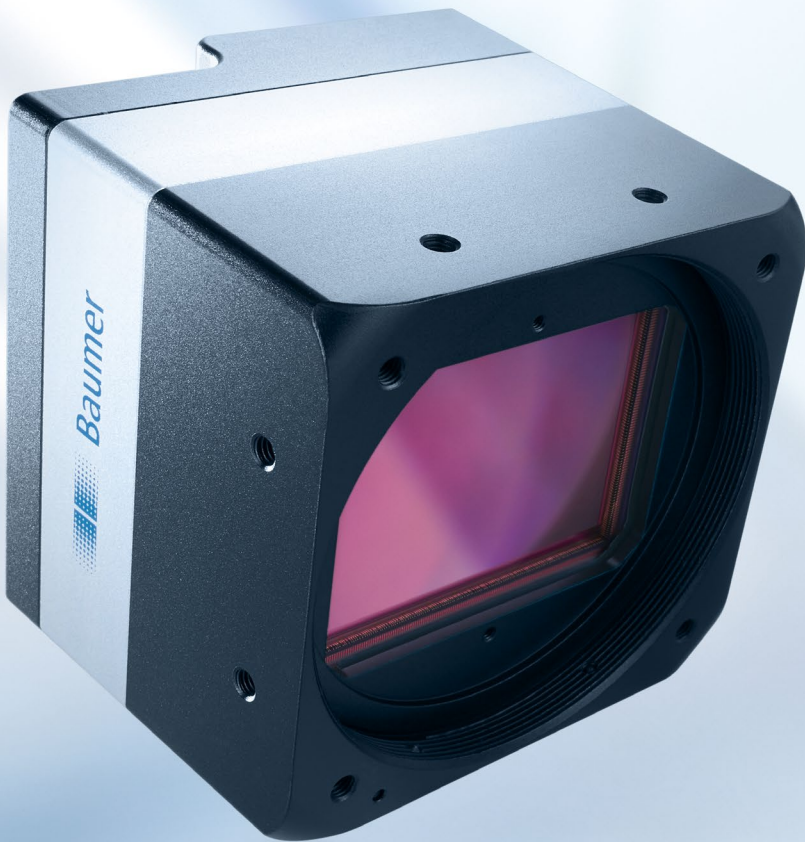# Digital industrial cameras

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 2,700 employees in 39 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.
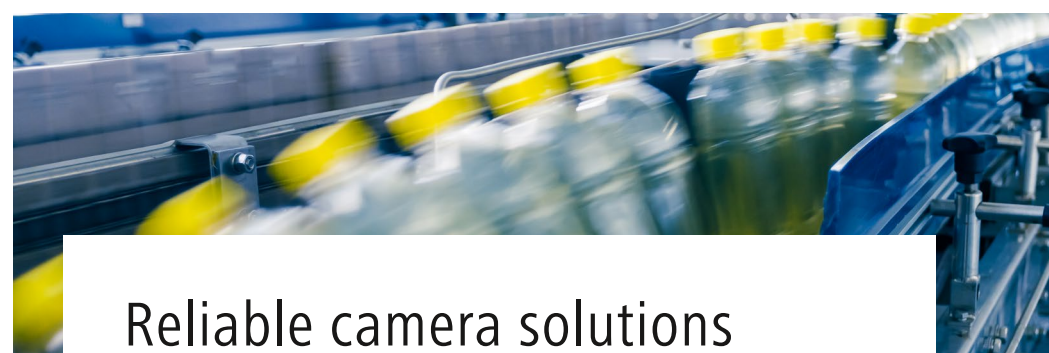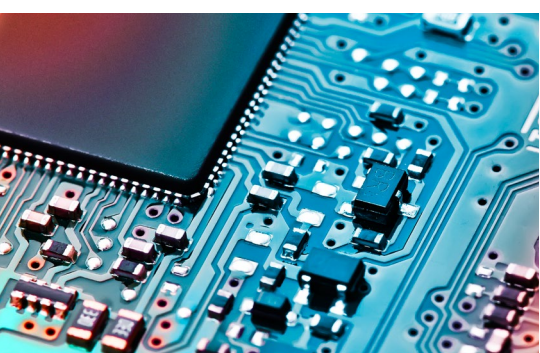
High-performance industrial cameras.

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

Featuring industrial designs, cutting-edge sensors, and clever solutions, our cameras provide the basis for precise and long-term stable image evaluation to allow you to successfully complete your inspection tasks.

The large selection of different cameras offers the right model for each industry and application. From cost-effective entry-level models to perfectly optimized standard cameras up to high-performance industrial cameras with maximum performance for the highest demands.

