

# exo183CGETR

EXO Tracer



The EXO Tracer is an industrial camera with a fully functional lens control (focus, zoom, aperture). Lens mount is a Micro Four Thirds (MFT) mount. The excellent thermal concept of the EXO qualifies for a operating temperature of up to 60°C.

The MFT beam geometry on the sensor side of the lens works in perfect harmony to the high sensitive Sony IMX sensors. A nearly perfect flatfield is the compelling result. Together with up to 72dB dynamic range and up to 20 MP resolution, the Tracer delivers excellent image quality.

Lens control and integrated strobe controller are integrated into the camera's GenICam 3.0 tree as properties. Any GenICam-driven software is immediately able to use lens control and strobe controller without additional drivers.

## Technical Highlights

### Rich set of features

- > Full control of lens (focus, zoom, aperture)
- > Global shutter
- > Monochrome and color versions (Bayer Pattern)
- > Various trigger (int./ext./free running) and exposure modes
- > Logic-Trigger functions (PLC)
- > Adjustable gain, auto gain and auto- exposure
- > Various binning modes
- > Area of interest modes (AOI)
- > White balance for color versions
- > Micro Four Thirds lens adapter
- > 8/12 Bit video data stream (14 Bit ADC)
- > 256 MB burst mode frame store
- > 4 x Power Output (PWM)
- > Programmable sequencer für shutter and LED illumination
- > SDK for Windows (32/64 Bit) und Linux available
- > GenICam 3.0 standard compliant
- > Integrated multichannel strobe controller



## EXO Series

## exo183CGETR

Resolution	5496 x 3672 px
Frame rate (max.)	6 fps
Frame rate burst mode (max.)	16 fps
Chroma	color
Interface	GigE Vision

### Sensor

Sensor	IMX183CQJ
Manufacturer	Sony
Sensor type	Area CMOS
Shutter type	rolling shutter
Sensor size (h x v)	13.19 x 8.81 mm
Optical diagonal	15.86 mm
Sensor format	1 "
Pixel size (h x v)	2.4 x 2.4 $\mu$ m

### Camera

Exposure modes	MANUAL;AUTO
Trigger modes	INTERNAL;SOFTWARE;EXTERNAL
Exposure time (min)	120 $\mu$ s
Exposure time (max)	1 sec
Pixel format / max	bayer8, bayer12packed / 12 bit
Gain modes / max	manual, auto / 18 dB
S/N ratio	40 dB (dep. on environment)
Dynamic range	71.5 dB (dep. on environment)
Internal memory	256 MB SDRAM, 32 MB Flash

### Feature Set

Manual white balance	yes
Automatic white balance	yes
AOI	yes
LUT	yes
Offset	yes
Readout control	yes
Binning	yes
Image flip	yes
Sequencer	yes

### Housing

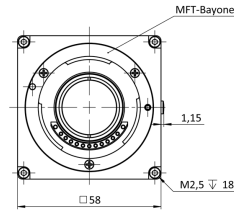
Lens mount	MFT
Dimensions (w x h x d)	58 x 58 x 44.5 mm
Weight	320 g
Operating temperature (housing)	-10 to 60 °C
Ambient humidity	10 to 90 % (non-condensing)
Protection class	IP40

### I/O-Interfaces

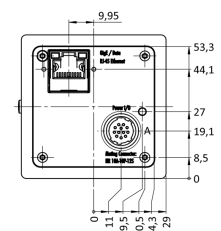
Input up to 24V	2 x
Input OPTO	1 x
Output open drain	4 x

## Dimensions [mm]

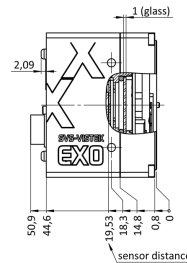
front



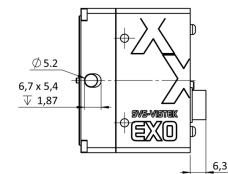
back



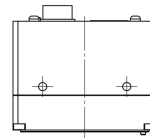
cross section



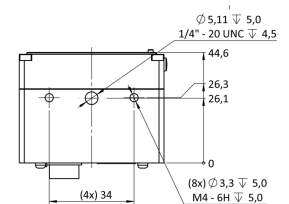
right side



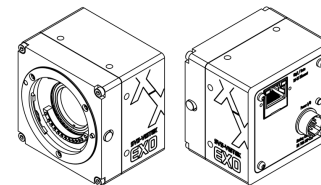
top



bottom



3D view

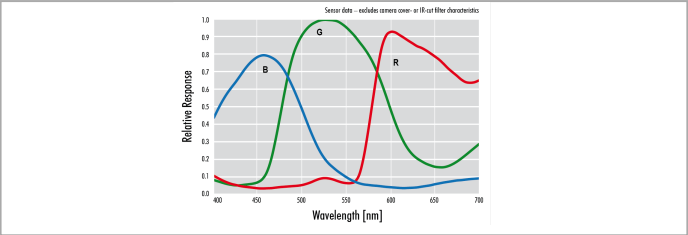


## Pinout Mating Connector

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)

I/O RS-232	1 x
Power supply	10 to 25 V (DC)
Power consumption	7 W (dep. on operating mode)

Spectral Response \*



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