Baumer
Passion for Sensors

Digital industrial cameras

Capture the essential.

Inspired by nature – our technology as evolution.

The human eye can discern about 100 shades of gray. Our cameras can distinguish more than 4,000.

We can see no more than 16 individual images per second, but our cameras can capture more than 1,000.

Our cameras never get tired.

Machine vision with expertise and passion.

Baumer is a global leader in sensor solutions for factory and process automation. More than 2,600 employees in 38 subsidiaries in 19 countries are at your service across the globe.

Industrial image processing is an important business for us. Leading in innovation, we have been providing high-performance digital cameras for PC-based image processing systems and intuitive vision sensors for over 20 years.

Merging cutting-edge technologies with customer-focused consultancy has made us a premier global provider of high-quality industrial cameras. Our customers benefit from a diverse portfolio of sophisticated products for many different applications across varied industries. We are committed to long-term availability of our cameras to make sure our customers will obtain a high return on their investments in vision systems.

We develop customer-focused products, anticipate trends and shape the market by pointing the way with technology innovations. We put a particular emphasis on high performance, outstanding quality and durability as well as easy system integration.

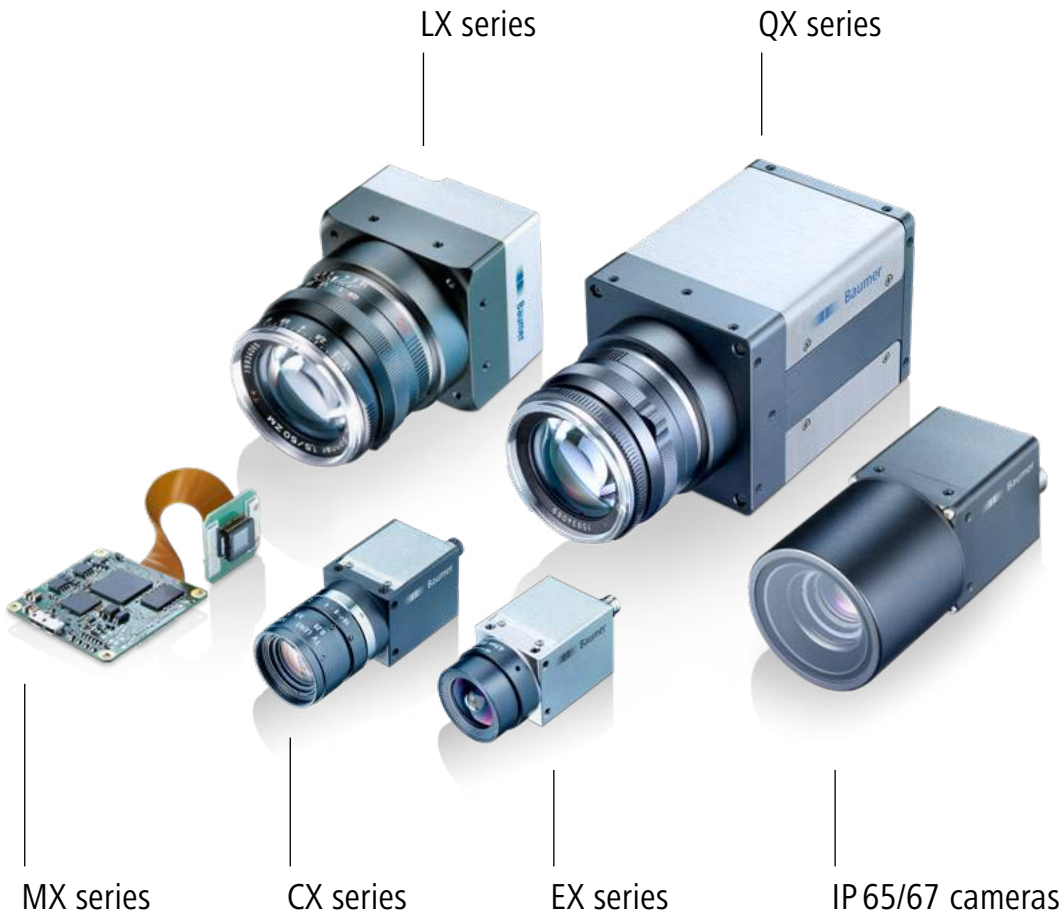
Where standard products come to their limits, we develop market-oriented, customized components in close cooperation with our customers. The result: Your decisive competitive edge.

High-performance industrial cameras.

High frame rates, exceptional image quality and ease of integration – that's what our industrial cameras stand for.

Our cameras are the basis for stable long-term image analysis. Hence, your applications will be successful in the long run. To achieve this, we combine industrial design with the latest sensors and innovative technologies.

From a cost-efficient entry-level model to perfectly optimized standard cameras to high-performance industrial cameras with maximum performance to meet the highest standards, we offer a very large portfolio – suitable for your industry and applications.



Highest quality for reliable, long-term stable image evaluation.

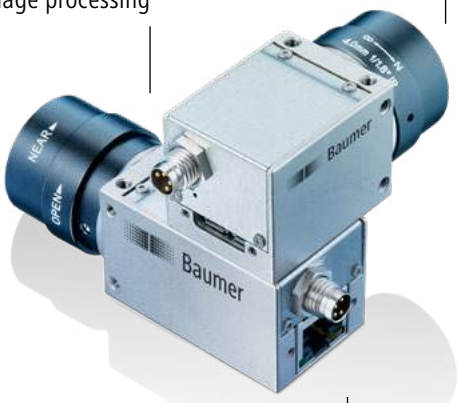
Focus on the essential.

