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 2,700 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.

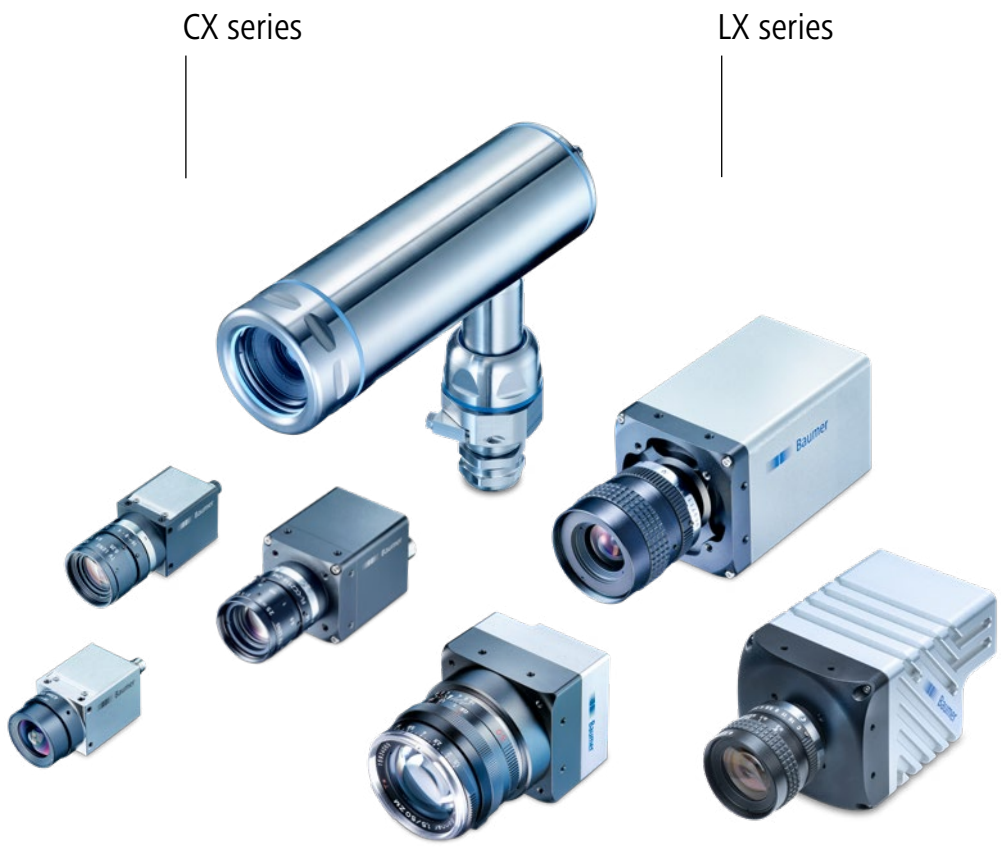
High-performance industrial cameras.

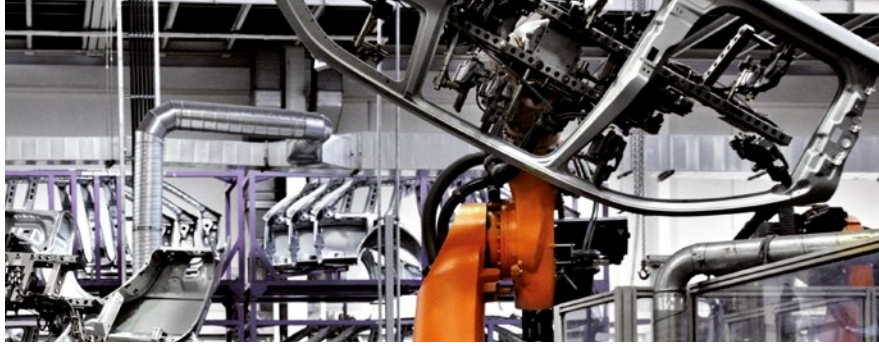
High frame rates, exceptional image quality and ease of integration – that's what our industrial cameras stand for.

