



# ITA89-GC-10C-IP | DATASHEET

Area scan camera 8.9MP, Sony IMX267, CMOS Global shutter, 1", Color, 1 GigE, POE, C mount



### KEY ADVANTAGES

#### IP67-rated housing

Protection against water and dust.

#### MADE IN ITALY

Cameras designed and manufactured in Italy by Opto Engineering.

#### TOP QUALITY SERVICE

5 years warranty.

#### Ruggedized

-25° C to 65° operating temperature. Stainless steel mount, milled aluminum body. Tested for shock and vibration resistance.

#### MAXIMUM CONNECTIVITY

Isolated PoE supply, broad range of I/Os, serial communication.

#### HIGH PROCESSING CAPABILITY

Large on-board image buffer, large FPGA.

#### EXCELLENT QUALITY/PRICE RATIO

**ITALA-G.IP series** is a series of GigE vision PoE area scan cameras featuring an IP67-rated housing. By adding sealed lens tubes from IPT series and IP67 cables, ITALA G.IP cameras ensure protection against solid particles like dust, dirt, and sand and water.

GEN*i*CAM

**GigE**  
VISION

1288  
EMVA Standard Compliant



### KEY FEATURES



IP67



1 GIGE



12-24 VOLT



POWER OVER  
ETHERNET



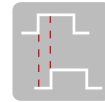
12-BIT DEPTH



BURST



IMAGE COM-  
PRESSION



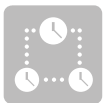
FAST  
TRIGGER  
MODE



DUAL  
EXPOSURE



SEQUENCER



PRECISION  
TIME  
PROTOCOL



SCHEDULED  
ACTION  
COMMAND



REGION OF  
INTEREST



BINNING  
AND  
DECIMATION



CHUNK DATA



AUTO WHITE  
BALANCE



COLOR  
CORRECTION  
MATRIX



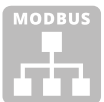
OPTO  
ISOLATED I/O



ENCODER



DUAL SERIAL  
INTERFACE



MODBUS



API C



API C++



API C#



API Python



WINDOWS



LINUX

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## SPECIFICATIONS

### Sensor Specification

|                 |                   |             |
|-----------------|-------------------|-------------|
| Megapixel       |                   | 8.9         |
| Resolution      |                   | 4112 x 2176 |
| Sensor format   |                   | 1"          |
| Sensor diagonal | (mm)              | 16.0        |
| Pixel size      | ( $\mu\text{m}$ ) | 3.45        |
| Sensor model    |                   | IMX267      |
| Sensor type     |                   | CMOS        |
| Shutter         |                   | Global      |
| Chroma          |                   | Color       |

### Connectivity

|                                    |     |   |
|------------------------------------|-----|---|
| Data connector                     |     | RJ45  |
| Data interface                     |     | 1 GigE  |
| I/O connector                      |     | 12-pin Hirose                                     |
| I/O interface                      |     | 2x opto-isolated input<br>4x opto-isolated output |
| Serial interface                   |     | RS232, RS485                                      |
| Liquid lens controller             |     | no  |
| Encoder interface                  |     | yes, incremental                                  |
| Power supply                       | (V) | 12-24, PoE (IEEE 802.3af class 2)                 |
| Max power consumption <sup>2</sup> | (W) | 3.9   |

### Compliance

|                     |         |  |
|---------------------|---------|--|
| Standards           |         | GigE Vision 2.2, GenICam, GenTL                  |
| Client software     |         | ITALA View or other GigE Vision 2.x software     |
| Operating systems   |         | 64-bit Windows 10/11<br>Ubuntu 18.04/20.04/22.04 |
| Shock and vibration |         | EN 60068-2-27<br>EN 60068-2-6<br>EN 60068-2-64   |
| Warranty            | (years) | 5  |

### Mechanical Specifications

|                 |      |                                      |
|-----------------|------|--------------------------------------|
| Mount           |      | C                                    |
| Dimensions      | (mm) | 54 x 54 x 51.3                       |
| Clamping system |      | 16x M3 threaded holes (on all sides) |
| Mass            | (g)  | 200                                  |

### Camera Specification

|                         |       |   |
|-------------------------|-------|---|
| Filter                  |       | IR cut  |
| Frame rate <sup>1</sup> | (fps) | 13.1  |
| Frame rate burst        | (fps) | 20.8  |
| Exposure time           |       | 1.51 $\mu\text{s}$ - 10 s   |
| ADC resolution          | (bit) | 10/12   |
| Dynamic range           | (dB)  | 69.7  |
| Gain range              | (dB)  | 0-48  |
| SNR                     | (dB)  | 40.0  |
| Image buffer            | (MB)  | 384   |
| Image processing        |       | Binning, decimation, ROI, gamma, black level, LUT, defective pixel correction, white balance, color correction matrix |
| Pixel formats           |       | Mono 8, RGB8, Bayer GR 8/10p/10Packed/12p/12Packed, YUV 422_8, YUV411_8_UYVY  |
| Chunk data              |       | yes   |
| User sets               |       | 3   |
| Timers/Counters         |       | 2/4   |
| Synchronization         |       | Free run, software trigger, hardware trigger, PTP (IEEE 1588)   |

