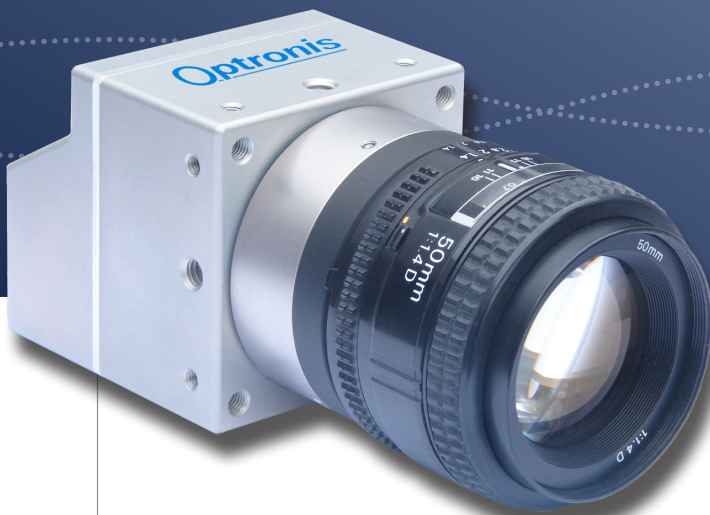


CAMPERFORM-CYCLONE SERIES

Cyclone-1HS-3500

High-Speed Machine Vision Camera



CXP-12

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

- 3 500 fps with 1 280 x 860 pixels
- Global shutter with low noise pixel
- Micro-BNC (HD-BNC™) connectors
- CoaXPress V2.0 interface with 4 x 12.5 Gbit/s
- Power and trigger via CoaXPress
- Microsecond and frame counter

FEATURES

The Cyclone-1HS-3500 is a high resolution camera with large low noise pixels. It is part of Optronis CamPerform-Cyclone series for demanding machine vision applications.

- 1 280 x 860 pixel resolution
- low noise pixel
- frame rate increases with vertical window size reduction

Firmware features

- Analogue gain adjustment
- Analogue offset adjustment
- Hot pixel correction (customer activatable)
- Framenumber and Microsecond counter on image

PERFORMANCE (EXAMPLES, 8 BIT)

Resolution (HxV)	Frame rate	Resolution (HxV)	Frame rate
1 280 x 860	3 518 fps	1 280 x 8	216 743 fps
640 x 480	6 270 fps	1 280 x 4	302 915 fps
320 x 240	12 385 fps	256 x 4	302 915 fps

INTERFACE CONFIGURATIONS

Standard	CoaXPress V2.0
Channels used	4, 2 or 1 @ CXP12 4 or 2 @ CXP6

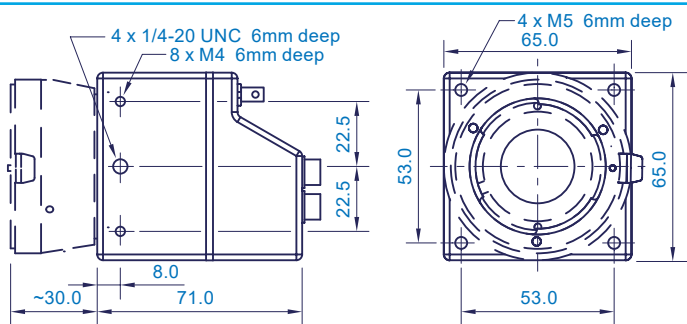
MODELS

Cyclone-1HS-3500-M	monochrome Camera
Cyclone-1HS-3500-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. 12.19

SPECIFICATIONS

Sensor type	LUX13HS, Global Shutter
Resolution	1 280 pixel x 860 pixel
Frame rate (full resolution)	20 .. 3 518 fps
Exposure time	2 μs .. 1 / frame rate
Active area / Diagonal	17.53 mm x 11.78 mm / 21.12 mm
Pixel distance	13.7 μm x 13.7 μm
A/D conversion	8/10 Bit
Quantum efficiency (sensor)	30 % @ 550 nm
Synchronization	internal, external, CoaXPress
Synchronization signals	Synch IN and Synch OUT, TTL level, electrically isolated
Interface (physical)	Micro-BNC (HD-BNC) connectors
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 .. +70°C / 32 .. 158°F
Weight	400 g w/o mount, w/o cooling
Dimensions	65 mm x 65 mm x 71 mm (3D model data available)

EMVA1288 measurements 8 bit (v3.1 typ. preliminary)

Dynamic range	56 dB
Saturation capacity	20 000 e ⁻
Temporal dark noise	36 e ⁻
System gain	90 e ⁻ /DN
Signal-to-Noise Ratio	43 dB
DSNU	130 e ⁻
PRNU	2 %
Non-linearity error $ LE_{min} , LE_{max} $	0.5 % (TBD % EMVA1288 v3.0)

