Baumer
Passion for Sensors

Industrial cameras / CX series

# VCXU-123M

USB 3.0, 12,3 Megapixel, Monochrome

Article number: 11165898

## Overview

- 4096 x 3000 px
- Sony IMX253
- 1.1" CMOS
- 30 fps
- USB 3.0
- available




## Technical data

| Sensor information | |
|---|---|
| Sensor | Sony IMX253 Gen2 |
| Mono/Color | Mono |
| Resolution | 4096 × 3000 px |
| Exposure time | 0,001 … 60000 ms |
| Pixel size | 3.45 × 3.45 µm |
| Shutter type | Global shutter |
| Sensor type | 1.1″ CMOS |
| **Acquisition formats** | |
| Image formats, interface frame rate max. | Full Frame, 4096 × 3000 px, max. 30 fps<br>Binning 2×2, 2048 × 1500 px, max. 116 fps<br>Binning 2×1, 2048 × 3000 px, max. 31 fps<br>Binning 1×2, 4096 × 1500 px, max. 31 fps |
| Image formats, aquisition frame rate max. (Burst Mode) | Full Frame, 4096 × 3000 px, max. 31 fps |
| Pixel formats | Mono8<br>Mono10<br>Mono12<br>Mono12 Packed |
| **Image preprocessing** | |
| Analog controls | Gain (0 … 48 dB)<br>Offset (0 … 255 LSB 12 Bit) |
| Color models | Mono |

| Camera features | |
|---|---|
| Basic Functions | Exposure<br>Gain / Color Gain<br>Trigger / Exposure Active (Flash)<br>Binning 2x2<br>Partial Scan<br>Offset<br>Free Running Mode (Live Image) |
| Auto Functions | Exposure Auto<br>Gain Auto<br>White Balance Auto<br>Color Transformation Auto |
| Image Pre-processing | Image Flipping (X/Y)<br>Color Processing (RGB, BGR, Mono)<br>Color Enhancement (with optimized ColorTransformationMatrix)<br>LUT / Gamma |
| Acquisition / Interface | Burst Mode<br>Adjustable Framerate<br>Short Exposure Time Enable<br>Device Link Throughput Limit<br>Internal Image Buffer |
| Synchronization | free running<br>trigger |
| Trigger sources | Hardware<br>Software |
| Trigger delay | 0 … 2 sec, tracking and buffering of up to 256 trigger signals |

The product features and technical data specified do not express or imply any warranty. Technical modifications subject to change.
2021-01-12

# VCXU-123M

USB 3.0, 12,3 Megapixel, Monochrome

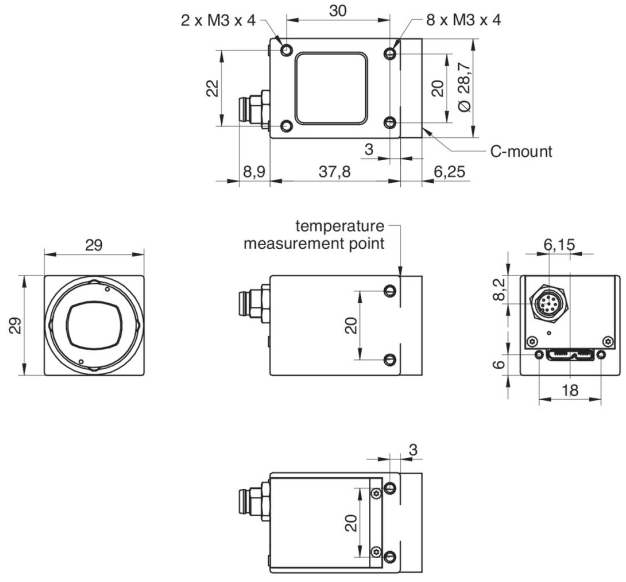
Article number: 11165898

## Technical data

| Camera features | |
|---|---|
| Process Synchronization | Events<br>Timer<br>Triggerdelay<br>Debouncer<br>Counter<br>Sequencer<br>Trigger via Action CMD (GigE)<br>Additional Output Modes (e.g. Trigger Ready)<br>Chunkdata inside transferred image<br>Encoder support via Counter End trigger source |
| Additional Functions | User Set<br>Integrated temperature sensor<br>Readable additional information (e.g. sensor information)<br>Save Custom Data |
| Internal image buffer | 458 MB<br>13 images (Trigger Mode)<br>1 image (Free Running Mode) |
| **Interfaces and connectors** | |
| Data interface | USB 3.0, Transfer Rate 5000 Mbits/sec, Connector: USB 3.0 Micro B |
| Process interface | M8 / 8 pins (SACC-DSI-M8MS-8CON-M8-L180) |
| Power supply | via USB 3.0 interface |

| Mechanical data | |
|---|---|
| Lens mount | C-mount |
| Width | 29 mm |
| Height | 29 mm |
| Depth | 38 mm |
| Weight | ≤ 90 g |
| Material | zinc die casting, baked varnish (until 02-2020 nickel-chrome-plated), IP 40 |
| **Electrical data** | |
| Power consumption | approx. 3,7 W @ 30 fps |
| Operating voltage | 5 VDC (via USB3.0 interface) |
| **Non-volatile memory** | |
| Flash memory size | 128 kB |
| **Environmental conditions** | |
| Operating temperature | 0 … +65 ° @ T = measurement point |
| Humidity | 10 … 90 % (non-condensing) |
| Protection class | IP 40 |
| **Digital I/Os** | |
| Lines | 1 input line<br>1 output line<br>2 general purpose lines |
| **Conformity** | |
| Conformity | CE<br>RoHS<br>EAC |

## Dimension drawing




The product features and technical data specified do not express or imply any warranty. Technical modifications subject to change.

2021-01-12