The small, high-performance EX cameras excel by providing top Baumer quality at the best price. Focusing on essential, standard-compliant basic functionalities, the industrial cameras are ideal for most varied standard machine vision applications.

The square housing in 29 × 29 mm design with M3 mount on each side ensures quick and cost-efficient mechanical integration in your image processing system with high flexibility. The robust, industry-capable camera design ensures long-term stable and reliable image evaluation.

CS-mount
reduces system costs thanks to cost-effective lenses

CMOS sensors of the latest generation
for future-ready image processing



Robust design
for long-term stable image evaluation

4-pin M8 connector
for easy and cost-efficient process connection

EX series

- Up to 10 megapixel and 217 fps
- CMOS sensors
- Integrating essential basic functionalities for cost-oriented applications
- 29 × 29 mm housing with all-sided M3 mount

GigE Vision® USB3 Vision™

Camera Type	Variants		Sensor Type	Sensor	Shutter	Resolution [px]	Pixel Size [µm]	Full Frames [fps]	
	Mono	Color						GigE Vision®	USB3 Vision™
VEXG-02	•	•	1/4" CMOS	PYTHON300	Global	640 × 480	4.8 × 4.8	217	–
VEXG-13	•	•	1/2" CMOS	PYTHON1300	Global	1280 × 1024	4.8 × 4.8	61	–
VEXU-24	•	•	1/1.2" CMOS	IMX249	Global	1920 × 1200	5.86 × 5.86	–	38
VEXG-25	•	•	2/3" CMOS	PYTHON2000	Global	1920 × 1200	4.8 × 4.8	41	–
VEXG-52.R	•	•	1/2.5" CMOS	MT9P031	Rolling [1]	2592 × 1944	2.2 × 2.2	14	–
VEXG-100.R	•	•	1/2.5" CMOS	MT9J003	Rolling [1]	3856 × 2764	1.67 × 1.67	7	–

[1] Rolling and global reset shutter

Reliable detection and evaluation of fast processes.

Cutting-edge CMOS technology.

Using the cameras of the CX series, you are banking on latest CMOS sensor generation Sony® Pregius™ and ON Semiconductor® PYTHON for future-oriented applications. Among the wide variety of sensors you are sure to find the matching camera for most varied applications across all industries.

CX series

- Up to 20 megapixel and 891 fps
- CMOS sensors
- Camera temperature range up to 65 °C
- GigE power supply: 12 – 24 V externally or PoE

29 × 29 mm with all-sided M3 mount

Flexible exposure time: 1 µs – 60 s solving fast or light-intensive applications

GigE Vision®

USB3 Vision™

Burst Mode for maximum sensor speed

Camera Type	Variants		Sensor Type	Sensor	Shutter	Resolution [px]	Pixel Size [µm]	Full Frames [fps]	
	Mono	Color						GigE Vision® [1]	USB3 Vision™
VCXG-02 / VCXU-02	•	•	1/4″ CMOS	PYTHON300	Global	640 × 480	4.8 × 4.8	595 | 403	891
VCXG-04 / VCXU-04	•	•	1/2.9″ CMOS	IMX287	Global	720 × 540	6.9 × 6.9	441 | 318	430
VCXG-13 / VCXU-13	•	•	1/2″ CMOS	PYTHON1300	Global	1280 × 1024	4.8 × 4.8	145 | 94	222
VCXG-15 / VCXU-15	•	•	1/2.9″ CMOS	IMX273	Global	1440 × 1080	3.45 × 3.45	121 | 79	224
VCXG-23 / VCXU-23	•	•	1/1.2″ CMOS	IMX174	Global	1920 × 1200	5.86 × 5.86	81 | 53	165
VCXG-24 / VCXU-24	•	•	1/1.2″ CMOS	IMX249	Global	1920 × 1200	5.86 × 5.86	38 | 38	38
VCXG-25 / VCXU-25	•	•	2/3″ CMOS	PYTHON2000	Global	1920 × 1200	4.8 × 4.8	59 | 53	167
VCXU-31	•	•	1/1.8″ CMOS	IMX252	Global	2048 × 1536	3.45 × 3.45	–	120
VCXG-32 / VCXU-32	•	•	1/1.8″ CMOS	IMX265	Global	2048 × 1536	3.45 × 3.45	55 | 39	55
VCXU-50	•	•	2/3″ CMOS	IMX250	Global	2448 × 2048	3.45 × 3.45	–	77
VCXG-51 / VCXU-51	•	•	2/3″ CMOS	IMX264	Global	2448 × 2048	3.45 × 3.45	35 | 23	35
VCXG-53 / VCXU-53	•	•	1″ CMOS	PYTHON5000	Global	2592 × 2048	4.8 × 4.8	28 | 23	73
VCXU-90	•	•	1″ CMOS	IMX255	Global	4096 × 2160	3.45 × 3.45	–	41
VCXG-91 / VCXU-91	•	•	1″ CMOS	IMX267	Global	4096 × 2160	3.45 × 3.45	21 | 13	39
VCXU-123	•	•	1.1″ CMOS	IMX253	Global	4096 × 3000	3.45 × 3.45	–	27
VCXG-124 / VCXU-124	•	•	1.1″ CMOS	IMX304	Global	4096 × 3000	3.45 × 3.45	15 | 10	29
VCXU-125.R	•	•	1/1.9″ CMOS	IMX226	Rolling [2]	4000 × 3000	1.85 × 1.85	–	29
VCXG-201.R / VCXU-201.R	•	•	1″ CMOS	IMX183	Rolling [2]	5472 × 3648	2.4 × 2.4	9 | 6	15

[1] Burst Mode (image acquisition in the camera's internal memory) | interface [2] Rolling and global reset shutter

Image-controlled, high-precision gripping and positioning sequences.

