



## EXO GigE

exo4000MGE

### Generale

|                   |            |
|-------------------|------------|
| Modello           | exo4000MGE |
| Codice prodotto   | F002178    |
| Serie di prodotti | EXO GigE   |
| Stato             | Available  |

### Sensore

|                                  |                                     |
|----------------------------------|-------------------------------------|
| Tipo di sensore                  | Area scan                           |
| Croma                            | Mono                                |
| Spettro                          | Visible                             |
| Gamma spettrale                  | 400 nm to 1000 nm                   |
| Risoluzione                      | 2,048 × 2,048 (4.00 MP)             |
| Modello sensore                  | CMOSIS/ams CMV4000                  |
| Architettura sensore (Materiale) | cmos                                |
| Tipi di otturatore               | Global shutter (GS)                 |
| Dimensione sensore               | 11.26 × 11.26 mm (15.93 mm, Type 1) |
| Dimensione pixel                 | 5.50 µm × 5.50 µm                   |

### Formati pixel

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

### Prestazioni di imaging

|                |       |
|----------------|-------|
| Gamma dinamica | 52 dB |
| SNR            | 38 dB |

## Tempi e guadagno

|                                   |                    |
|-----------------------------------|--------------------|
| Frequenza fotogrammi max.         | 29.5 fps           |
| Frequenza fotogrammi max. (Burst) | 74 fps             |
| Tempo di esposizione              | 27 $\mu$ s to 60 s |
| Guadagno                          | 0.0 dB to 11.0 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,                                 |
| 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, Power over Ethernet                                                                      |
| Consumo energetico           | External: 4.5 W (typical)                                                                             |

## Proprietà meccaniche

|                                       |                             |
|---------------------------------------|-----------------------------|
| Dimensioni custodia (L x P x A in mm) | 38 × 50 × 50                |
| Vetro filtro/protezione               | K9 - AR coating - 400-850nm |
| Classe IP                             | IP40                        |
| Attacco/i obiettivo                   | C-Mount                     |
| Peso                                  | 150 g                       |

## Memoria onboard e FPGA

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

## Interfacce

|                        |             |
|------------------------|-------------|
| Interfaccia digitale   | gige        |
| Connettore interfaccia | (RJ-45)     |
| Standard Vision        | GigE Vision |

## Funzioni FW – Controllo immagine

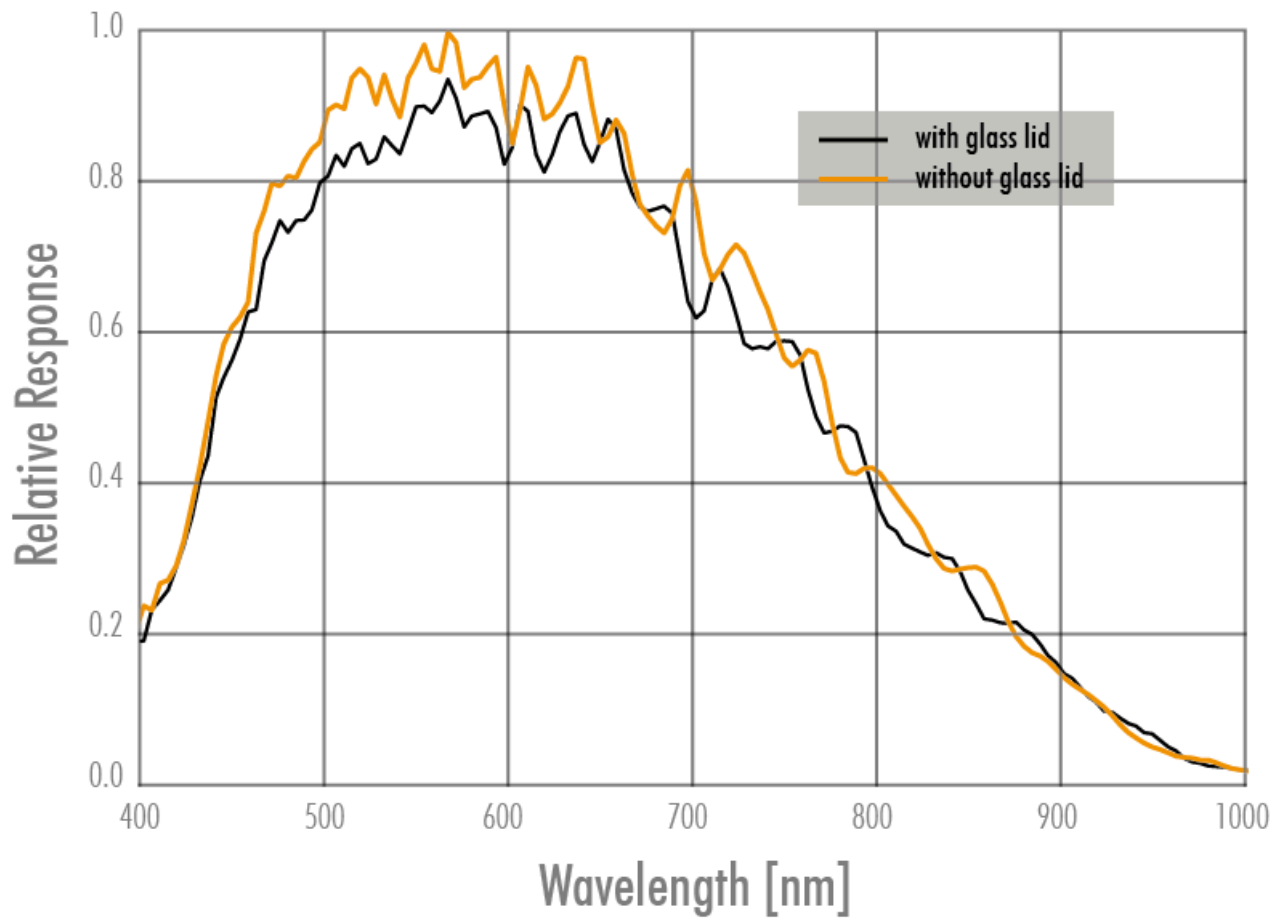
|                                |                        |
|--------------------------------|------------------------|
| Modalità di esposizione        | manual, auto, external |
| Modalità di guadagno           | auto, manual           |
| Funzioni di controllo immagine | roi, lut, mirror-image |

