



General

Model:	exo4000MGE
Product code(s):	F002178
Product series:	EXO GigE
Status:	Available

Sensor

Sensor type:	Area scan
Chroma:	Mono
Spectrum:	Visible
Spectral range:	400 nm to 1000 nm
Resolution:	2,048 × 2,048 (4.00 MP)
Sensor model:	CMOSIS CMV4000-3E5M1PP
Sensor architecture (material):	cmos
Shutter type(s):	global-shutter
Sensor size:	11.26 × 11.26 mm (15.93 mm, 15.9mm (1"))
Pixel size:	5.50 μm × 5.50 μm

Pixel formats

Sensor bit depth:	8-Bit,12-Bit,12-Bit
Monochrome pixel formats:	mono8, mono12packed

Imaging performance

Dynamic range:	52 dB
SNR:	38 dB

Timing and gain

Max. frame rate:	29.5 fps
Max. frame rate burst:	74 fps
Exposure time:	60 μ s (max)
Gain:	0.0 dB to 11.0 dB

I/Os and power

Non-isolated lines:	0 x LVDS input, 0 x LVDS output, 0 x TTL input, 0 x TTL output, 2 x 24V input, 4 x Open drain output,
Specific non-isolated lines:	1 x RS232 input, 1 x RS232 output, 0 x RS422 input, 0 x RS422 output,
Opto-isolated lines:	1 x Optical isolated input, 0 x Optical isolated input,
Power supply:	10 to 25VDC
Power consumption:	External: 4.5 W (typical)

Mechanical properties

Body dimensions (L x W x H in mm):	38 x 50 x 50
Filter/protection glass:	K9 - AR coating - 400-850nm
IP class:	IP40
Lens mount(s):	C-Mount
Weight:	150 g

On-board memory and FPGA

Image buffer (RAM):	192 MByte
Non-volatile memory (Flash):	32 MByte

Interfaces

Digital interface:	gige
Interface connector:	(RJ-45)

FW features - image control

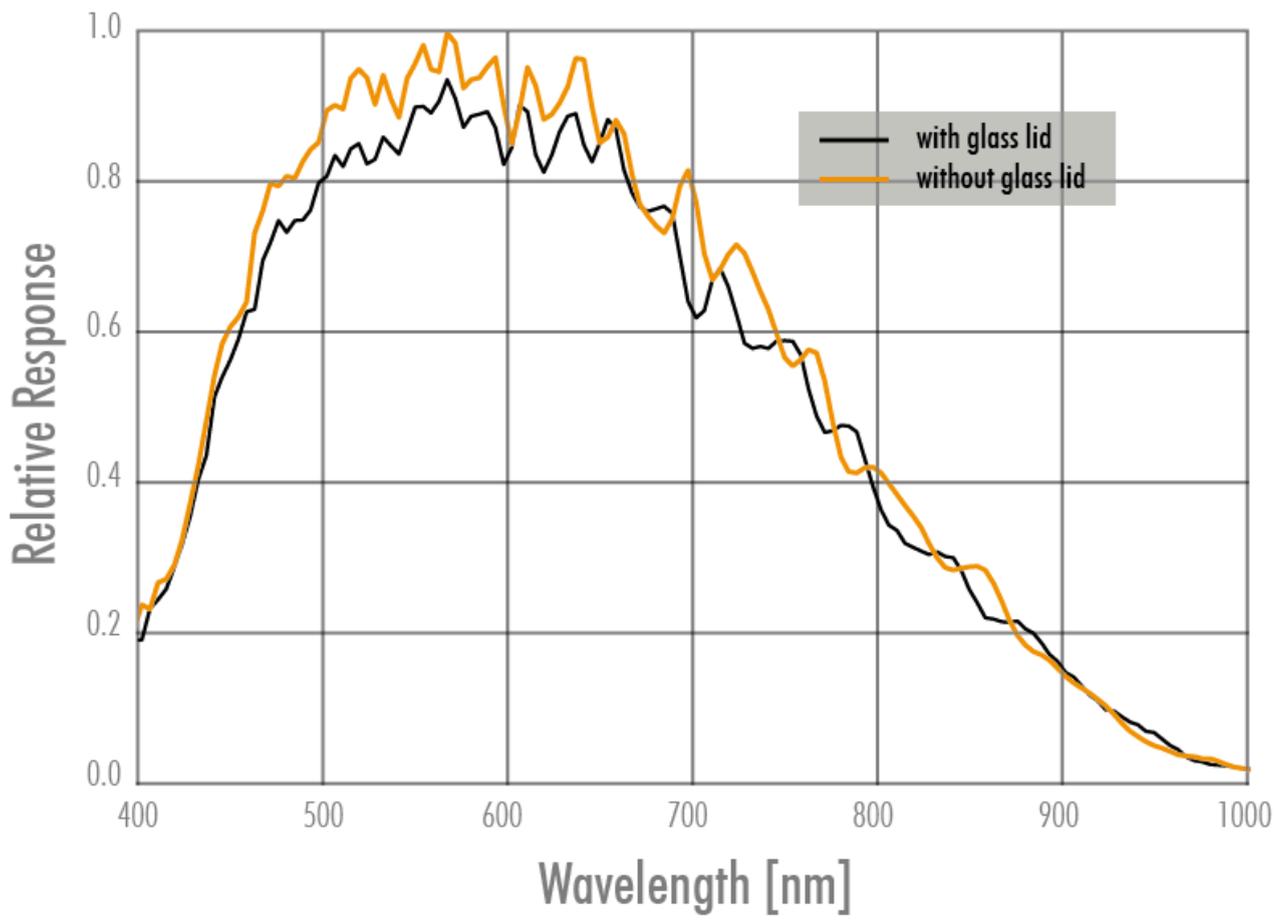
Exposure modes:	Manual, Auto, External
Gain modes:	Auto, Manual
Image control features:	FW Features - Image Control

