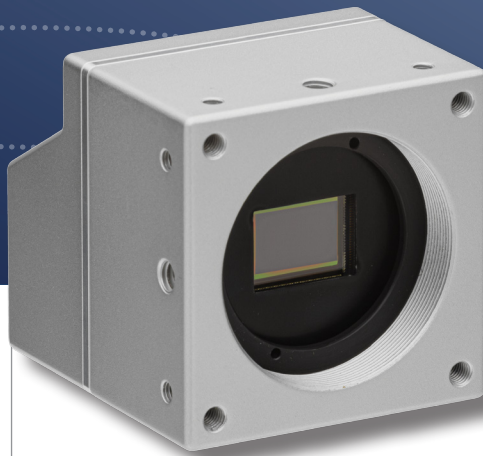


CYCLONE SERIES

Cyclone-2-2000

High-Speed Machine Vision Camera



CXP-12

- ✓ METROLOGY AND HIGH SPEED MACHINE VISION
- ✓ LASER LINE PROFILOMETRY
- ✓ AUTOMATED OPTICAL INSPECTION (AOI)

- 2 166 fps with 1 920 x 1 080 pixels
- Global shutter with low noise pixel
- Micro-BNC (HD-BNC™) connectors
- CoaXPress V2.1 interface with 4 x 12.5 Gbit/s
- Power and trigger via CoaXPress
- Microsecond and frame counter

Cyclone-2-2000 High-Speed Machine Vision Camera- *Optronis*

Make time visible

FEATURES

The Cyclone-2-2000 is a high resolution camera with low noise pixels. It is part of Optronis Cyclone series for demanding machine vision applications. Reducing vertical resolution allows increased frame rate.

- 1 920 x 1 080 pixel resolution
- low noise pixel

Firmware features

- Analogue gain adjustment
- Analogue offset adjustment
- Hot pixel correction (customer activatable)
- LUT factory set or customer definition
- Framenumber and Microsecond counter on image

PERFORMANCE (EXAMPLES, 8 BIT)

Resolution (HxV)	Frame rate	Resolution (HxV)	Frame rate
1 920 x 1 080	2 166 fps	1 920 x 960	2 435 fps
640 x 480	5 143 fps	1 920 x 120	18 667 fps
512 x 384	6 409 fps	1 920 x 32	61 842 fps
256 x 4	248 756 fps	1 920 x 8	167 504 fps

MODELS

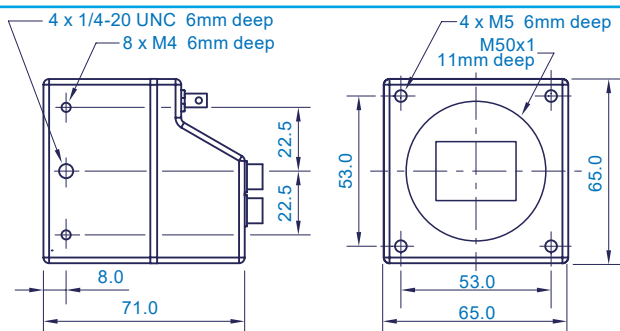
Cyclone-2-2000-M	monochrome Camera
Cyclone-2-2000-C	color Camera
Scope of delivery	Camera, brief introduction

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



TECHNICAL DRAWINGS



CONTACT INFORMATION

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The information given herein is believed to be reliable, however Optronis makes no warranties as to its accuracy or completeness. Data sheet is subject to modifications at any time. 11.25

SPECIFICATIONS

Sensor type	LUX19HS, Global Shutter
Resolution	1 920 pixel x 1 080 pixel
Frame rate (full resolution)	20 .. 2 166 fps
Exposure time	4 µs .. 1 / frame rate
Active area / Diagonal	19.20 mm x 10.80 mm / 22.03 mm
Pixel distance	10.0 µm x 10.0 µm
A/D conversion	8/10 Bit
Sensitivity (sensor)	20 V/lux·s @ 550 nm
Quantum efficiency (sensor)	>45 % @ 550 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 .. 86°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)
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EMVA1288 data (v4.0 typ.)	8 bit	10 bit
Dynamic range	53 dB	59 dB
Saturation capacity	13 000 e ⁻	13 000 e ⁻
Temporal dark noise	22 e ⁻	13 e ⁻
System gain	60 e ⁻ /DN	14 e ⁻ /DN
Signal-to-Noise Ratio	41 dB	41 dB
Dark Signal Non-Uniformity	40 e ⁻	21 e ⁻
Photo Response Non-Uniformity	1.8 %	1.4 %
Non-Linearity Error	2.2 %	1.8 %

