

# exo4000MGE

EXO GigE



## Form follows requirements

With uniform size and standard interfaces comes simple interchangeability, allowing the system integrator to easily adapt a solution to varying conditions and requirements - with minimal design effort. SVS-Vistek meets precisely these needs. The EXO series is a perfect match with its uniform form factor and feature set, combined with industry standard interfaces. A solution for virtually every case, allowing smooth and effortless up- or downscaling. Once designed in, the implementations can be varied endlessly.

SVCam EXO series cameras with GigE Vision interface give your applications an extreme scalability. Quick and easy hardware interchangeability results in shorter design cycles and reduced development costs. Further value is added to your application by a virtually limitless feature set. As an example, the 4I/O LED driver with standardized software control.

## Technical Highlights

- > IO interface with 2xIN, 4xOUT, Opto and RS232
- > integrated 4-channel power strobe controller for direct LED control
- > SafeTrigger, programmable timers, logic functions (PLC) and sequencer
- > progressive scan/global shutter sensors
- > POE (Power Over Ethernet) single-cable option
- > Burst mode, ROI, binning, lookup tables
- > SDK for Windows (32/64 bit), Linux
- > GenICam standard with GenTL driver
- > up to 120 MB/s data rate, up to 100m cable length
- > broadcast-safe



## EXO Series

## exo4000MGE

Resolution [MP]	4 MP
Resolution (h x v)	2048 x 2048 px
Frame rate (max.)	29.5 fps
Frame rate burst mode (max.)	74 fps
Chroma	mono
Interface	GigE Vision

### Sensor

Sensor	CMV4000-3E5M1PP
Manufacturer	CMOSIS
Sensor type	Area CMOS
Shutter type	global shutter
Sensor size (h x v)	11.26 x 11.26 mm
Optical diagonal	15.93 mm
Sensor format	1"
Pixel size (h x v)	5.5 x 5.5 $\mu$ m

### Camera

Exposure modes	MANUAL;AUTO;EXTERNAL
Trigger modes	INTERNAL;SOFTWARE;EXTERNAL
Exposure time (min)	27 $\mu$ s
Exposure time (max)	1 sec (external $\infty$ )
Pixel format / max	mono8, mono12packed / 12 bit
Gain modes / max	manual, auto / 11 dB
S/N ratio (max)	38 dB (dep. on environment)
Dynamic range (max)	52 dB (dep. on environment)
Internal memory	256 MB SDRAM, 32 MB Flash

### Feature Set

AOI	yes
LUT	yes
Readout control	yes
Binning	yes
Image flip	yes
Sequencer	yes
POE	yes
PTP	yes

### Housing

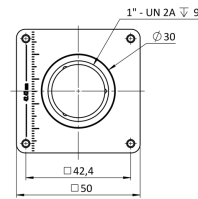
Lens mount	C-Mount
Dimensions (w x h x d)	50 x 50 x 38 mm
Weight	150 g
Ambient temperature	-10 to 45 °C
Ambient humidity	10 to 90 % (non-condensing)
Protection class	IP40

### I/O-Interfaces

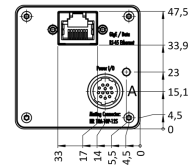
Input up to 24V	2 x
Input OPTO	1 x
Output open drain	4 x

## Dimensions [mm]

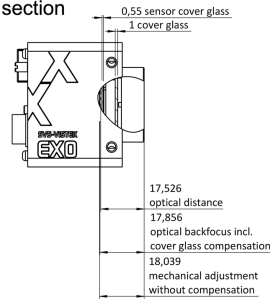
front



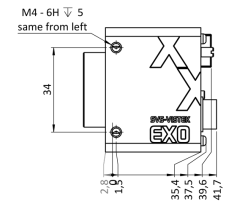
back



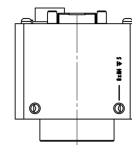
cross section



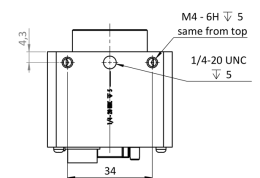
right side



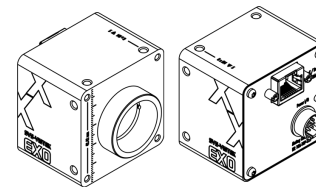
top



bottom



3D

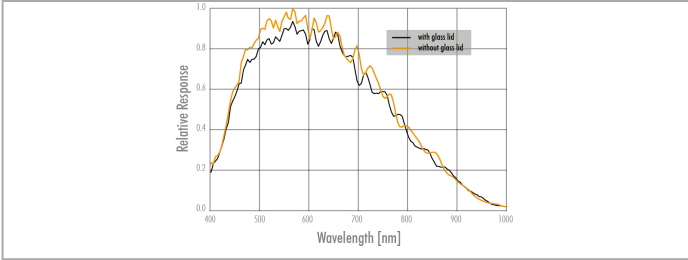


## Pinout Mating Connector

Hirose 12 Pin	1	VIN - (GND)	7	OUT 1 (open drain)
	2	VIN + (10 V to 25 V 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)

## Spectral Response \*

I/O RS-232	1 x
Power supply	10 to 25 V (DC)
Power consumption	4.5 W (dep. on operating mode)



\* Sensor data – excludes camera cover- or IR-cut filter characteristics