Perfectly protected for harsh environments.

Even without separate protective housings, robust IP 65/67 CX series cameras are perfectly protected in applications with particularly demanding ambient conditions – from dust, water jets, short-term immersion or extreme temperatures.

Thanks to models with extended temperature range of -40 °C to 70 °C , additional cooling or heating methods can be dispensed with completely. This allows for simple thermal integration while saving time and system costs.

Hard-anodized IP 65/67 housing
precise image analysis in the food and pharmaceutical industry

4 outputs with max.120 W / 2.5 A
simple control of external light sources, e.g. for shape-from-shading

x-coded M12 connector and PoE
cost-efficient single-cable solution helps reduce downtimes

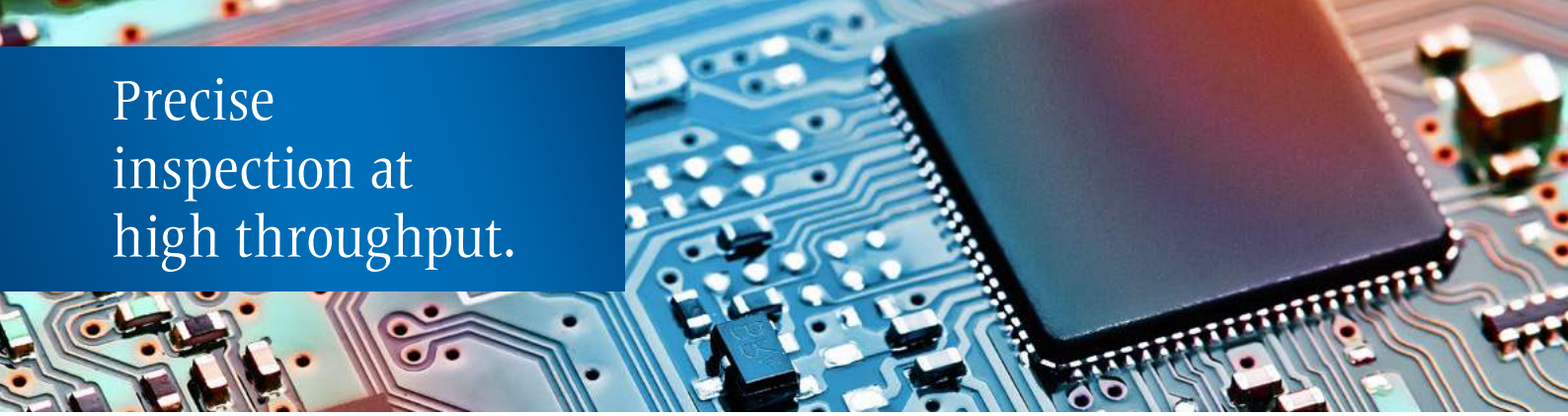
Optional modular tube system
flexible protection for different lenses

CX series IP 65/67 cameras

- Up to 12 megapixel and 148 fps
- CMOS sensors
- Operating temperature range -40 °C to 70 °C
- Vibration 10 g, shock 100 g

Camera Type [1]	Variants			Sensor Type	Sensor	Shutter	Resolution [px]	Pixel Size [µm]	Full Frames [fps]
	Mono	Color	XT [2]						GigE Vision® [3]
VCXG-13.I	•	•	•	1/2″ CMOS	PYTHON1300	Global	1280 × 1024	4.8 × 4.8	148 | 94
VCXG-15.I [4]	•	•	•	1/2.9″ CMOS	IMX273	Global	1440 × 1080	3.45 × 3.45	121 | 79
VCXG-25.I	•	•	•	2/3″ CMOS	PYTHON2000	Global	1920 × 1200	4.8 × 4.8	59 | 53
VCXG-32.I	•	•	•	1/1.8″ CMOS	IMX265	Global	2048 × 1536	3.45 × 3.45	55 | 39
VCXG-51.I	•	•	•	2/3″ CMOS	IMX264	Global	2448 × 2048	3.45 × 3.45	35 | 23
VCXG-53.I	•	•	•	1″ CMOS	PYTHON5000	Global	2592 × 2048	4.8 × 4.8	28 | 23
VCXG-124.I	•	•	•	1.1″ CMOS	IMX304	Global	4096 × 3000	3.45 × 3.45	15 | 10

[1] Operating temperature 0 °C to 65 °C [2] Models with extended temperature range [3] Burst Mode (image acquisition in the camera's internal memory) | interface
[4] available Q3/2018



Precise inspection at high throughput.

Fast, high-resolution cameras.

LX series cameras are based on modern-day CMOS sensors with Global Shutter. They master complex inspection tasks with demanding requirements on detailed image acquisition and throughput. Their superb performance is owed to high sensitivity, excellent image quality and up to 48 megapixel resolution.

The GigE camera models feature Burst Mode to capture image sequences or selected regions of the image (ROI) at very high speed. Where using cameras with Dual GigE twice the frame rate for increased throughput is provided. For improved system stability, the Camera Link® models offer additional features, such as status information and checksum calculation.