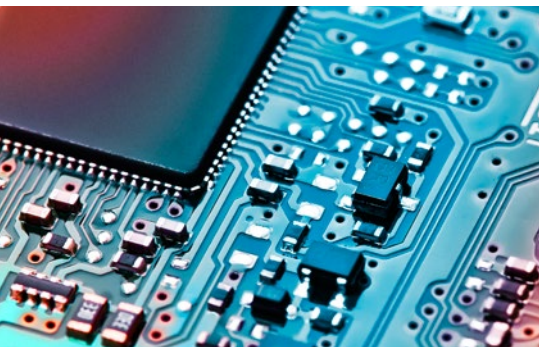
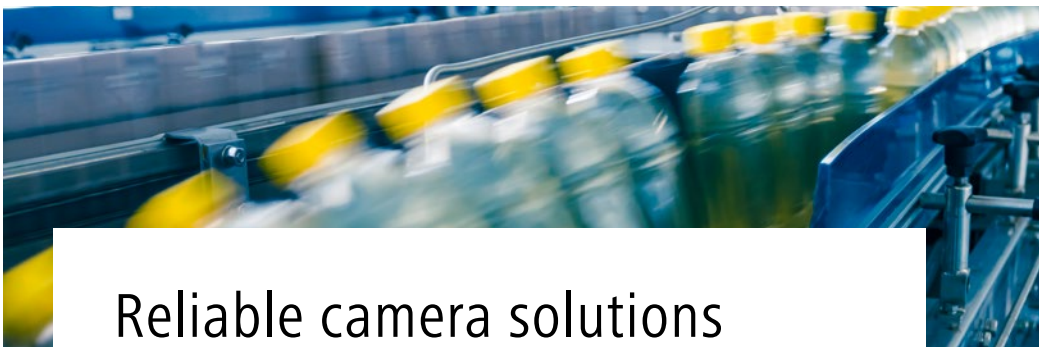
Featuring industrial designs, cutting-edge sensors, and clever solutions, our cameras provide the basis for precise and long-term stable image evaluation to allow you to successfully complete your inspection tasks.

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.

GiGE VISION USB VISION 10 GiGE VISION CAMERA Link GEN<i>CAM



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™, Pregius S™, Polarsens™ and STARVIS™ CMOS sensor generations as well as onsemi® 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.

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

	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	573 | 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	146 | 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	82 | 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	56 | 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-57 [2]	M | C	1/1.8" CMOS	IMX548	2448 × 2048	2.74 × 2.74	25 | 25
	VCXG-82	M | C	2/3" CMOS	IMX546	2848 × 2832	2.74 × 2.74	16 | 15

