



## HR 10GigE

hr65CXGE

### Allgemein

|              |           |
|--------------|-----------|
| Modell       | hr65CXGE  |
| Produktcode  | F004122   |
| Produktserie | HR 10GigE |
| Status       | Available |

### Sensor

|                              |                                     |
|------------------------------|-------------------------------------|
| Sensortyp                    | Area scan                           |
| Chroma                       | Color                               |
| Spektrum                     | Visible                             |
| Spektralbereich              | 400 nm to 1000 nm                   |
| Auflösung                    | 9,344 × 7,000 (65.00 MP)            |
| Sensormodell                 | Gpixel GMAX3265                     |
| Sensorarchitektur (Material) | cmos                                |
| Verschluss typ(en)           | Global shutter (GS)                 |
| Sensorgröße                  | 29.9 × 22.4 mm (37.36 mm, Type 2.3) |
| Pixelgröße                   | 3.20 µm × 3.20 µm                   |

### Pixelformate

|                  |                 |
|------------------|-----------------|
| Sensor-Bittiefe  | 8-bit, 12-bit   |
| RGB-Pixelformate | bayer8, bayer12 |

### Bildgebungsleistung

|                |         |
|----------------|---------|
| Dynamikbereich | 65.6 dB |
| SNR            | 40 dB   |

## Timing und Verstärkung

|                 |                    |
|-----------------|--------------------|
| Max. Bildrate   | 17.4 fps           |
| Belichtungszeit | 22 $\mu$ s 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, Power over Ethernet (POE+, in option -P)                                                 |
| Stromverbrauch                        | External: 14 W (typical)                                                                              |

## Betriebsbedingungen

|                              |                 |
|------------------------------|-----------------|
| Betriebstemperatur (Gehäuse) | -10 °C to 65 °C |
|------------------------------|-----------------|

## Mechanische Eigenschaften

|                                      |              |
|--------------------------------------|--------------|
| Gehäuseabmessungen (L x B x H in mm) | 76 × 70 × 70 |
| Filter-/Schutzglas                   | IR-Cut 680   |
| IP-Klasse                            | IP30         |
| Objektivanschluss/-anschlüsse        | M58x0.75     |
| Gewicht                              | 420 g        |

## Onboard-Speicher und FPGA

|                                  |           |
|----------------------------------|-----------|
| Bildpuffer (RAM)                 | 448 MByte |
| Nichtflüchtiger Speicher (Flash) | 32 MByte  |

## Schnittstellen

|                         |                 |
|-------------------------|-----------------|
| Digitale Schnittstelle  | 10gige          |
| Schnittstellenanschluss | (RJ-45)         |
| Vision-Standard         | GigE Vision 2.0 |