LX series

QX series

CX series   EX series

CX.I cameras
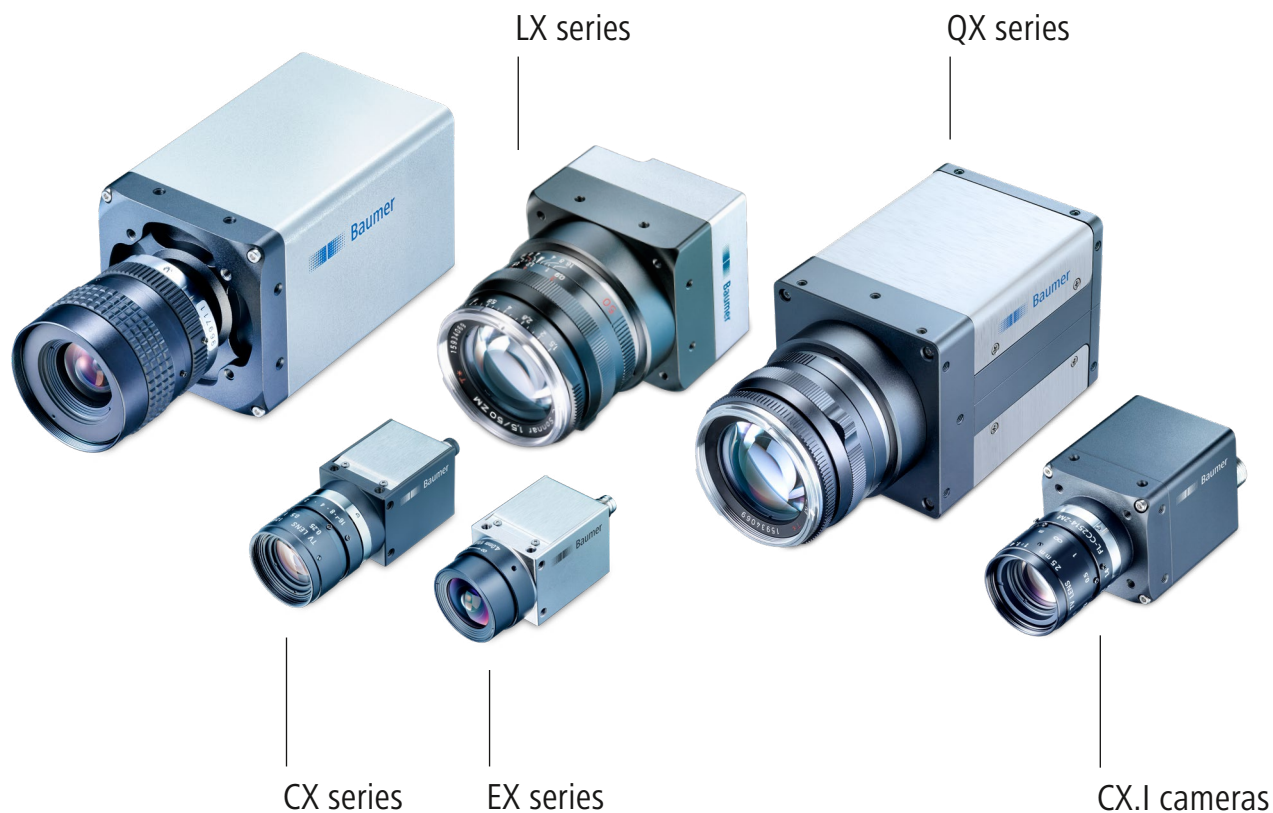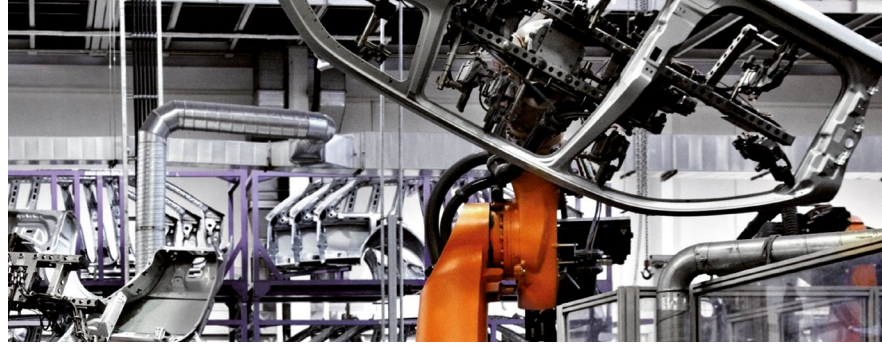
Reliable camera solutions
for cross-industry applications.
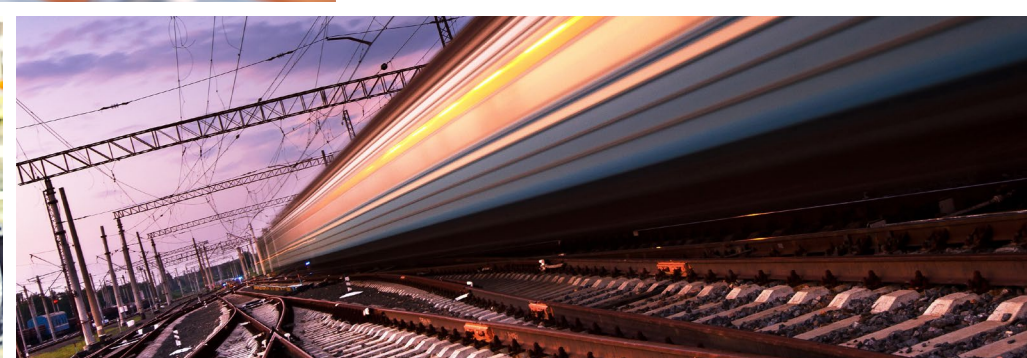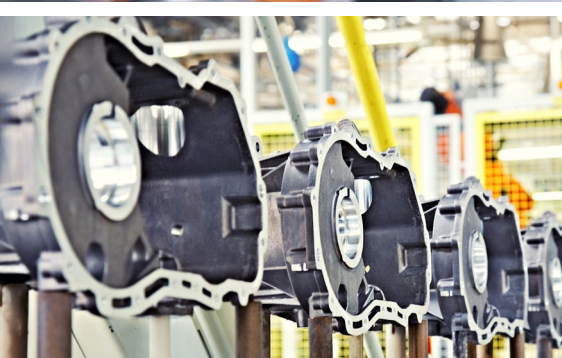
CX series

Latest global and rolling shutter
CMOS cameras for the detection and
evaluation of fast processes.

