Baumer

Quick Start Guide
LXG *VisualApplets* cameras for 3D Laser Triangulation

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

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

Product Specification

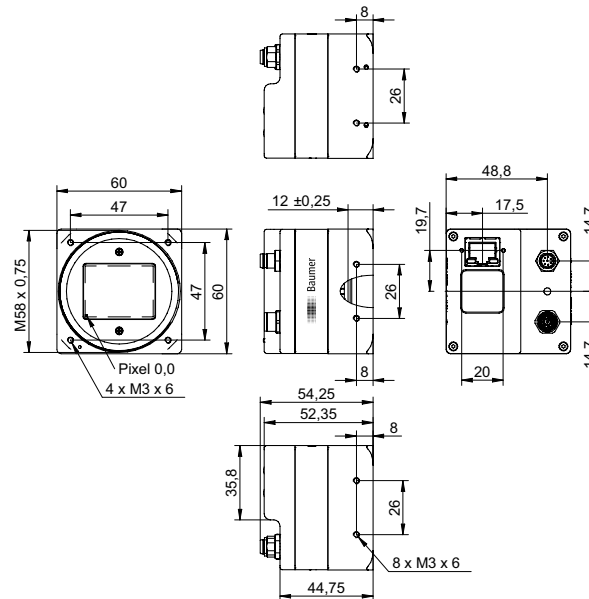**Integrated Center of Gravity (image preprocessing)**

- Single Gigabit Ethernet progressive scan CMOS camera
- GigE Vision® standard compliant
- True partial scan function (ROI) for increased frame rates
- High Dynamic Range (HDR) image acquisition
- External synchronization via industrial compliant process interface (trigger / flash)
- Global shutter architecture for minimized motion blur
- Power over Ethernet (PoE) support
- Standard RJ45 connectors
- Excellent image quality
- Camera parameter programmable in real-time
- Integrated Center of Gavity (CoG) image preprocessing

Camera Type	Sensor Size	Resolution	Full Frames[1] [max. fps]
Monochrome			
LXG-20M.3D	2/3″	2018 × 1088	338
LXG-120M.3D	APS-C	4096 × 3072	60

[1] sensor frame rate

GiGE® VISION

Dimensions Camera LXG-20M.3D

temperature measurement point
Pixel 0,0
4 x M3 x 6
8 x M3 x 6

Conformity / Safety

Conformity:
CE, RoHS

CE

RoHS REACh compliant

CE

We declare, under our sole responsibility, that the previously described Baumer LXG *VisualApplets* cameras for 3D Laser Triangulation conform with the directives of the CE.

RoHS

All LXG *VisualApplets* cameras for 3D Laser Triangulation comply with the recommendation of the European Union concerning RoHS Rules.

Safety Precautions
- Protect the sensor from dirt and moisture.
- Never open the camera housing.
- Avoid camera contamination by foreign objects.

Environmental requirements:

Storage temp.	-10 °C ... +70 °C
Operating temp.	+5 °C ... +50 °C
Housing temp.	max. +50 °C
Humidity	10 % ... 90 % Non-condensing

## Dimensions Camera LXG-120M.3D

Pixel 0,0
4 x M3 x 6
8 x M3 x 6

Lens Adapter for LXG-20M.3D / LXG-120M.3D

- Adapter M58 / C-mount (Art. No: 11115198)

- Adapter M58 / C-mount (Scheimpflug 2.5°) (Art. No: 11165019)

- Adapter M58 / M42x1-mount (26.8mm) (Art. No.: 11127232)

- Adapter M58 / M42x1-mount (45.5 mm) (Art. No.: 11137781)

Notice

suitable for Zeiss (e.g. Distagon T* 2/25 Z-M42-I, Planar T* 1.4/50 Z-M42-I, Makro-Planar T* 2/50 Z-M42-I) and KOWA M42 lenses (e.g. LM28LF P-Mount, LM35LF P-Mount)

