Allied Vision

# EXO USB3

## exo174MU3



## Allgemein

| | |
|---|---|
| Modell | exo174MU3 |
| Produktcode | F001629 |
| Produktserie | EXO USB3 |
| Status | Discontinued |

## Sensor

| | |
|---|---|
| Sensortyp | Area scan |
| Chroma | Mono |
| Spektrum | Visible |
| Spektralbereich | 400 nm to 1000 nm |
| Auflösung | 1,920 × 1,200 (2.30 MP) |
| Sensormodell | Sony IMX174 |
| Sensorarchitektur (Material) | cmos |
| Verschlusstyp(en) | Global shutter (GS) |
| Sensorgröße | 11.25 × 7.03 mm (13.27 mm, Type 1/1.2) |
| Pixelgröße | 5.86 µm × 5.86 µm |

## Pixelformate

| | |
|---|---|
| Sensor-Bittiefe | 8-bit, 12-bit |
| Monochrome Pixelformate | mono8, mono12packed |

## Bildgebungsleistung

| | |
|---|---|
| Dynamikbereich | 72 dB |
| SNR | 44 dB |

## Timing und Verstärkung

| | |
|---|---|
| Max. Bildrate | 160 fps |
| Belichtungszeit | 19 µs to 60 s |
| Verstärkung | 0.0 dB to 18.0 dB |

## I/Os und Stromversorgung

| | |
|---|---|
| Nicht-isolierte Leitungen | 0 x LVDS input, 0 x LVDS output, 0 x TTL input, 0 x TTL output, 2 x 24V input, 4 x Open drain output, |
| Spezifische nicht-isolierte Leitungen | 1 x RS232 input, 1 x RS232 output, 0 x RS422 input, 0 x RS422 output, |
| Optisch isolierte Leitungen | 1 x Optical isolated input, 0 x Optical isolated input, |
| I/O-Anschluss | 12-pin Hirose HR10A-10P-12S |
| Stromversorgung | 10 to 25VDC |
| Stromverbrauch | External: 4.5 W (typical) |

## Betriebsbedingungen

| | |
|---|---|
| Betriebstemperatur | -10 °C to 60 °C (Gehäuse) |

## Mechanische Eigenschaften

| | |
|---|---|
| Gehäuseabmessungen (L x B x H in mm) | 43 × 50 × 50 |
| Filter-/Schutzglas | K9 - AR coating - 400-850nm |
| IP-Klasse | IP40 |
| Objektivanschluss/-anschlüsse | C-Mount |
| Gewicht | 140 g |

## Onboard-Speicher und FPGA

| | |
|---|---|
| Bildpuffer (RAM) | 192 MByte |
| Nichtflüchtiger Speicher (Flash) | 32 MByte |

## Schnittstellen

| | |
|---|---|
| Digitale Schnittstelle | usb3.0 |
| Schnittstellenanschluss | (Micro-B) |
| Vision-Standard | USB3 Vision |

