

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



GEN<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 ... 18 dB) Offset (0 ... 63 LSB 10 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)
Additional Functions	Selectable Output format (e.g. Tri State, Push Pull)
	Chunk data inside transferred image
	Encoder support via Counter End trigger source
	User Set
Internal image buffer	Integrated temperature sensor
	Readable additional information (e.g. sensor information)
	Save Custom Data
	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 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. 2,9 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
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

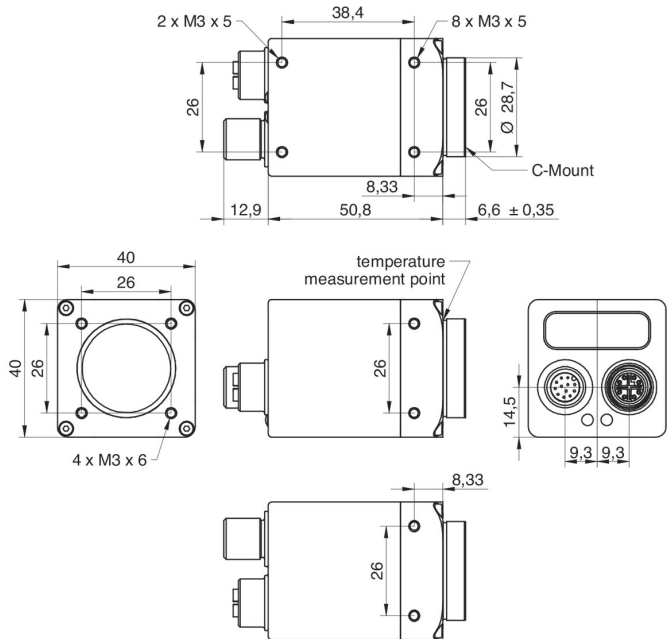
Conformity	CE RoHS EAC BIS-CRS (R-41207004)
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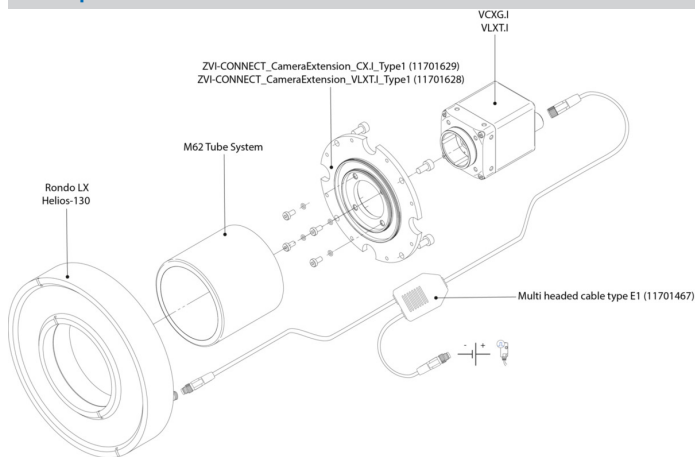
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Dimension drawing

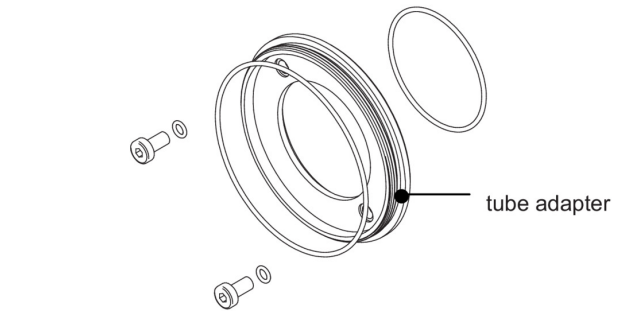


Principle



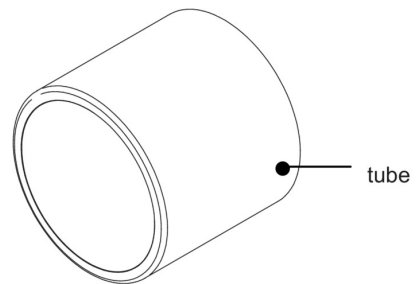
Principle

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)



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)