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 24 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®	VCXG-91	M | C	1″ CMOS	IMX267	4096 × 2160	3.45 × 3.45	21 | 13
29 × 29 × 49 mm	VCXG-124	M | C	1.1″ CMOS	IMX304	4096 × 3000	3.45 × 3.45	15 | 9
	VCXG-127	M | C	1/1.2″ CMOS	IMX545	4096 × 2292	2.74 × 2.74	11 | 10
	VCXG-204	M | C	1.1″ CMOS	IMX541	4480 × 4496	2.74 × 2.74	6 | 6
	VCXG-241	M | C	1.2″ CMOS	IMX540	5312 × 4592	2.74 × 2.74	5 | 5
Near Infrared Range	VCXG-13NIR	M | –	1/2″ CMOS	PYTHON1300	1280 × 1024	4.8 × 4.8	146 | 94
	VCXG-53NIR	M | –	1″ CMOS	PYTHON5000	2592 × 2048	4.8 × 4.8	28 | 23
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	1/2.8″ 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	29 | 19
	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-15.PTP	M | C	1/2.9″ CMOS	IMX273	1440 × 1080	3.45 × 3.45	121 | 79
	VCXG-32.PTP	M | C	1/1.8″ CMOS	IMX265	2048 × 1536	3.45 × 3.45	56 | 39
	VCXG-51.PTP	M | C	2/3″ CMOS	IMX264	2448 × 2048	3.45 × 3.45	36 | 24
	VCXG-124.PTP	M | C	1.1″ CMOS	IMX304	4096 × 3000	3.45 × 3.45	15 | 9
USB3 Vision®	VCXU-02	M | C	1/4″ CMOS	PYTHON300	640 × 480	4.8 × 4.8	892 | 891
29 × 29 × 38 mm	VCXU-04	M | C	1/2.9″ CMOS	IMX287	720 × 540	6.9 × 6.9	434 | 430
	VCXU-13	M | C	1/2″ CMOS	PYTHON1300	1280 × 1024	4.8 × 4.8	222 | 222
	VCXU-15	M | C	1/2.9″ CMOS	IMX273	1440 × 1080	3.45 × 3.45	226 | 224
	VCXU-23	M | C	1/1.2″ CMOS	IMX174	1920 × 1200	5.86 × 5.86	165 | 159
	VCXU-24	M | C	1/1.2″ CMOS	IMX249	1920 × 1200	5.86 × 5.86	38 | 38
	VCXU-25	M | C	2/3″ CMOS	PYTHON2000	1920 × 1200	4.8 × 4.8	167 | 167
	VCXU-31	M | C	1/1.8″ CMOS	IMX252	2048 × 1536	3.45 × 3.45	120 | 114
	VCXU-32	M | C	1/1.8″ CMOS	IMX265	2048 × 1536	3.45 × 3.45	55 | 55
	VCXU-50	M | C	2/3″ CMOS	IMX250	2448 × 2048	3.45 × 3.45	77 | 73
	VCXU-51	M | C	2/3″ CMOS	IMX264	2448 × 2048	3.45 × 3.45	35 | 35
	VCXU-53	M | C	1″ CMOS	PYTHON5000	2592 × 2048	4.8 × 4.8	73 | 73
	VCXU-57 [2]	M | C	1/1.8″ CMOS	IMX548	2448 × 2048	2.74 × 2.74	70 | 70
	VCXU-91	M | C	1″ CMOS	IMX267	4096 × 2160	3.45 × 3.45	32 | 32
	VCXU-123	M | C	1.1″ CMOS	IMX253	4096 × 3000	3.45 × 3.45	31 | 29
	VCXU-124	M | C	1.1″ CMOS	IMX304	4096 × 3000	3.45 × 3.45	29 | 28
	VCXU-127 [3]	M | C	1/1.2″ CMOS	IMX545	4096 × 2292	2.74 × 2.74	29 | 29
	VCXU-241 [3]	M | C	1.2″ CMOS	IMX540	5312 × 4592	2.74 × 2.74	15 | 15
Polarization	VCXU-50MP	M | –	2/3″ CMOS	IMX250MZR	2448 × 2048	3.45 × 3.45	77 | 73
Rolling shutter and global reset shutter	VCXU-22.R	M | C	1/2.8″ CMOS	IMX290	1920 × 1080	2.9 × 2.9	60 | 138
	VCXU-65.R	M | C	1/1.8″ CMOS	IMX178	3072 × 2048	2.4 × 2.4	47 | 47
	VCXU-125.R	M | C	1/1.7″ CMOS	IMX226	4000 × 3000	1.85 × 1.85	31 | 29
	VCXU-201.R	M | C	1″ CMOS	IMX183	5472 × 3648	2.4 × 2.4	20 | 15

[1] Burst Mode (image acquisition in the camera's internal memory) | interface [2] available Q2/2022 [3] available Q1/2022

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.

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)

GigE Vision® 40 × 40 × 51 mm	Model	Mono | Color	Sensor Type	Sensor	Resolution [px]	Pixel Size [µm]	Full Frames [fps] [1]
Operating temperature 0 °C – 65 °C	VCXG-13.I	M | C	1/2" CMOS	PYTHON1300	1280 × 1024	4.8 × 4.8	146 | 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	56 | 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-82.I [3]	M | C	2/3" CMOS	IMX546	2848 × 2832	2.74 × 2.74	16 | 15
	VCXG-124.I	M | C	1.1" CMOS	IMX304	4096 × 3000	3.45 × 3.45	15 | 9
	VCXG-127.I [3]	M | C	1/1.2" CMOS	IMX545	4096 × 2292	2.74 × 2.74	11 | 10
	VCXG-241.I [3]	M | C	1.2" CMOS	IMX540	5312 × 4592	2.74 × 2.74	5 | 5
Rolling Shutter	VCXG-201.R.I	M | C	1" CMOS	IMX183	5472 × 3648	2.4 × 2.4	9 | 6
Precision Time Protocol IEEE 1588	VCXG-15.I.PTP	M | C	1/2.9" CMOS	IMX273	1440 × 1080	3.45 × 3.45	121 | 79
	VCXG-32.I.PTP	M | C	1/1.8" CMOS	IMX265	2048 × 1536	3.45 × 3.45	56 | 39
	VCXG-51.I.PTP	M | C	2/3" CMOS	IMX264	2448 × 2048	3.45 × 3.45	35 | 24
	VCXG-124.I.PTP	M | C	1.1" CMOS	IMX304	4096 × 3000	3.45 × 3.45	15 | 9
Operating temperature -40 °C – 70 °C [2]	VCXG-13.I.XT	M | C	1/2" CMOS	PYTHON1300	1280 × 1024	4.8 × 4.8	146 | 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	56 | 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 | 9
Rolling Shutter	VCXG-201.R.I.XT	M | C	1" CMOS	IMX183	5472 × 3648	2.4 × 2.4	9 | 6