## FW-Funktionen – Bildsteuerung

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

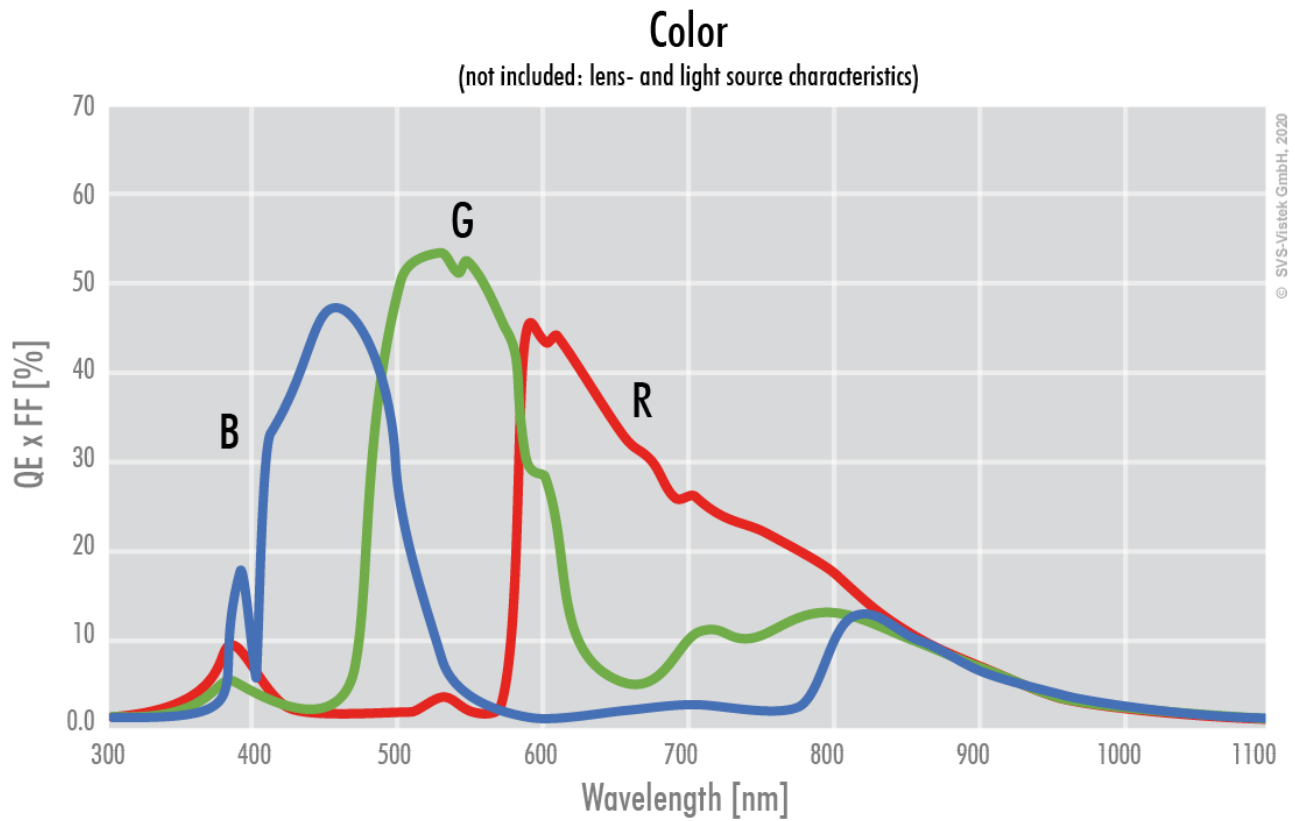
## FW-Funktionen – Bildsteuerung

|                          |                        |
|--------------------------|------------------------|
| Verstärkungsmodi         | auto, manual           |
| Weißabgleichmodi         | auto, manual           |
| Bildsteuerungsfunktionen | roi, lut, mirror-image |

## FW-Funktionen – Kamerasteuerung

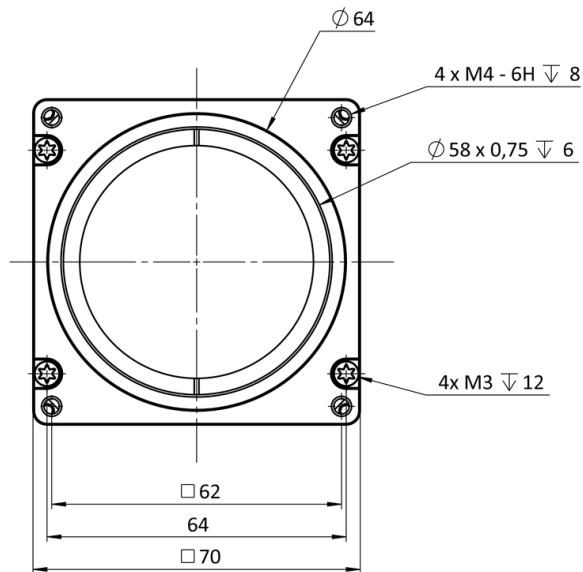
|                             |                                    |
|-----------------------------|------------------------------------|
| Triggermodi/Synchronisation | internal, software, external       |
| Kamerasteuerungsfunktionen  | User Sets, POE, PWM(4), Sequencer, |

