

# BASLER A100 SERIES

The BASLER A100 series area scan cameras provide the market with exceptionally designed megapixel (1.3m pixels) digital camera technology. This series of products, like Basler's other products, has a small footprint, easy Windows® based configuration tool, simple cabling, and single source power supply.



**HIGH RESOLUTION. PROGRESSIVE. DIGITAL MEGAPIXEL.**



# AREA SCAN

## AREA SCAN CAMERAS

### Features

- High resolution (megapixel) array
- Selectable 8- or 10-bit\* digital output (b)
- Electronic exposure time control
- High signal-to-noise ratio
- Anti-blooming
- Partial scanning (p)
- Binning - V-Binning, H-Binning, & V+H (full) -Binning
- Programmable via serial port
- Compact housing manufactured with high planar, parallel and angular precision

### Outline

The Basler high resolution camera employs a progressive scan CCD-sensor chip with a resolution of 1300 x 1030 pixels which provides features such as exposure time control and anti-blooming. The cameras output digital data via RS-644 LVDS, Channel Link LVDS, or IEEE 1394 signal and allows for external synchronization.

# SPECIFICATIONS

### Camera Series

The A100 Series of Area Scan cameras have been designed for advanced users of digital industrial cameras. The series includes:

A101 1300 x 1030 Pixels  
11.75 fps  
18MHz Pixel Clock

[Additional camera feature options:](#)

- monochrome (A101)
- color (A101c)
- partial scan (A101p)
- IEEE 1394\* output (A101f)
- Channel Link\* output (A101b)

\* available Q4-2000

### Sample Applications

- Glass bottle inspection
- Semiconductor / electronics inspection and placement
- Microscopy
- ID code reader / OCR
- And many more

### Input Signals

The camera can be programmed to function in three basic exposure time control modes, programmable, level-control, and free run. In two of these modes, programmable and level-controlled, the ExSync signal is used to control exposure time and/or frame rate.

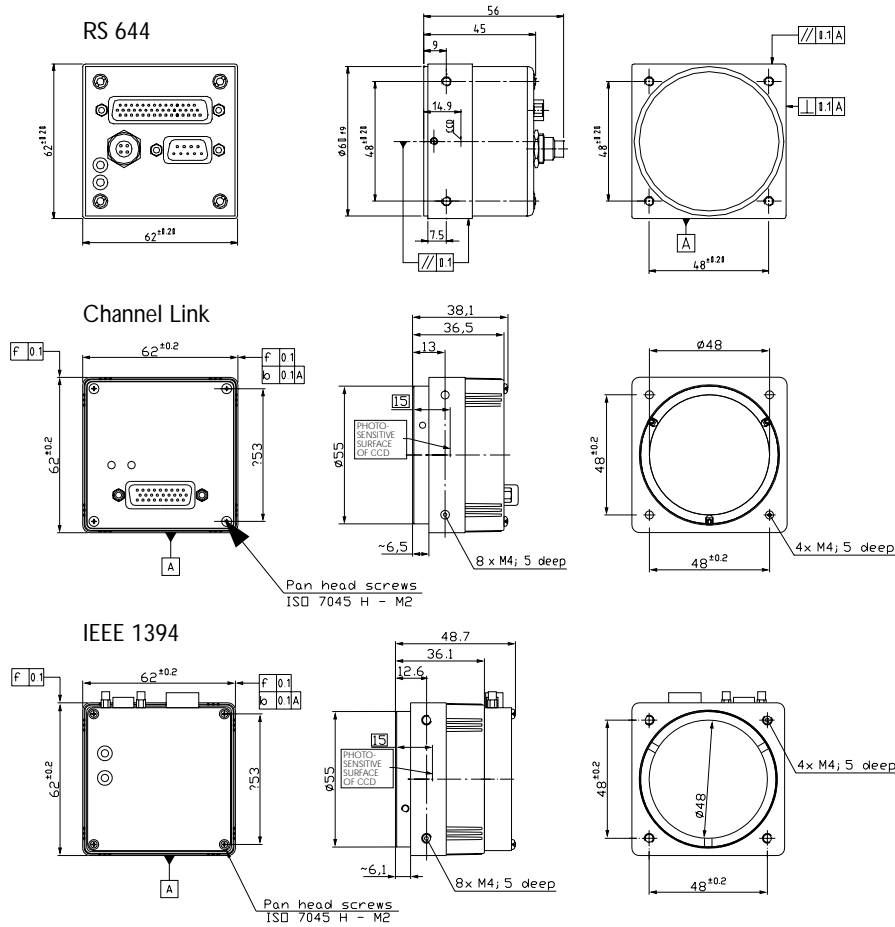
### Output Signals

The standard A101 cameras transmits 8-bit output data using RS-644 technology. The camera operates at 18MHz. Frame valid and line valid signals are available to identify when valid frame and valid line data is being transmitted.

