

# 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 cameras, 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)
- IR cut filter
- partial scan (A101p)

### 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

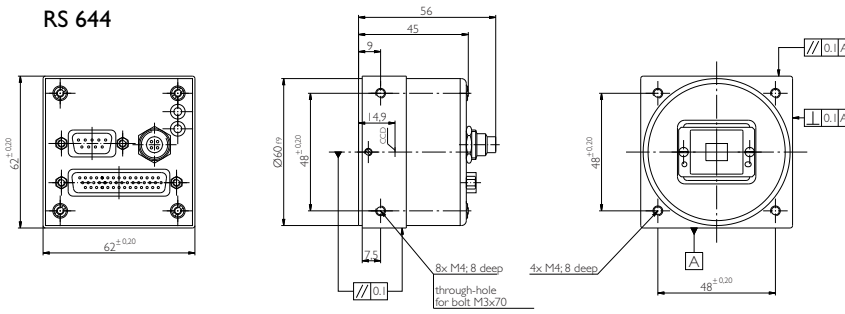
**The standard A101 cameras** transmits 8-bit output data using RS-644 technology. The camera operates at 18MHz. Frame valid and line valid signals are available to identify when valid frame and valid line data is being transmitted.

**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.

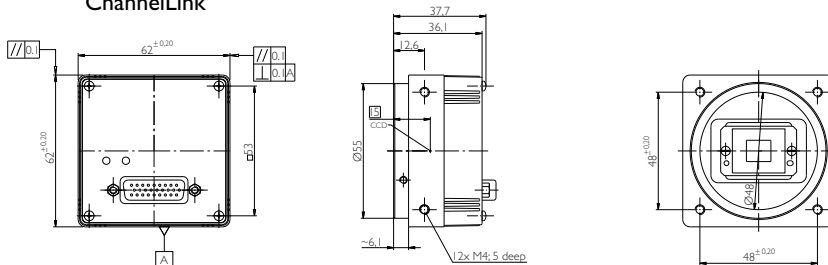
**The IEEE 1394 (f) version of the A101 camera** output data is transmitted using Version 1.20 of the IEEE-1394 Trade Association digital camera specification technology. Please see Basler's IEEE 1394 technical data-sheet for more information on all Basler's IEEE 1394 technology products.

## Dimensions

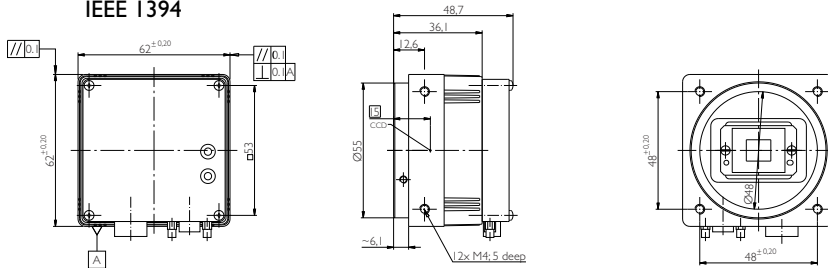
### RS 644



### Channellink



### IEEE 1394



Digital Megapixel  
High Resolution  
Progressive



## Specifications

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 μm x 6.7 μm
Dark Signal NU	±1 DN
PRNU	±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	24V DC (± 10%), max 5W
Vibration	6G (10Hz ~ 150Hz) 1 hour each axis
Shock	80G (IEC 68)
Size (housing only)	45 x 62 x 62mm <sup>3</sup> (L x W x H)
Weight	380g max.
Lens mount	F-mount, C-Mount, others possible
Conformity	CE, FCC

Specifications may change without notice.

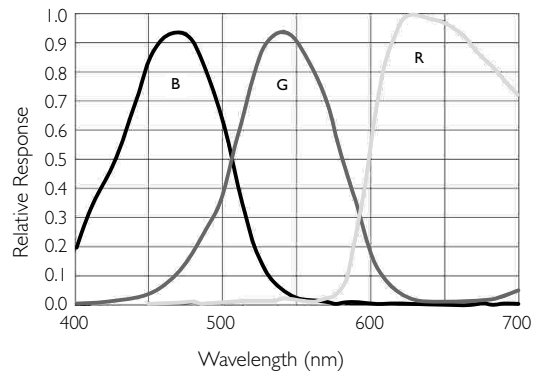
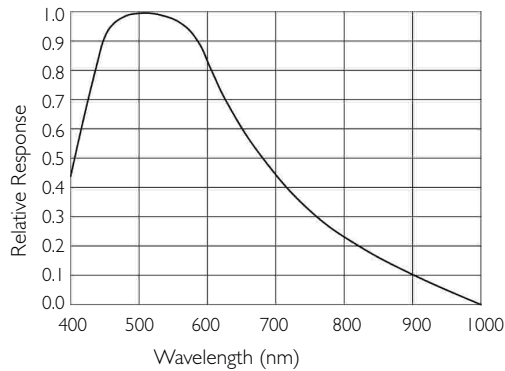
## BASLER A101

# A100 SERIES

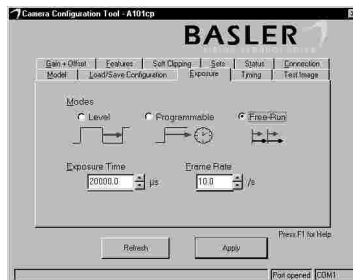
## BASLER A100 SERIES

### Responsivity

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



### Camera 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

[basler-vc.com](http://basler-vc.com)

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