[1] Burst Mode (image acquisition in the camera's internal memory) | interface [2] except VCXG-201.R.I.XT (-30 °C – 70 °C) [3] available Q4/2021

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.XC cameras

Cameras with cooling pipe integrated into the housing.

With a cooling pipe for compressed air or liquids directly integrated into the housing, the CX.XC cameras dissipate heat immediately where it is created, allowing highly precise image capturing, even in warm environments.

The effective heat dissipation near the sensor and the lens compensates for the thermal pixel drift and provides images with very low noise, few defective pixels, and a high dynamic. This allows the efficient implementation of highly precise measurement and inspection tasks.

The integrated cooling also makes the cameras ideal solutions for applications with higher ambient temperatures. They can be used there directly without additional cooling components, saving time and costs during system integration.

Technical highlights

- Aluminum housing with M3 mounts at each side
- External power supply of 12 – 24 V or PoE
- Opto-decoupled inputs and outputs with voltage levels of automation technology
- Tested with compressed air in the 2 to 3 bar range and purity level ISO 8573-1:2010 [1:4:2]
- Tested with water up to 6 bar

	Model	Mono | Color	Sensor Type	Sensor	Resolution [px]	Pixel Size [µm]	Full Frames [fps] [1]
GigE Vision® 36 × 36 × 47 mm	VCXG-51.XC [2]	M | –	2/3" CMOS	IMX264	2448 × 2048	3.45 × 3.45	36 | 24

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

Your benefits

- Effective heat dissipation without thermal effects on the lens or the image characteristics
- Flexible integration in ambient conditions with limited space thanks to the cooling pipe integrated into the housing
- Without the need for additional cooling components, system integration becomes easy and cost-effective

AX series

Freely programmable smart cameras with NVIDIA® Jetson™ modules for AI applications.

The AX smart cameras are the solution for vision-at-the-edge computing and AI applications in a single device. AX cameras combine highest industrial grade quality, market-leading NVIDIA® Jetson™ modules, and powerful Sony® CMOS sensors to create a compact, flexible, and freely programmable image processing platform.

The integrated NVIDIA® Jetson™ Nano or Xavier NX modules feature special AI cores and graphic processors that also allow the flexible implementation of AI-based systems. For a stable and reliable image evaluation, the smart cameras with the latest Sony® CMOS sensors provide images with high quality and sensitivity, as well as low noise.

Technical highlights

- Compatible with GenICam™
- M12 Ethernet and RS232
- Micro HDMI, USB, and SD slots
- 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

70 × 70 × 120 mm	Model	Mono | Color	Sensor Type	Sensor	Resolution [px]	Pixel Size [µm]	Full Frames [fps]
NVIDIA® Jetson™ Nano	VAX-32.I.NVN	M | C	1/1.8" CMOS	IMX265	2048 × 1536	3.45 × 3.45	55
NVIDIA® Jetson™ Xavier NX	VAX-50.I.NVX	M | C	2/3" CMOS	IMX250	2448 × 2048	3.45 × 3.45	77

Your benefits

- Simply use and protect your own image processing algorithms
- Free choice of programming language thanks to Linux®
- A single component for image capturing and image evaluation
- Saving a PC for image processing limits space requirements, cuts down on system costs and integration effort and simplifies system design

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
- Enhanced NIR sensitivity
- Lens mount for M58, M42, F-mount, C-mount

