

VCXG.2-201M.R.I

Gigabit Ethernet, 20 Megapixel, Monochrome

Article number: 11708123

Overview

- 5472 x 3648 px
- Sony IMX183
- 1" CMOS
- 6 fps
- Gigabit Ethernet



Picture similar



GEN*i*CAM



Technical data

Sensor information

| | |
|---------------|---|
| Sensor | Sony IMX183 |
| Mono/Color | Mono |
| Sensor type | 1" CMOS |
| Shutter type | Rolling shutter Global reset shutter |
| Resolution | 5472 × 3648 px |
| Pixel size | 2.4 × 2.4 μm |
| Exposure time | 0.115 ... 60000 ms |

Data quality (EMVA 1288 typical)

| | |
|-----------------------|-----------------|
| Dark noise | 3.05 e- |
| Saturation capacity | 14662 e- |
| Dynamic range | 71.8 dB |
| Signal-to-noise ratio | 41.7 dB |
| Quantum efficiency | 77.8 % @ 535 nm |

Acquisition formats

| | |
|---|---|
| Image formats, interface frame rate max. | Full Frame, 5472 × 3648 px, max. 6 fps Binning 2×2, 2736 × 1824 px, max. 9 fps Binning 2×1, 2736 × 3648 px, max. 9 fps Binning 1×2, 5472 × 1824 px, max. 9 fps |
| Image formats, acquisition frame rate max. (Burst Mode) | Full Frame, 5472 × 3648 px, max. 9 fps |
| Pixel formats | Mono8 Mono10 Mono12 Mono12 Packed |

Image preprocessing

| | |
|-----------------|---|
| Analog controls | Gain (0 ... 20 dB) Offset (0 ... 255 LSB 12 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 | LUT / Gamma |
|----------------------|-------------|

| | |
|-------------------------|---|
| Acquisition / Interface | Burst Mode Adjustable Framerate 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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Technical data

Camera features

| | |
|-------------------------|---|
| Process Synchronization | <ul style="list-style-type: none"> Events Timer Trigger Delay Debouncer Counter 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) |
| Calibration data | <ul style="list-style-type: none"> Camera calibration data (user defined storage for intrinsic / extrinsic camera parameters, and geometry distortion values) Customer data storage (128 bytes user defined) |
| Internal image buffer | <ul style="list-style-type: none"> 58 MB 1 image (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 |
|------------|---------|

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. 3.0 W @ 12 VDC and 9 fps Approx. 3.7 W @ 48 VDC (PoE) and 9 fps |

Non-volatile memory

| | |
|-------------------|--------|
| Flash memory size | 128 kB |
|-------------------|--------|

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 40 (with mounted lens and cable) 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) |
| Output line sources | <ul style="list-style-type: none"> Off Exposure Active Timer1 Readout Active User0 User1 User2 TriggerReady |

Conformity

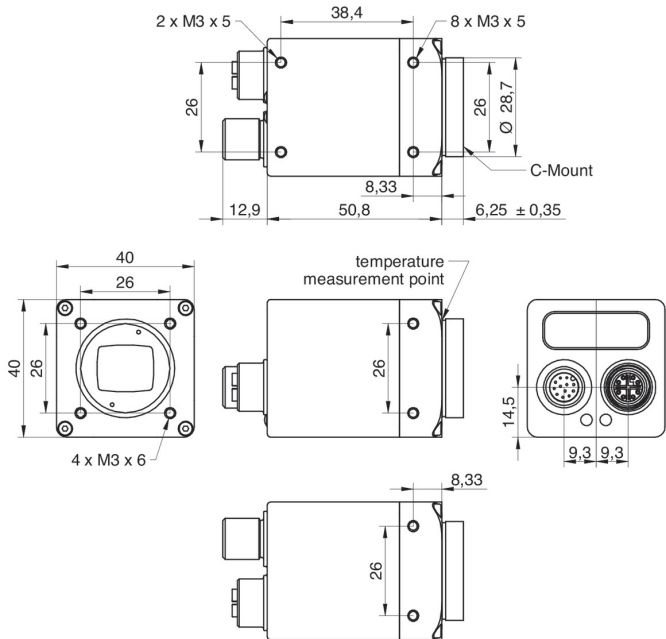
| | |
|------------|--|
| Conformity | <ul style="list-style-type: none"> CE RoHS |
|------------|--|

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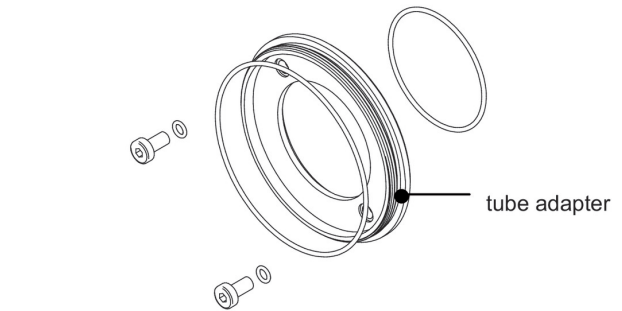
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Dimension drawing



Principle

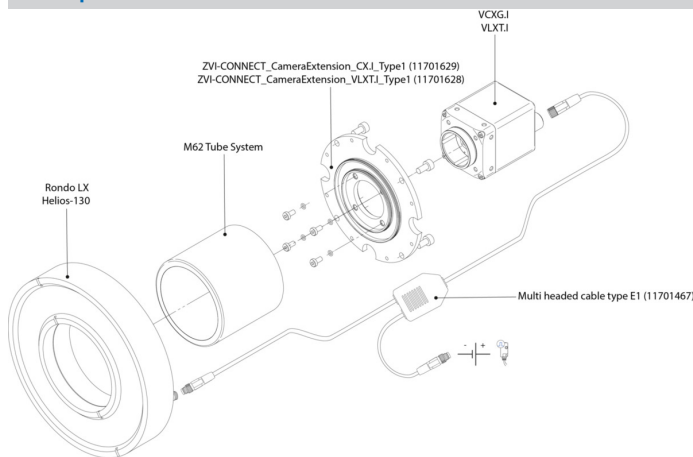
Optional accessories for protection class IP 65/67:



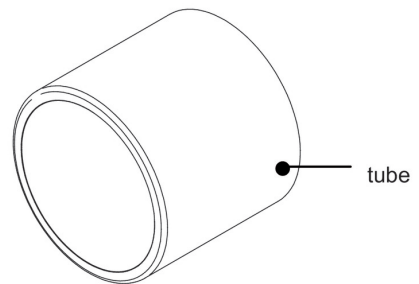
tube adapter

- 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

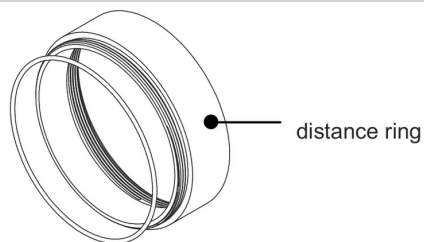


tube



- 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)