With the high-performance CX cameras you can rely on the most current Sony® Pregius™ and STARVIS® CMOS sensor generations as well as ON Semiconductor® PYTHON, for the future-ready implementation of your applications.

In addition to many standard versions with an extensive range of functions, we offer you camera models with Precision Time Protocol (PTP) for precise time synchronization in Ethernet networks, with polarization sensor for the complete detection of the linear polarization state of surfaces, as well as global shutter, rolling shutter, or global reset shutter. Thanks to this great variety, you will be sure to find the right camera for each of your applications.

USB VISION   **GiGE** VISION

Technical highlights

- Exposure times from 1 µs
- Opto-decoupled inputs and outputs with automation voltage levels
- Burst Mode and integrated image memory for cost-sensitive applications
- GigE power supply: external 12 − 24 V or PoE

Your benefits

- Extensive scope of application thanks to a large variety of the latest CMOS sensor models
- With 1000 frames/s in Burst Mode and ROI you can reliably capture fast applications
- Up to 20 megapixel in a compact 29 × 29 mm housing, easily and flexibly integrated in tight installation settings
- Flexible application potential with temperature range from 0 °C to 65 °C

	Model	Mono | Color	Sensor Type	Sensor	Resolution [px]	Pixel Size [μm]	Full Frames [fps] [1]
GigE Vision® 29 × 29 × 49 mm	VCXG-02	M | C	1/4″ CMOS	PYTHON300	640 × 480	4.8 × 4.8	595 | 403
	VCXG-04	M | C	1/2.9″ CMOS	IMX287	720 × 540	6.9 × 6.9	441 | 318
	VCXG-13	M | C	1/2″ CMOS	PYTHON1300	1280 × 1024	4.8 × 4.8	148 | 94
	VCXG-15	M | C	1/2.9″ CMOS	IMX273	1440 × 1080	3.45 × 3.45	121 | 79
	VCXG-23	M | C	1/1.2″ CMOS	IMX174	1920 × 1200	5.86 × 5.86	81 | 53
	VCXG-24	M | C	1/1.2″ CMOS	IMX249	1920 × 1200	5.86 × 5.86	38 | 38
	VCXG-25	M | C	2/3″ CMOS	PYTHON2000	1920 × 1200	4.8 × 4.8	59 | 53
	VCXG-32	M | C	1/1.8″ CMOS	IMX265	2048 × 1536	3.45 × 3.45	55 | 39
	VCXG-51	M | C	2/3″ CMOS	IMX264	2448 × 2048	3.45 × 3.45	35 | 24
	VCXG-53	M | C	1″ CMOS	PYTHON5000	2592 × 2048	4.8 × 4.8	28 | 23
	VCXG-91	M | C	1″ CMOS	IMX267	4096 × 2160	3.45 × 3.45	21 | 13
	VCXG-124	M | C	1.1″ CMOS	IMX304	4096 × 3000	3.45 × 3.45	15 | 10
Polarization	VCXG-50MP	M | −	2/3″ CMOS	IMX250MZR	2448 × 2048	3.45 × 3.45	35 | 24
Rolling shutter and global reset shutter	VCXG-22.R	M | C	1/2″ CMOS	IMX290	1920 × 1080	2.9 × 2.9	89 | 58
	VCXG-65.R	M | C	1/1.8″ CMOS	IMX178	3072 × 2048	2.4 × 2.4	18 | 18
	VCXG-125.R	M | C	1/1.7″ CMOS	IMX226	4000 × 3000	1.85 × 1.85	15 | 10
	VCXG-201.R	M | C	1″ CMOS	IMX183	5472 × 3648	2.4 × 2.4	9 | 6
Precision Time Protocol IEEE 1588	VCXG-32.PTP [2]	M | C	1/1.8″ CMOS	IMX265	2048 × 1536	3.45 × 3.45	55 | 39
	VCXG-51.PTP [2]	M | C	2/3″ CMOS	IMX264	2448 × 2048	3.45 × 3.45	35 | 24
	VCXG-124.PTP [2]	M | C	1.1″ CMOS	IMX304	4096 × 3000	3.45 × 3.45	15 | 10
USB3 Vision™ 29 × 29 × 38 mm	VCXU-02	M | C	1/4″ CMOS	PYTHON300	640 × 480	4.8 × 4.8	891
	VCXU-04	M | C	1/2.9″ CMOS	IMX287	720 × 540	6.9 × 6.9	430
	VCXU-13	M | C	1/2″ CMOS	PYTHON1300	1280 × 1024	4.8 × 4.8	222
	VCXU-15	M | C	1/2.9″ CMOS	IMX273	1440 × 1080	3.45 × 3.45	224
	VCXU-23	M | C	1/1.2″ CMOS	IMX174	1920 × 1200	5.86 × 5.86	166
	VCXU-24	M | C	1/1.2″ CMOS	IMX249	1920 × 1200	5.86 × 5.86	38
	VCXU-25	M | C	2/3″ CMOS	PYTHON2000	1920 × 1200	4.8 × 4.8	167
	VCXU-31	M | C	1/1.8″ CMOS	IMX252	2048 × 1536	3.45 × 3.45	120
	VCXU-32	M | C	1/1.8″ CMOS	IMX265	2048 × 1536	3.45 × 3.45	55
	VCXU-50	M | C	2/3″ CMOS	IMX250	2448 × 2048	3.45 × 3.45	77
	VCXU-51	M | C	2/3″ CMOS	IMX264	2448 × 2048	3.45 × 3.45	35
	VCXU-53	M | C	1″ CMOS	PYTHON5000	2592 × 2048	4.8 × 4.8	73
	VCXU-90	M | C	1″ CMOS	IMX255	4096 × 2160	3.45 × 3.45	41
	VCXU-91	M | C	1″ CMOS	IMX267	4096 × 2160	3.45 × 3.45	39
	VCXU-123	M | C	1.1″ CMOS	IMX253	4096 × 3000	3.45 × 3.45	29
	VCXU-124	M | C	1.1″ CMOS	IMX304	4096 × 3000	3.45 × 3.45	29
Polarization	VCXU-50MP	M | −	2/3″ CMOS	IMX250MZR	2448 × 2048	3.45 × 3.45	73
Rolling shutter and global reset shutter	VCXU-22.R	M | C	1/2″ CMOS	IMX290	1920 × 1080	2.9 × 2.9	138
	VCXU-65.R	M | C	1/1.8″ CMOS	IMX178	3072 × 2048	2.4 × 2.4	47
	VCXU-125.R	M | C	1/1.7″ CMOS	IMX226	4000 × 3000	1.85 × 1.85	29
	VCXU-201.R	M | C	1″ CMOS	IMX183	5472 × 3648	2.4 × 2.4	15

