

# Prosilica GC

## 1290



- Sony ICX445 sensor
- 33 fps @ full resolution
- Rugged housing
- Video-type auto iris

## Description

### GigE Vision, Sony ICX445 EXview CCD sensor, auto-iris, 33 fps

Prosilica GC1290 is a 1.2 Megapixel camera with a GigE Vision compliant Gigabit Ethernet port and Hirose I/O port. Prosilica GC1290 is offered in both monochrome and color models. This camera incorporates the high quality Type 1/3 (6.0 mm diagonal) Sony ICX445 CCD sensor with EXview HAD CCD technology that provides superior image quality, excellent sensitivity, and low noise. At full resolution, this camera has a frame rate of 33 frames per second. With a smaller region of interest higher frame rates are possible. By default monochrome models ship with no optical filter and color models ship with an IRC30 IR cut filter.

### Benefits and features:

- Monochrome (GC1290) and color (GC1290C) models
- GigE Vision interface
- Screw mount RJ45 Ethernet connector for industrial environments
- Supports cable lengths up to 100 meters (CAT-5e or CAT-6)
- Popular C-Mount lens mount
- Standard M3 mounting holes and optional tripod adapter
- Support for popular third party image-processing libraries including Cognex VisionPro, MathWorks MATLAB, and National Instruments LabVIEW

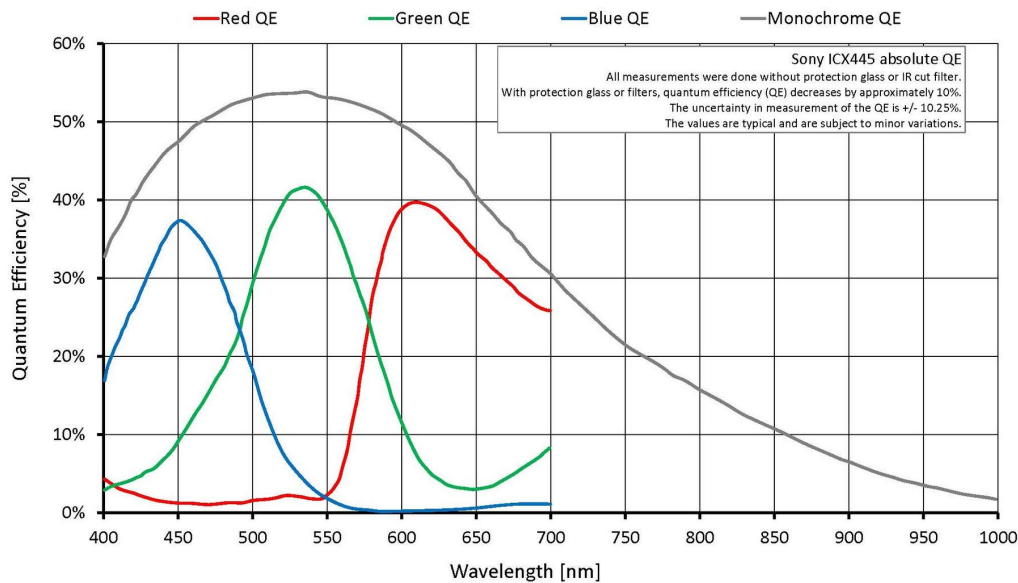
### Options:

- CS-Mount
- Optical filters (IR cut filter/Protection glass)

See the [Modular Concept](#) for lens mount and optical filter options.

## Specifications

<b>Prosilica GC</b>	<b>1290</b>
Interface	IEEE 802.3 1000baseT
Resolution	1280 (H) × 960 (V)
Sensor	Sony ICX445
Sensor type	CCD Progressive
Sensor size	Type 1/3
Pixel size	3.75 μm × 3.75 μm
Lens mount (default)	C-Mount
Max. frame rate at full resolution	33 fps
ADC	12 bit
Image buffer (RAM)	64 MByte
<b>Output</b>	
Bit depth	8/12 bit
Monochrome pixel formats	Mono8, Mono12, Mono12Packed
RGB color pixel formats	RGB8Packed, BGR8Packed
Raw pixel formats	BayerRG8, BayerRG12, BayerRG12Packed
<b>General purpose inputs/outputs (GPIOs)</b>	
TTL I/Os	1 input, 1 output
Opto-isolated I/Os	1 input, 1 output
RS232	1
<b>Operating conditions/dimensions</b>	
Operating temperature	0 °C to +50 °C ambient (without condensation)
Power requirements (DC)	5 to 25 VDC
Power consumption	3 W @ 12 VDC
Mass	106 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