### Environment

|                                    |                        |                       |
|------------------------------------|------------------------|-----------------------|
| Operating temperature <sup>3</sup> | ( $^{\circ}\text{C}$ ) | -25 - +65             |
| Storage temperature <sup>4</sup>   | ( $^{\circ}\text{C}$ ) | -10 - +60             |
| Operating relative humidity        | (%)                    | 20-80, non condensing |
| IP rating                          |                        | IP67                  |

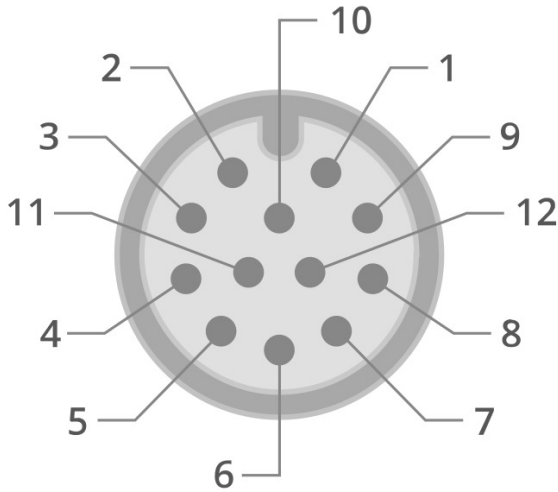
<sup>1</sup> Color-model's fps are calculated using BayerRG8 pixel format

<sup>2</sup> Measured with 24V power supply

<sup>3</sup> Case temperature, measured on the front part of the camera body

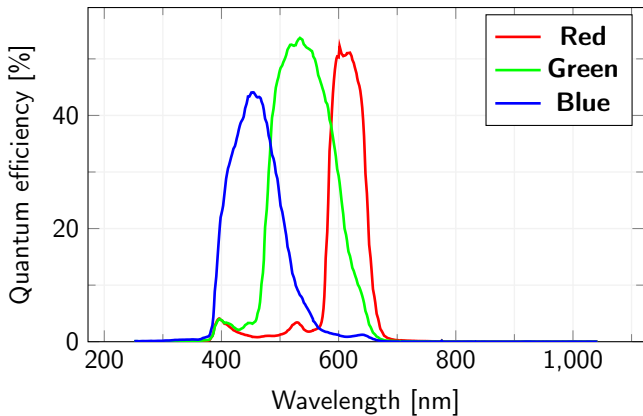
<sup>4</sup> Ambient temperature

**M12 PINOUT**

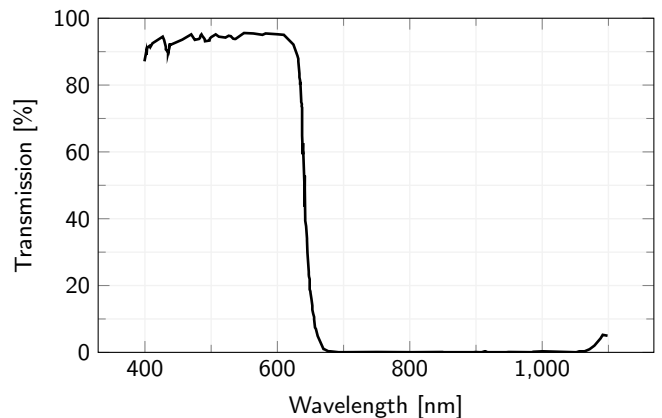


| Pin | Signal       |
|-----|--------------|
| 1   | GND          |
| 2   | +VIN         |
| 3   | Opto OUT 3   |
| 4   | Opto IN 0    |
| 5   | Opto OUT 2   |
| 6   | Opto OUT 0   |
| 7   | Opto REF GND |
| 8   | RS232 RX     |
| 9   | RS232 TX     |
| 10  | Opto REF V+  |
| 11  | Opto IN 1    |
| 12  | Opto OUT 1   |

**SENSOR QUANTUM EFFICIENCY**



**FILTERS TRANSMISSION**



**RECOMMENDED ACCESSORIES**



Opto-Engineering® offers sealed lens tubes of different diameters to be used with varying lens sizes (IPT-Series) and sealed M12 cables (CB series) to complete your vision system.

**COMPATIBLE PRODUCTS**

Full list of compatible products available [here](#).



A wide selection of innovative machine vision components.

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