[1] GigE Vision®: Burst Mode (image acquisition in the camera's internal memory) | interface   [2] available Q4/2019

CX.I cameras

Extra power for added performance in demanding applications.

Thanks to their clever design and practical functional properties, the robust CX.I cameras offer extra power for your applications – a high operating temperature range, vibration and shock resistance, hard-anodized housings, as well as 4 power outputs with integrated lighting controller for the easy and cost-effective control of external lightings.

GigE VISION®

Technical highlights

- Hard-anodized surface
- X-coded M12 connector and PoE
- Vibration 10 g and shock 100 g
- 4 power outputs with max. 120 W (max. 48 V / 2.5 A)

	Model	Mono | Color	Sensor Type		Sensor	Resolution [px]	Pixel Size [µm]	Full Frames [fps] [1]
GigE Vision® 40 × 40 × 51 mm	VCXG-13.I	M | C	1/2"	CMOS	PYTHON1300	1280 × 1024	4.8 × 4.8	148 | 94
	VCXG-15.I	M | C	1/2.9"	CMOS	IMX273	1440 × 1080	3.45 × 3.45	121 | 79
	VCXG-25.I	M | C	2/3"	CMOS	PYTHON2000	1920 × 1200	4.8 × 4.8	59 | 53
	VCXG-32.I	M | C	1/1.8"	CMOS	IMX265	2048 × 1536	3.45 × 3.45	55 | 39
	VCXG-51.I	M | C	2/3"	CMOS	IMX264	2448 × 2048	3.45 × 3.45	35 | 24
	VCXG-53.I	M | C	1"	CMOS	PYTHON5000	2592 × 2048	4.8 × 4.8	28 | 23
	VCXG-124.I	M | C	1.1"	CMOS	IMX304	4096 × 3000	3.45 × 3.45	15 | 10
Operating temperature -40 °C – 70 °C	VCXG-13.I.XT	M | C	1/2"	CMOS	PYTHON1300	1280 × 1024	4.8 × 4.8	148 | 94
	VCXG-15.I.XT	M | C	1/2.9"	CMOS	IMX273	1440 × 1080	3.45 × 3.45	121 | 79
	VCXG-25.I.XT	M | C	2/3"	CMOS	PYTHON2000	1920 × 1200	4.8 × 4.8	59 | 53
	VCXG-32.I.XT	M | C	1/1.8"	CMOS	IMX265	2048 × 1536	3.45 × 3.45	55 | 39
	VCXG-51.I.XT	M | C	2/3"	CMOS	IMX264	2448 × 2048	3.45 × 3.45	35 | 24
	VCXG-53.I.XT	M | C	1"	CMOS	PYTHON5000	2592 × 2048	4.8 × 4.8	28 | 23
	VCXG-124.I.XT	M | C	1.1"	CMOS	IMX304	4096 × 3000	3.45 × 3.45	15 | 10
Precision Time Protocol IEEE 1588	VCXG-32.I.PTP [2]	M | C	1/1.8"	CMOS	IMX265	2048 × 1536	3.45 × 3.45	55 | 39
	VCXG-51.I.PTP [2]	M | C	2/3"	CMOS	IMX264	2448 × 2048	3.45 × 3.45	35 | 24
	VCXG-124.I.PTP [2]	M | C	1.1"	CMOS	IMX304	4096 × 3000	3.45 × 3.45	15 | 10

[1] GigE Vision®: Burst Mode (image acquisition in the camera's internal memory) | interface   [2] available Q4/2019

Your benefits

- The need for cooling and heating measures is reduced thanks to the operating temperature range of -40 °C to 70 °C
- Integrated lighting controller with brightness control reduces system costs
- Varied accessories offer flexible solutions for individual applications in the food, beverage, and pharmaceutical industry

CX.I cameras
housing accessories

Tough and robust – flexible protection for reliable inspections in rough environments.

