

GO-2401M-PGE

Technical Datasheet

Lince5M



See the possibilities



Apex Series



JAI's Go Series delivers an exceptional blend of small size, high versatility, and excellent performance, all at an entry-level price, making the cameras a perfect starting point for a wide range of machine vision applications.

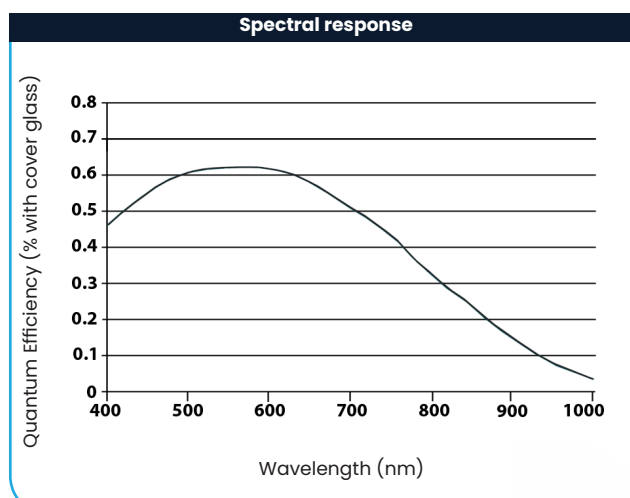
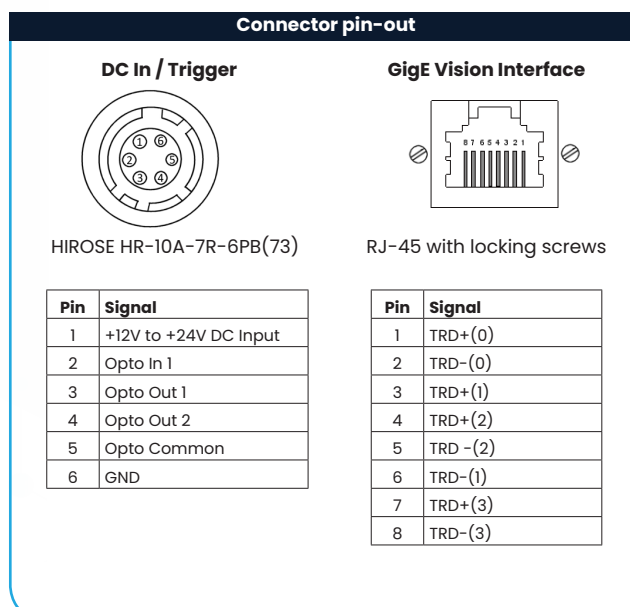
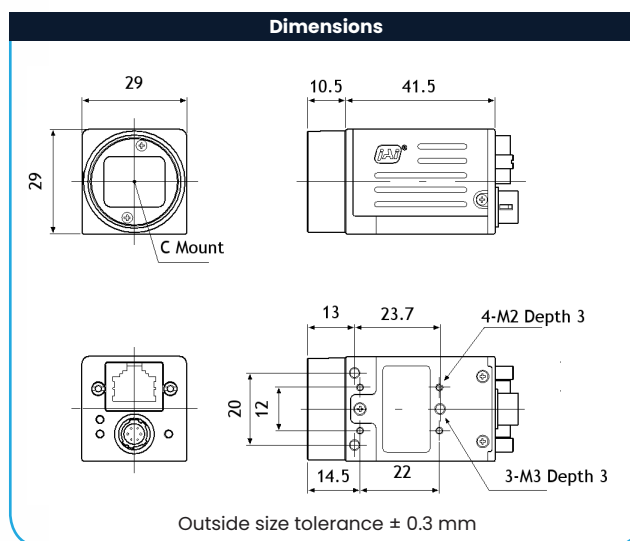
CMOS technology, low-noise pixels, global shutters, sequencer functions, and other advanced features help ensure image quality and operational flexibility beyond entry-level expectations.

