



**Quick Start Guide**  
VisiLine cameras (Gigabit Ethernet)

Latest software version and technical documentation are available at:  
[www.baumer.com/vision/login](http://www.baumer.com/vision/login)

### Safety

Conformity:  
CE, RoHS



CE

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

RoHS

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



### Safety Precautions

#### Notice

See User's Guide for the complete safety instructions!

- Protect the sensor from dirt and moisture.
- Avoid camera contamination by foreign objects.

### 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](http://www.baumer.com)

For technical issues, please contact our technical support:  
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### Product Specification

#### VisiLine– Innovative functionality

- Flexible assembly
- RGB and YUV interpolation algorithms on board
- Bandwidth up to 1000 Mbit/sec for fast multi-camera operation
- Flexible system architecture due to cable length up to 100 m
- Baumer driver for reliable image transfer
- PoE (Power over Ethernet)

Camera Type	Sensor Size	Resolution	Full Frames [max. fps]
<b>CCD Sensor (monochrome / color)</b>			
VLG-02M / VLG-02C	1/4"	656 x 490	160
VLG-12M / VLG-12C	1/3"	1288 x 960	42
VLG-20M / VLG-20C	1/1.8"	1624 x 1228	27
<b>CMOS Sensor (monochrome / color)</b>			
VLG-03M / VLG-03C	1/3"	640 x 480	376
VLG-22M / VLG-22C	2/3"	2044 x 1084	55
VLG-23M / VLG-23C	1/1.2"	1920 x 1200	53
VLG-24M / VLG-24C	1/1.2"	1920 x 1200	38.5
VLG-40M / VLG-40C	1"	2044 x 2044	29

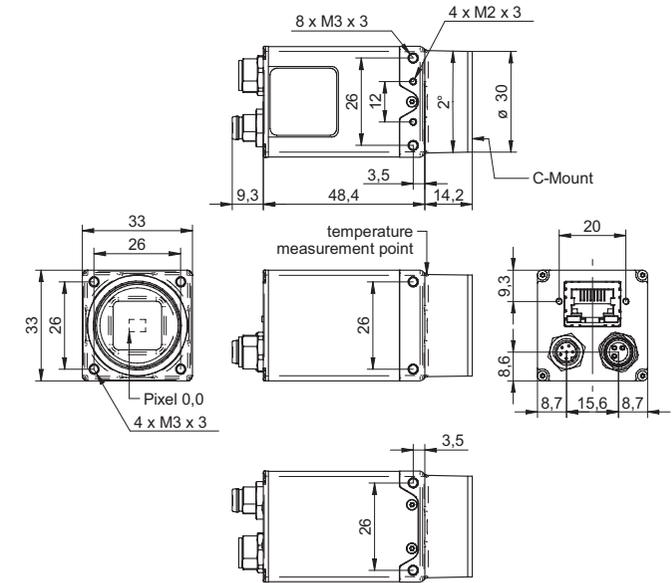
### System Requirements

	Single-camera system		Multi-camera system	
	Minimum	Recommended	Minimum	Recommended
CPU	Intel® Pentium®4 or comparable processor	Intel® Core™ Duo comparable processor		
Clock	2.5 GHz	> 2.5 GHz	2.5 GHz	3 GHz
RAM	1024 MB	2048 MB	2048 MB	> 2048 MB
Operating system (OS)	Microsoft® Windows® XP incl. Service Pack 2 or higher Microsoft® Windows® XP x64 incl. Service Pack 2 or higher Microsoft® Windows Vista™ 32 / 64 bit systems Microsoft® Windows 7 32 / 64 bit systems Linux® 32 / 64 bit systems from Kernel 2.6.xx			
Graphic	recommended resolution 1280 x 1024, color depth at least 16 bit			
Ethernet (optional)	Gigabit Ethernet compliant NIC (recommended Intel® chipset) Windows® OS: .NET™ Framework 2.0 or higher Linux® OS: Mono 1.2.4 or higher			

