

## VLXT-28M.I

Gigabit Ethernet, 2,8 Megapixel, Monochrome

Article number: 11700832

### Overview

- 1920 × 1464 px
- Sony IMX421
- 2/3" CMOS
- 411 fps
- 10 GigE



GEN*i*CAM



### Technical data

#### Sensor information

Sensor	Sony IMX421 Gen3
Mono/Color	Mono
Sensor type	2/3" CMOS
Shutter type	Global shutter
Resolution	1920 × 1464 px
Pixel size	4.5 × 4.5 µm
Exposure time	0.001 ... 60000 ms

#### Data quality (EMVA 1288 typical)

Dark noise	5.64 e-
Saturation capacity	25197 e-
Dynamic range	71.8 dB
Signal-to-noise ratio	44 dB
Quantum efficiency	74.2 % @ 536 nm

#### Acquisition formats

Image formats, interface frame rate max.	Full Frame, 1920 × 1464 px, max. 411 fps Binning 2×2, 960 × 732 px, max. 791 fps Binning 2×1, 960 × 1464 px, max. 412 fps Binning 1×2, 1920 × 732 px, max. 412 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 1920 × 1464 px, max. 415 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 / Color Gain Trigger / Exposure Active (Flash) Binning 2x2 Partial Scan Offset Free Running Mode (Live Image) Multi ROI
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Auto Functions	Exposure Auto Gain Auto
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Image Pre-processing	Image Flipping (X/Y) LUT / Gamma Shading Correction High Dynamic Range (HDR) Edge Sharpening Noise Reduction
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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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### Camera features

Trigger delay	0 ... 2 sec, tracking and buffering of up to 256 trigger signals
Process Synchronization	Events Timer Trigger Delay Debouncer Counter Sequencer Trigger via Action CMD (GigE) Action CMD Request ID Trigger ID inside Chunk Additional Output Modes (e.g. Trigger Ready) PWM (PWM Duration / PWM Duty Cycle) Selectable Output format (e.g. Tri State, Push Pull) Chunk data inside transferred image Encoder support via Counter End trigger source 4 power outputs with up to 120 W (max. 48 V / 2.5 A)
Time synchronization IEEE 1588	IEEE 1588 / Master and Slave function IEEE 1588 / Scheduled Action CMD IEEE 1588 / Synchronized Acquisition Framerate
Additional Functions	User Set Integrated temperature sensor Readable additional information (e.g. sensor information) Save Custom Data
Lens control	Corning liquid lens
Sequencer	Automated control for series of images using different sets of parameters
Sequencer parameter	Exposure time gain factor Output ROI Offset x ROI Offset y
Internal image buffer	1024 MB 78 images (Trigger Mode) 1 image (Free Running Mode)

### Interfaces and connectors

Data interface	10 Gigabit Ethernet, Transfer rate 10000 Mb/s/sec, Gigabit Ethernet, Transfer rate 1000 Mb/s/sec, Fast Ethernet, Transfer rate 100 Mb/s/sec, Connector: M12 / 8-pol x-coded (SACC-CI-M12FS-8CON-L180-10G)
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### Interfaces and connectors

Process interface	M12 / 12 pins a-coded (SACC-CI-M12MS-12CON-L180)
Power supply	via M12/12 pins a-coded

### Mechanical data

Lens mount	C-mount
Width	60 mm
Height	60 mm
Depth	99.7 mm
Weight	≤ 485 g
Material	aluminum

### Electrical data

Voltage supply range +Vs	19.2 ... 28.8 V DC (external power supply)
Power consumption	approx. 11.4 W @ 24 VDC and 411 fps

### Non-volatile memory

Flash memory size	128 kB
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### Environmental conditions

Operating temperature	0 ... +60 ° @ 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)

### Digital I/Os

Lines	2 input lines 4 power output lines with pulse width modulation (PWM) (max. 48 V / max. 2,5 A) RS232
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### Conformity

