

3 Megapixel High Definition - for detailed images

- **Extremely flexible in resolution and speed:**
3 Megapixel resolution up to 285 frames per second at 1,690 (H) x 1,710 (V) pixel resolution
- **Adjustable Region of Interest (RoI) with correspondent increased frame rate:**
604 fps at 1,280 (H) x 1,024 (V) pixel resolution
858 fps at 1,280 (H) x 720 (V) pixel resolution
731 fps at 1,000 (H) x 1,000 (V) pixel resolution
- **Stepless adjustable frame rate up to more than 150,000 frames per second at reduced resolution**
- **Maximum photo sensitivity:**
1,200 ASA monochrome, 1,000 ASA RGB
- **Full Camera Link® interface with 850 MByte/second**
- **Monochrome or color with Bayer-filter**
- **Extended dynamic range up to 80 dB**
- **Small and compact design**
- **C-Mount or F-Mount lens adapter**

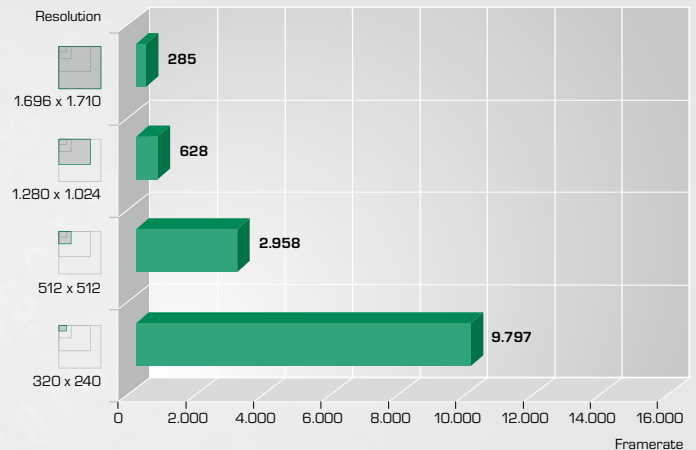


Lighting becomes a minor matter

The EoSens® 3CL meets the requirements for most varied applications, because resolution and speed are variable adjustable. A resolution of 1,690 (H) x 1,710 (V) pixels ensures superb image quality with extremely sharp images. With the proven Mikrotron high-speed technology the camera takes up to more than 150,000 frames per second.

Dynamic Range Adjustment

The camera's Dynamic Range Adjustment feature allows to change the CMOS sensor's linear transfer characteristic into a non-linear one. Thus, the camera provides clear details even at extreme dark/light contrasts.



"Freeze Frame" full frame shutter

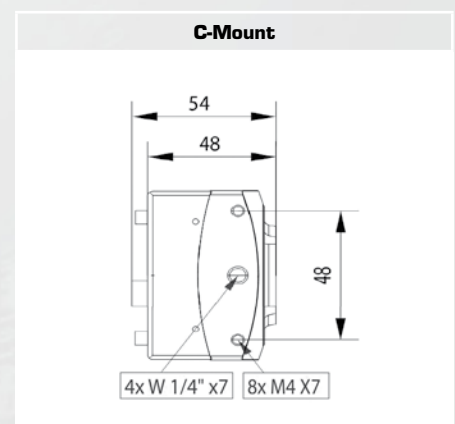
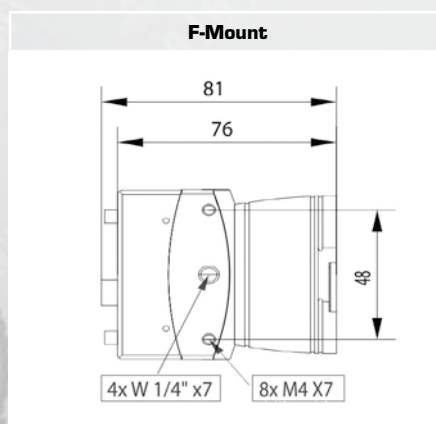
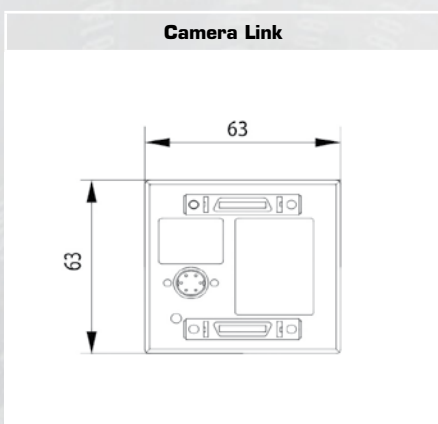
The EoSens® 3CL features a "Freeze Frame" shutter that is able to process and store a complete frame while exposing the next image. At exposure times down to 2 µs, this enables even capturing fast moving objects at high definition in synchronous, free run and asynchronous triggered mode.

Technical Data	
Sensor	- CMOS sensor 1,696 (H) x 1,710 (V) pixel - active area 19.27 mm (diagonal) - 13.57 (H) x 13.68 (V) mm - 8-bit monochrome or RGB-color with BAYER-filter
Pixel size	8 x 8 µm with micro lenses
Light sensitivity	1,200 ASA monochrome, 1,000 ASA RGB-color, monochrome 25 V/lux-s
Image speed	1-285 fps* at full resolution, up to more than 150,000 fps at reduced resolution
Shutter	global electronic shutter from 1 µs to 1 s, in 2 µs steps
Internal dynamics	up to 80 dB using Dynamic Range Adjustment
Spectral bandwidth	400-900 nm
Pixel clock	60-85 Mhz
Fill factor x quantum efficiency	40 %
Video output	Full Camera Link [®] , 8 x 8-bit, 10 x 8-bit
Camera configuration	Serial interface via Camera Link [®] 9,6 - 115 kBd, n, 8, 1
Camera size	63 x 63 x 54 mm (C-Mount)
Weight	300 g, without lens
Lens mount	C-Mount or F-Mount
Camera body temperature	+5... 50 °C
Shock/vibration	70 g, 7 grms
Power supply	8-24 V DC external power supply
Power consumption	7 W max.

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 „Full“ Camera Link [®] specification			
Signal		Description	
CC1		EXP	

Recording Data			
Resolution	Frame Rate	Resolution	Frame Rate
1,696 (H) x 1,710 (V)	285 fps	640 (H) x 480 (V)	5,985 fps
1,280 (H) x 1,024 (V)	604 fps	512 (H) x 512 (V)	2,232 fps
1,280 (H) x 720 (V)	858 fps	320 (H) x 240 (V)	2,084 fps
1,000 (H) x 1,000 (V)	731 fps	120 (H) x 100 (V)	18,881 fps

* fps = frames per second



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