



# Goldeye G1

## CL-008 SWIR

- Goldeye CL-008 SWIR Near-infrared camera with InGaAs sensor, 320 × 256 pixels, optional cooling

## Description

Near-infrared camera with InGaAs sensor, 320 x 256 pixels, optional cooling

The Goldeye CL-008 NIR is a near-infrared camera. It has a spectral response from 900 nm to 1700 nm. Its InGaAs sensor features high sensitivity, very good linearity, and a high damage threshold against intense illumination. The camera is optionally available with Peltier cooling. The Peltier cooling option is recommended for applications with long exposure times, or for exact temperature measurements.

Benefits and features:

- InGaAs sensor, spectral range 900 nm to 1700 nm (near-infrared)
- Excellent Quantum Efficiency at 1.0  $\mu$ m to 1.6  $\mu$ m
- 100 fps at full resolution or 186 fps with reduced resolution
- C-Mount, compatible with standard machine vision lenses
- Camera Link interface

Options:

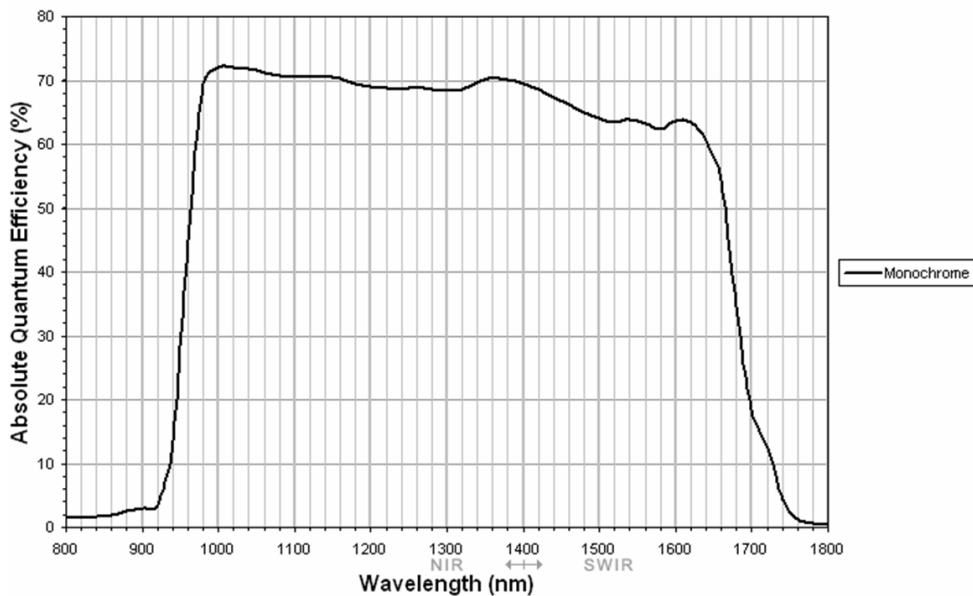
- Peltier cooling for long exposure times and exact temperature measurements

Models:

Goldeye CL-008 NIR  
Goldeye CL-008 NIR Cool

## Specifications

<b>Goldeye G1</b>	<b>CL-008 SWIR</b>
Interface	Camera Link Base
Resolution	320 (H) × 256 (V)
Spectral range	900 nm to 1700 nm (SWIR)
Sensor	InGaAs FPA 320 × 256
Sensor type	InGaAs
Sensor size	No standard size
Pixel size	30 μm × 30 μm
Lens mount (default)	C-Mount
Max. frame rate at full resolution	118 fps
ADC	0 bit
Image buffer (RAM)	
	<b>Output</b>
Bit depth	bit
Monochrome pixel formats	12 bit
	<b>Operating conditions/dimensions</b>
Power requirements (DC)	0.4 A
Power consumption	+ 12 V (-0% / +5%)
Mass	600 g
Body dimensions (L × W × H in mm)	74 × 90 × 71
Regulations	CE: 2014/30/EU (EMC), 2011/65/EU (RoHS)



## Features

- Manual Gain, 6 dB, up to factor 20 with short exposure times
  - Exposure time 5  $\mu$ s to 100 ms (for Goldeye CL-008 NIR)
  - Exposure time 5  $\mu$ s to 1 s (for Goldeye CL-008 NIR Cool)
- Shipped with built-in correction data sets
- Gain/offset correction (NUC/non-uniformity correction) for each pixel
- Bad pixel correction
- Background (FPN) correction
- Continuous mode (image acquisition with maximum frame rate)
- Image On Demand mode (triggered image acquisition)

In combination with Allied Vision's AcquireControl software, extensive image analysis functions are available:

- Pseudo color LUT with several color profiles
- Auto contrast
- Auto brightness
- Analyze multiple regions (rectangular, circle) within the image
- Real-time statistics and histogram display



## Applications

Goldeye NIR cameras are very sensitive in the NIR spectrum, show excellent linearity, and tolerate intense illumination. They are the perfect choice for numerous NIR applications:

- Near-infrared imaging
- Thermal imaging of hot objects (in a range from 250°C to 800°C)
- Semiconductor inspection
- Water or moisture detection
- Imaging spectroscopy
- Laser beam profiling
- Plastic sorting
- Medical science and biology
- Vision enhancement