## FW-Funktionen – Bildsteuerung

| | |
|---|---|
| Belichtungsmodi | manual, auto, external |

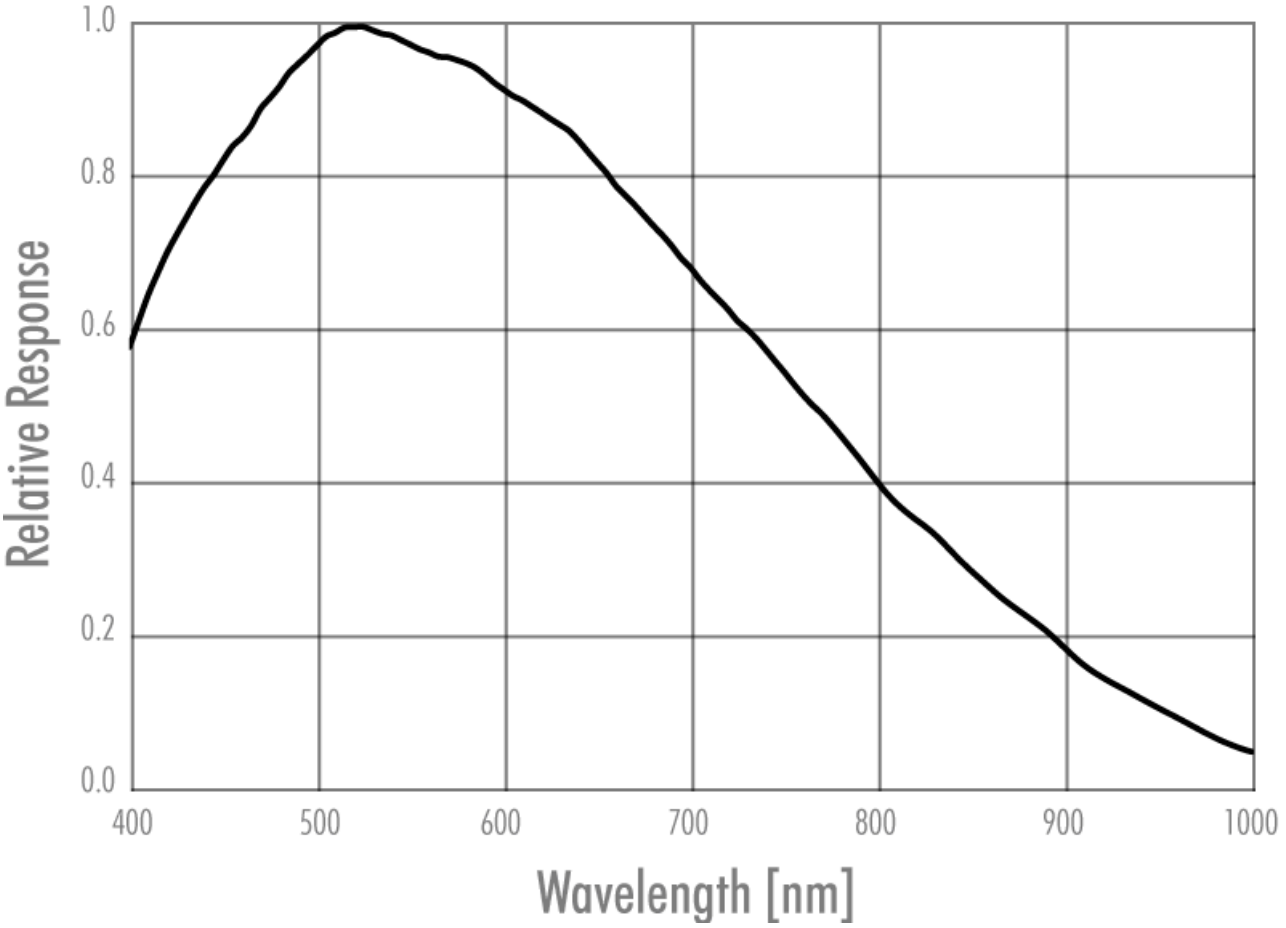
## FW-Funktionen – Bildsteuerung

| | |
|---|---|
| Verstärkungsmodi | auto, manual |
| Bildsteuerungsfunktionen | roi, lut, mirror-image, dpc, shading-correction |

## FW-Funktionen – Kamerasteuerung

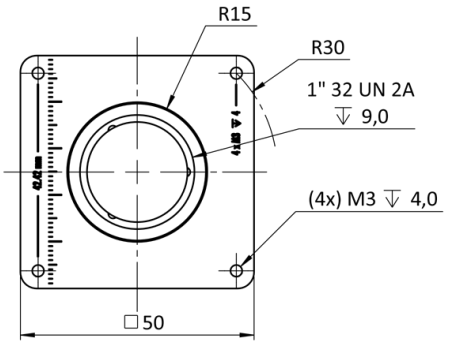
| | |
|---|---|
| Triggermodi/Synchronisation | internal, software, external |
| Kamerasteuerungsfunktionen | User Sets, PWM(4), Sequencer, |