Specification Highlights

SENSOR: Lince5M
FORMAT: 1"
PIXEL SIZE: 5.0 x 5.0 μ m
LENS MOUNT: C-Mount
SPECTRUM: Monochrome
(Visible + NIR)

SHUTTER: Global Shutter
FRAME RATE: 22 fps
INTERFACE: GigE Vision 1-Cable (PoE)
RESOLUTION MP: 5 MP
RESOLUTION WxH: 2560 x 2048 px

Specifications	GO-5000M-PGE
Sensor	1" CMOS global shutter (Lince5M)
Pixel clock	48 MHz
Frame rate, full frame	22 frames/sec. @ 8-bit
Active area	12.8 mm (h) x 10.2 mm (v), 16.39 mm diagonal
Cell size	5.0 μm (h) x 5.0 μm (v)
Active pixels	2560 (h) x 2048 (v)
Read-out modes	
Full ROI (mono)	2560 (h) x 2048 (v) up to 22 fps Any start line, any height in 1-line steps, with X offset and width in 8-pixel steps
Binning	1x2, 2x1, 2x2, 4x4 (monochrome only)
EMVA 1288 Parameters	10-bit output format
Absolute sensitivity	20.17 p ($\lambda = 525 \text{ nm}$)
Maximum SNR	41.30 dB
Traditional SNR*	>55 dB (0 dB gain)
Video signal output	8/10/12-bit
Gain (digital)	Manual/automatic 0 dB to +24 dB
Gain (analog)	1x, 2x, 4x
Gamma	0.45, 0.6, 1.0 or 32-point LUT (16-pt. color)
Synchronization	Internal
Trigger input	Opto In, Pulse Generators, Software, User Output, Actions
Trigger modes	EPS, Trigger Width, Timed RCT (with ALC), Sequence
Electronic shutter	
Timed exposure	10 μs to 8 sec in 1 μs steps
Auto shutter	1/22 to 1/10,000 sec.
Auto Level Control (ALC)	Shutter range from 1/22 to 1/10,000, gain range from 0 dB to +24 dB Tracking speeds and max values adjustable.
High Dynamic Range function	4 built-in HDR slopes. Selectable up to ~100 dB.
Pre-processing functions	Blemish compensation (256 pixels)
Operating temperature	-5°C to +45°C
Storage temperature	-25°C to +60°C
Humidity	20 - 80% non-condensing
Vibration	10 G (20 Hz to 200 Hz XYZ)
Shock	80 G
Regulations	CE (EN61000-6-2, EN61000-6-3), FCC Part 15 class B, RoHS, WEEE
Power	6-pin connector PoE
	12V to 24V DC $\pm 10\%$. 2.5W typical @ 12V 35V to 57V DC. 3.19W typical @ 55V
Lens mount	C-mount
Dimensions (H x W x L)	29 mm x 29 mm x 41.5 mm (excl. lens mount)
Weight	46 g
Ordering Information	
GO-5000M-PGE	Monochrome camera with GigE Vision



*Traditional SNR is based on random noise in a single frame, where EMVA SNR measurements consider more comprehensive noise sources and variance over time. For a more complete description, see the manual.

Product Highlights

- Large format 5 MP CMOS imager (global shutter)
- Up to 22 fps at full resolution
- 5.0 μm square pixels
- Small size (29 x 29 x 41.5 mm, excluding lens mount)
- 8/10/12-bit monochrome output
- 60 dB linear dynamic range with built-in HDR modes up to 100 dB
- Analog and digital gain control for less quantized noise in low-light situations
- Exposure control from 10 μs to 8 seconds in 1 μs steps
- 2X and 4X binning for increased sensitivity
- Single and multi-ROI modes for flexible windowing and use of 2/3" or smaller optics
- Accepts power over GigE Vision interface or separate 6-pin connector
- C-mount lens mount
- Automatic Level Control (ALC) for dynamic lighting conditions

Additional Product Images



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