## Quanteneffizienz

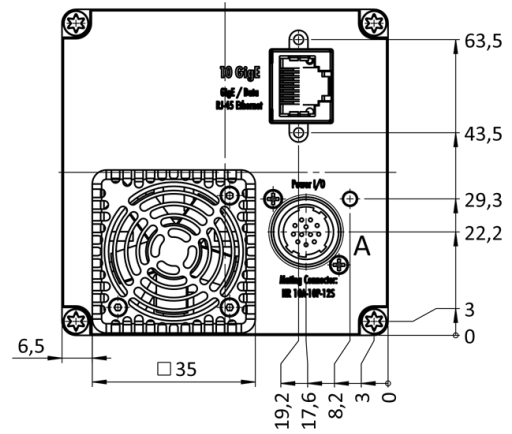


# Technische Zeichnung

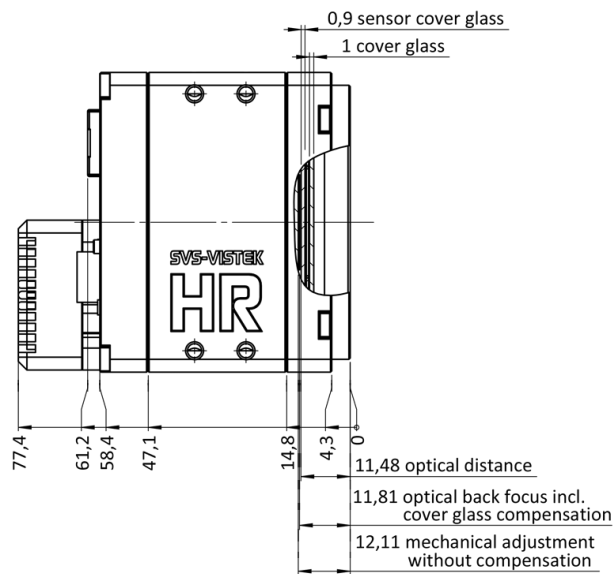
front



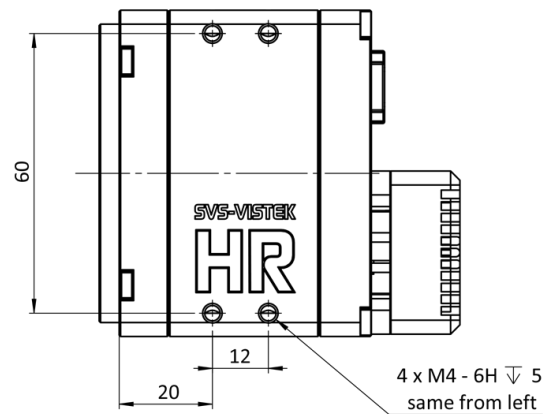
back



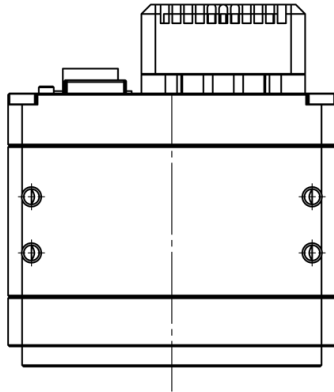
cross section



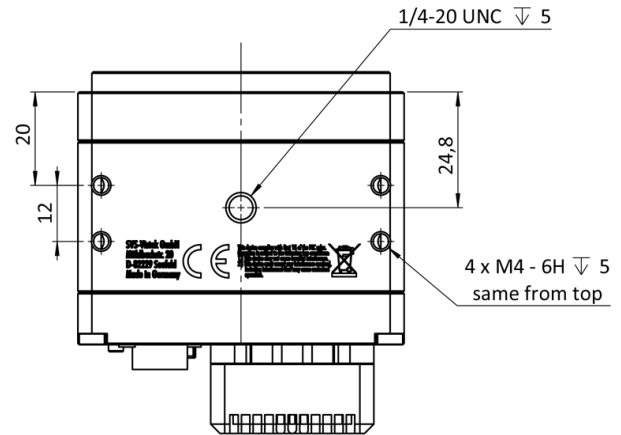
right side



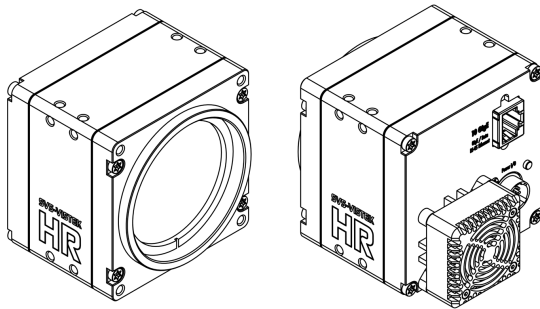
top



bottom



3D



## I/O-Pin-Belegung



|   |       |                   |    |        |              |
|---|-------|-------------------|----|--------|--------------|
| 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) |