Camera Link® with up to 800 MB/s
and easy system integration using GenICam™

Multi ROI and Multi I/O as well as PoE / PoCL
for ultimate flexibility

Flexible lens mount
M58, M42, F-mount or C-mount

Single or Dual GigE with 240 MB/s
high frame rates and easy integration

LX series

- Up to 48 megapixel and 337 fps
- CMOS sensors
- Outstanding sensitivity
- HDR extended dynamic range

Camera Type	Variants			Sensor Type	Sensor	Shutter	Resolution [px]	Pixel Size [µm]	Full Frames [fps]	
	Mono	Color	NIR [1]						GigE Vision® [2]	Camera Link®
LXG-20 / LXC-20	•	•	•	2/3" CMOS	CMV2000	Global	2048 × 1088	5.5 × 5.5	337 | 111	337
LXG-40 / LXC-40	•	•	•	1" CMOS	CMV4000	Global	2048 × 2048	5.5 × 5.5	180 | 59	180
LXG-80	•	•		4/3" CMOS	CMV8000	Global	3360 × 2496	5.5 × 5.5	61 | 29	–
LXG-120 / LXC-120	•	•		APS-C CMOS	CMV12000	Global	4096 × 3072	5.5 × 5.5	50 | 19	63
LXG-200 / LXC-200	•	•		35 mm CMOS	CMV20000	Global	5120 × 3840	6.4 × 6.4	32 | 12	32
LXG-250 / LXC-250	•	•		APS-H CMOS	PYTHON 25K	Global	5120 × 5120	4.5 × 4.5	32 | 9	32
LXG-500 / LXC-500	•			35 mm CMOS	CMV50000	Global	7920 × 6004	4.6 × 4.6	15 | 5	15

[1] only LXG cameras [2] Burst Mode (image acquisition in the camera's internal memory) | interface (Dual GigE)

Precise and fast inspections in demanding environments.

Robust 10 GigE cameras.

The 10 GigE cameras of the LX series combine the latest Sony® Pregius™ sensors and innovative 10 GigE interface for data transmission at large bandwidth with 1.1 GB/s and supreme image quality.

With resolutions up to 12 megapixel, low noise and a dynamic range of 71 dB the CMOS cameras reliably capture even the finest detail in dynamic applications. The 10 GigE interface ensures consistently fast image transmission and shorter evaluation time – with quick and cost-effective camera integration in parallel.

IP 65/67 housing[1] with M12 connector
Robust image evaluation in harsh environments

4 outputs with max. 120 W / 2.5 A
Direct lighting trigger, no external controller required

Extended operating temperature range
No need for external cooling cuts down on cost

10 GigE Interface
Easy and cost-efficient system integration

10 GigE cameras of the LX series

- Up to 12 megapixel and 216 fps
- CMOS sensors
- Exposure time down to 1 µs
- Up to 1.1 GB/s bandwidth

Camera Type[2]	Variants		Sensor Type	Sensor	Shutter	Resolution [px]	Pixel Size [µm]	Full Frames [fps]
	Mono	Color						GigE Vision®
VLXT-31	•	•	1/1.8″ CMOS	IMX252	Global	2048 × 1536	3.45 × 3.45	216
VLXT-50	•	•	2/3″ CMOS	IMX250	Global	2448 × 2048	3.45 × 3.45	163
VLXT-90	•	•	1″ CMOS	IMX255	Global	4096 × 2160	3.45 × 3.45	93
VLXT-123	•	•	1.1″ CMOS	IMX253	Global	4096 × 3000	3.45 × 3.45	68

[1] with optional patented modular tube system [2] available Q4/2018

Minimizing system cost by innovation.

Cameras with image processing.

LX camera models with *VisualApplets* technology enable integrated, application-specific image processing directly in the camera's FPGA which reduces the data volume for transmission and processing. This way, the effort of algorithm calculation which requires considerable processing power is removed from the PC-based image processing system. Application performance will be enhanced while system cost is reduced.

With *VisualApplets* by Silicon Software, the graphic development environment for FPGA programming, even complex algorithms can be implemented quickly and easily. It enables efficient and economic image data processing at very high resolution and speed.

LX *VisualApplets* cameras

- Up to 20 megapixel and 338 fps
- Flexible user-specific function extension
- Ready-to-use applet for 3D laser triangulation
- Hardware-based image processing in real-time

Graphical FPGA development environment
enables easy application development

Digital inputs and outputs
with precise control for improved flexibility

GigE Vision®
easy, flexible and cost-efficient integration

Easy system integration
via GenICam™ compliant configuration

GigE Vision®

Camera Type	Variants			Sensor Type	Sensor	Shutter	Resolution [px]	Pixel Size [µm]	Full Frames [fps]
	Mono	Color	3D						GigE Vision® [1]
LXG-20.P		•		2/3″ CMOS	CMV2000	Global	2048 × 1088	5.5 × 5.5	140 | 56
LXG-20.PS	•		•	2/3″ CMOS	CMV2000	Global	2048 × 1088	5.5 × 5.5	338 | 56
LXG-40.P	•			1″ CMOS	CMV4000	Global	2048 × 2048	5.5 × 5.5	74 | 29
LXG-120.P	•			APS-C CMOS	CMV12000	Global	4096 × 3072	5.5 × 5.5	25 | 9
LXG-120.PS	•		•	APS-C CMOS	CMV12000	Global	4096 × 3072	5.5 × 5.5	60 | 9
LXG-200.P	•			35 mm CMOS	CMV20000	Global	5120 × 3840	6.4 × 6.4	16 | 6

[1] Image acquisition and processing with *VisualApplets* | interface

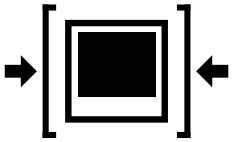
Targeted implementation of applications.

Ready-to-use *SmartApplets*.

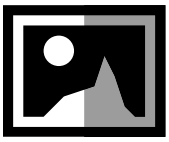
Thanks to *SmartApplets*, the functional scope of LX *VisualApplets* cameras can easily be extended for specific applications. You do not need to develop your own image processing algorithm – which saves time and costs.

The applets are immediately ready to use, extensively tested and can comfortably be transferred to the camera by means of a firmware update. If necessary, customer-specific adaptations can be effectively implemented on the basis of the *SmartApplets*.

