



# EXO GigE

## exo273CGE

### General

|                |           |
|----------------|-----------|
| Model          | exo273CGE |
| Product code   | F002194   |
| Product series | EXO GigE  |
| Status         | Available |

### Sensor

|                                |                                              |
|--------------------------------|----------------------------------------------|
| Sensor type                    | Area scan                                    |
| Chroma                         | Color                                        |
| Spectrum                       | Visible                                      |
| Spectral range                 | 400 nm to 1000 nm                            |
| Resolution                     | 1,440 × 1,080 (1.60 MP)                      |
| Sensor model                   | Sony IMX273                                  |
| Sensor architecture (material) | cmos                                         |
| Shutter type(s)                | Global shutter (GS)                          |
| Sensor size                    | 4.97 × 3.73 mm (6.21 mm, 6.3mm (Type 1/2.9)) |
| Pixel size                     | 3.45 µm × 3.45 µm                            |

### Pixel formats

|                   |                       |
|-------------------|-----------------------|
| Sensor bit depth  | 8-bit, 12-bit         |
| RGB pixel formats | bayer8, bayer12packed |

### Timing and gain

|                       |                   |
|-----------------------|-------------------|
| Max. frame rate       | 79 fps            |
| Max. frame rate burst | 167.3 fps         |
| Exposure time         | 19 µs to 60 s     |
| Gain                  | 0.0 dB to 48.0 dB |

## I/Os and power

|                             |                                                                                                       |
|-----------------------------|-------------------------------------------------------------------------------------------------------|
| Non-isolated lines          | 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, |
| Specific non-isolated lines | 1 x RS232 input, 1 x RS232 output, 0 x RS422 input, 0 x RS422 output,                                 |
| Opto-isolated lines         | 1 x Optical isolated input, 0 x Optical isolated input,                                               |
| Power supply                | 10 to 25VDC, Power over Ethernet                                                                      |
| Power consumption           | External: 4 W (typical)                                                                               |

## Operating conditions

|                                 |                 |
|---------------------------------|-----------------|
| Operating temperature (housing) | -10 °C to 60 °C |
|---------------------------------|-----------------|

## Mechanical properties

|                                   |                |
|-----------------------------------|----------------|
| Body dimensions (L x W x H in mm) | 43 × 50 × 50   |
| Filter/protection glass           | IR-Cut - 680nm |
| IP class                          | IP40           |
| Lens mount(s)                     | C-Mount        |
| Weight                            | 138 g          |

## On-board memory and FPGA

|                             |           |
|-----------------------------|-----------|
| Image buffer (RAM)          | 192 MByte |
| Non-volatile memory (Flash) | 32 MByte  |

## Interfaces

|                     |         |
|---------------------|---------|
| Digital interface   | gige    |
| Interface connector | (RJ-45) |

## FW features - image control

|                        |                                                                            |
|------------------------|----------------------------------------------------------------------------|
| Exposure modes         | manual, auto, external                                                     |
| Gain modes             | auto, manual                                                               |
| White balance modes    | auto, manual                                                               |
| Image control features | roi, lut, color-transformation, mirror-image, dpc, shading-correction, ffc |

## FW features - camera control

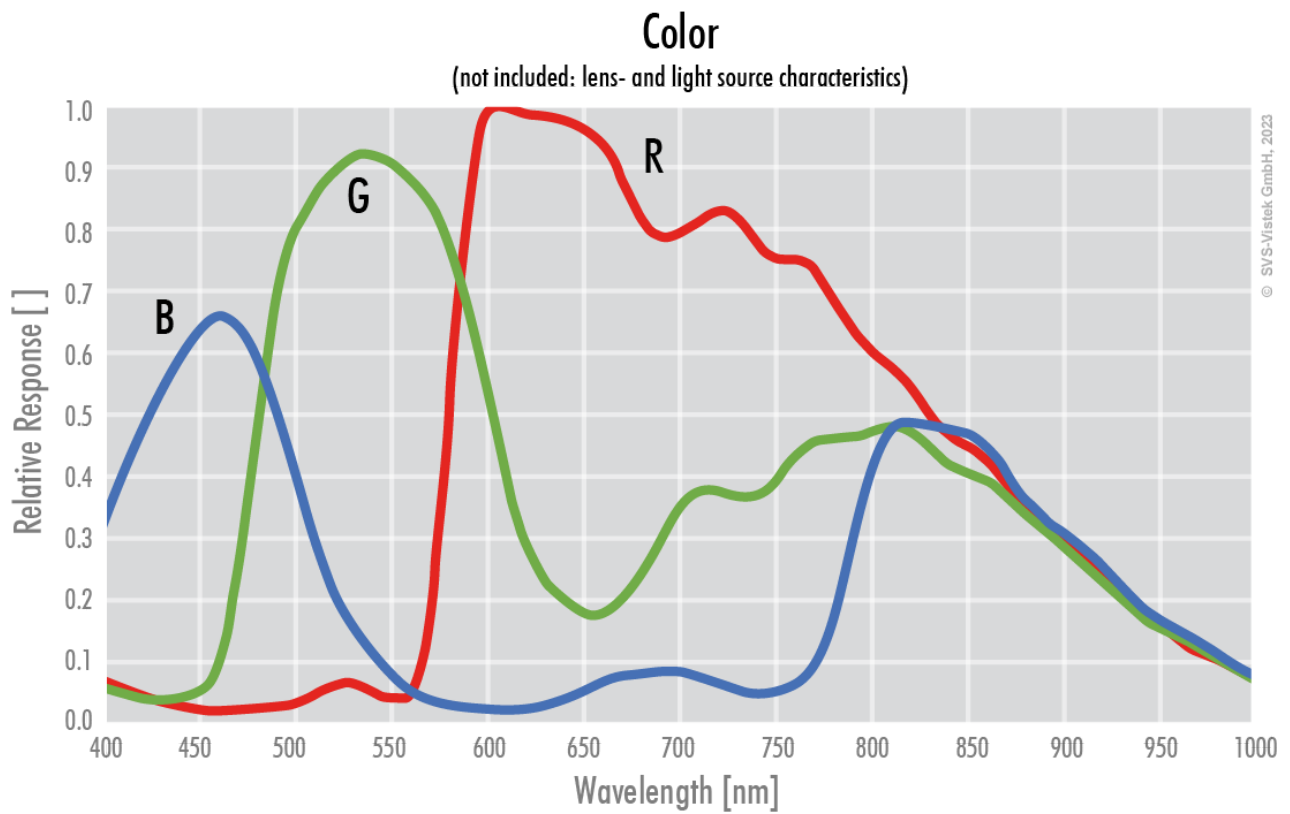
|                    |                              |
|--------------------|------------------------------|
| Trigger modes/sync | internal, software, external |
|--------------------|------------------------------|