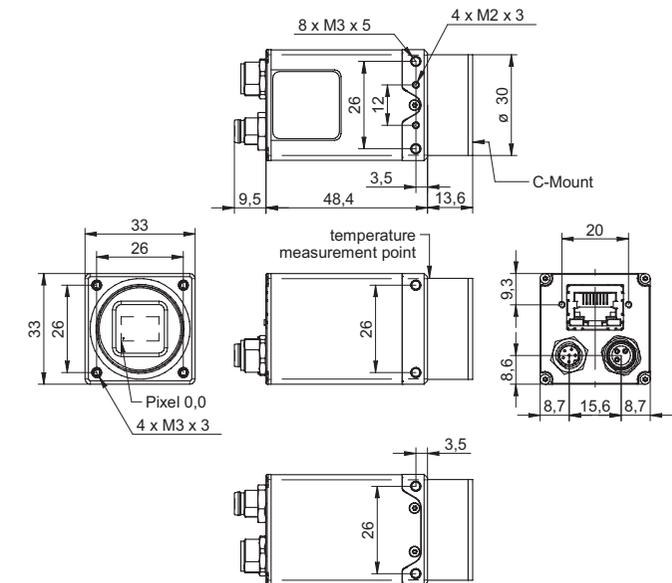
#### Notice

Further technical details are available in the respective data sheet.

### Dimensions (except VLG-23M / VLG-23C, VLG-24M / VLG-24C)



### Dimensions (VLG-23M / VLG-23C, VLG-24M / VLG-24C only)



## General Description



No.	Description	No.	Description
1	C-Mount lens connection	4	Power supply / Digital-IO
2	Ethernet Port		
3	Digital-IO		

## Data Interface / Power Supply / Digital IOs

### Notice

The VisiLine 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-IO

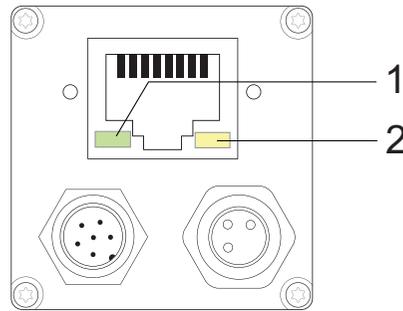
#### wire colors of the connecting cable

Power supply			Digital-IO		
1	Power $V_{cc}$	brown	1	not used	brown
2	IN 1	white	3	OUT 2	blue
3	GND	blue	4	OUT 3	black
4	OUT 1	black			
5	$U_{ext}$ OUT	grey			
6	GND IN	pink			

### Notice

The electrical data are available in the respective data sheet.

## LED Signaling

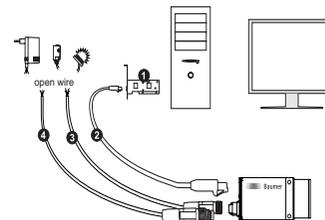


LED	Signal	Meaning
1	green	Link active
	green flash	Receiving
2	yellow	Transmitting

## Installation

### Installation of the camera:

- Connect the camera using an appropriate cable (at least Cat-5e) to the GigE board on your PC.



#### Installation sample

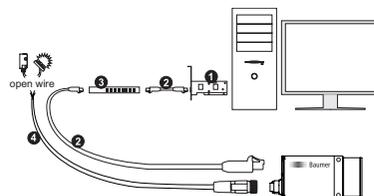
- 1 - PCI board; 2 - GigE cable;
- 3 - Power cable / Digital-IO; 4 - Digital-IO

- If required, connect a trigger and / or flash to process interface.

- Connect the camera to power supply.

### Installation of cameras with 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.



#### Installation sample

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

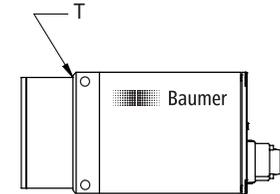
## Heat Transmission

### Caution



Heat can damage the camera. Provide adequate dissipation of heat, to ensure that the temperature does not exceed the value in the table below.

As there are numerous possibilities for installation, Baumer does not specify a specific method for proper heat dissipation.



Measure Point	Maximal Temperature
T	50°C (122°F)