

# EXO Polarized

## exo250ZU3

### General

|                |               |
|----------------|---------------|
| Model          | exo250ZU3     |
| Product code   | F001926       |
| Product series | EXO Polarized |
| Status         | Available     |

### Sensor

|                                |                                     |
|--------------------------------|-------------------------------------|
| Sensor type                    | Area scan                           |
| Chroma                         | Mono, Polarizer                     |
| Spectrum                       | Visible                             |
| Spectral range                 | 400 nm to 1000 nm                   |
| Resolution                     | 2,448 × 2,048 (5.00 MP)             |
| Sensor model                   | Sony IMX250 Polarizer               |
| Sensor architecture (material) | cmos                                |
| Shutter type(s)                | Global shutter (GS)                 |
| Sensor size                    | 8.45 × 7.07 mm (11.01 mm, Type 2/3) |
| Pixel size                     | 3.45 µm × 3.45 µm                   |

### Pixel formats

|                          |                     |
|--------------------------|---------------------|
| Sensor bit depth         | 8-bit, 12-bit       |
| Monochrome pixel formats | mono8, mono12packed |

### Imaging performance

|               |       |
|---------------|-------|
| Dynamic range | 72 dB |
| SNR           | 40 dB |

### Timing and gain

|                 |                   |
|-----------------|-------------------|
| Max. frame rate | 75 fps            |
| Exposure time   | 21 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,                                               |
| I/O connector               | 12-pin Hirose HR10A-10P-12S                                                                           |
| Power supply                | 10 to 25VDC                                                                                           |
| Power consumption           | External: 4.5 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           | K9 - AR coating - 400-850nm |
| 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   | usb3.0      |
| Interface connector | (Micro-B)   |
| Vision standard     | USB3 Vision |

## FW features - image control

|                        |                                                 |
|------------------------|-------------------------------------------------|
| Exposure modes         | manual, auto, external                          |
| Gain modes             | auto, manual                                    |
| Image control features | roi, lut, mirror-image, dpc, shading-correction |

## FW features - camera control

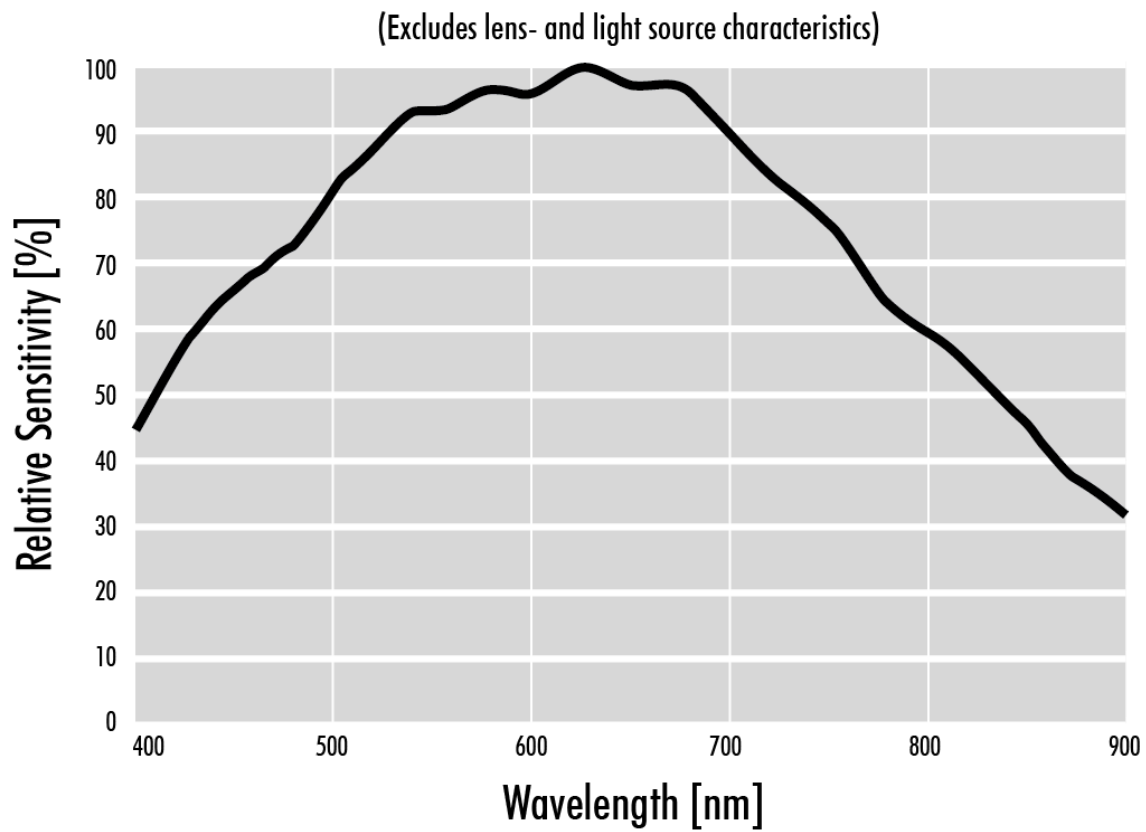
|                    |                              |
|--------------------|------------------------------|
| Trigger modes/sync | internal, software, external |
|--------------------|------------------------------|

## FW features - camera control

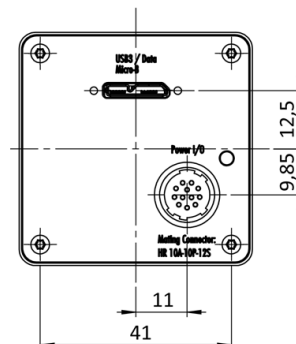
Camera control features

User Sets, PWM(4), Sequencer,

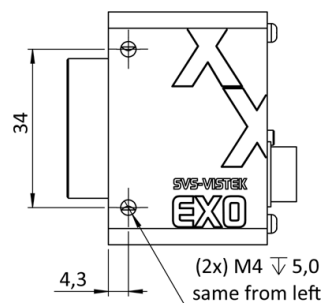
## Quantum Efficiency



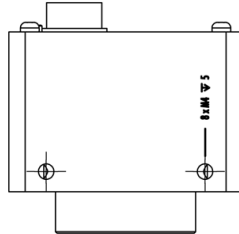
[back](#)



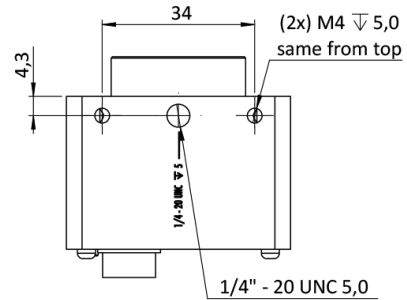
right side



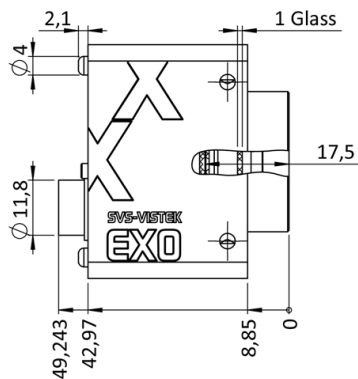
top



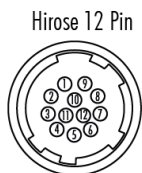
bottom



cross section



## I/O pin assignment



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