

# Basler Scout light

Area Scan Cameras



FireWire

**GiGE**  
VISION

**GEN*i*CAM**



- VGA to 2 megapixels
- High quality CCD and CMOS sensors
- Gigabit Ethernet and FireWire-b interface
- Excellent price/performance ratio

**BASLER**

# Compact, Rugged, and Attractively Priced

The Basler scout light family is based on a selection of the best Sony CCD sensors and offers several resolutions and speeds. The family also includes a high-performance CMOS sensor from Aptina. With Gigabit Ethernet and FireWire-b™ (IEEE 1394b) interface technology, the cameras in this family are defined by state of the art technology that lets you get the maximum performance from each sensor.

The scout light camera series follows a strict design-to-cost strategy. It addresses applications that are extremely price sensitive and makes a convincing argument with its excellent price/performance ratio.

Basler scout light cameras are a perfect fit for a variety of vision applications including semiconductor and component inspection, manufacturing quality control, food and beverage inspection, intelligent traffic systems, microscopy and medical imaging, biometrics, and many others.

### Outstanding Image Quality

The scout light family is equipped with assorted Sony CCD sensors in mono. These sensors were selected to provide outstanding image quality in combination with the scout light's read-out and processing electronics. For precise imaging results, all scout light cameras run in progressive scan mode.

### Gigabit Ethernet (GigE Vision) Drivers

Basler provides its own Gigabit Ethernet drivers for the scout light GigE camera models. These drivers are compliant with the GigE Vision standard. They have been used in several thousand installations since 2006 and are well known for their stability and ease of use. To give you maximum flexibility, Basler provides two different drivers, the filter driver and the performance driver:

The filter driver quickly separates incoming packets carrying image data from other traffic on the network and makes the data available for vision applications running on the computer.

The performance driver can support the most demanding applications with multiple cameras, high data rates, or very strict real-time requirements. When the performance driver is used in combination with a dedicated network interface card (Intel), the load on the host computer's CPU is significantly reduced.



### Your benefits include:

- Resolutions from VGA to 2 megapixels
- Gigabit Ethernet and FireWire-b interface
- 100 meter cable length provided by Gigabit Ethernet
- 100% quality checked and calibrated to give you consistent performance and reliability
- Field-proven Basler pylon driver package with both filter and performance drivers

## Specifications



Basler <i>Scout light</i>	Resolution (H x V pixels)	Sensor	Sensor Technology	Sensor Size (optical)	Pixel Size (µm)	Frame Rate	Power Consumption (typical)	Weight (typical)
sIA750-60fm	752 x 480	Aptina MT9V022	Progressive scan CMOS	1/2"	6.0 x 6.0	64	1.7 W	150 g
sIA1000-30fm	1034 x 779	Sony ICX204	Progressive scan CCD	1/3"	4.65 x 4.65	30	3 W	150 g
sIA1390-17fm	1392 x 1040	Sony ICX267	Progressive scan CCD	1/2"	4.65 x 4.65	17	2.75 W	150 g
sIA1600-14fm	1628 x 1236	Sony ICX274	Progressive scan CCD	1/1.8"	4.4 x 4.4	14	2.75 W	150 g

New black/silver housing from Q4/2011 on

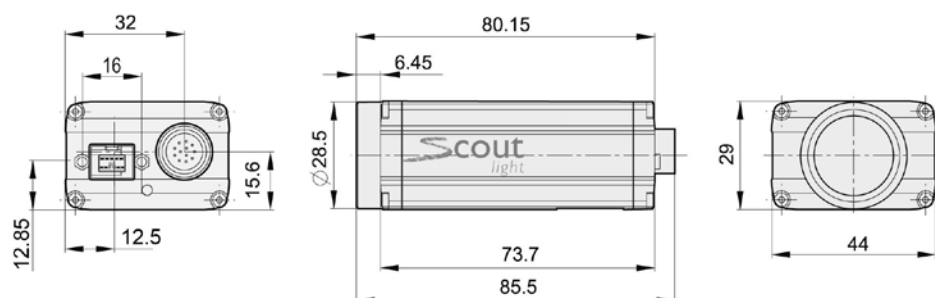
## Specifications Applicable For All scout light FireWire Models:

Mono / Color	Mono
Interface	IEEE 1394b (screw lock possible)
Video Output Format	Mono 8   Mono 16   Mono 12 packed   YUV 4:2:2 Packed   YUV 4:2:2: (YUYV) Packed sIA750-60fm/fc: Mono 8   YUV 4:2:2 Packed   YUV 4:2:2: (YUYV) Packed only
Synchronization	Via external trigger, or via software
Exposure Control	Programmable via the camera API
Housing Size (L x W x H)	73.7 mm x 44.0 mm x 29.0 mm (without lens adapter)
Housing Temperature	Up to 50°C
Lens Mount	C-mount
Digital I/O	1 opto-isolated input port, 1 opto-isolated output port
Power Requirements	8-36 VDC; via Hirose 12-pin connector (max. 10 meter cable length)
Conformity	CE, FCC, RoHS, IP 30, DCAM, GenICam
Software Driver	Basler pylon SDK including filter and performance driver

Specifications are subject to change without prior notice.

