

# Prosilica GC 1380H



- Sony ICX285 CCD sensor
- 30 fps at full resolution
- Rugged housing
- Video-type auto iris

Compact performance

## Prosilica GC - Ultra-compact GigE Vision camera

Prosilica GC 1380H with Sony ICX285 runs 30.0 frames per second at 1.4 MP resolution.

The Prosilica GC is a GigE camera with an ultra-compact, lightweight housing, fast frame rates, and auto-iris control. It offers a large choice of CCD and CMOS sensors up to 5 Megapixels and fits a wide range of applications.

Easy software integration with [Allied Vision's Vimba Suite](#) and compatibility to the most popular third party image-processing libraries.

See the [Modular Concept](#) for lens mount, housing variants, optical filters, case design, and other modular options. See the [Customization and OEM Solutions webpage](#) for additional options.

## Specifications

Prosilica GC 1380H	
Interface	IEEE 802.3 1000baseT
Resolution	1360 (H) × 1024 (V)
Sensor	Sony ICX285
Sensor type	CCD Progressive
Shutter mode	Global shutter
Sensor size	Type 2/3
Pixel size	6.45 μm × 6.45 μm
Lens mount (default)	C-Mount

## Prosilica GC 1380H

Max. frame rate at full resolution 30 fps

ADC 12 Bit

Image buffer (RAM) 64 MByte

### Imaging performance

Imaging performance data is based on the evaluation methods in the EMVA 1288 Release 3.1 standard for characterization of image sensors and cameras. Measurements are typical values for monochrome models measured at full resolution without optical filter.

Quantum efficiency at 529 nm 54 %

Temporal dark noise 17.5 e<sup>-</sup>

Saturation capacity 14000 e<sup>-</sup>

Dynamic range 57.9 dB

Absolute sensitivity threshold 18.0 e<sup>-</sup>

### Output

Bit depth 8/12 Bit

Monochrome pixel formats Mono8, Mono12, Mono12Packed

RGB color pixel formats RGB8Packed, BGR8Packed

Raw pixel formats BayerRG8, BayerRG12, BayerRG12Packed

### General purpose inputs/outputs (GPIOs)

TTL I/Os 1 input, 1 output

Opto-isolated I/Os 1 input, 1 output

RS232 1

### Operating conditions/dimensions

Operating temperature 0 °C to +50 °C ambient (without condensation)

Power requirements (DC) 5 to 25 VDC

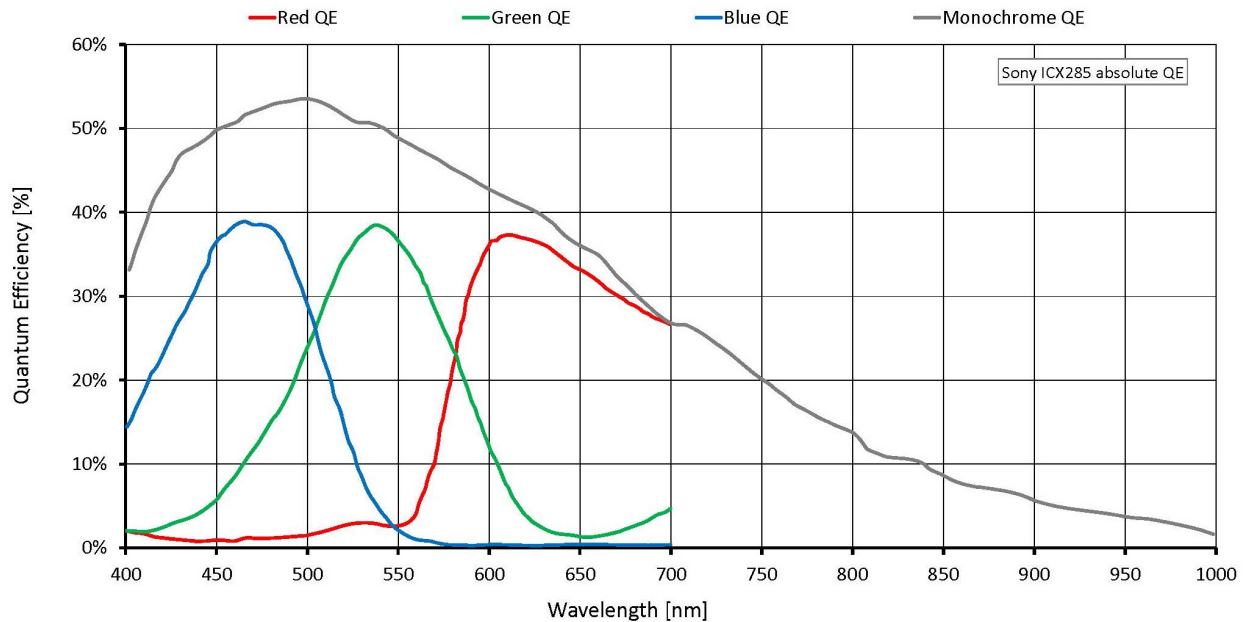
Power consumption 3.5 W at 12 VDC

Mass 111 g

Body dimensions (L × W × H in mm) 59 × 46 × 33 (including connectors)

