



# Matrox GatorEye >>

GigE Vision® industrial camera family with IP67-rating.



## Key features

- > IP67 rated housing
- > PoE capable
- > 12-24 volt operation
- > VGA to 2 Mpixel CCD sensors
- > monochrome and color
- > opto-coupled trigger and strobe
- > 8 GPIOs
- > controlled current source for powering LED illuminators directly
- > royalty-free use of Matrox Imaging Library (MIL) driver for GigE Vision®

## Designed for harsh industrial environments

The Matrox GatorEye IP67-rated GigE Vision® industrial camera family is designed for use in damp and dusty environments such as glass bottle manufacturing, or environments where the processing equipment is subject to frequent wash down such as food and beverage plants. The Matrox GatorEye is fully integrated, eliminating the need to separately source a sealed camera housing. Moreover, the housing provides easy access to the lens, avoiding the hassle of having to remove the whole camera from a sealed housing to adjust the lens.

## Flexible power options

The Matrox GatorEye camera can operate on a separate 12 to 24 Volt input, the latter the most typically found in electrical cabinets on plant floors. Cabling is further simplified by making use of a camera's Power-over-Ethernet (PoE) capability, which enables power and data transmission over a single cable.

## Versatile Connectivity

The Matrox GatorEye offers numerous I/Os for controlling all aspects of image capture. An opto-isolated trigger input with associated debouncing circuitry enables to directly synchronize image capture with external events. A strobe output enables the control of scene illuminators. A controlled current source output is also provided for directly driving a LED illuminator, eliminating the need for a separate controller, which reduces costs and simplifies integration. In addition, the Matrox GatorEye offers eight GPIOs for directly interacting with other automation devices.



Preliminary

## Specifications

	GE300*	GE300C*	GE1200*	GE1200C*	GE1900*	GE1900C*
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### Sensor board

CCD sensor	Geometry	diagonal 6 mm (1/3"-type)	diagonal 6 mm (1/3"-type)	diagonal 6 mm (1/3"-type)	diagonal 6 mm (1/3"-type)	diagonal 8.9 mm (1/1.8"-type)	diagonal 8.9 mm (1/1.8"-type)
	Format	monochrome	color	monochrome	color	monochrome	color
	Make and model	Kodak KAI-0340	Kodak KAI-0340	Sony ICX445	Sony ICX445	Sony ICX274	Sony ICX274
Effective resolution (H x V)	640 x 480	640 x 480	1280 x 960	1280 x 960	1600 x 1200	1600 x 1200	
Frame rate	110 fps	110 fps	22.5 fps	22.5 fps	15 fps	15 fps	
Pixel size (H x V)	7.4 μm x 7.4 μm	7.4 μm x 7.4 μm	3.75 μm x 3.75 μm	3.75 μm x 3.75 μm	4.4 μm x 4.4 μm	4.4 μm x 4.4 μm	
Gain range	0 to 36 dB	0 to 36 dB	0 to 36 dB	0 to 36 dB	0 to 36 dB	0 to 36 dB	
Shutter speeds	34 μs to 1.19 s	34 μs to 1.19 s	58 μs to 2.91 s	58 μs to 2.91 s	88 μs to 3.5 s	88 μs to 3.5 s	
External trigger latency	1.1 μs	1.1 μs	1.4 μs	1.4 μs	7.2 μs	7.2 μs	
Ext. trigger to output strobe delay	1.1 μs	1.1 μs	1.4 μs	1.4 μs	7.2 μs	7.2 μs	