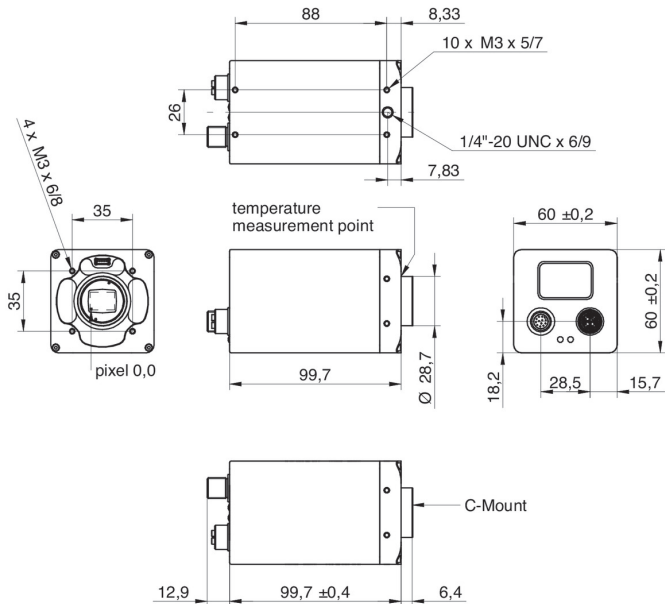
Conformity	CE RoHS EAC KC (R-R-BkR-VLXT-71MI) UL recognized
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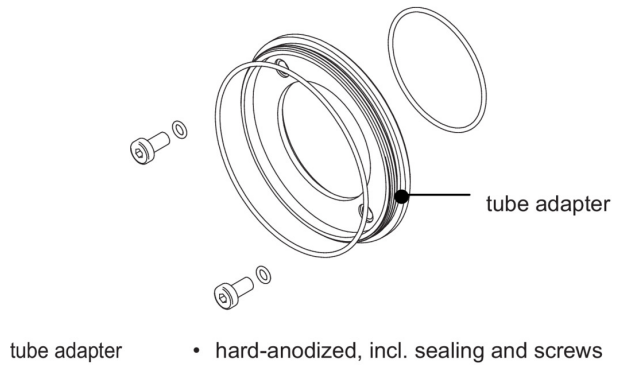
Article number: 11700832

### Dimension drawing



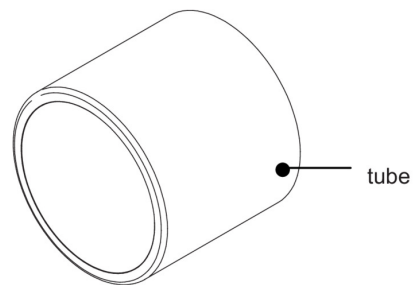
### Principle

Optional accessories for protection class IP 65/67:



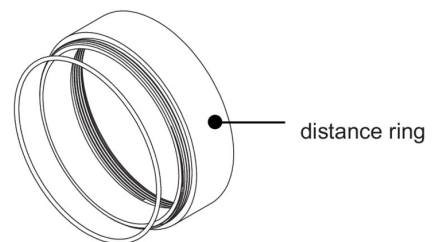
- hard-anodized, incl. sealing and screws  
Ø 49.5 mm (VCXG.I 11185373)  
Ø 65 mm (VCXG.I 11185377)  
Ø 65 mm (VLXT 11193125)

tube



- hard-anodized, cover glass PMMA  
Ø 49.5 mm, length 44 mm (11185370)  
Ø 65 mm, length 58 mm (11185374)
- hard-anodized, tempered laminated safety glass  
Ø 49.5 mm, length 44 mm (11701124)  
Ø 65 mm, length 58 mm (11701125)

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)
- hard-anodized, incl. sealing  
Ø 65 mm, length 6 mm (11185376)  
Ø 65 mm, length 12 mm (11185375)  
Ø 65 mm, length 36 mm (111988906)