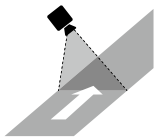
Binarization



JPEG



HDR



Line Scan Emulation

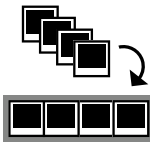
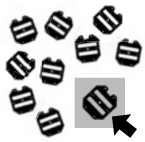


Image Aggregation



Object Extraction

SmartApplets for LX *VisualApplets* cameras

- Ready-to-use function extensions
- Free download from the Baumer Member Area
- Easily integrated by means of firmware update
- Competent support from the Baumer Solution Center

SmartApplets		Camera Type
Binarization	Reduce data with adaptive binarization and use high resolution and speed via GigE	LXG-20M.PS LXG-120M.PS
HDR	Simple evaluation of light and dark areas within a single scene thanks to the calculation of an HDR image from a sequence of images with different exposure times	LXG-40M.P LXG-200M.P
Image Aggregation	Merging multiple images with small ROIs with extremely high frame rates to simplify image transfer and reduce the CPU load	LXG-20M.PS
JPEG	Reduce the amount of data to be transmitted through lossy image compression (adjustable)	LXG-20C.P LXG-40M.P
Line Scan Emulation	Simplified integration by emulating a line scan camera with a matrix sensor	LXG-20M.PS LXG-120M.PS
Object Extraction	Localization and extraction of objects for data reduction	LXG-40M.P LXG-120M.P

Additional *SmartApplets* and supported camera models are available on request.

See the important when it counts.

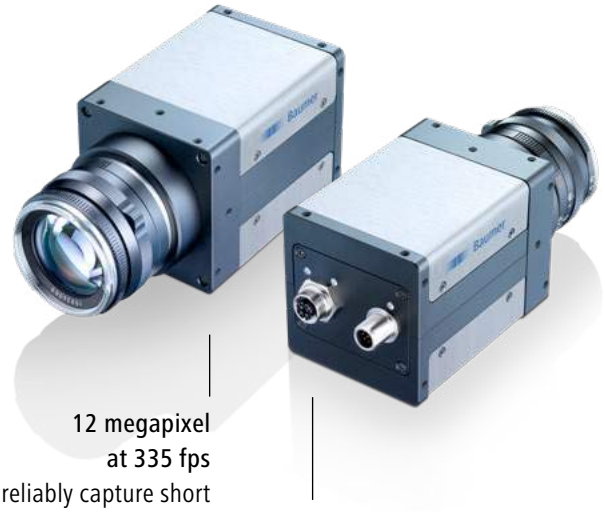
High-speed cameras with high resolution.

QX series cameras are the ideal choice for applications that have to capture short image sequences very quickly and precisely in order to better understand and analyze processes and their sequences.

Thanks to the innovative 10 GigE interface, applications benefit from high bandwidth and at the same time all the advantages of the GigE Vision® standard: short transmission times, high industrial prevalence, simple and cost-effective integration without additional components such as frame grabbers, and cable lengths up to 100 m.

Burst Mode and 2 GB image memory
flexible, application-specific data transmission

10 GigE interface
easy, cost-effective integration



12 megapixel at 335 fps
reliably capture short image sequences in fast processes

1.1 GB/s bandwidth
short transmission times and reduced evaluation times

QX series

- 12 megapixel and 335 fps
- CMOS sensors
- Flexible memory management
- 10 GigE interface with 1.1 GB/s bandwidth

Camera Type	Variants		Sensor Type	Sensor	Shutter	Resolution [px]	Pixel Size [µm]	Full Frames [fps]
	Mono	Color						GigE Vision® [1]
VQXT-120.HS	•	•	APS-C CMOS	CMV12000	Global	4096 × 3068	5.5 × 5.5	335 | 92

[1] Burst Mode (image acquisition in the camera's internal memory) | interface (10 GigE)

Reproducible measured values and image quality.

Flexible board level cameras.

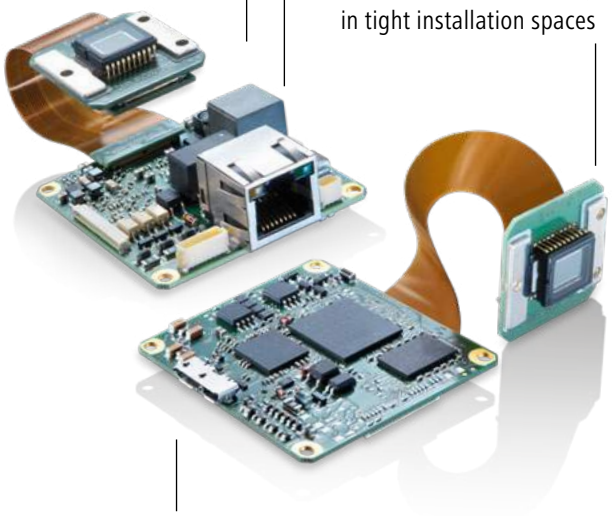
Based on the *VisiLine*® platform, cameras of the MX series are particularly developed for use in embedded systems. The remote sensor circuit board is connected to the system circuit board via flexprint to make the board level cameras fit in almost any installation space.

USB 3.0 camera models provide you with simple Plug & Play functionality and a single-cable solution. GigE cameras master a transmission distance up to 100 meter cable length and support PoE.

