

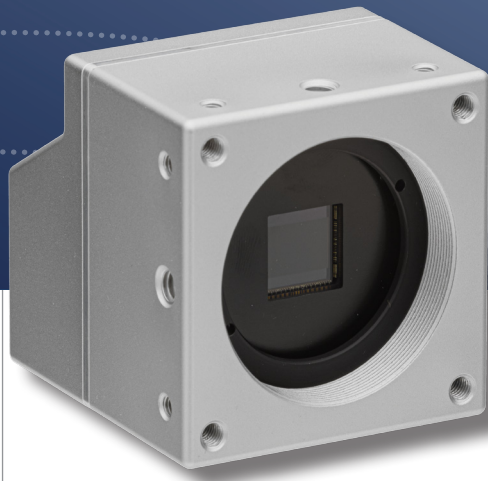
Optronis

Make time visible

CYCLONE SERIES

Cyclone-25-150

High-Speed Machine Vision Camera



CXP-12

- ✓ HIGH SPEED MACHINE VISION
- ✓ AUTOMATED OPTICAL INSPECTION (AOI)
- ✓ SEMICONDUCTOR QUALITY CONTROL

- 150 fps with 5 120 x 5 120 pixels
- Global shutter mode
- Low noise pixel
- CoaXPress V2.1 interface with 4 x 12.5 Gbit/s
- Power and trigger via CoaXPress

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Cyclone-25-150 High-Speed Machine Vision Camera

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FEATURES

Cyclone-25-150 camera provides high resolution images at high frame rate of 150 fps. The camera is part of Optronis Cyclone series for demanding machine vision applications.

- 5 120 x 5 120 pixel resolution
- low noise pixel

Firmware features

- Analogue gain and offset adjustment
- Defect pixel correction (customer activatable)
- Dual ROI and Line skipping
- Framenumber and Microsecond counter on image

PERFORMANCE (EXAMPLES, 8 BIT, SEE ALSO FRAME RATE CALCULATOR)

Resolution (HxV)	Frame rate	Resolution (HxV)	Frame rate
5 120 x 5 120	150 fps	5 120 x 2 560	298 fps
4 096 x 4 096	187 fps	5 120 x 1 280	590 fps
1 280 x 720	1 029 fps	5 120 x 4	21 496 fps

MODELS

Cyclone-25-150-M	monochrome Camera
Cyclone-25-150-C	color Camera
Scope of delivery	Camera, brief introduction

ACCESSORIES

CY-CM	C-Mount lens adapter
CY-FM	F-Mount lens adapter
CY-M42	M42 Mount lens adapter
CPH6-PTC	Pig tail cable for synch
CPH6-USB	Programming Cable
CY-HIS	Heat Sink
CY-FAN	Cooling Fan

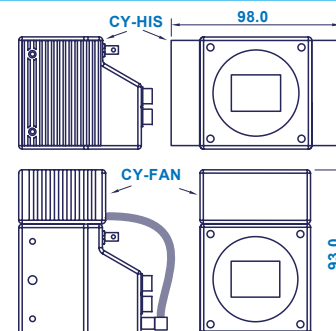
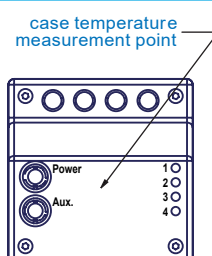
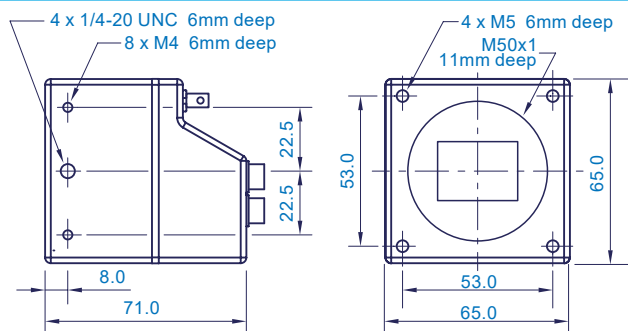


SPECIFICATIONS

Sensor type	GMAX0505, High-Speed, Grade 1
Resolution	5 120 pixel x 5 120 pixel
Frame rate (full resolution)	20 .. 150 fps
Exposure time	8 µs .. 1 / frame rate
Active area / Diagonal	12.80 mm x 12.80 mm / 18.10 mm
Pixel distance	2.5 µm x 2.5 µm
A/D conversion	8/10 Bit
Quantum efficiency (sensor)	45 % @ 520 nm
Synchronization	internal, external, CoaXPress
Synchronization signals	Synch IN and Synch OUT, TTL level, electrically isolated
Interface	CoaXPress 2.1 Micro-BNC (HD-BNC) connectors
Interface Configurations	4 x CXP12, 2 x CXP12, 1 x CXP12, 4 x CXP6, 2 x CXP6
Power	12 W, PoCXP, ext.
Temperature Ranges	- operation, amb., no cooling 0 .. +30°C / 32 .. 82°F - operation, amb., with CY-HIS 0 .. +40°C / 32 .. 104°F - operation, amb., with CY-FAN 0 .. +55°C / 32 .. 131°F - operation, case temperature 0 .. +65°C / 32 .. 149°F
Weight	400 g w/o mount, w/o cooling
Dimensions	65 mm x 65 mm x 71 mm (3D model data available)

EMVA1288 data (v4.0 typ.)	8 bit	10 bit
Dynamic range	56 dB	60 dB
Saturation capacity	4 000 e ⁻	4 000 e ⁻
Temporal dark noise	<7 e ⁻	3.3 e ⁻
System gain	17 e ⁻ /DN	4.4 e ⁻ /DN
Signal-to-Noise Ratio	36 dB	36 dB
Dark Signal Non-Uniformity	19 e ⁻	19 e ⁻
Photo Response Non-Uniformity	1.6 %	1.5 %
Non-Linearity Error (V3.0)	0.6 %	0.5 %

TECHNICAL DRAWINGS



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