

# EXO Polarized

## exo253ZU3

### Generale

|                   |               |
|-------------------|---------------|
| Modello           | exo253ZU3     |
| Codice prodotto   | F001983       |
| Serie di prodotti | EXO Polarized |
| Stato             | Available     |

### Sensore

|                                  |                                       |
|----------------------------------|---------------------------------------|
| Tipo di sensore                  | Area scan                             |
| Croma                            | Mono, Polarizer                       |
| Spettro                          | Visible                               |
| Gamma spettrale                  | 400 nm to 1000 nm                     |
| Risoluzione                      | 4,096 × 3,000 (12.30 MP)              |
| Modello sensore                  | Sony IMX253 Polarizer                 |
| Architettura sensore (Materiale) | cmos                                  |
| Tipi di otturatore               | Global shutter (GS)                   |
| Dimensione sensore               | 14.13 × 10.35 mm (17.52 mm, Type 1.1) |
| Dimensione pixel                 | 3.45 µm × 3.45 µm                     |

### Formati pixel

|                             |                     |
|-----------------------------|---------------------|
| Profondità bit sensore      | 8-bit, 12-bit       |
| Formati pixel monocromatici | mono8, mono12packed |

### Tempi e guadagno

|                           |                   |
|---------------------------|-------------------|
| Frequenza fotogrammi max. | 30 fps            |
| Tempo di esposizione      | 28 µs to 60 s     |
| Guadagno                  | 0.0 dB to 48.0 dB |

### I/O e alimentazione

|                              |                                                                                                       |
|------------------------------|-------------------------------------------------------------------------------------------------------|
| Linee non isolate            | 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, |
| Linee non isolate specifiche | 1 x RS232 input, 1 x RS232 output, 0 x RS422 input, 0 x RS422 output,                                 |

## I/O e alimentazione

|                           |                                                         |
|---------------------------|---------------------------------------------------------|
| Linee otticamente isolate | 1 x Optical isolated input, 0 x Optical isolated input, |
| Connettore I/O            | 12-pin Hirose HR10A-10P-12S                             |
| Alimentazione             | 10 to 25VDC                                             |
| Consumo energetico        | External: 4.5 W (typical)                               |

## Condizioni operative

|                                  |                 |
|----------------------------------|-----------------|
| Temperatura operativa (Custodia) | -10 °C to 60 °C |
|----------------------------------|-----------------|

## Proprietà meccaniche

|                                       |                             |
|---------------------------------------|-----------------------------|
| Dimensioni custodia (L x P x A in mm) | 43 × 50 × 50                |
| Vetro filtro/protezione               | K9 - AR coating - 400-850nm |
| Classe IP                             | IP40                        |
| Attacco/i obiettivo                   | C-Mount                     |
| Peso                                  | 138 g                       |

## Memoria onboard e FPGA

|                              |           |
|------------------------------|-----------|
| Buffer immagine (RAM)        | 192 MByte |
| Memoria non volatile (Flash) | 32 MByte  |

## Interfacce

|                        |             |
|------------------------|-------------|
| Interfaccia digitale   | usb3.0      |
| Connettore interfaccia | (Micro-B)   |
| Standard Vision        | USB3 Vision |