## Quanteneffizienz

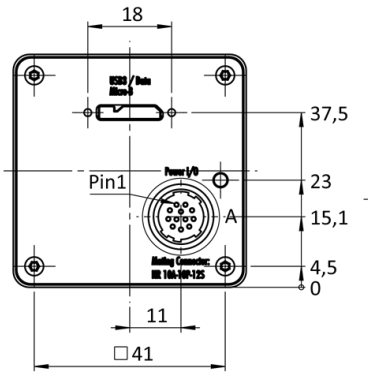


## Technische Zeichnung

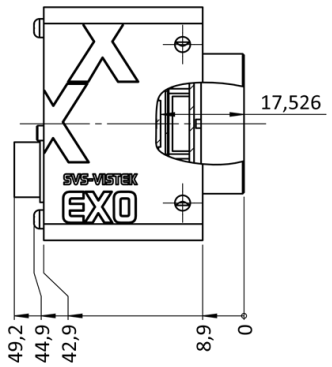
### front



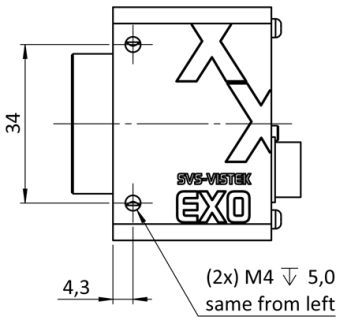

### back



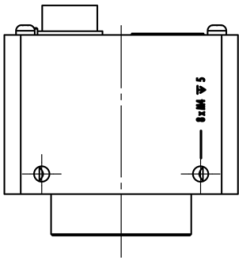

### cross section



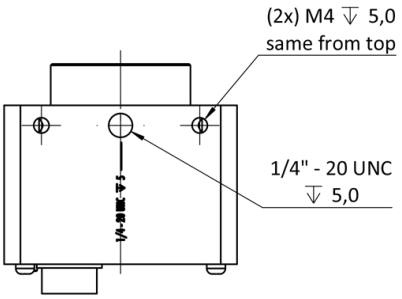

### right side



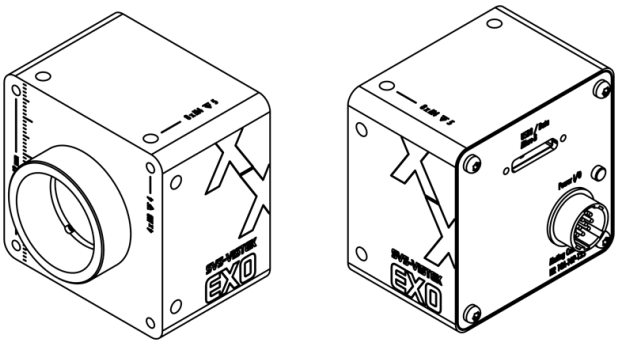
top



bottom

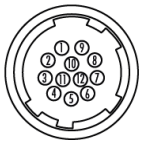



3D



## I/O-Pin-Belegung

Hirose 12 Pin



| | | | | | |
|---|---|---|---|---|---|
| 1 | VIN – | (GND) | 7 | OUT 1 | (open drain) |
| 2 | VIN + | (10 V to 25 V DC) | 8 | OUT 2 | (open drain) |
| 3 | IN 4 | (RXD RS232) | 9 | IN 3 + | (opto In +) |
| 4 | OUT 4 | (TXD RS232) | 10 | IN 3 – | (opto In –) |
| 5 | IN 1 | (0 - 24V) | 11 | OUT 3 | (open drain) |
| 6 | IN 2 | (0 - 24V) | 12 | OUT 0 | (open drain) |