

VCXG-53M.I

Gigabit Ethernet, 5,3 Megapixel, Monochrome

Article number: 11186801

Overview

- 2592 x 2048 px
- onsemi PYTHON5000
- 1" CMOS
- 23 fps
- Gigabit Ethernet



Picture similar



GEN<i>i>CAM



Technical data

Sensor information

Sensor	onsemi PYTHON5000
Mono/Color	Mono
Sensor type	1" CMOS
Shutter type	Global shutter
Resolution	2592 × 2048 px
Pixel size	4.8 × 4.8 μm
Exposure time	0.02 ... 1000 ms

Data quality (EMVA 1288 typical)

Dark noise	11.84 e-
Saturation capacity	9050 e-
Dynamic range	57.1 dB
Signal-to-noise ratio	39.6 dB
Quantum efficiency	57.5 % @ 536 nm

Acquisition formats

Image formats, interface frame rate max.	Full Frame, 2592 × 2048 px, max. 23 fps Binning 2×2, 1296 × 1024 px, max. 28 fps Binning 2×1, 1296 × 2048 px, max. 28 fps Binning 1×2, 2592 × 1024 px, max. 28 fps
Image formats, acquisition frame rate max. (Burst Mode)	Full Frame, 2592 × 2048 px, max. 28 fps
Pixel formats	Mono8 Mono10

Image preprocessing

Analog controls	Gain (0 ... 8 dB) Offset (0 ... 63 LSB 10 Bit)
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Image preprocessing

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)
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 s, tracking and buffering of up to 256 trigger signals

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Camera features

Process Synchronization	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> User Set Integrated temperature sensor Readable additional information (e.g. sensor information) Save Custom Data
Internal image buffer	<ul style="list-style-type: none"> 122 MB 8 images (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 TYPE090 (according to GigE Vision Mechanical Supplement)
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. 2.9 W @ 12 VDC and 23 fps Approx. 3.6 W @ 48 VDC (PoE) and 23 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 4 input lines 4 power output lines with pulse width modulation (PWM) (max. 48 V / max. 2,5 A)
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Conformity

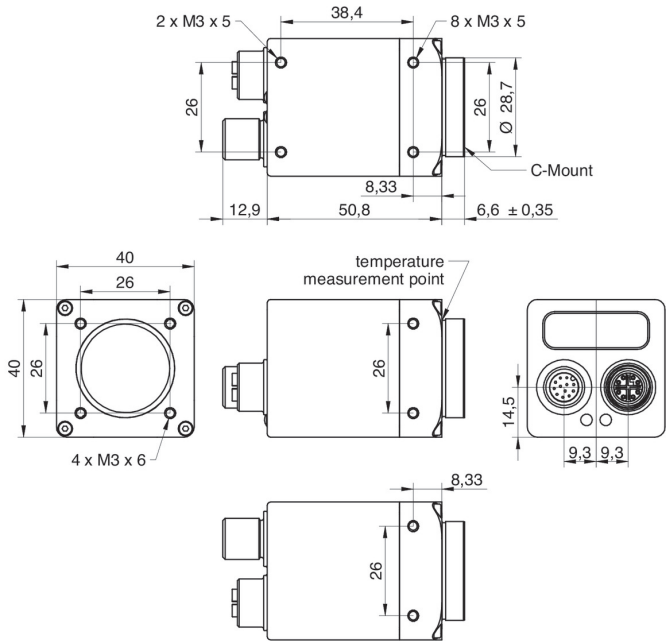
Conformity	<ul style="list-style-type: none"> CE RoHS UL recognized EAC BIS-CRS (R-41207004)
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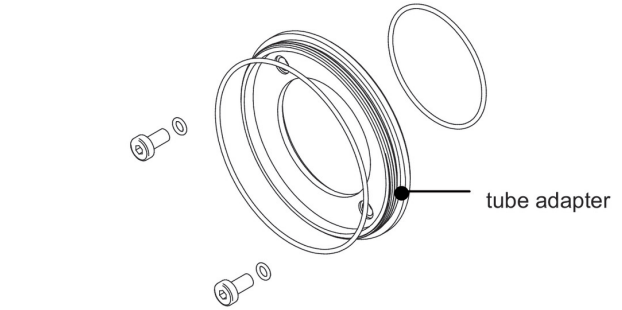
Article number: 11186801

Dimension drawing



Principle

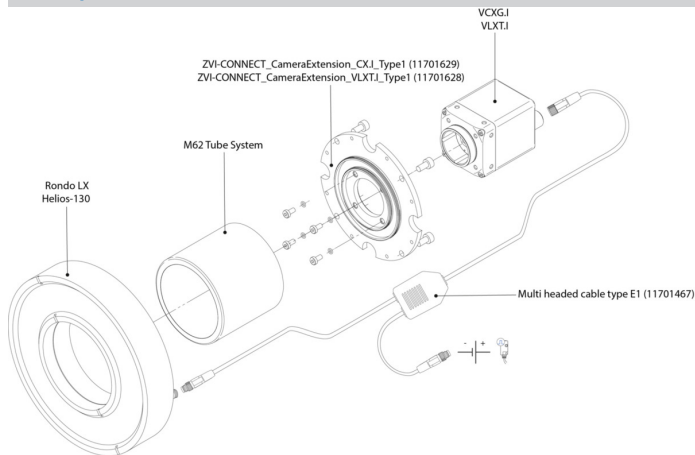
Optional accessories for protection class IP 65/67:



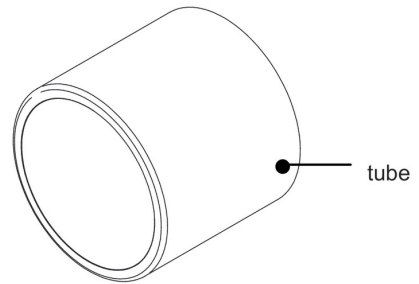
tube adapter

- 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

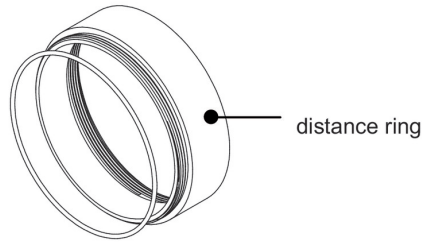


tube



- 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)