Digital, opto-decoupled inputs and outputs
reliable protection against overvoltage

Flexible power supply
GigE: 12 – 24 V or PoE

Remote sensor circuit board
maximum flexibility in tight installation spaces



USB3 Vision™
for reliable system integration

MX series

- Up to 4 megapixel and 376 fps
- CCD and CMOS sensors
- Multi I/O for increased flexibility
- CMOS models with FPN correction and HDR

GiGE VISION USB3 VISION

Camera Type	Variants		Sensor Type	Sensor	Shutter	Resolution [px]	Pixel Size [µm]	Full Frames [fps]	
	Mono	Color						GigE Vision®	USB3 Vision™
MXG02 / MXU02	•	•	1/4" CCD	ICX618	Global	656 × 490	5.6 × 5.6	160	160
MXGC03	•	•	1/3" CMOS	CMV300	Global	640 × 480	7.4 × 7.4	376	–
MXG12 / MXU12	•	•	1/3" CCD	ICX445	Global	1288 × 960	3.75 × 3.75	42	42
MXG20 / MXU20	•	•	1/1.8" CCD	ICX274	Global	1624 × 1228	4.4 × 4.4	27	27
MXGC20 / MXUC20	•	•	2/3" CMOS	CMV2000	Global	2040 × 1084	5.5 × 5.5	55	55
MXGC40 / MXUC40	•	•	1" CMOS	CMV4000	Global	2040 × 2044	5.5 × 5.5	29	29

Customer-specific products for your applications.

When standard cameras reach their limits, we can develop customized image processing components for your applications – starting with the simple adaptation of our industrial cameras, through the complete development of an OEM product, to modifications of our software.

Your benefits

- Our know-how: you gain competitive advantage and save time
- Our practice-proven technologies: reliable solutions and investment security
- Our best price-performance ratio: cost reduction and profitability improvement

Made to match: modification of standard cameras.

Perfectly tailored to your application, we can modify our cameras and thus create the right component for your system. This covers:

- Modification of hardware (e.g. adjustment of mechanical and electrical interfaces)
- Firmware adaptation (e.g. image preprocessing)
- Branding and labeling (e.g. application of trademarks)

Tailor-made for you: OEM development.

To meet your requirements, we develop OEM components with an optimum price-performance ratio. Our range of services covers:

- Development and production of image processing components
- Complete design of mechanical systems, hardware and software
- Long-term availability

Individually adapted: software & algorithms.

We can offer you different software solutions for optimum system performance, namely:

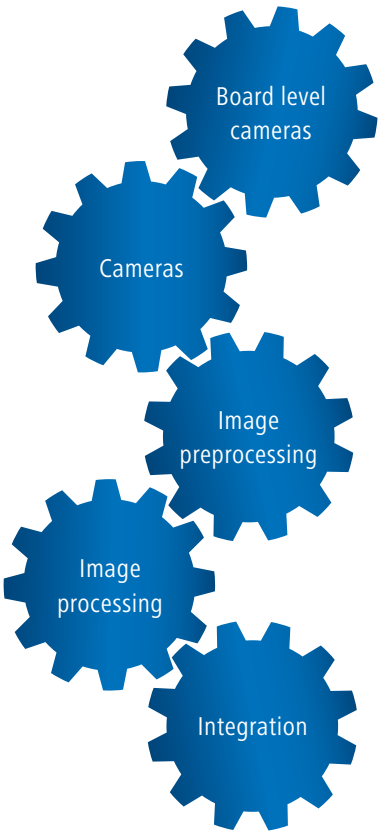
- Camera integration and image preprocessing with the Baumer GAPI SDK for Windows®, Linux® and Linux® ARM®
- FPGA-based image processing for image enhancement or data reduction in real time
- DSP- / x86- / ARM®-based image processing algorithms

Implement embedded vision precisely.

For the realization of your embedded vision application, we can offer you a large product portfolio and customer-specific products with long-term availability. In addition, the experienced staff in our Baumer Solution Center can support you with competent advice and feasibility analyses.

Your individual application – our versatile range of products.

- **High flexibility in small spaces:**
  Flexible integration (MX series), for example in applications in medical technology, laboratory automation or in the retail trade
- **Large camera portfolio for many industries:**
  Compact cameras (CX and LX series) with optional IP 65/67 protection class for applications in mechanical engineering, in the electronics industry, for traffic monitoring or in microscopy
- **Real-time behavior without additional system components:**
  FPGA-based real-time image processing (LX *VisualApplets* cameras) for image enhancement or data reduction, for example in the pharmaceutical, beverages or packaging industry
- **Powerful algorithms can be used flexibly on the latest processors:**
  Patented Baumer *FEX*® image processor and powerful DSP- / ARM®-based algorithms in *VeriSens*® vision sensors
- **Quickly and easily integrated:**
  Standard-compliant interfaces, protocols (e.g. real-time Ethernet) and flexible software integration under Windows®, Linux® or Linux® ARM® (Baumer GAPI SDK) together with our accessories and starter kits



Your benefits

- Optimum price-performance ratio for series-type applications
- Long-term availability of customer-specific image processing components
- Support from the Baumer Solution Center
- Easy global procurement and competent support thanks to worldwide presence of Baumer

embedded VISION ALLIANCE MEMBER

Intelligent software integration.

Quick and platform-neutral camera integration in the application and software environment is conveniently realized by high-performance Software Development Kits (SDK) Baumer GAPI and Camera Link®SDK with Application Programming Interface (API).

		GAPI SDK v2.x	Camera Link® SDK [1]
Interfaces	GigE / 10 GigE / Dual GigE	●	–
	USB 3.0	●	–
	Camera Link®	–	●
Hardware platforms	x86 / x64 | Linux® ARM®	● | ●	● | –
Operating systems	Windows® 7 | 8 | 10	● | ● | ●	● | ● | –
	Linux® (Debian® / Ubuntu® / Fedora® / openSUSE®)	●	–
Programming languages	C++ | C#	● | ●	● | –

[1] For LX cameras with Camera Link®. Other Baumer cameras with Camera Link® run with GAPI SDK v1.7.1.