### I/Os

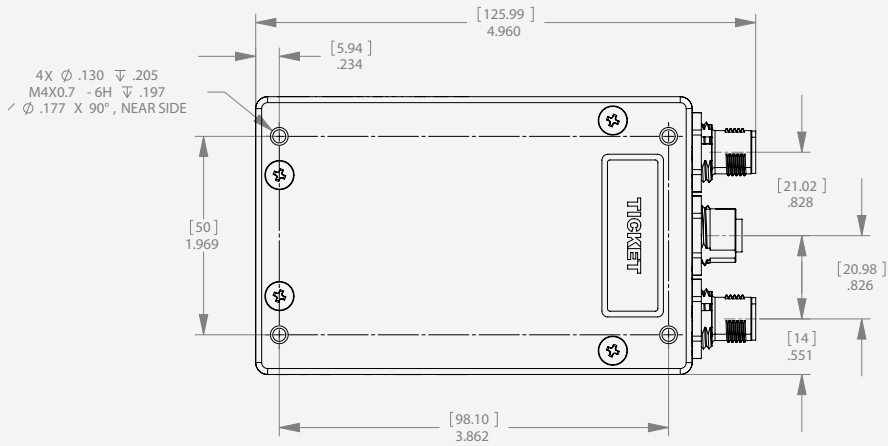
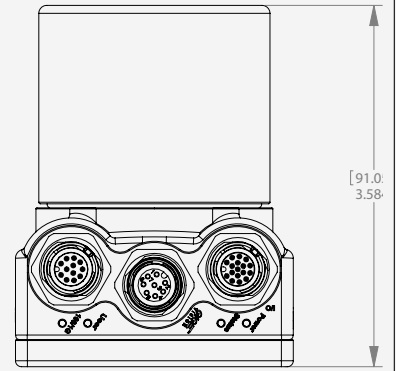
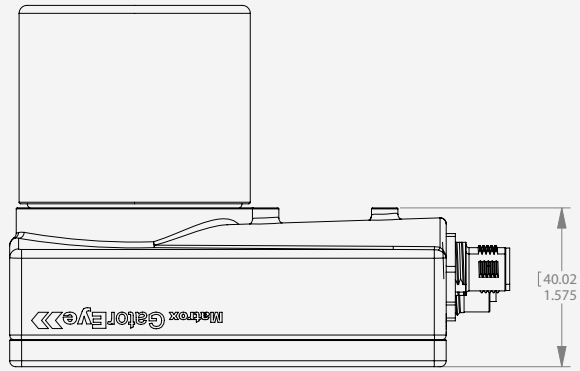
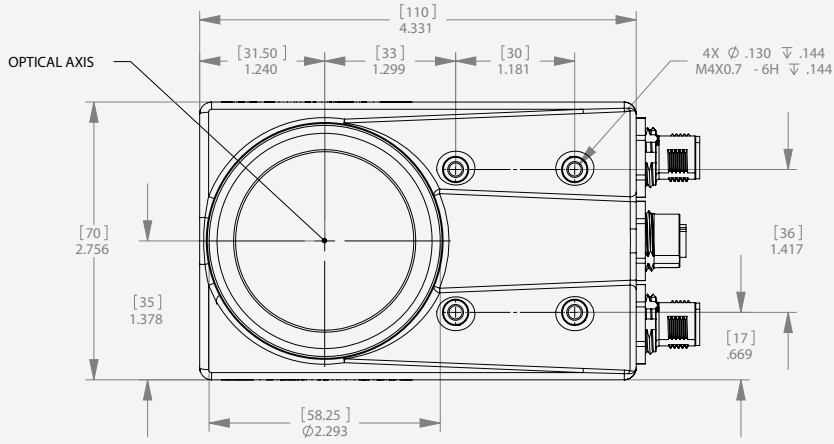
Network interface	100/1000 Mbit Ethernet
Digital I/Os	4 opto-coupled inputs, 4 outputs (including a strobe output), 1 opto-coupled trigger
Current-controlled	0-500 mA in 255 steps for LED illuminators

### Mechanical, electrical and environmental information

Dimensions	refer to Figure
Lens type	C-mount
Connectors	M12-8 pins for Ethernet, M12-17 pins for power and digital I/Os
Weight	500 g (17.6 oz.)
Power requirements	12-24 Volts DC or PoE
Power consumption	250 mA @ 24 VDC or 6 W (typical)
Operating temperature	0 °C to 50 °C (32 °F to 122 °F)
Ventilation requirements	natural convection
Certifications	GigE Vision®, GenICam (compliant), FCC class A, CE class A, RoHS-compliant, IP67 enclosure (IEC 60529-dust tight and protected against temporary immersion), EN 60721-3-3 Category 3M8 (operating vibration up to 5g and shock up to 25g)

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» Dimensions



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## Ordering Information

### Hardware

Part number	Description
GE300*	Matrox GatorEye camera with 640x480 @ 110fps 1/3" monochrome CCD.
GE300C*	Same as above but with color CCD.
GE1200*	Matrox GatorEye camera with 1280x960 @ 22fps 1/3" monochrome CCD.
GE1200C*	Same as above but with color CCD.
GE1900*	Matrox GatorEye camera with 1600x1200 @ 15fps 1/1.8" monochrome CCD.
GE1900C*	Same as above but with color CCD.
GT-CBL-PWR/3*	9.8' or 3m cable for Matrox GatorEye to connect power and GPIOs. M12 to open end.
GT-CBL-ETH/5*	16.4' or 5m Ethernet cable for Matrox GatorEye. M12 to RJ45 plug.
BREAKOUT-BOX*	DIN-rail mountable breakout box for easy connection of GPIOs, trigger, strobe and power to Matrox GatorEye. Includes M12 to DB25 cable.

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