	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
Camera Link® 60 × 60 × 46 mm	LXC-20	M | –	2/3" CMOS	CMV2000	2048 × 1088	5.5 × 5.5	337
	LXC-40	M | –	1" CMOS	CMV4000	2048 × 2048	5.5 × 5.5	180
	LXC-120	M | –	APS-C CMOS	CMV12000	4096 × 3072	5.5 × 5.5	63
	LXC-200	– | 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
- Compact design, Multi I/O and PoE one-cable solution for easy system integration

LXT cameras

Robust, high-resolution 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, Canon® EF control, 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)
- IP 65/67 protection with optional patented modular tube system
- Liquid lens support, Models with Canon® EF-mount
- High-performance functions such as HDR, shading correction, Multi ROI, 5×5 color calculation

	Model	Mono | Color	Sensor Type	Sensor	Resolution [px]	Pixel Size [µm]	Full Frames [fps] [1]
10 GigE Vision® 60 × 60 × 100 mm	VLXT-06.I	M | –	1/1.7″ CMOS	IMX426	800 × 620	9 × 9	1578 | 1578
	VLXT-17.I	M | –	1.1″ CMOS	IMX425	1600 × 1100	9 × 9	660 | 660
	VLXT-28.I	M | –	2/3″ CMOS	IMX421	1920 × 1464	4.5 × 4.5	415 | 411
	VLXT-31.I	M | C	1/1.8″ CMOS	IMX252	2048 × 1536	3.45 × 3.45	216 | 216
	VLXT-50.I	M | C	2/3″ CMOS	IMX250	2448 × 2048	3.45 × 3.45	163 | 163
	VLXT-55.I	M | C	1/1.8″ CMOS	IMX537	2464 × 2048	2.74 × 2.74	259 | 243
	VLXT-71.I	M | C	1.1″ CMOS	IMX420	3200 × 2200	4.5 × 4.5	209 | 174
	VLXT-90.I	M | C	1″ CMOS	IMX255	4096 × 2160	3.45 × 3.45	95 | 95
	VLXT-123.I	M | C	1.1″ CMOS	IMX253	4096 × 3000	3.45 × 3.45	69 | 69
	VLXT-126.I	M | C	1/1.1″ CMOS	IMX535	4096 × 2992	2.74 × 2.74	119 | 100
	VLXT-240.I	M | C	4/3″ CMOS	IMX530	5312 × 4600	2.74 × 2.74	62 | 50
	VLXT-650.I	M | C	2.3″ CMOS	GMAX3265	9344 × 7000	3.2 × 3.2	23 | 18
Canon® EF mount	VLXT-650.I.EF	M | C	2.3″ CMOS	GMAX3265	9344 × 7000	3.2 × 3.2	23 | 18
SFP+ Slot for optical cables [2]	VLXT-31.FO	M | –	1/1.8″ CMOS	IMX252	2048 × 1536	3.45 × 3.45	217 | 217
	VLXT-50.FO	M | C	2/3″ CMOS	IMX250	2448 × 2048	3.45 × 3.45	163 | 163
	VLXT-90.FO	M | –	1″ CMOS	IMX255	4096 × 2160	3.45 × 3.45	95 | 95
	VLXT-123.FO	M | –	1.1″ CMOS	IMX253	4096 × 3000	3.45 × 3.45	69 | 69

[1] Burst Mode (image acquisition in the camera's internal memory) | interface [2] 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 more than 82 dB (HDR)
- 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
- Dynamic focus control of liquid lenses and Canon® EF lenses

LXT cameras with integrated JPEG image compression

High-speed image processing at reduced bandwidth, low CPU load and with minor storage capacity requirements.

The LXT cameras with integrated JPEG image compression are ideal for the acquisition of long image sequences at high resolution and speed, where original images can be compressed, transmitted, and stored. The compression rate can be individually adjusted to match the application. Image compression straight in the camera's FPGA takes workload off the PC-based image processing system in the form of computing-intensive algorithms for image compression.