## Funzioni FW – Controllo fotocamera

|                                      |                              |
|--------------------------------------|------------------------------|
| Modalità di trigger/sincronizzazione | internal, software, external |
|--------------------------------------|------------------------------|

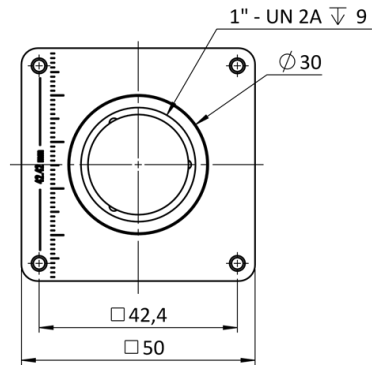
|                                        |                                                    |
|----------------------------------------|----------------------------------------------------|
| Funzioni di controllo della fotocamera | PTP, BurstMode, User Sets, POE, PWM(4), Sequencer, |
|----------------------------------------|----------------------------------------------------|

## Efficienza quantica

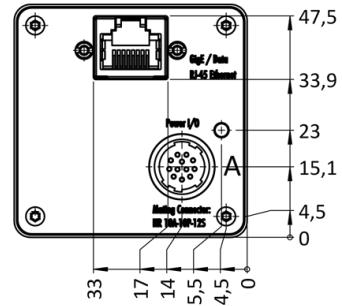


## Disegno tecnico

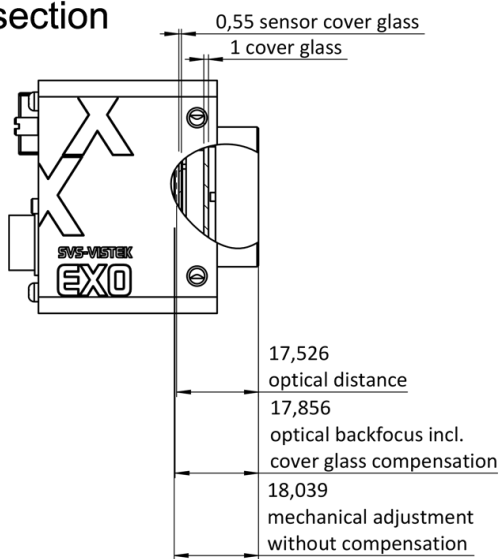
front



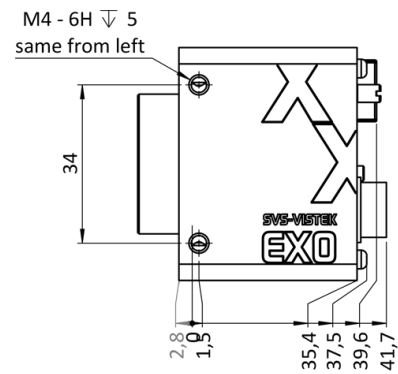
back



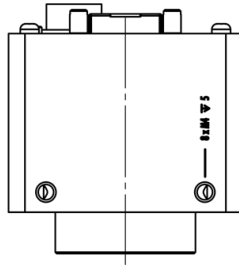
cross section



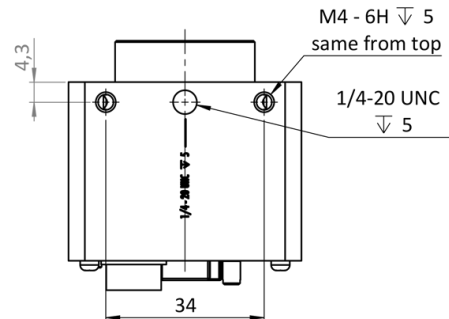
right side



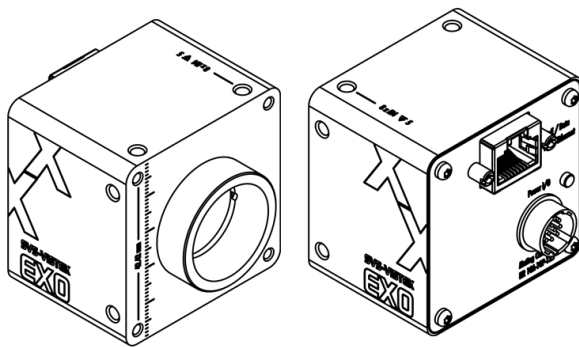
top



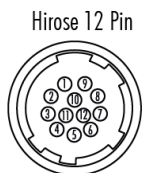
bottom



3D



## 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) |