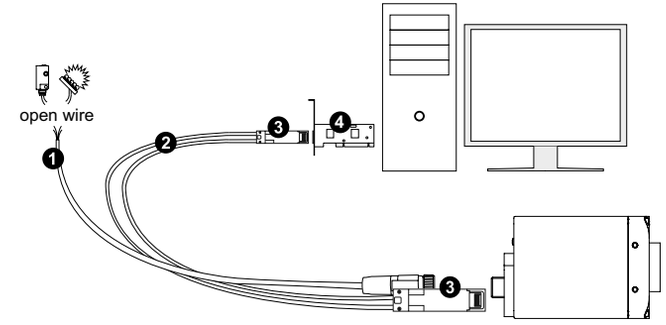
For that Baumer suggests the use of a torque driver (such as Wiha TorqueVario®-S ESD) in combination with a wrench for assembling sensor/actuator cables with M12 connector (such as Phoenix Contact SAC BIT M12-D15).

On the SFP+ socket, a Harting Adapter must be used.

Installation

Installation of the camera:

- Connect the camera using appropriate fibre optic cables to the transceivers.
- If required, connect a trigger and / or flash to process interface.
- Connect the camera to power supply.



Installation sample
1 - Cable for trigger and flash
2 - Optical Fibre cables
3 - SFP+ Transceiver
4 - PCI board