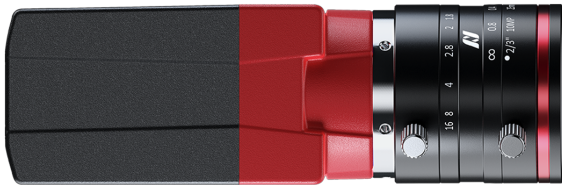


## Alvium

### G5-130 VSWIR



- IMX990 VSWIR sensor
- GigE Vision
- High bandwidths
- 3 lens mount options

Model without hardware options

### Alvium G5 - Speed up your vision application

5GigE Vision camera for demanding applications

Alvium G5-130 VSWIR with Sony IMX990 | InGaAs runs 130 frames per second at 1.3 MP resolution.

The Alvium G5 camera series combines the advantages of the 5GigE interface for higher bandwidth and the flexibility of the Alvium platform offering various mount and sensor options. It enables an easy upgrade of existing systems (USB3 Vision or GigE Vision) and offers backwards compatibility with 1000BASE-T solutions. Powered by ALVIUM® Technology, the sugar cube Alvium G5 camera delivers highest image quality at a low power consumption.

Easy software integration with **Vimba X** and compatibility to the most popular third party image-processing libraries.

## Specifications

|                                    |                                                                                             |
|------------------------------------|---------------------------------------------------------------------------------------------|
| Interface                          | IEEE 802.3: 5GBASE-T or 2.5GBASE-T (NBASE-T) and 1000BASE-T, IEEE 802.3af Power Class 0 PoE |
| Resolution                         | 1296 (H) × 1032 (V)                                                                         |
| Spectral range                     | 400 to 1700 nm                                                                              |
| Sensor                             | Sony IMX990   InGaAs                                                                        |
| Sensor type                        | InGaAs                                                                                      |
| Shutter mode                       | GS (Global shutter)                                                                         |
| Sensor size                        | Type 1/2 VSWIR                                                                              |
| Pixel size                         | 5 µm × 5 µm                                                                                 |
| Lens mounts (available)            | C-Mount, CS-Mount, S-Mount                                                                  |
| Max. frame rate at full resolution | 130 fps at ≥300 MByte/s, Mono8                                                              |
| ADC                                | 12 Bit                                                                                      |
| Image buffer (RAM)                 | 512 MByte                                                                                   |
| Non-volatile memory (Flash)        | 1024 KByte                                                                                  |

### Output

|                          |                                                                 |
|--------------------------|-----------------------------------------------------------------|
| Bit depth                | 8-bit, 10-bit, 12-bit; Adaptive (10-bit, 12-bit)                |
| Monochrome pixel formats | Mono8 (default), Mono10, Mono10p, Mono12, Mono12p, Mono12Packed |

