

Innovative Technology for maximum light efficiency

- **Maximum photo sensitivity**
(2,500 ASA monochrome, 2,000 ASA RGB)
- **1,280 (H) x 1,024 (V) CMOS-Sensor**
- **Up to 80 frames per second at full resolution**
- **Up to 80,000 frames per second at reduced resolution**
- **GigE Vision® Interface at 110 MB/second**
- **monochrome or color with BAYER-filter**
- **Extended Dynamic Range up to 90 dB**
- **Multiple frame exposure**
- **Multiple RoI**
- **X- and Y-mirroring of image data**
- **Small and compact design**
- **Optional C-/F-Mount lens mount**

Maximum photo sensitivity

No more attention to the light – the EoSens® is the first high speed camera with a photo-sensitivity of 2,500 ISO/ASA. Thus it opens up completely new potentials for high-speed inspection/monitoring. Even in low-light conditions, EoSens® provides high-speed images without complex lighting equipment.

Dynamic Range Adjustment of extreme contrasts

Through 2 selectable steps, the camera's Dynamic Range Adjustment option allows to approach the CMOS sensor's linear range into a non-linear dynamic range. Consequently, EoSens® provides definite image details even in case of extreme dark-light contrasts, which means an invaluable benefit exceptionally in image processing.



Multiple pixel exposure for indefinite lighting conditions

If desired, pixel exposure can be accumulated up to 7 times, resulting in alternative image exposures. The optimally exposed image can be selected for further processing. At indefinite lighting conditions, as in 24h outdoor applications, EoSens® becomes the high-speed camera that spots everything.

Flexible in resolution and speed

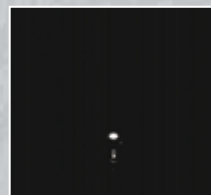
EoSens® GE transfers up to 80 frames/second at maximum resolution of 1,280(H) x 1,024(V) pixels. By free choice of the Region of Interest (RoI), frame rate can be increased up to 80,000 frames per second.

Multiple RoI for the choice of several objects

EoSens® allows to simultaneously choose up to three individual RoIs within the complete frame range. Thus, multiple objects can be captured independently at the same time.

High-Speed Vision through Gigabit Ethernet

EoSens® GE is the high speed camera made for Gigabit Ethernet. Without costly hardware, the camera is ready-to-use at any current Gigabit Ethernet PC or notebook. The camera's GigE Vision standard enables easy connection and parametrization of camera, hardware and software.



Standard High Speed



EoSens®

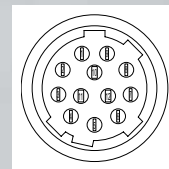


EoSens® Dynamic Range Adjustment

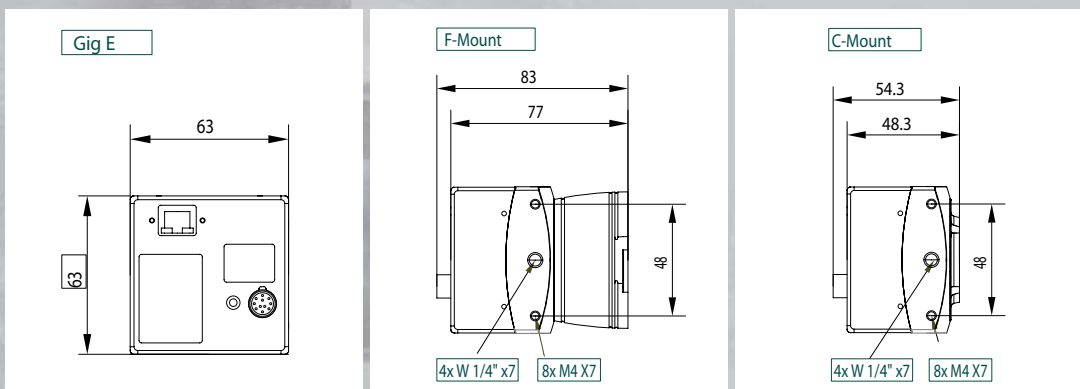
Technical Data	
Sensor	CMOS Sensor, 1,280 (H) x 1,024 (V) pixel active area 22,9 mm (diagonal) 17.92 (H) x 14.34 (V) mm 10-bit monochrome or RGB color with BAYER-filter
Pixel size	14 x 14 µm
Light sensitivity	Monochrome 25 V/lux-sec 2,500 ASA, monochrome 2,000 ASA, color
Image speed	1 - 80 fps* at full 1,280 (H) x 1,024 (V) resolution, up to 80,000 fps at reduced resolution
Fill factor x Quantum efficiency	40%
Video output	GigaBit Ethernet, GigE Vision Standard
Pixel clock	80 Mhz
Shutter	internal timer; 2 µs steps, 2 µs - 1 s or pulse width of external trigger signal
Amplification	Digital Gain 1 - 4, in 1/1,024 steps
Camera configuration	Via GenAPI
Power supply	8 - 24 V DC external power supply
Power consumption	5 W
Environment	+5...50 °C
Shock, Vibration	70 g, 7 grms
Lens Mount	C-Mount or F-Mount
Camera size (B x H x T)	63 x 63 x 47 mm (C-Mount)
Weight	300 g, without lens

Type selection			
Name	color/mono	Interface	max. fps @ 1,280 x 1,024
EoSens® GE	M	GigE Vision®	80
EoSens® GE	C	GigE Vision®	80

Connector pin assignment			
12-pol. Hirose			
Pin	Signal	Pin	Signal
1	GND	7	
2	VCC (8 - 24V)	8	
3	GND STROBE	9	
4	STROBE	10	
5	GND TRIG	11	VCC (8-24V)
6	TRIGGER	12	GND



*fps = frames per second



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