Download
Software Development Kits
www.baumer.com/cameras/SDK

Baumer GAPI SDK.

Fully supporting GenICam™ and GenTL, the Baumer GAPI SDK ensures flexible and easy camera integration. Numerous programming examples and documentations as well as varied options for testing and visualization of the Camera Explorer ease integration even further.

For embedded vision applications with Linux® ARM®-based systems, the SDK features several standard and basic packages to utilize the manufacturer evaluation kit's respectively own software designs.

Baumer Camera Link® SDK.

The Camera Link® cameras of the LX series feature GenCP (Generic Control Protocol) for convenient and quick configuration. Increasingly supported by frame grabber manufacturers, the need for an additional SDK will be eliminated. Alternatively, the Baumer Camera Link® SDK may also be used for evaluation and integration. It includes a configuration tool to setup and test all camera functions and to use extended features such as events. The camera can be conveniently integrated into your software environment based on GenICam™ reference implementation.

Flexibility by compatibility.

Every task in image processing is unique and imposes individual requirements on both camera and related machine vision software. We meet them all.

Flexibility by standard compliance.

Hassle-free compatibility of GenICam™, the Baumer GAPI generic application programming interface, together with standard-optimized drivers for GigE Vision®, USB3 Vision™ and Camera Link® simplify camera integration and allow for drop-in replacement across all series.

GigE Vision · USB3 Vision · 10 GigE Vision · Camera Link · GenICam

Third Party Software Support.

Full compliance to all relevant standards in camera engineering and development, regular compatibility tests and the close cooperation with our software partners give you the freedom to implement user-specific third party software and ensure trouble-free integration of our cameras in any of your application tasks.

Third Party Software[1]:

ab software · Adaptive Vision · Cognex Acquisition Alliance · GEFASOFT · nVision Impuls · Invigon · Kithara · MathWorks · Matrox Imaging · MVTec Software GmbH · National Instruments · Norpix Digital Video Recording Software www.norpix.com · SiliconSoftware · Common Vision Blox

Software partnerships[2]:

MICROSCAN · Neuro Check Industrial Vision Systems · SAC Sensor Advanced Cytometrics GmbH

[1] The list informs you which third party software is compatible with Baumer industrial cameras. The list does not claim to be complete and neither includes any recommendation for a specific provider.

[2] Software support of individual models may be provider-specific and is recommended for corresponding validation.

Making it all easy.

We provide you with everything you need to integrate our cameras quickly and easily into your systems: From proper network components and accessories up to individual Starter Kits, you will have everything that's necessary.

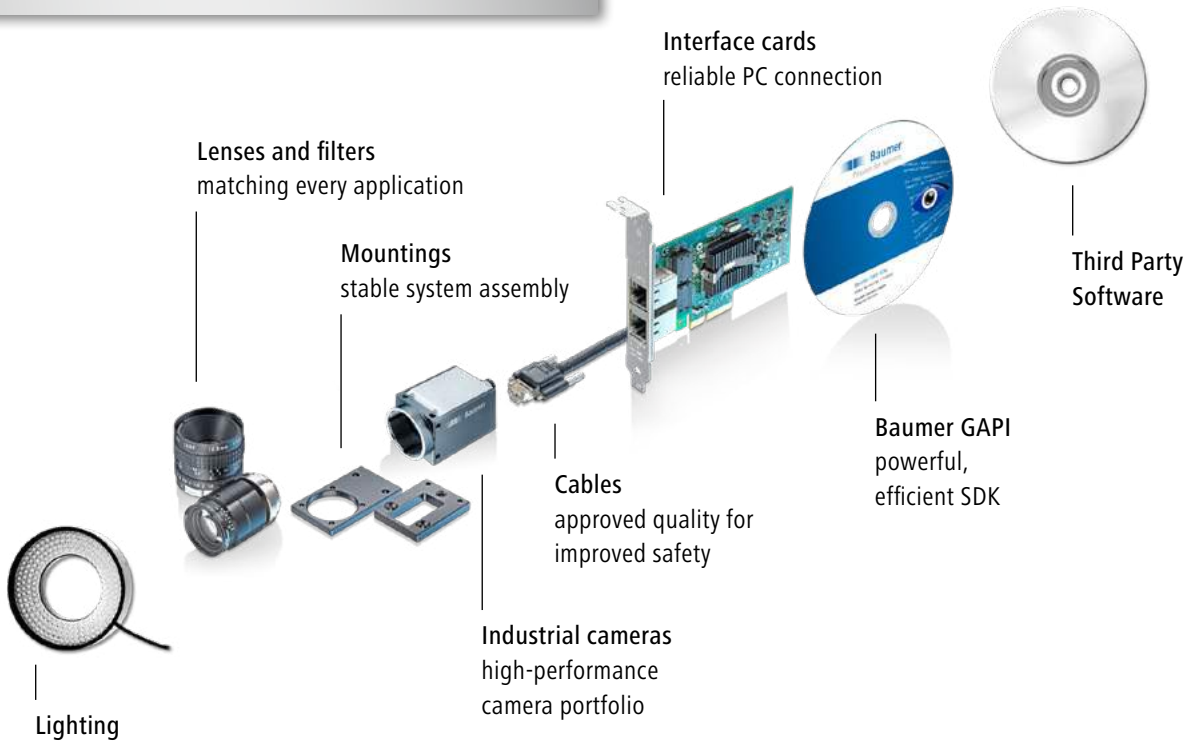
Matching accessories for your system.