## Features

### Image optimization features:

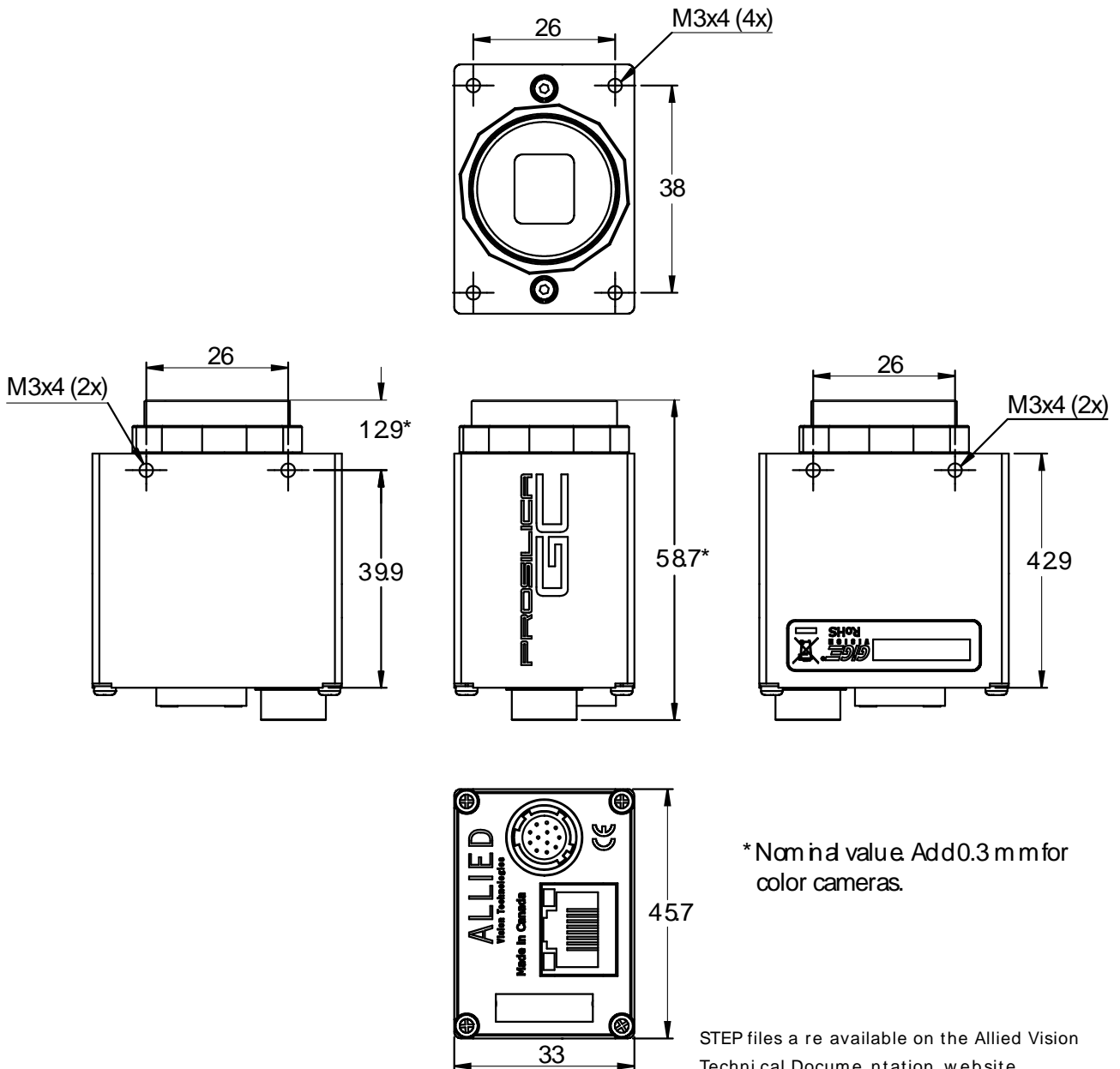
- Auto gain (manual gain control: 0 to 24 dB; 1 dB increments)
- Auto exposure (manual exposure control: 12  $\mu$ s to 72.4 s; 1  $\mu$ s increments)
- Auto white balance (GC1290C only)
- Binning (horizontal and vertical) (sum)
- Black level (Offset)
- Gamma correction
- Hue, saturation, color transformation (GC1290C only)
- Three look-up tables (LUTs)
- Region of interest (ROI), DSP subregion (selectable ROI 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 52 frames at full resolution)
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO
- Temperature monitoring (mainboard only)

## Technical drawing





## Applications

Prosilica GC1290 is ideal for a wide range of applications including:

- Industrial inspection
- Machine vision
- Ophthalmology
- Aeronautical and aerospace
- Public security
- Surveillance
- Traffic imaging
- OEM applications