- Adapter M58 / F-mount (Art. No.: 11117852)
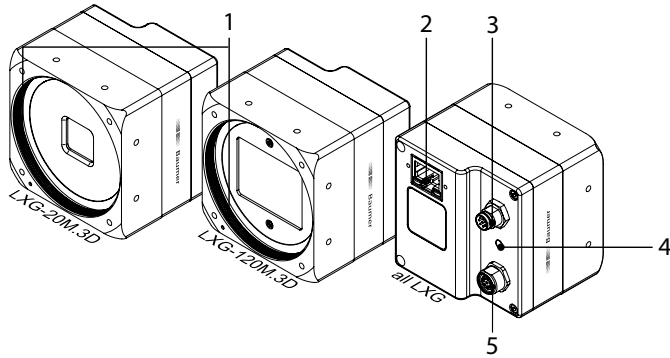
No.	Description	No.	Description
1	**LXG-20M.3D** lens mount (M58), adapter for other lens mounts available **LXG-120M.3D** lens mount (M58), adapter for other lens mounts available	4	Signaling-LED
2	Data Port 1 (PoE)	5	Digital-IO (RS485)
3	Power Supply / Digital-IO		

Notice

The Data port supports Power over Ethernet (36 VDC .. 57 VDC).

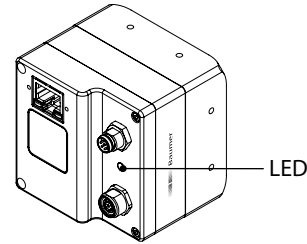**Data / Control**
1000 Base-T
wire colors of the connecting cable

1	green/white	MX1+
2	green	MX1-
3	orange/white	MX2+
4	blue	MX3+
5	blue/white	MX3-
6	orange	MX2-
7	brown/white	MX4+
8	brown	MX4-

	Signal	Meaning
RJ45 LEDs	green on	Link on
	green blinking	Link activity
	amber on	GigE speed
	amber blinking	100 MB speed

	Signal	Meaning
Camera LED	green on	Power on, link good
	green blinking	Power on, no link
	red on	Error
	red blinking	Warning (update in progress, don't switch off)
	yellow	Readout active

Power and Process Interface #1 SACC-DSI-M8FS-8CON-M10-L180 SH		**Power and Process Interface #2 (RS485)** SACC-DSI-M8MS-8CON-M8-L180 SH	

M8 / 8 pins wire colors of the connecting cable

1	white	OUT 3 (line 3)	1	white	In2_RS485+ (line4)
2	brown	Power VCC+	2	brown	In2_RS485- (line4)
3	green	IN 1 (line 0)	3	green	In2_RS485+ (line5)
4	yellow	IO GND	4	yellow	In2_RS485- (line5)
5	grey	IO Power VCC	5	grey	OUT3_In2_RS485+ (line6)
6	pink	OUT 1 (line 1)	6	pink	OUT3_In2_RS485- (line6)
7	blue	Power GND	7	blue	external Power GND
8	red	OUT 2 (line 2)	8	red	external Power 5 V/200 mA

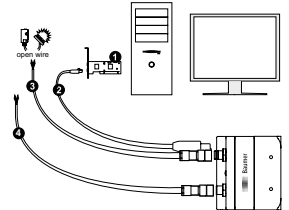| **Power Supply**	
Power VCC	12 VDC ... 24 VDC

Installation sample without PoE

1 - network interface card
2 - network cable
3 - Process interface- / Power cable
4 - Process interface cable (RS485)
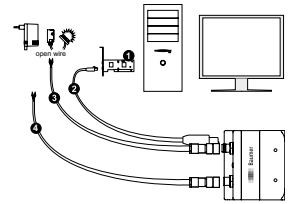
Installation sample with PoE via NIC

1 - PoE network interface card (NIC)
2 - network cable (PoE)
3 - Process interface cable
4 - Process interface cable (RS485)

Installation sample with PoE via Injector

1 - network interface card (NIC)
2 - Injector
3 - network cable (with PoE)
4 - Process interface cable
5 - Process interface cable (RS485)
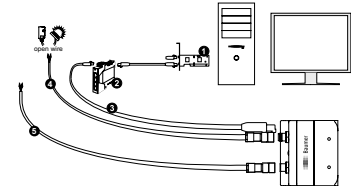
⚠ Caution

Provide adequate dissipation of heat, to ensure that the temperature does not exceed +50 °C (+122 °F).
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
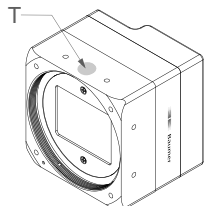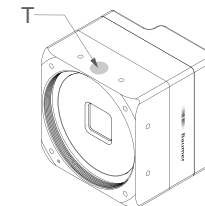
Measure Point	Maximal Temperature
T	+50 °C (122 °F)