There is more to an image processing system than just a camera: cables, PCI interface cards, filters, adapters and mountings or lenses. We help you to find the accessories that match your application and provide you with a comprehensive range of cross-interface accessories that are optimally harmonized. Since the system is only as reliable as its individual components, you can be sure our components underwent comprehensive testing and inspection – for long-term longevity and reliability in the image processing application.

Starter Kits: Just unpack and go.

Our Starter Kits are individually compiled to match the related camera series and will support you in evaluating a camera. You can focus entirely on the solution while we provide you with everything required for set up – from cable to mountings on to software.

Your Starter Kit
Request today your individual Starter Kit:
www.baumer.com/vision/StarterKits



Proven cameras with long-term availability.

Baumer produces all industrial cameras in-house – giving you top product quality and maximum supply reliability. We thus also ensure the long-term availability of our proven camera series, which are deployed all around the world in countless applications.
Rely on us – for years to come!

Camera Type	Variants			Sensor Type	Sensor	Shutter	Resolution [px]	Pixel Size [µm]	Full Frames [fps]	
***VisiLine*® Serie**	Mono	Color	IP65/67						GigE Vision®	USB3 Vision™
VLG-02 / VLU-02	•	•	•[1]	1/4"CCD	ICX618	Global	656 × 490	5.6 × 5.6	160	160
VLG-03 / VLU-03	•	•		1/3"CMOS	CMV300	Global	640 × 480	7.4 × 7.4	376	376
VLG-12 / VLU-12	•	•	•[1]	1/3"CCD	ICX445	Global	1288 × 960	3.75 × 3.75	42	42
VLG-20	•	•	•	1/1.8"CCD	ICX274	Global	1624 × 1228	4.4 × 4.4	27	–
VLG-22	•	•	•	2/3"CMOS	CMV2000	Global	2040 × 1084	5.5 × 5.5	55	–
VLG-23	•	•	•	1/1.2"CMOS	IMX174	Global	1920 × 1200	5.86 × 5.86	53	–
VLG-24	•	•		1/1.2"CMOS	IMX249	Global	1920 × 1200	5.86 × 5.86	38	–
VLG-40	•	•	•	1"CMOS	CMV4000	Global	2040 × 2044	5.5 × 5.5	29	–
PX-Serie	Mono									USB3 Vision™
PXU-60.Q	•			1"CCD	ICX694	Global	2752 × 2200	4.54 × 4.54		25
PXU-120.Q	•			1"CCD	ICX834	Global	4248 × 2832	3.1 × 3.1		13
HX-Serie	Mono	Color	NIR						GigE Vision®[3]	Camera Link®
HXG20 / HXC20	•	•	•	2/3"CMOS	CMV2000	Global	2048 × 1088	5.5 × 5.5	337 | 105	337
HXG40 / HXC40	•	•	•	1"CMOS	CMV4000	Global	2048 × 2048	5.5 × 5.5	180 | 56	180
SX-Serie	Mono								GigE Vision®	
SXG10	•			1/2"CCD	KAI-01050	Global	1024 × 1024	5.5 × 5.5	120	
SXG20	•			2/3"CCD	KAI-02050	Global	1600 × 1200	5.5 × 5.5	68	
SXG21	•			2/3"CCD	KAI-02150	Global	1920 × 1080	5.5 × 5.5	64	
SXG40	•			1"CCD	KAI-04050	Global	2336 × 1752	5.5 × 5.5	32	
SXG80	•			4/3"CCD	KAI-08050	Global	3296 × 2472	5.5 × 5.5	16	

TX-Serie	Mono	Color[2]	NIR	IP67	PoE	Multi I/O					
TXG02	•	•					1/4"CCD	ICX618	Global	656 × 494	5.6 × 5.6	140
TXG03	•	•		•	•	•	1/3"CCD	ICX424	Global	656 × 494	7.4 × 7.4	90
TXG04	•	•					1/2"CCD	ICX414	Global	656 × 494	9.9 × 9.9	56
TXG04 v2	•						1/2"CCD	ICX414	Global	656 × 494	9.9 × 9.9	93
TXG06	•	•					1/2"CCD	ICX415	Global	776 × 582	8.3 × 8.3	64
TXG08	•	•		•	•		1/3"CCD	ICX204	Global	1032 × 776	4.65 × 4.65	28
TXG12	•	•					1/3"CCD	ICX445	Global	1296 × 966	3.75 × 3.75	32
TXG13	•	•			•	•	1/2"CCD	ICX267	Global	1392 × 1040	4.65 × 4.65	20
TXG14	•	•	•				2/3"CCD	ICX285	Global	1392 × 1040	6.45 × 6.45	20
TXG14f	•	•					2/3"CCD	ICX285	Global	1392 × 1040	6.45 × 6.45	30
TXG20	•	•				•	1/1.8"CCD	ICX274	Global	1624 × 1236	4.4 × 4.4	16
TXG50	•	•			•	•	2/3"CCD	ICX625	Global	2448 × 2050	3.45 × 3.45	15

[1] Available with GigE interface only. [2] Resolution with color models can have minimal variations.
[3] Burst Mode (image acquisition in the camera's internal memory) | interface (Dual GigE)

Worldwide presence.

Africa
Algeria
Cameroon
Côte d'Ivoire
Egypt
Morocco
Reunion
South Africa

America
Brazil
Canada
Colombia
Mexico
United States
Venezuela

Asia
Bahrain
China
India
Indonesia
Israel
Japan
Kuwait
Malaysia
Oman
Philippines
Qatar
Saudi Arabia
Singapore
South Korea
Taiwan
Thailand
UAE

Europe
Austria
Belgium
Bulgaria
Croatia
Czech Republic
Denmark
Finland
France
Germany
Greece
Hungary
Italy
Malta
Martinique
Netherlands
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