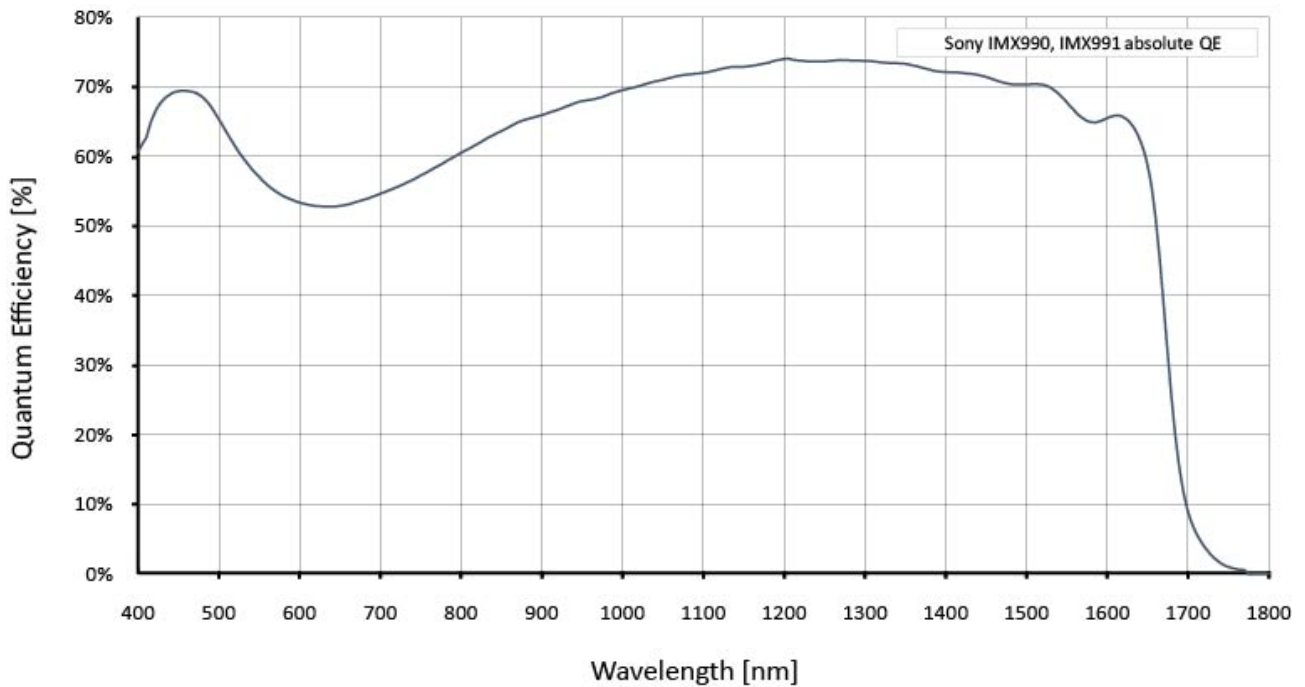
### General purpose inputs/outputs (GPIOs)

|                    |                   |
|--------------------|-------------------|
| TTL I/Os           | 2 GPIOs (LVTTTL)  |
| Opto-isolated I/Os | 1 input, 1 output |

### Operating conditions/dimensions

|                                   |                                                                                  |
|-----------------------------------|----------------------------------------------------------------------------------|
| Operating temperature             | -20 °C to +60 °C housing temperature                                             |
| Power requirements (DC)           | 10.8 to 26.4 VDC AUX   IEEE 802.3af, Power Class 0 PoE                           |
| Power consumption                 | External power: 4.9 W at 12 VDC (typical)   Power over Ethernet: 5.7 W (typical) |
| Mass                              | 100 g                                                                            |
| Body dimensions (L × W × H in mm) | 60 × 29 × 29                                                                     |