For detailed technical information, please see the camera manual that can be found on our website: [www.baslerweb.com/manuals](http://www.baslerweb.com/manuals)

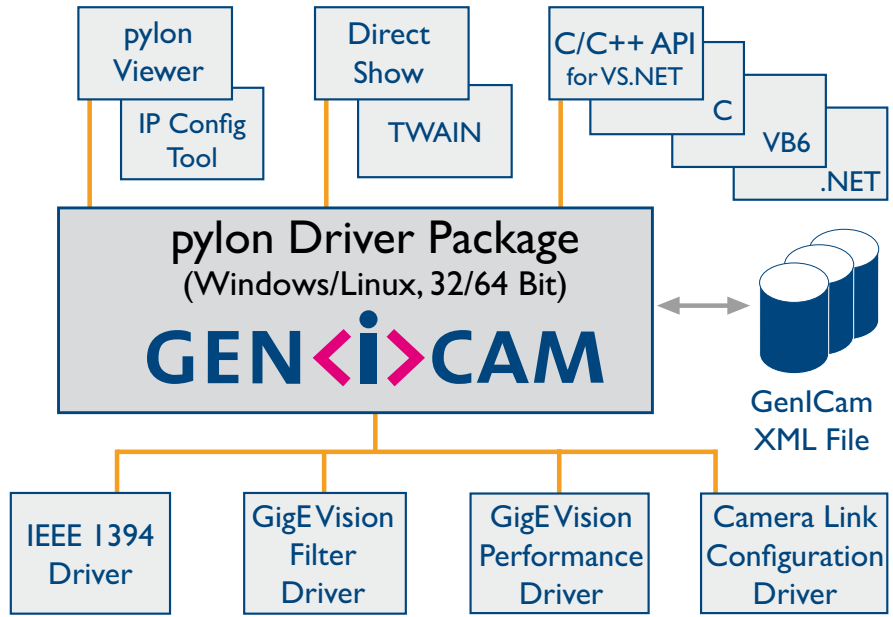
## Dimensions (in mm)



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# Basler pylon Driver Package

The pylon driver package operates with all Basler line scan and area scan cameras. It offers stable, reliable and flexible data exchange between Basler cameras and PCs, at a very low CPU load.



The internal architecture of the pylon driver package is based on GenICam Technology, which offers you easy access to the newest camera models and the latest features. Changes to an existing camera device in your application essentially become a plug-and-play process.

The pylon GigE Vision Performance Driver quickly separates incoming packets carrying image data from other traffic on the network and makes the data available for use by your vision application while requiring the lowest CPU resources. This driver can only be used with network cards that include specific Intel chipsets. The pylon GigE Vision Filter driver supports all kinds of hardware, common GigE network cards, and GigE ports on your motherboard as well. The pylon IEEE 1394b driver gives you access to a well-established interface technology. The pylon Camera Link Configuration driver offers a comfortable access to all camera parameters of Basler's latest Camera Link families aviator, ace, and racer.

The pylon Viewer offers you a convenient application for testing and evaluating Basler cameras. The pylon IP Configuration tool helps you

to set up multi-camera systems easily via local network boundaries. The pylon SDK supports any type of application development. The pylon package contains the following main modules. Each one can be individually selected/unselected during the installation process, preventing the installation of unneeded modules on your system.

- GigE Vision Filter Driver
- GigE Vision Performance Driver
- IEEE 1394 Driver
- Camera Link Serial Communication Driver
- pylon Viewer
- IP Configuration Tool
- pylon SDK for all Cameras; C, C++, C# and VB6 (the 'pylon for Linux' version only supports the GigE interface via a C++ API)

The pylon driver package can be downloaded for free from our website. For more information on the installation process, refer to the pylon Installation Guide. The helpful pylon Release Notes contain all improvements and bug fixes since the first pylon version.