Technische Highlights

- Data reduction within the range 1:10 to 1:20
- Easy and flexible data transmission via GigE
- RS232 for controlling external devices
- PTP compliant to IEEE 1588 for precise time synchronization in Ethernet networks

10 GiGE VISION

	Model	Mono | Color	Sensor Type	Sensor	Resolution [px]	Pixel Size [µm]	Full Frames [fps] [1]
10 GigE Vision® 60 × 60 × 100 mm	VLXT-06.I.JP	M | C	1/1.7″ CMOS	IMX426	800 × 608	9 × 9	1622 | 1622
	VLXT-28.I.JP	M | –	2/3″ CMOS	IMX421	1920 × 1464	4.5 × 4.5	415 | 411
	VLXT-31.I.JP	– | C	1/1.8″ CMOS	IMX252	2048 × 1536	3.45 × 3.45	216 | 216
	VLXT-90.I.JP	M | –	1″ CMOS	IMX255	4096 × 2160	3.45 × 3.45	95 | 95

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

Your benefits

- JPEG image compression takes workload caused by computing-intensive algorithms off the image processing system
- Reduced storage capacity requirements allow for cost-efficient hardware
- Reliable image evaluation thanks to latest Sony® Pregius™ sensors with enhanced image quality, sensitivity and low noise

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.

USB3 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-13	M | –	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

Modular housing accessories

Tough and resilient: flexible protection for demanding applications.

With the specially developed and flexible housing accessories, you can protect the LXT and CX.I cameras as well as AX smart cameras in no time at all according to your individual application requirements.

Thanks to the patented modular tube system, lenses of different lengths and diameters are quickly and flexibly protected against dust, dirt or mechanical impact. This allows the cameras to offer IP 54, IP 65 or IP 67 protection levels.

Different housing sets up to IP 69K are available for applications in the splash and product contact area of the food, beverage and pharmaceutical industries. The hard anodized housing gives dirt traps no chance, while the stainless steel housing eliminates adhesions and withstands even chemically aggressive cleaning processest.

Technical highlights

- Patented modular tube system with variable number of intermediate rings
- Rounded, surface-finished housings withstand intensive cleaning cycles
- Stainless steel housing in washdown design with surface roughness of less than 0.8 µm

	Base set	Material	Thread tube	Cover glass tube	Extension rings
IP 65/67 protection, tube	–	aluminum, hard-anodized	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	M92	acrylic glass | laminated safety glass [1]	6 mm | 12 mm | 36 mm
IP 65/67 protection, round [2]	Base set A	aluminum, hard-anodized	M62	acrylic glass | laminated safety glass [1]	6 mm | 12 mm | 36 mm
	Base set C [4]	stainless steel	M62	acrylic glass | laminated safety glass [1]	6 mm | 12 mm | 36 mm
IP 69K protection [3]	Base set B	stainless steel	M60	acrylic glass	–

[1] Corning® Gorilla® glass Generation 3 (chemically strengthened alumino-silicate glass with high scratch, impact and fracture resistance or for demanding applications)
[2] only for VCXG.I cameras
[3] only for VCXG, VCXU and VCXG.I cameras
[4] available Q4/2021

Your benefits

- Specially developed housing components with optimum price-performance ratio
- Modular tube protection for maximum flexibility in system design
- Ideal thermal tuning enables long-term stable image acquisition
- Developed in accordance with EHEDG guidelines for maximum reliability in hygienic areas

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.

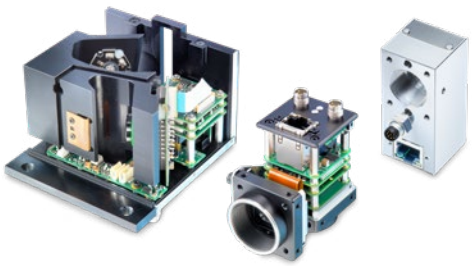
Perfectly tailored to your application, we can modify our cameras and thus create the right component for your system. This covers:

- 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

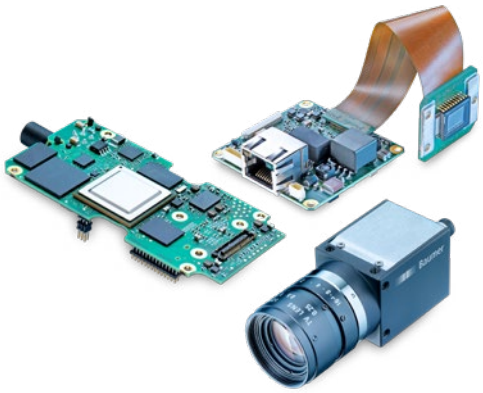


Individually adapted: software & algorithms.

