

## VCXG-51M.I

Gigabit Ethernet, 5,0 Megapixel, Monochrome

Article number: 11186793

### Overview

- 2448 x 2048 px
- Sony IMX264
- 2/3" CMOS
- 24 fps
- Gigabit Ethernet



Picture similar



GEN<i>i>CAM



### Technical data

#### Sensor information

Sensor	Sony IMX264 Gen2
Mono/Color	Mono
Sensor type	2/3" CMOS
Shutter type	Global shutter
Resolution	2448 × 2048 px
Pixel size	3.45 × 3.45 μm
Exposure time	0.001 ... 60000 ms

#### Data quality (EMVA 1288 typical)

Dark noise	2 e-
Saturation capacity	9258 e-
Dynamic range	70.8 dB
Signal-to-noise ratio	39.7 dB
Quantum efficiency	64.7 % @ 536 nm

#### Acquisition formats

Image formats, interface frame rate max.	Full Frame, 2448 × 2048 px, max. 24 fps Binning 2×2, 1224 × 1024 px, max. 36 fps Binning 2×1, 1224 × 2048 px, max. 36 fps Binning 1×2, 2448 × 1024 px, max. 36 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 2448 × 2048 px, max. 36 fps
Pixel formats	Mono8 Mono10 Mono12 Mono12 Packed

#### Image preprocessing

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

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

### Camera features

Process Synchronization	<ul style="list-style-type: none"> <li>Events</li> <li>Timer</li> <li>Trigger Delay</li> <li>Debouncer</li> <li>Counter</li> <li>Sequencer</li> <li>Trigger via Action CMD (GigE)</li> <li>Additional Output Modes (e.g. Trigger Ready)</li> <li>PWM (PWM Duration / PWM Duty Cycle)</li> <li>4 power outputs with up to 120 W (max. 48 V / 2.5 A)</li> <li>Selectable Output format (e.g. Tri State, Push Pull)</li> <li>Chunk data inside transferred image</li> <li>Encoder support via Counter End trigger source</li> </ul>
Additional Functions	<ul style="list-style-type: none"> <li>User Set</li> <li>Integrated temperature sensor</li> <li>Readable additional information (e.g. sensor information)</li> <li>Save Custom Data</li> </ul>
Internal image buffer	<ul style="list-style-type: none"> <li>115 MB</li> <li>8 images (Trigger Mode)</li> <li>1 image (Free Running Mode)</li> </ul>

### 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
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### Mechanical data

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. 2.3 W @ 12 VDC and 24 fps Approx. 3.1 W @ 48 VDC (PoE) and 24 fps

### Non-volatile memory

Flash memory size	128 kB
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### Environmental conditions

Operating temperature	0 ... +65 ° @ T = measurement point
Storage temperature	-20 ... +70 °C
Humidity	10 ... 90 % (non-condensing)
Protection class	IP 54 (with mounted lens 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)
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### Conformity

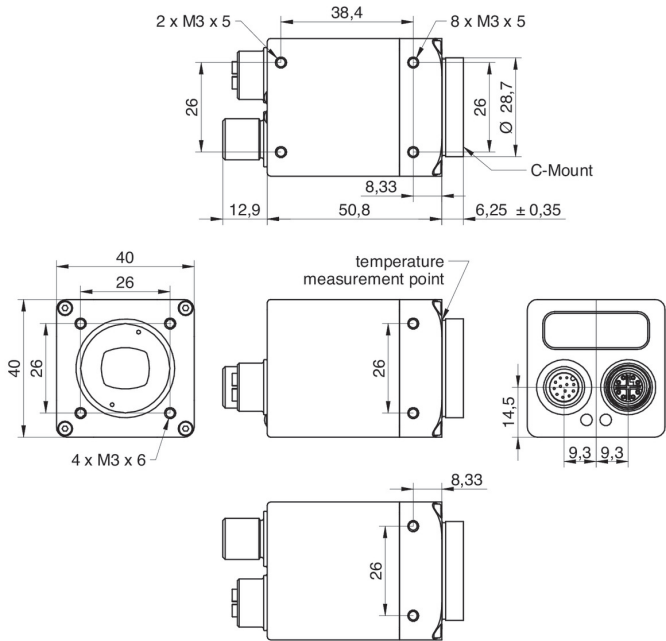
Conformity	CE RoHS UL recognized KC (R-R-BkR-VCXG-51MI) EAC BIS-CRS (R-41207004)
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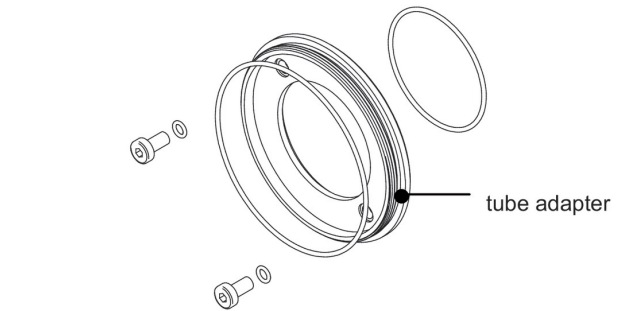
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## Dimension drawing



## Principle

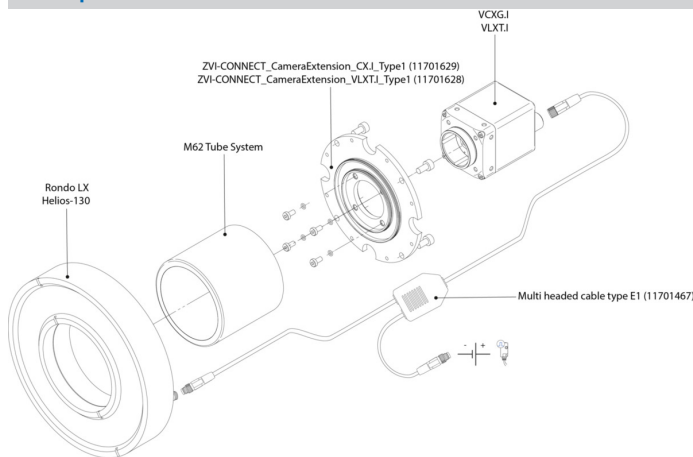
Optional accessories for protection class IP 65/67:



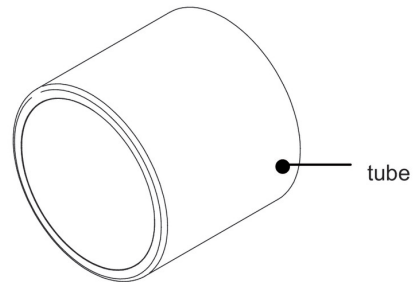
tube adapter

- 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



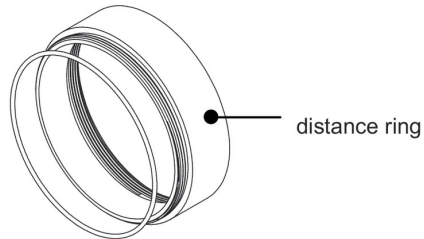
- hard-anodized, cover glass PMMA  
 Ø 49,5 mm, Length 44 mm (11185370)  
 Ø 65 mm, Length 58 mm (11185374)  
 Ø 95 mm, length 70 mm (11704312)
- hard-anodized, tempered laminated safety glass  
 Ø 49,5 mm, Length 44 mm (11701124)  
 Ø 65 mm, Length 58 mm (11701125)

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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)