FW features - camera control

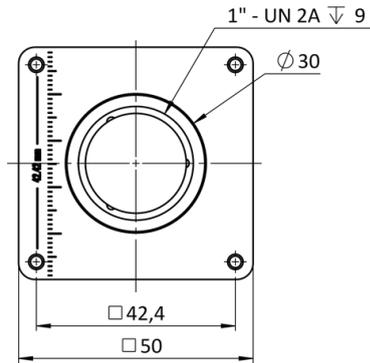
Trigger modes/sync: INTERNAL,SOFTWARE,EXTERNAL

Camera control features: PTP, BurstMode, User Sets, POE, PWM(4), Sequencer,

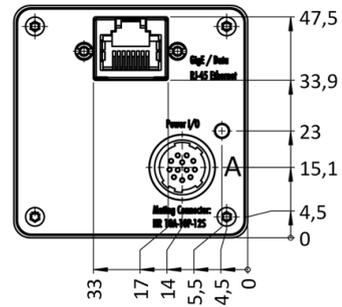
Quantum Efficiency



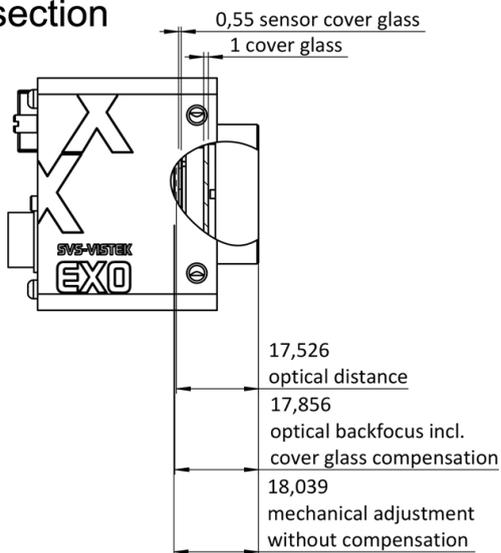
front



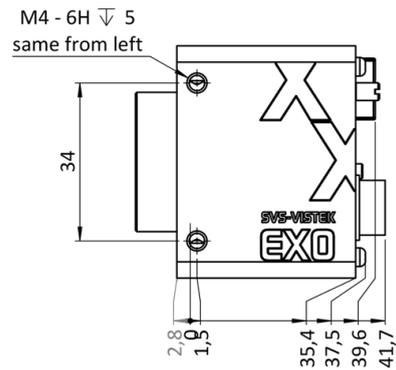
back



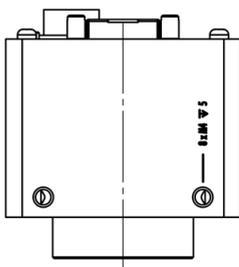
cross section



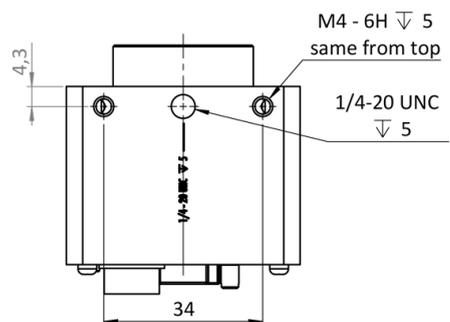
right side

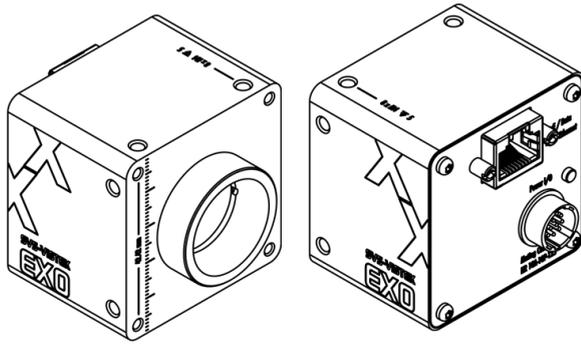


top



bottom





I/O pin assignment



Hirose 12 Pin

1	VIN - (GND)	7	OUT 1 (open drain)
2	VIN + (10V to 25V DC)	8	OUT 2 (open drain)
3	IN 4 (RXD RS232)	9	IN 3 + (opto In +)
4	OUT 4 (TXD RS232)	10	IN 3 - (opto In -)
5	IN 1 (0-24V)	11	OUT 3 (open drain)
6	IN 2 (0-24V)	12	OUT 0 (open drain)