

GO-5000M-USB-UV
5-megapixel CMOS global shutter

USBTM
VISION



- *Large format 5 MP CMOS imager (global shutter) with extended UV sensitivity*
- *Up to 62 fps at full resolution*
- *5.0 μm square pixels in a 5:4 aspect ratio*
- *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*
- *Automatic Level Control (ALC) for dynamic lighting conditions*
- *Accepts power over USB3 Vision interface or separate 6-pin connector*
- *C-mount lens mount*

Specifications for GO-5000M-USB-UV

Go Series

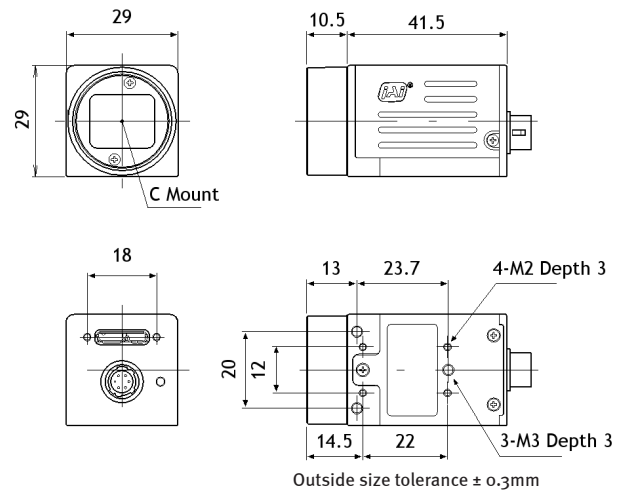
Specifications		GO-5000M-USB-UV
Sensor		1" CMOS global shutter (Lince5M) with no microlenses
Sensor protective covering		Quartz glass with double AR coating
Pixel clock		48 MHz
Frame rate, full frame		62 frames/sec. @ 8-bit
Active area		12.8 mm (h) x 10.2 mm (v), 16.39 mm diagonal
Cell size		5.0 μm (h) x 5.0 μm (v)
Active pixels		2560 (h) x 2048 (v)
Read-out modes	Full ROI	2560 (h) x 2048 (v) up to 62 fps
	Binning	Any start line, any height in 1-line steps, with X offset and width in 16-pixel steps 1x2, 2x1, 2x2, 2x4, 4x2, 4x4 (monochrome only)
Traditional SNR*		>55 dB (0 dB gain)
Video signal output		8/10/12-bit monochrome
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
Synchronization		Internal
Trigger input		Opto In, Pulse Generators, Software, User Output (NAND gates)
Trigger modes		EPS, Trigger Width, Timed RCT (with ALC), Sequence
Electronic shutter	Timed exposure Auto shutter	10 μs to 8 sec in 1 μs steps 1/62 to 1/10000 sec.
Auto Level Control (ALC)		Shutter range from 1/62 to 1/10000, 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		Flat field correction, 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 (20Hz to 200Hz XYZ)
Shock		80 G
Regulations		CE (EN61000-6-2, EN61000-6-3), FCC Part 15 class B, RoHS/WEEE
Power	6-pin connector USB 3.0	12V to 24V DC ± 10%. 2.8W typical @ 12V 720mA, 3.6W typical @ 5V
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-USB-UV | Monochrome UV camera with USB3 Vision

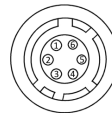
*Traditional SNR is based on random noise in a single frame, where EMVA SNR measurements consider more comprehensive noise sources and variance over time. For a more complete description, see the manual.

Dimensions



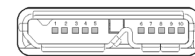
Connector pin-out

DC In / Trigger



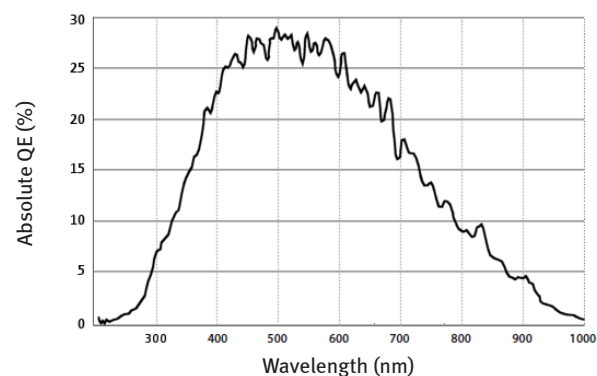
Pin	Signal
1	+12V to +24V DC input
2	Opto In 1
3	Opto Out 1
4	Opto Out 2
5	Opto Common
6	GND

USB 3.0 Interface



No	I/O	Name	Note
1	I	VBUS IN	Power (VBUS)
2	I/O	DM	USB2.0 Differential pair (-)
3	I/O	DP	USB2.0 Differential pair (+)
4		OTG ID	USB OTG ID for identifying lines
5		GND	GND
6	O	FX3 SSTXM	USB3.0 Signal Transmission line (-)
7	O	FX3 SSTXP	USB3.0 Signal Transmission line (+)
8		GND	GND
9	I	FX3 SSRXP	USB3.0 Signal Receiving line (-)
10	I	FX3 SSRXM	USB3.0 Signal Receiving line (+)

Spectral Response



Europe, Middle East & Africa
Phone +45 4457 8888
Fax +45 4491 3252

Asia Pacific
Phone +81 45 440 0154
Fax +81 45 440 0166

Americas
Phone (Toll-Free) 1 800 445 5444
Phone +1 408 383 0300

Visit our web site on www.jai.com

See the possibilities

