

## VCXG-124M.I

Gigabit Ethernet, 12,3 Megapixel, Monochrome

Article number: 11186795

### Overview

- 4096 x 3000 px
- Sony IMX304
- 1.1" CMOS
- 9 fps
- Gigabit Ethernet



GEN<i>CAM



### Technical data

#### Sensor information

Sensor	Sony IMX304 Gen2
Mono/Color	Mono
Sensor type	1.1" CMOS
Shutter type	Global shutter
Resolution	4096 × 3000 px
Pixel size	3.45 × 3.45 µm
Exposure time	0.001 ... 60000 ms

#### Data quality (EMVA 1288 typical)

Dark noise	2.07 e-
Saturation capacity	9073 e-
Dynamic range	70.4 dB
Signal-to-noise ratio	39.6 dB
Quantum efficiency	65 % @ 536 nm

#### Acquisition formats

Image formats, interface frame rate max.	Full Frame, 4096 × 3000 px, max. 9 fps Binning 2×2, 2048 × 1500 px, max. 15 fps Binning 2×1, 2048 × 3000 px, max. 15 fps Binning 1×2, 4096 × 1500 px, max. 15 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 4096 × 3000 px, max. 15 fps
Pixel formats	Mono8 Mono10

#### Image preprocessing

Analog controls	Gain (0 ... 48 dB) Offset (0 ... 255 LSB 12 Bit)
Color models	Mono

#### Camera features

Basic Functions	Exposure Gain Trigger / Exposure Active (Flash) Binning 2x2 Partial Scan Offset Free Running Mode (Live Image)
Auto Functions	Exposure Auto Gain Auto
Image Pre-processing	Image Flipping (X/Y) LUT / Gamma
Acquisition / Interface	Burst Mode Adjustable Framerate Short Exposure Time Enable Device Link Throughput Limit Internal Image Buffer
Synchronization	free running trigger
Trigger sources	Hardware Software ActionCommand
Trigger delay	0 ... 2 sec, tracking and buffering of up to 256 trigger signals

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### Camera features

Process Synchronization	Events
	Timer
	Trigger Delay
	Debouncer
	Counter
	Sequencer
	Trigger via Action CMD (GigE)
	Additional Output Modes (e.g. Trigger Ready)
	PWM (PWM Duration / PWM Duty Cycle)
	4 power outputs with up to 120 W (max. 48 V / 2.5 A)
	Selectable Output format (e.g. Tri State, Push Pull)
	Chunk data inside transferred image
	Encoder support via Counter End trigger source
Additional Functions	User Set
	Integrated temperature sensor
	Readable additional information (e.g. sensor information)
	Save Custom Data
Internal image buffer	36 MB
	1 image (Trigger Mode)
	1 image (Free Running Mode)

### Interfaces and connectors

Data interface	Gigabit Ethernet, Transfer rate 1000 Mbits/sec, Fast Ethernet, Transfer rate 100 Mbits/sec, Connector: M12 / 8 pol x-coded, screwable type
Process interface	M12 / 12 pins a-coded (SACC-CI-M12MS-12CON-L180)
Power supply	via M12/12 pins a-coded or Power over Ethernet (PoE)

### Mechanical data

Lens mount	C-mount
Width	40 mm
Height	40 mm
Depth	50.8 mm
Weight	≤ 137 g
Material	aluminum, hard-anodized

### Electrical data

Voltage supply range +Vs	12 ... 24 V DC (external power supply)
	36 ... 57 V DC (Power over Ethernet)
Power consumption	approx. 2,5 W @ 12 VDC and 9 fps
	approx. 3,2 W @ 48 VDC (PoE) and 9 fps

### Non-volatile memory

Flash memory size	128 kB
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### Environmental conditions

Operating temperature	0 ... +65 ° @ T = measurement point
Humidity	10 ... 90 % (non-condensing)
Protection class	IP 40
	IP 54 (with mounted tube and cable)
	IP 65 (with mounted tube and cable)
	IP 67 (with mounted tube and cable)
	IP 69K (with stainless steel housing accessory)

### Digital I/Os

Lines	4 input lines
	4 power output lines with pulse width modulation (PWM) (max. 48 V / max. 2,5 A)