## Specifications

Basler <i>Scout</i> <i>light</i>	Resolution (H x V pixels)	Sensor	Sensor Technology	Sensor Size (optical)	Pixel Size ( $\mu\text{m}$ )	Frame Rate	Power Consumption (typical)	Weight (typical)
sIA640-74gm/gc	659 x 494	Sony ICX414	Progressive scan CCD	1/2"	9.9 x 9.9	79	3 W	150 g
sIA780-54gm/gc	782 x 582	Sony ICX415	Progressive scan CCD	1/2"	8.3 x 8.3	55	3 W	150 g
sIA1390-17gm/gc	1392 x 1040	Sony ICX267	Progressive scan CCD	1/2"	4.65 x 4.65	17	3.5 W	150 g
sIA1400-17gm/gc	1392 x 1040	Sony ICX285	Progressive scan CCD	2/3"	6.45 x 6.45	17	3.5 W	160 g

Cameras will be available Q4/2011

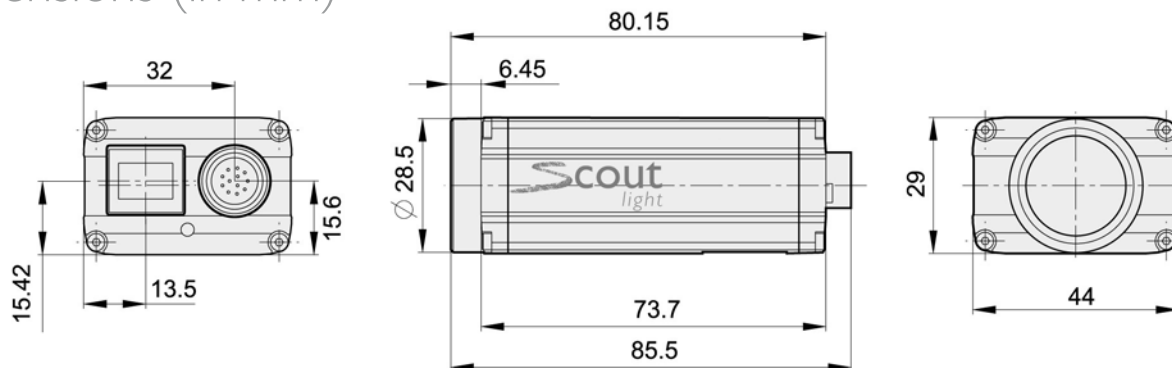
## Specifications Applicable For All scout light GigE Models:

Mono / Color	Mono / Color
Interface	Gigabit Ethernet (screw lock possible)
Video Output Format	Mono 8:8 bits/pixel   Mono 16:12 bits/pixel   YUV 4:2:2:16 bits/pixel average   YUV 4:2:2: (YUYV):16 bits/pixel average Raw 8:8 bits/pixel (R,G or B)   Raw 16:12 bits/pixel (R,G or B)
Synchronization	Via external trigger; or free run
Exposure Control	Programmable via the camera API
Housing Size (L x W x H)	73.7 mm x 44 mm x 29 mm (without lens adapter)
Housing Temperature	Up to 50°C
Lens Mount	C-mount
Digital I/O	1 opto-isolated input port, 1 opto-isolated output port
Power Requirements	12-24 VDC; via Hirose 12-pin connector (max. 10 meter cable length)
Conformity	CE, FCC, RoHS, IP 30, GigE Vision, GenICam
Software Driver	Basler pylon SDK including filter and performance driver

Specifications are subject to change without prior notice.

For detailed technical information, please see the camera manual that can be found on our website: [www.baslerweb.com/manuals](http://www.baslerweb.com/manuals)

## Dimensions (in mm)



## What Makes Basler Camera Quality So Special?



To ensure consistently high product quality, we employ several quality inspection procedures during manufacturing. The following list describes some of the most essential actions we take to meet your highest requirements:

- The back focal length on each camera is carefully measured and adjusted. This guarantees an optimum distance between the lens flange and the sensor and ensures compliance with optics standards.
- Our advanced Camera Test Tool (CTT+), the first fully-automated inspection system for digital cameras, checks all of the significant quality aspects of each camera we produce. The CTT+ is a unique combination of optics, hardware, and software that can be quickly and efficiently used to calibrate a camera and to measure its performance against a set of standards. For defined sets of conditions, an automated software program examines the camera's output, makes any calibration adjustments necessary, and compares the output to a strictly defined set of performance criteria.

## RoHS Compliance

The Basler scout light series is RoHS compliant. This is especially important in applications where the end-user requires strict RoHS compliance in all system components.



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