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

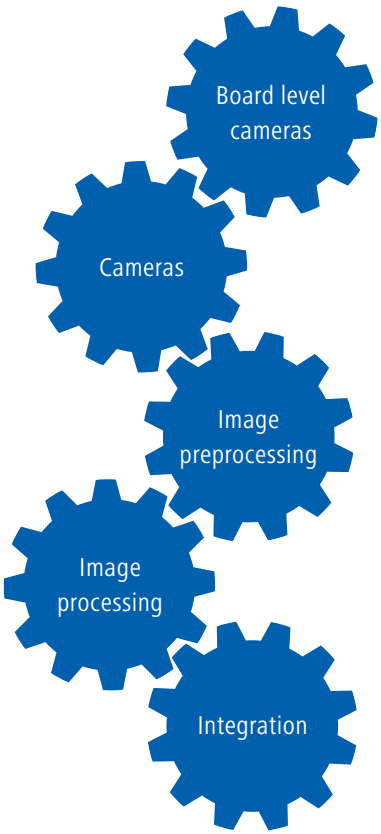
Precisely implemented embedded vision.



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



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

Intelligent software integration.

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

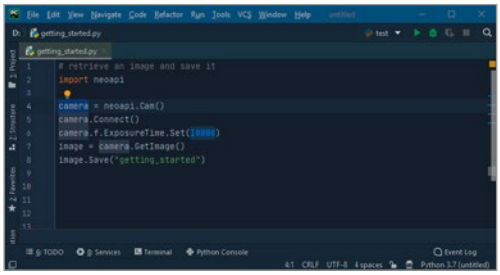
		neoAPI	GAPI SDK v2.x	Camera Link® SDK [1]
Interfaces	GigE / 10 GigE / Dual GigE	■	■	–
	USB 3.0	■	■	–
	Camera Link®	–	–	■
Hardware platforms	x86 / x64 | Linux® ARM®	■ | ■	■ | ■	■ | –
Operating systems	Windows® 7 / 10 | Linux®	■ | ■	■ | ■	■ | –
Programming languages	C++ | C# | Python™	■ | ■ | ■	■ | ■ | –	■ | – | –

[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

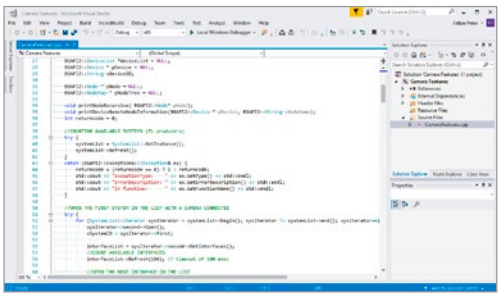
Baumer neoAPI for C++, C# and Python™

The modern, powerful and user-friendly Baumer neoAPI allows you to quickly and easily integrate our cameras in your PC and embedded systems. The integrated automatisms cuts the amount of code required down to a minimum, e.g. six lines suffice for image capturing and storage. Auto-complete support not only suggests and completes code fragments but also GenICam™ camera features providing pop-up help windows. Based on the proven SDK Baumer GAPI, you will benefit from very high stability and performance.



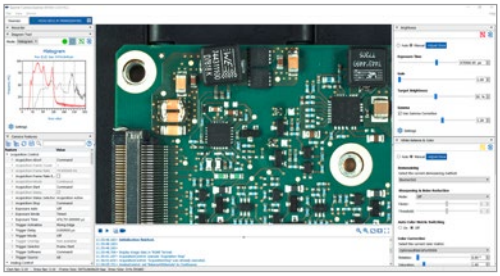
Baumer GAPI SDK for C++ and C#

Baumer GAPI, our popular SDK for single and multi-camera applications, has been proven many times in systems and meets the highest performance requirements at yet low processor load. Consistent GenICam™ and GenTL support enables flexible camera integration into your application and software environment.



Baumer Camera Explorer

Baumer Camera Explorer, the intuitive GUI application, allows for easy camera evaluation and configuration in an instant. The well-structured and clear user interface optimally supports getting to know, testing and configuration of the varied camera features.



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.