The channel link (b) version of the A101 camera output data is transmitted using 28 bit Channel Link technology. The camera transmits 8-bit or 10-bit output data at 18MHz. Frame valid signals are available to identify when valid frame data is being transmitted.

The IEEE 1394 (f) version of the A101 camera output data is transmitted using Version 1.20 of the IEEE-1394 Trade Association digital camera specification technology. Please see Basler's IEEE 1394 technical data-sheet for more information on all Basler's IEEE 1394 technology products.

## Dimensions



Digital Megapixel  
High Resolution  
Progressive



## Specifications

BASLER A101	
Sensor	1300 (H) x 1030 (V) pixels
Pixel clock	18MHz
Frame rate	11.75 fps (22fps V-Bin, and up to 157fps w/ partial scanning)
Sensor type	2/3" HAD interline transfer progressive scan CCD
Pixel size	6.7 $\mu$ m x 6.7 $\mu$ m
Dark Signal NU	$\pm 1$ DN
PRNU	$\pm 12\%$
Video output	8- or 10-bit (b) (digitization via 10-bit A/D), RS-644 or Channel Link* or IEEE 1394*
Synchronization	External via ExSync or internal Free-run
Exposure control	Edge, level or programmable
Gain and offset	Programmable via serial link
Power	24 V DC ( $\pm 10\%$ ), max 5 W
Vibration	6G (10Hz ~ 150Hz) 1 hour each axis
Shock	80G (1EC 68)
Size (housing only)	45 x 62 x 62mm (L x W x H)
Weight	310g (C-mount) / 380g (F-mount)
Lens mount	F-mount, C-Mount, or M42
Conformity	CE, FCC

\* Available with the "b" and "f" option cameras in Q4-2000.

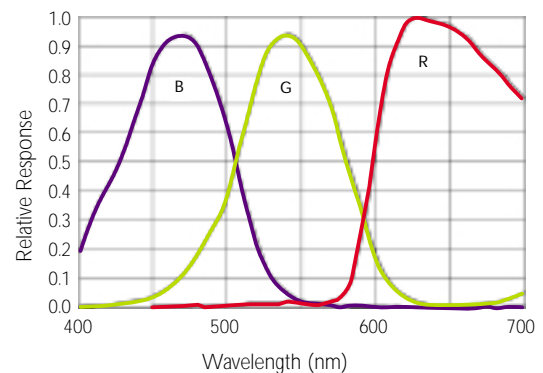
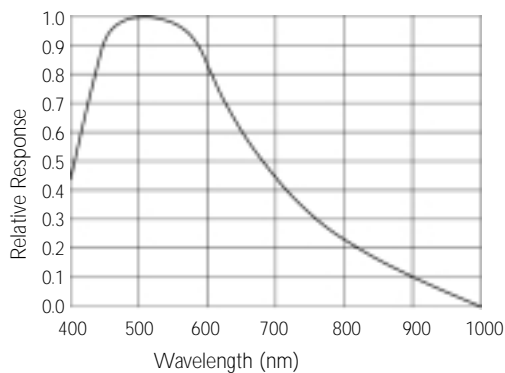
Specifications may change without notice.

# A100 SERIES

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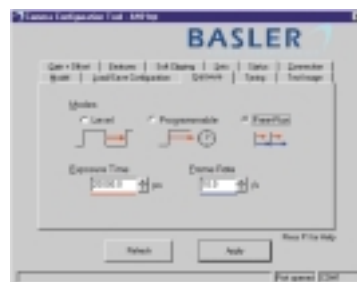
### Responsivity

Spectral Response Sensitivity Characteristics Charts have been supplied by the sensor manufacturer.



### Configuration Tool

Today's high performance digital cameras require a robust software tool to take advantage of the variety of features available. Basler-MVC provides, free of charge, the Camera Configuration Tool, which is a Windows® based software package designed to make setting up our new Basler camera simple. (Not available with the "f" option).



MACHINE VISION COMPONENTS

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