### Conformity

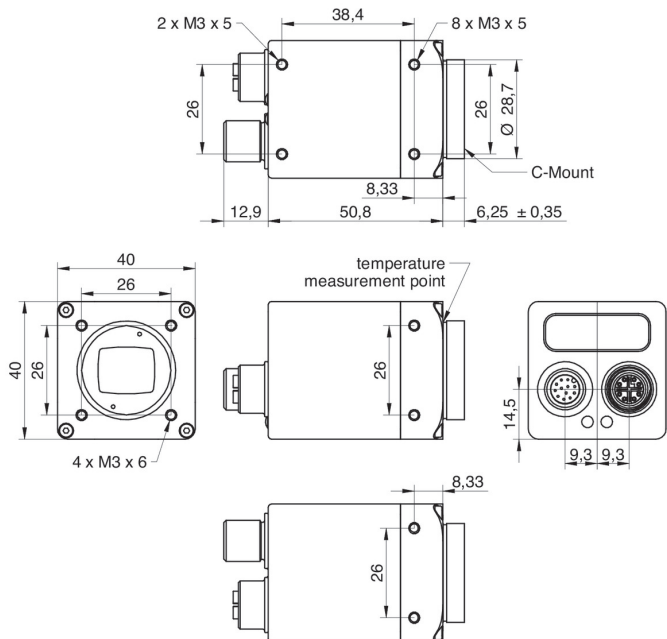
Conformity	CE
	RoHS
	EAC

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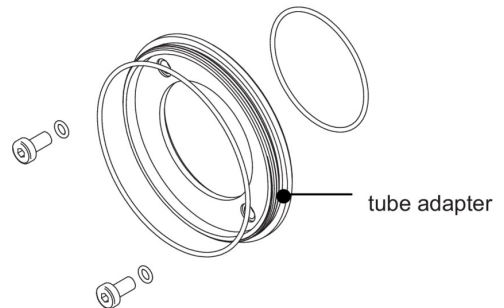
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### Dimension drawing



### Principle

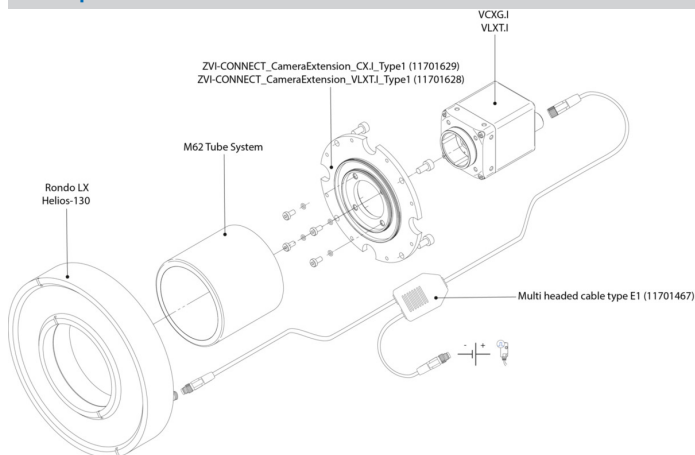
Optional accessories for protection class IP 65/67:



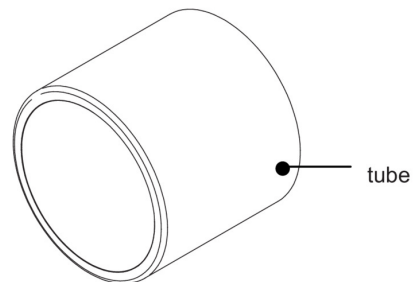
tube adapter

- hard-anodized, incl. sealing and screws  
Ø 49,5 mm (VCXG.I 11185373)  
Ø 65 mm (VCXG.I 11185377)  
Ø 95 mm (VCXG.I 11704311)  
Ø 65 mm (VLXT 11193125)  
Ø 95 mm (VLXT.EF 11704315)

### Principle



tube



tube

- hard-anodized, cover glass PMMA  
Ø 49,5 mm, Length 44 mm (11185370)  
Ø 65 mm, Length 58 mm (11185374)  
Ø 95 mm, length 70 mm (11704312)
- hard-anodized, tempered laminated safety glass  
Ø 49,5 mm, Length 44 mm (11701124)  
Ø 65 mm, Length 58 mm (11701125)

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### Principle



distance ring

- hard-anodized, incl. sealing  
Ø 49,5 mm, Length 6 mm (11185372)  
Ø 49,5 mm, Length 12 mm (11185371)  
Ø 49,5 mm, Length 36 mm (11211571)  
  
Ø 65 mm, Length 6 mm (11185376)  
Ø 65 mm, Length 12 mm (11185375)  
Ø 65 mm, Length 36 mm (111988906)  
  
Ø 95 mm, length 6 mm (11704395)  
Ø 95 mm, length 12 mm (11704397)  
Ø 95 mm, length 36 mm (11704394)