



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 506 frames per second at full resolution**
- **Up to 120,000 frames per second at reduced resolution**
- **Base or Full Camera Link® Interface with 700/160 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 photosensitivity of 2,500 ISO/ASA. Thus EoSens® 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 change the CMOS sensor's linear range into a 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 24 h outdoor applications, EoSens® becomes the high speed camera that spots everything.

Flexible in resolution and speed

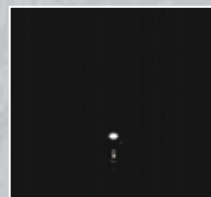
EoSens® CL makes up to 506 frames per second at maximum resolution of 1,280 (H) x 1,024 (V) pixels. By free choice of the Region of Interest (RoI), the camera's frame rate can be increased up to 120,000 frames per second.

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.

"Freeze Frame" full frame shutter

The EoSens® features a "Freeze Frame" shutter that is able to process and store a complete frame while exposing the next image. At exposure times down to 2 µs, this enables even capturing fast moving objects at high definition in synchronous, free run and asynchronous triggered mode.



Standard High Speed



EoSens®



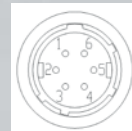
EoSens® Dynamic Range Adjustment

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-s 2,500 ASA monochrome 2,000 ASA RGB
Image speed	1 - 506 fps* at full 1,280 (H) x 1,024 (V) resolution, up to 120,000 fps at reduced resolution
Fill Factor x quantum efficiency	40%
Video output	Base Camera Link®, 2 x 8-bit, 2 x 10-bit Medium Camera Link®, 4 x 10-bit Full Camera Link®, 8 x 8-bit, 10 x 8-bit
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 times, 1/1,024 steps
Camera configuration	Serial interface via Camera Link® 9,6 - 115 kBd, n, 8, 1
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

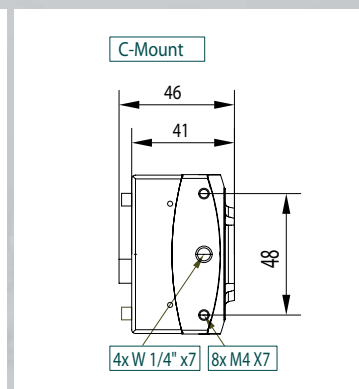
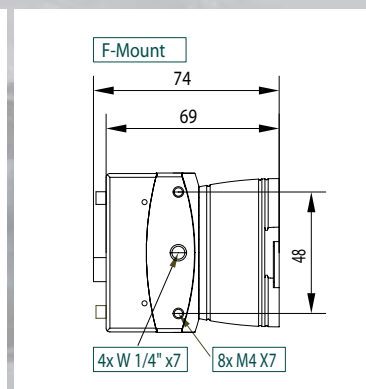
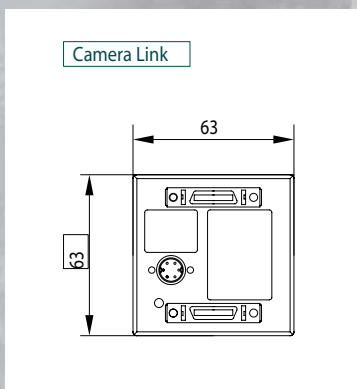
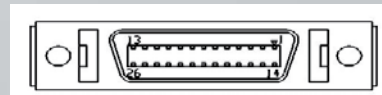
Type Selection			
Name	color/mono	Interface	max. fps @ 1,280 x 1,024
EoSens® CL base	M	Base Camera Link®	120
EoSens® CL base	C	Base Camera Link®	120
EoSens® CL full	M	Full Camera Link®	506
EoSens® CL full	C	Full Camera Link®	506

Connectors			
6-pin. Hirose power connector			
Pin	Signal	Pin	Signal
1	VCC	4	DGND*
2	VCC	5	GND
3	STRB	6	GND

*DGND...digital GND for STRB signal



Two 26-pin Camera Link® Connectors	
All signals according to „Base“ / „Full“ Camera Link® specification	
Signal	Description
CC1	EXP



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