Thanks to their specifically developed housing accessories, the CX.I cameras can be quickly turned into highly robust cameras with the protection class IP 54/65/67 or IP 69K for sensitive areas in the automation sector, as well as in the food, beverage, and pharmaceutical industry.

The flexible design offers the right version for any application area, with an optimal price/performance ratio and surfaces that resist intensive cleaning, do not give dirt traps a chance, and minimize the adhesion of product residues.

Technical highlights

- Round hard-anodized housing prevents dirt traps
- Stainless steel housing with a washdown design for splash and product contact zones
- Patented modular tube system flexibly protects lenses with different lengths

	Base set	Thread tube	Cover glass tube	Extension rings	Material
IP 65/67 protection	–	M47	acrylic glass | laminated safety glass [1]	6 mm | 12 mm | 36 mm	aluminum, hard-anodized
	–	M62	acrylic glass | laminated safety glass [1]	6 mm | 12 mm | 36 mm	aluminum, hard-anodized
IP 65/67 protection, round	Base set A	M62	acrylic glass | laminated safety glass [1]	6 mm | 12 mm | 36 mm	aluminum, hard-anodized
IP 69K protection	Base set B	M60	acrylic glass	–	stainless steel

[1] chemically strengthened alumino-silicate glass SCHOTT Xensation® with high scratch, impact and fracture resistance for demanding applications

Your benefits

- Specially developed housing components with an optimal price/performance ratio for the automation, food, beverage, and pharmaceutical industry
- Long-term stable image acquisition thanks to the optimal thermal harmonization of camera and housing
- Developed in accordance with EHEDG guidelines for maximum reliability in hygienic areas

LX series

High-resolution, fast cameras for precise inspections with a high production throughput.

The cameras of the LX series are the ideal basis for demanding inspection tasks with high requirements, both on the precision of image acquisition and the throughput. With excellent image quality, outstanding sensitivity, low dark noise, and a large dynamic range, they reliably capture high-speed processes.

Technical highlights

- Burst Mode and integrated image memory
- Multi ROI and Multi I/O, as well as PoE/PoCL
- Lens mount for M58, M42, F-mount, C-mount
- Models with 3D laser triangulation and JPEG image compression

	Model	Mono | Color	Sensor Type	Sensor	Resolution [px]	Pixel Size [µm]	Full Frames [fps] [1]
GigE Vision® 60 × 60 × 57 mm	LXG-20	M | C	2/3" CMOS	CMV2000	2048 × 1088	5.5 × 5.5	337 | 111
	LXG-40	M | C	1" CMOS	CMV4000	2048 × 2048	5.5 × 5.5	180 | 59
	LXG-80	M | C	4/3" CMOS	CMV8000	3360 × 2496	5.5 × 5.5	61 | 29
	LXG-120	M | C	APS-C CMOS	CMV12000	4096 × 3072	5.5 × 5.5	50 | 19
	LXG-200	M | C	35 mm CMOS	CMV20000	5120 × 3840	6.4 × 6.4	32 | 12
	LXG-250	M | C	APS-H CMOS	PYTHON 25K	5120 × 5120	4.5 × 4.5	32 | 9
	LXG-500	M | C	35 mm CMOS	CMV50000	7920 × 6004	4.6 × 4.6	15 | 5
Near infrared range	LXG-20NIR	M | –	2/3" CMOS	CMV2000	2048 × 1088	5.5 × 5.5	337 | 111
	LXG-40NIR	M | –	1" CMOS	CMV4000	2048 × 2048	5.5 × 5.5	180 | 59
3D laser triangulation	LXG-20.3D	M | –	2/3" CMOS	CMV2000	2048 × 1088	5.5 × 5.5	338 | 56
	LXG-120.3D	M | –	APS-C CMOS	CMV12000	4096 × 3072	5.5 × 5.5	60 | 9
JPEG-image compression	LXG-20.JP	M | C	2/3" CMOS	CMV2000	2048 × 1088	5.5 × 5.5	140 | 56
	LXG-40.JP	M | –	1" CMOS	CMV4000	2048 × 2048	5.5 × 5.5	74 | 29
	LXG-250.JP	M | –	APS-H CMOS	PYTHON 25K	5120 × 5120	4.5 × 4.5	10 | 4
Camera Link® 60 × 60 × 46 mm	LXC-20	M | C	2/3" CMOS	CMV2000	2048 × 1088	5.5 × 5.5	337
	LXC-40	M | C	1" CMOS	CMV4000	2048 × 2048	5.5 × 5.5	180
	LXC-120	M | C	APS-C CMOS	CMV12000	4096 × 3072	5.5 × 5.5	63
	LXC-200	M | C	35 mm CMOS	CMV20000	5120 × 3840	6.4 × 6.4	32
	LXC-250	M | C	APS-H CMOS	PYTHON 25K	5120 × 5120	4.5 × 4.5	32
	LXC-500	M | C	35 mm CMOS	CMV50000	7920 × 6004	4.6 × 4.6	15

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

Your benefits

- With a resolution of up to 48 megapixel, the finest details are reliably detected even in high-speed applications
- Outstanding sensitivity and excellent image quality allow precise, long-term stable evaluations
- Data amount and system costs are reduced by the fast and precise 3D laser triangulation as well as JPEG image compression

LXT cameras

Robust 10 GigE cameras for fast image transfer and easy integration.