## FW features - camera control

Camera control features

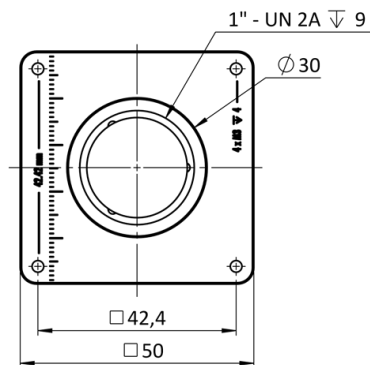
PTP, BurstMode, User Sets, POE, PWM(4), Sequencer,

## Quantum Efficiency

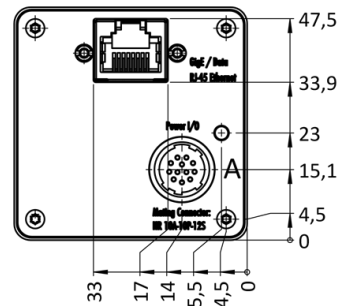


## Technical Drawing

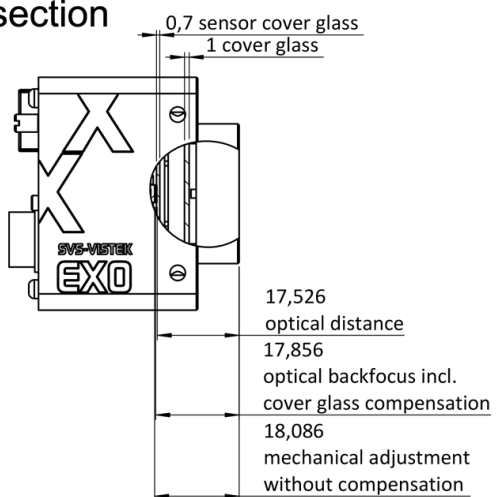
front



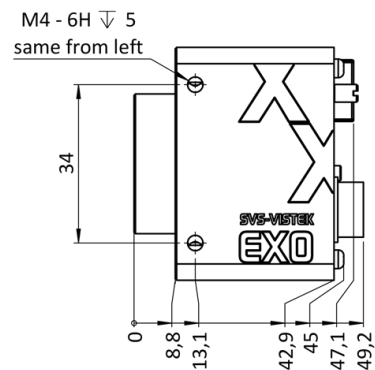
back



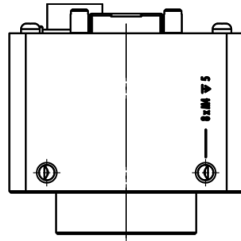
cross section



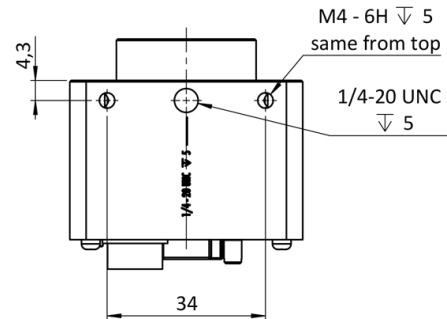
right side



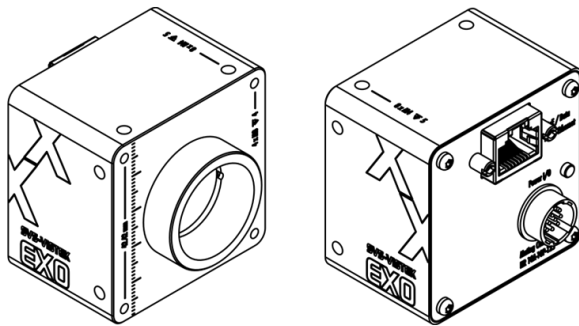
top



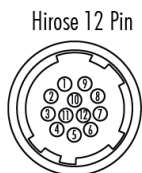
bottom



3D



## I/O pin assignment



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) |