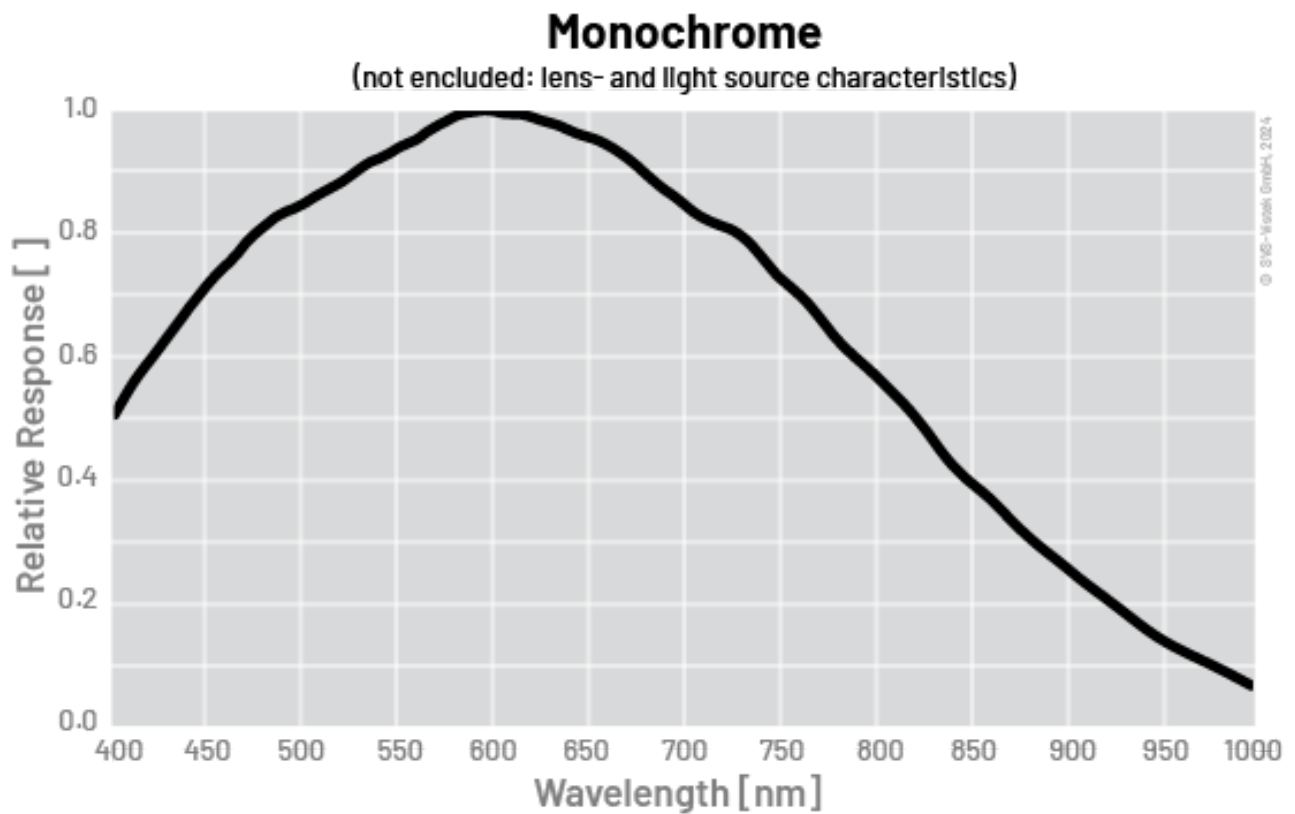
## Funzioni FW – Controllo immagine

|                                |                                                 |
|--------------------------------|-------------------------------------------------|
| Modalità di esposizione        | manual, auto, external                          |
| Modalità di guadagno           | auto, manual                                    |
| Funzioni di controllo immagine | roi, lut, mirror-image, dpc, shading-correction |

## Funzioni FW – Controllo fotocamera

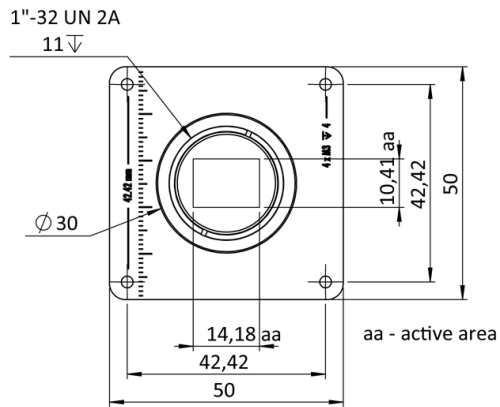
|                                        |                               |
|----------------------------------------|-------------------------------|
| Modalità di trigger/sincronizzazione   | internal, software, external  |
| Funzioni di controllo della fotocamera | User Sets, PWM(4), Sequencer, |

Efficienza quantica

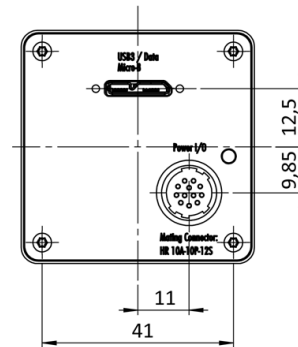


## Disegno tecnico

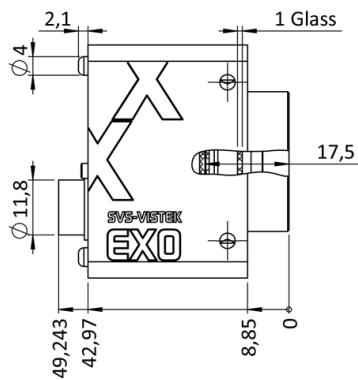
front



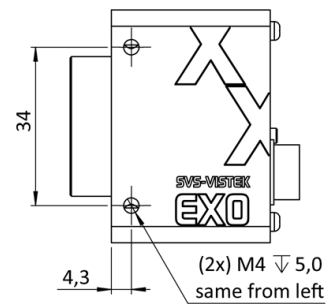
back



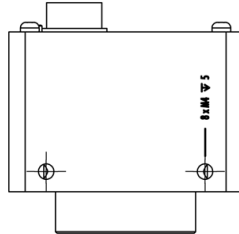
cross section



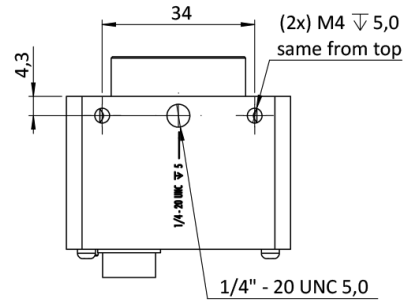
right side



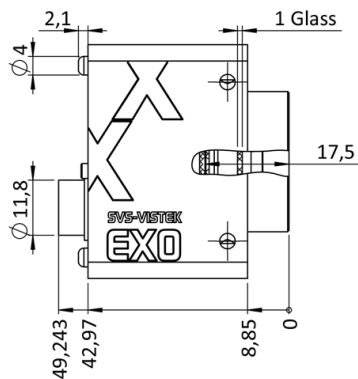
top



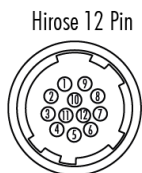
bottom



cross section



## Assegnazione pin I/O



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