The LXT cameras combine a high bandwidth of 1.1 GB/s with an easy and cost-effective integration with long cable lengths for copper and even up to 10 km for fiber optic cables – without the need for frame grabbers or media converters. In addition, they are equipped with liquid lens support, 4 power outputs and high-performance features such as sequencer, Burst Mode, and the Precision Time Protocol IEEE 1588, which all support solutions for individual applications.

Technical highlights

- 10GBase-T for copper cables or SFP+ slot for optical cables
- 4 power outputs with max. 120 W (max. 48 V / 2.5 A)
- Prepared for IP 65/67 protection with optional patented modular tube system
- Liquid lens support, RS232
- Exposure times from 1 µs

	Model	Mono | Color	Sensor Type	Sensor	Resolution [px]	Pixel Size [µm]	Full Frames [fps]
10 GigE Vision® 60 × 60 × 100 mm	VLXT-31.I	M | C	1/1.8″ CMOS	IMX252	2048 × 1536	3.45 × 3.45	215
	VLXT-50.I	M | C	2/3″ CMOS	IMX250	2448 × 2048	3.45 × 3.45	163
	VLXT-90.I	M | C	1″ CMOS	IMX255	4096 × 2160	3.45 × 3.45	95
	VLXT-123.I	M | C	1.1″ CMOS	IMX253	4096 × 3000	3.45 × 3.45	69
SFP+ Slot for optical cables [1]	VLXT-31.FO	M | −	1/1.8″ CMOS	IMX252	2048 × 1536	3.45 × 3.45	217
	VLXT-50.FO	M | C	2/3″ CMOS	IMX250	2448 × 2048	3.45 × 3.45	163
	VLXT-90.FO	M | −	1″ CMOS	IMX255	4096 × 2160	3.45 × 3.45	95
	VLXT-123.FO	M | −	1.1″ CMOS	IMX253	4096 × 3000	3.45 × 3.45	69

[1] camera dimensions 60 × 60 × 80 mm

Your benefits

- Recognition of finest details in high-speed applications thanks to the excellent image quality with low noise and a dynamic range of 71 dB
- 10 GigE Vision® for continuously fast image transfer at 1.1 GB/s and easy integration without special frame grabbers
- Bridging of large distances up to 10 km thanks to fiber-optic cables
- Liquid lens support and 4 power outputs for efficient applications
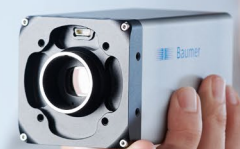
QX series

High-speed cameras with 8 GB internal memory for recording short image sequences.

The QX cameras are the optimal choice for applications that have to capture short image sequences fast and with a high resolution of 12 megapixel. This allows you to better understand and analyze your processes.

Thanks to the 8 GB internal image memory, 2 seconds can be recorded at 335 frames/s and 12 megapixel resolution. With a ROI (region of interest) of 1 megapixel, the high-performance 10 GigE interface supports continuous transfer with 1000 frames/s.

Technical highlights

- 8 GB internal image memory with dynamic memory management
- Record of up to 4 seconds
- Extensive bandwidth of 1.1 GB/s via 10 GigE Vision®

	Model	Mono | Color	Sensor Type	Sensor	Resolution [px]	Pixel Size [µm]	Full Frames [fps] [1]
10 GigE Vision® 70 × 70 × 100 mm	VQXT-120.HS	M | C	APS-C CMOS	CMV12000	4096 × 3068	5.5 × 5.5	335 | 92

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

Your benefits

- Recording of short image sequences of high-speed processes with a high precision of 12 megapixel and 335 frames/s
- Flexible adjustment of the recording duration thanks to the 8 GB image memory with dynamic memory management
- Cost-effective integration and short transmission and response times thanks to the 10 GigE interface

EX series

Focus on the essential: small, high-performance cameras with high Baumer quality at a low price.

Their focus on the essential, standard-compliant basic functionalities make the EX cameras ideally suited for many cost-sensitive standard macine vision applications. In combination with the CS mount, this allows you to lower your system costs in every aspect.

USB VISION

GigE VISION

Technical highlights

- Robust 29 × 29 mm metal housing
- M3 mounts at each side
- 4-pin M8 connector
- GigE power supply: external 12 − 24 V

	Model	Mono | Color	Sensor Type		Sensor	Resolution [px]	Pixel Size [µm]	Full frames [fps]
GigE Vision® 29 × 29 × 49 mm	VEXG-02	M | C	1/4"	CMOS	PYTHON300	640 × 480	4.8 × 4.8	217
	VEXG-13	M | C	1/2"	CMOS	PYTHON1300	1280 × 1024	4.8 × 4.8	61
	VEXG-25	M | C	2/3"	CMOS	PYTHON2000	1920 × 1200	4.8 × 4.8	41
Rolling shutter and global reset shutter	VEXG-52.R	M | C	1/2.5"	CMOS	MT9P031	2592 × 1944	2.2 × 2.2	14
	VEXG-100.R	M | C	1/2.3"	CMOS	MT9J003	3856 × 2764	1.67 × 1.67	7
USB3 Vision® 29 × 29 × 38 mm	VEXU-24	M | C	1/1.2"	CMOS	IMX249	1920 × 1200	5.86 × 5.86	38

Your benefits

- Latest CMOS sensors for future-proof image processing applications
- CS-mount allows the use of cost-effective lenses for lower system costs
- Precise image analysis thanks to the industrial design up to 65 °C

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
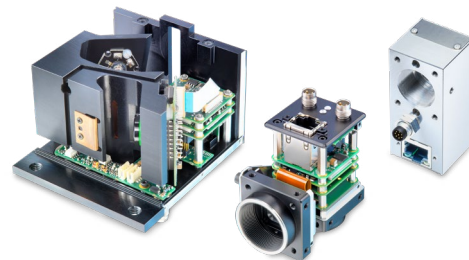
Individually adapted: software & algorithms.