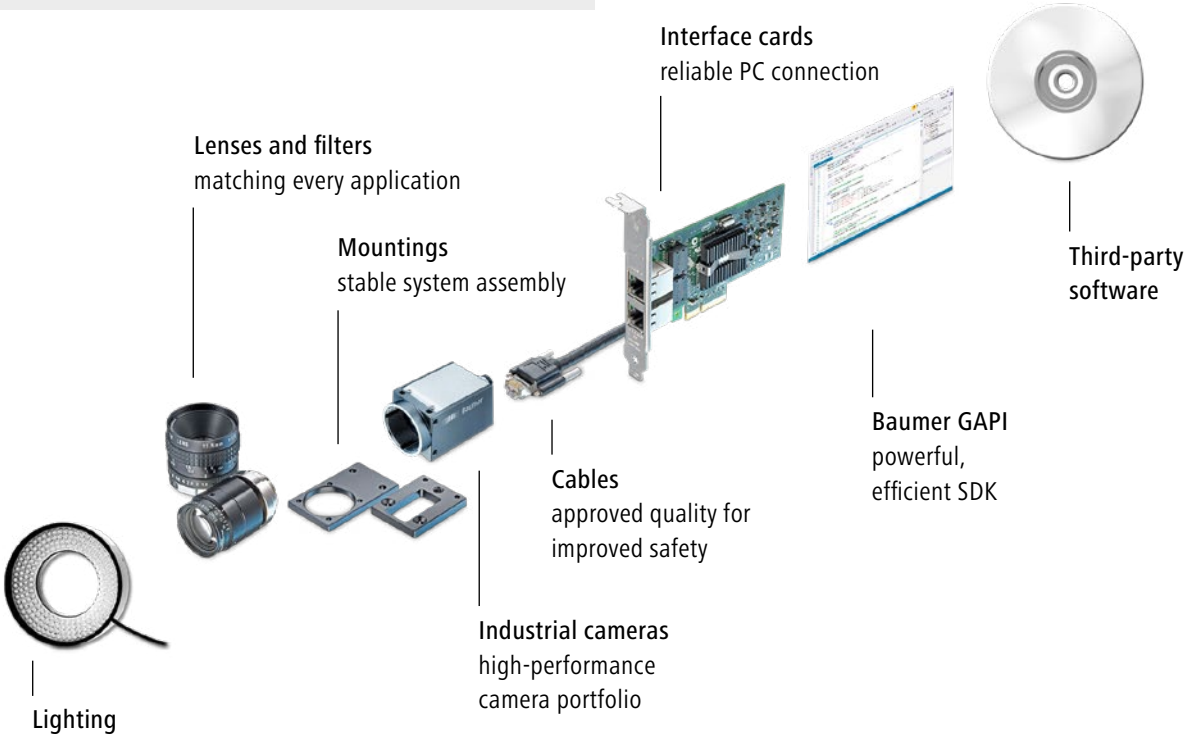
Matching accessories for your system.

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



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]
QX series							
GigE Vision®	VQXT-120.HS	M | C	APS-C CMOS	CMV12000	4096 × 3068	5.5 × 5.5	335 | 92 [1]
LX series							
GigE Vision®							
3D laser triangulation	LXG-20.3D	M | –	2/3" CMOS	CMV2000	2048 × 1088	5.5 × 5.5	338 | 56 [1]
JPEG image compression	LXG-20.JP	M | C	2/3" CMOS	CMV2000	2048 × 1088	5.5 × 5.5	140 | 56 [1]
	LXG-40.JP	M | –	1" CMOS	CMV4000	2048 × 2048	5.5 × 5.5	74 | 29 [1]
	LXG-250.JP	M | –	APS-H CMOS	PYTHON 25K	5120 × 5120	4.5 × 4.5	10 | 4 [1]
MX series							
GigE Vision®	MXGC20	M | –	2/3" CMOS	CMV2000	2040 × 1084	5.5 × 5.5	55
	MXGC40	M | –	1" CMOS	CMV4000	2040 × 2044	5.5 × 5.5	29
LX *VisualApplets* cameras							
GigE Vision®	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]
***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 | –	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-40.I	M | –	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 | –	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]
Camera Link®	HXC20	M | –	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	HXC40NIR	M | –	1" CMOS	CMV4000	2048 × 1088	5.5 × 5.5	180

[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
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
Norway
Poland
Portugal
Romania
Russia
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Turkey
United Kingdom

Oceania
Australia
New Zealand

For more information about our worldwide locations go to:
www.baumer.com/worldwide

Represented by:

Baumer
Passion for Sensors