Regulations CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS); FCC Class A; CAN ICES-003

## Quantum efficiency



## Features

### Image optimization features:

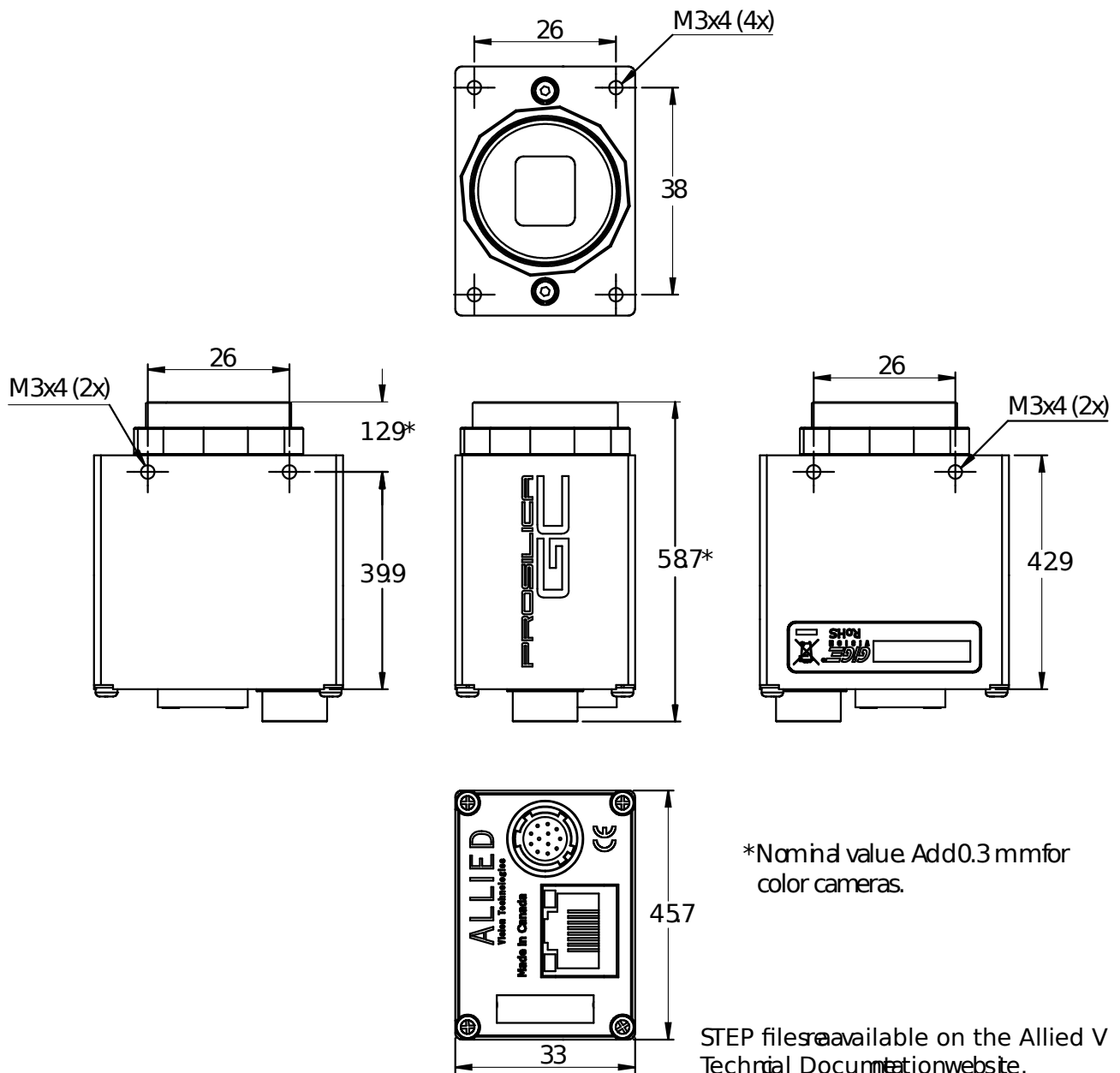
- Auto gain (manual gain control: 0 to 33 dB, 1 dB increments)
- Auto exposure (manual exposure control: 10  $\mu$ s to 72.9 s; 1  $\mu$ s increments)
- Auto white balance (GC1380CH only)
- Binning (horizontal and vertical) (sum)
- Black level (Offset)
- Gamma correction
- Hue, saturation, color transformation (GC1380CH only)
- Three look-up tables
- Region of interest, DSP subregion (selectable region for auto features)

### Camera control features:

- Auto-iris (video type)

- Event channel
- Global shutter (digital shutter)
- IEEE 1588 Precision Time Protocol
- Image chunk data
- Recorder and Multiframe acquisition modes
- RS232
- Three storable user sets
- StreamBytesPerSecond (bandwidth control)
- StreamHoldCapacity (Up to 46 frames at full resolution)
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO
- Temperature monitoring (mainboard only)

## Technical drawing



## Applications

Prosilica GC1380H is ideal for a wide range of applications including:

- Industrial inspection
- Machine vision
- Ophthalmology



- Microscopy
- Fluorescence
- Aeronautical and aerospace
- Public security
- Surveillance
- Traffic imaging