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
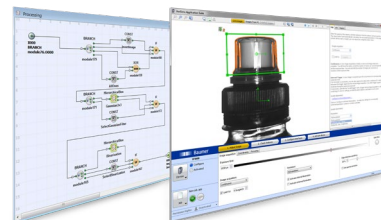
Precisely implemented embedded vision.

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 at our Baumer Solution Center can support you with competent advice and feasibility analyses.
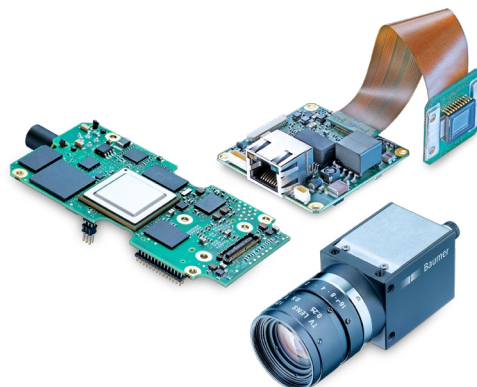
Your individual application – our versatile range of products.

- **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

Board level cameras

Cameras

Image preprocessing

Image processing

Integration
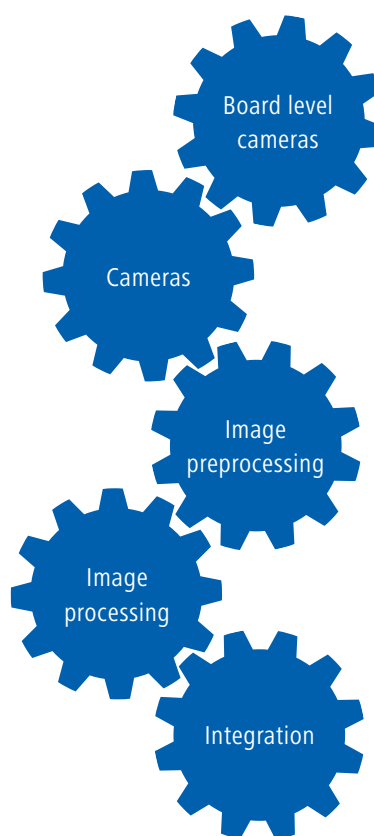
Your benefits

- 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.

The Baumer GAPI and Camera Link® SDK offer you powerful soft-
ware development kits (SDK) with a generic application program-
ming interface (API) for the easy, quick, and platform-independent
integration of our cameras into your application and software
environment.

		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.

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]:

Software partnerships [2]:

[1] The list informs you which third party software is compatible with Baumer industrial cameras. The list neither claims to be complete nor includes any recommendation for a specific provider.

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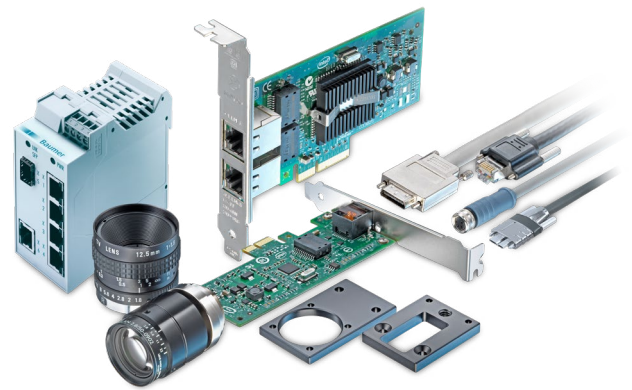
Making it all easy.

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.

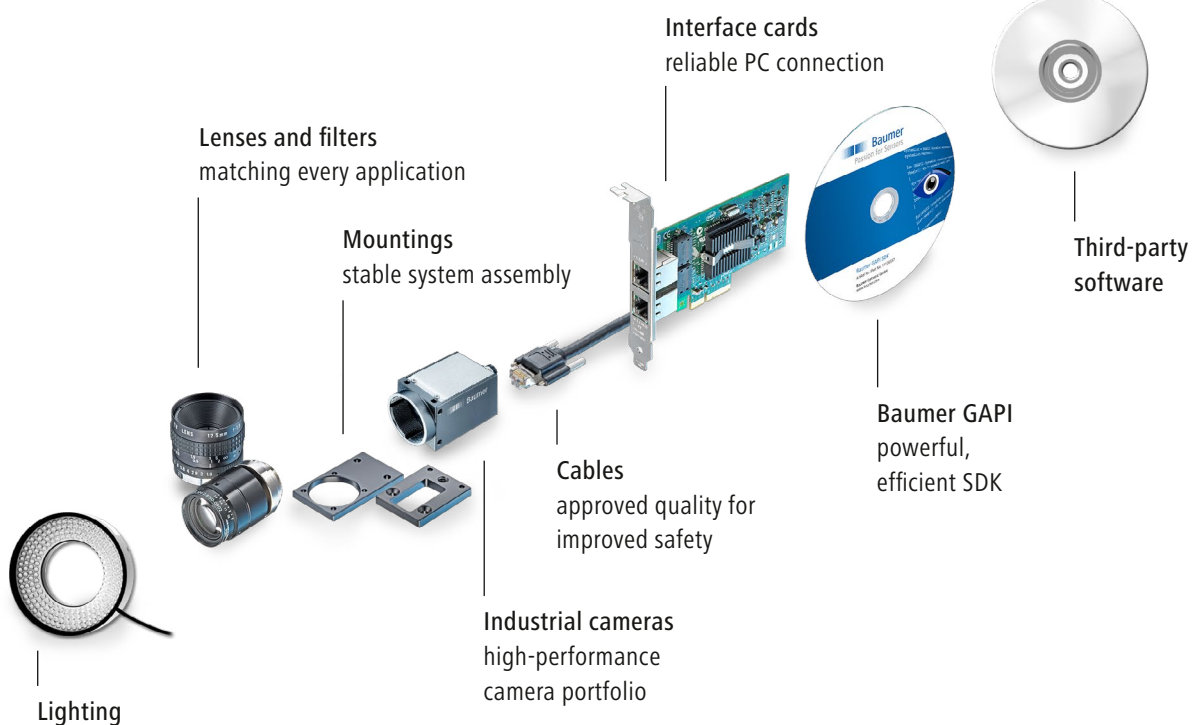**Matching accessories for your system.**

