

## VCXG.2-51M.I

Gigabit Ethernet, 5,0 Megapixel, Monochrome

Article number: 11708098

### Overview

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



Picture similar



GEN*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 sec, 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>
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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> </ul>
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Calibration data	<ul style="list-style-type: none"> <li>Camera calibration data (user defined storage for intrinsic / extrinsic camera parameters, and geometry distortion values)</li> <li>Customer data storage (128 bytes user defined)</li> </ul>
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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>
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### Interfaces and connectors

Data interface	Gigabit Ethernet, Transfer rate 1000 Mb/s, Fast Ethernet, Transfer rate 100 Mb/s, Connector: M12 / 8 pol x-coded, screwable type
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Process interface	M12 / 12 pins a-coded (SACC-CI-M12MS-12CON-L180)
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### Interfaces and connectors

Power supply	via M12/12 pins a-coded or Power over Ethernet (PoE)
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### 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. 2.9 W @ 12 VDC and 24 fps Approx. 3.6 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
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)
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### Conformity

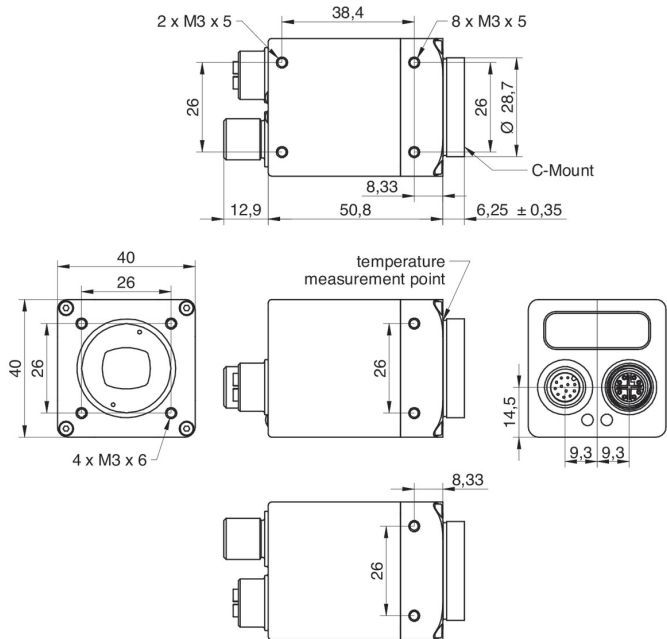
Conformity	CE RoHS
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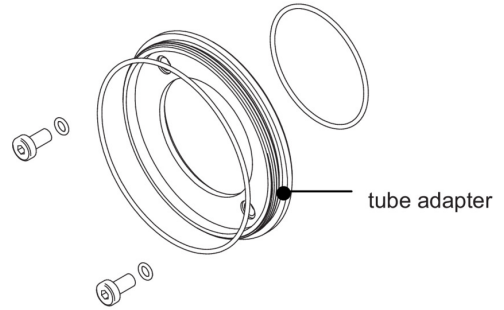
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## Dimension drawing



## Principle

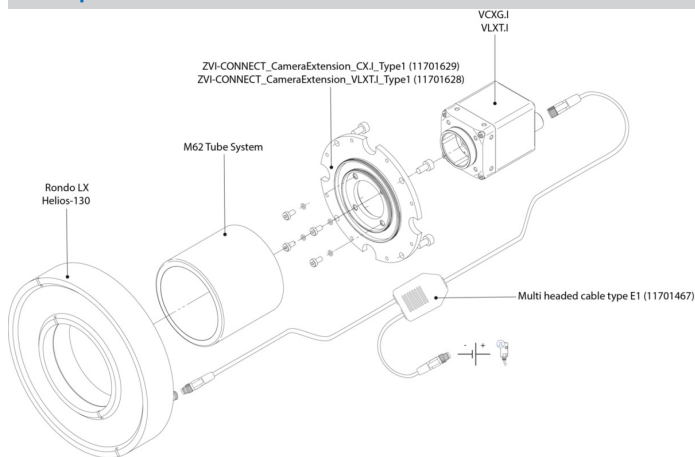
Optional accessories for protection class IP 65/67:



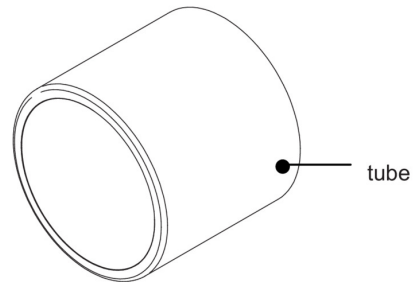
tube adapter

- 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

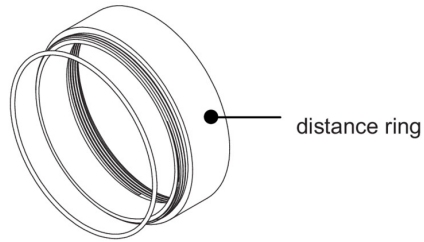


tube



- 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)

## 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)