## Quantum efficiency



## Features

### Image control: Auto

- Auto exposure
- Auto gain

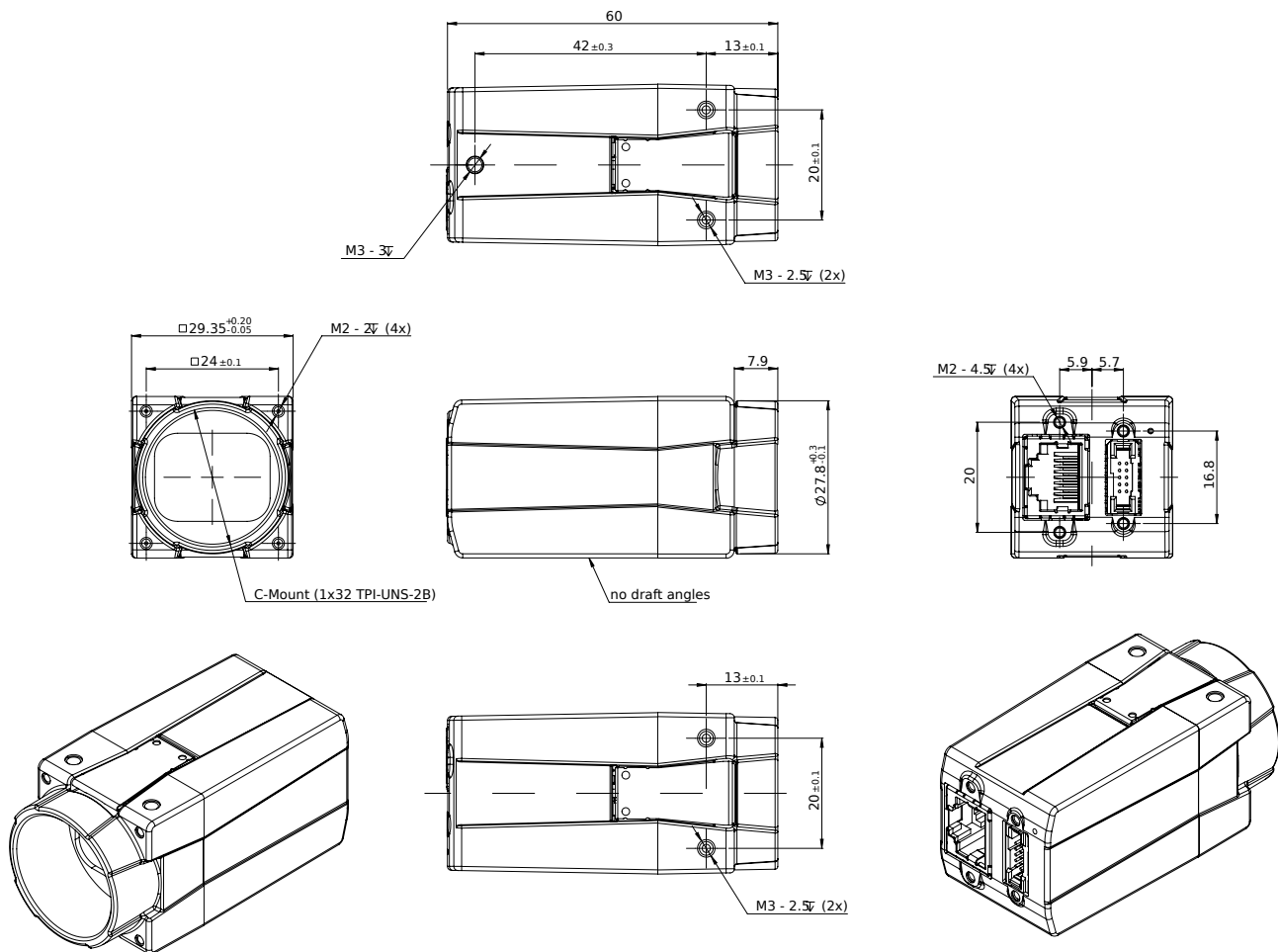
### Image control: Other

- Adaptive noise correction
- Binning (digital)
- Black level
- Contrast
- Custom convolution
- DPC (defect pixel correction)
- Gamma
- Lens shading correction
- LUT (look-up table)
- Multiple ROIs (regions of interest)
- Reverse X/Y
- ROI (region of interest)
- Sharpness/Blur

### Camera control

- Acquisition frame rate
- Action commands, incl. ToE (trigger over Ethernet)
- Bandwidth control
- Burst mode
- Counters and timers
- Event channel
- Firmware update in the field
- I/O and trigger control
- Image chunk data
- Power Saving Mode
- PTP (IEEE 1588 Precision Time Protocol)
- Readout modes (SensorBitDepth)
- Sequencer
- Serial I/Os
- Temperature monitoring
- User sets

# Technical drawing



## Applications

Alvium G5-130 VSWIR Kameras sind empfindlich für das sichtbare und das SWIR Spektrum und gut geeignet für viele typische SWIR Anwendungen in verschiedenen Industriezweigen:

- Halbleiterindustrie: Inspektion von Solarzellen und Chips
- Recycling-Industrie: Sortierung von Kunststoffen
- Medizinische Bildgebung, Wissenschaft: Hyper- und multi-spektrale Bilderzeugung
- Glasindustrie: Defekterkennung in heißem Glas
- Industrielle Landwirtschaft: Luftgestützte Fernerkundung
- Druckindustrie: Erkennung verborgener Merkmale
- Überwachung: Sichtverbesserung (zm Beispiel bei Nebel oder Dunst)
- Sicherheit: Erkennung von Fälschungen (zum Beispiel von Geld, falschem Haar oder künstlicher Haut)