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 find the accessories that match your application and provide you with a comprehensive range of cross-interface accessories that are optimally harmonized. Since a system is only as reliable as its individual components, you can be sure our components have undergone 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 your individual
Starter Kit today:
www.baumer.com/vision/StarterKits

Lenses and filters
matching every application

Interface cards
reliable PC connection

Mountings
stable system assembly

Third-party
software

Cables
approved quality for
improved safety

Baumer GAPI
powerful,
efficient SDK

Industrial cameras
high-performance
camera portfolio

Lighting

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!

	Model	Mono | Color	Sensor Type	Sensor	Resolution [px]	Pixel Size [µm]	Full Frames [fps]
VisiLine® series							
GigE Vision®	VLG-22	M | C	2/3"CMOS	CMV2000	2040 × 1084	5.5 × 5.5	55
	VLG-23	M | C	1/1.2"CMOS	IMX174	1920 × 1200	5.86 × 5.86	53
	VLG-24	M | C	1/1.2"CMOS	IMX249	1920 × 1200	5.86 × 5.86	38
	VLG-40	M | C	1"CMOS	CMV4000	2040 × 2044	5.5 × 5.5	29
IP 65/67 cameras	VLG-22.I	M | C	2/3"CMOS	CMV2000	2040 × 1084	5.5 × 5.5	55
	VLG-23.I	M | C	1/1.2"CMOS	IMX174	1920 × 1200	5.86 × 5.86	53
	VLG-40.I	M | C	1"CMOS	CMV4000	2040 × 2044	5.5 × 5.5	29
MX-Serie							
GigE Vision®	MXGC03	M | C	1/3"CMOS	CMV300	640 × 480	7.4 × 7.4	376
	MXGC20	M | C	2/3"CMOS	CMV2000	2040 × 1084	5.5 × 5.5	55
	MXGC40	M | C	1"CMOS	CMV4000	2040 × 2044	5.5 × 5.5	29
HX series							
GigE Vision®	HXG20	M | C	2/3"CMOS	CMV2000	2048 × 1088	5.5 × 5.5	337 | 105 [1]
	HXG40	M | C	1"CMOS	CMV4000	2048 × 1088	5.5 × 5.5	180 | 56 [1]
Near Infrared Range	HXG20NIR	M | –	2/3"CMOS	CMV2000	2048 × 1088	5.5 × 5.5	337 | 105 [1]
	HXG40NIR	M | –	1"CMOS	CMV4000	2048 × 1088	5.5 × 5.5	180 | 56 [1]
Camera Link®	HXC20	M | C	2/3"CMOS	CMV2000	2048 × 1088	5.5 × 5.5	337
	HXC40	M | C	1"CMOS	CMV4000	2048 × 1088	5.5 × 5.5	180
Near Infrared Range	HXC20NIR	M | –	2/3"CMOS	CMV2000	2048 × 1088	5.5 × 5.5	337
	HXC40NIR	M | –	1"CMOS	CMV4000	2048 × 1088	5.5 × 5.5	180
LX VisualApplets cameras							
GigE Vision®	LXG-20.P	– | C	2/3" CMOS	CMV2000	2048 × 1088	5.5 × 5.5	140 | 56 [2]
	LXG-20.PS	M | –	2/3" CMOS	CMV2000	2048 × 1088	5.5 × 5.5	338 | 56 [2]
	LXG-40.P	M | –	1" CMOS	CMV4000	2048 × 2048	5.5 × 5.5	74 | 29 [2]
	LXG-120.P	M | –	APS-C CMOS	CMV12000	4096 × 3072	5.5 × 5.5	25 | 9 [2]
	LXG-120.PS	M | –	APS-C CMOS	CMV12000	4096 × 3072	5.5 × 5.5	60 | 9 [2]
	LXG-200.P	M | –	35 mm CMOS	CMV20000	5120 × 3840	6.4 × 6.4	16 | 6 [2]

[1] Burst Mode (image acquisition in the camera's internal memory) | interface   [2] Image acquisition and evaluation with *VisualApplets* | interface

Worldwide presence.

Africa
Algeria
Cameroon
Côte d'Ivoire
Egypt
Morocco
Réunion
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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