BASLER A300 SERIES

The **BASLER A300** series cameras provide the market with exceptionally designed **VGA & CCIR** resolution 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.

VGA AND CCIR RESOLUTION. PROGRESSIVE AREA SCAN CAMERAS. DIGITAL OUTPUT.

AREA SCAN CAMERAS

Features

- High frame rates - 30 to 80fps
- High sensitivity
- Channel Link and IEEE 1394
- Electronic exposure time control
- High signal-to-noise ratio
- Anti-blooming
- Programmable exposure time
- Super compact size
- Housing manufactured with high planar, parallel and angular precision

Outline

The A300 Series VGA resolution cameras employ progressive scan CCD-sensors. This series was built for users who require VGA (640 x 480) and CCIR (780 x 580) resolution, digital output (Channel Link or IEEE 1394), high frame rates, and the common sense Basler design. The cameras allow for external synchronization via an ExSync signal.

SPECIFICATIONS

Camera Series

The A300 Series of Area Scan cameras have been designed for advanced users of VGA resolution digital industrial cameras. The series includes:

A301b 640 x 480 pixels
80fps

A301f 640 x 480 pixels
75fps

A302b 780 x 580 pixels
60fps

A302f 780 x 580 pixels
30fps

Additional camera feature options:

- Color (c)
- Channel Link (b)
- Shading correction (s)
- RS-644 output (BIC)

Sample Applications

- Glass bottle inspection
- Semiconductor & electronics inspection
- Robotic vision
- Microscopy
- ID code reader / OCR
- And many more

Input Signals

The ExSync (external synchronization) signal on the A300 cameras uses RS-644 technology. The camera can be programmed to function under the control of an externally generated synchronization signal in one of two exposure time control modes and a free run mode. In these modes, programmable and level-control, the ExSync signal is used to control exposure time and frame rate.
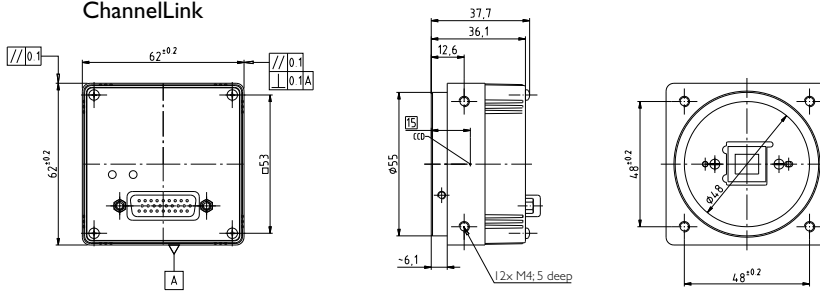
Output Signals

The IEEE 1394 (f) version of the A300 cameras output data is transmitted using the IEEE-1394a digital camera specification technology. Please see Basler's IEEE1394 technical datasheet for more information on all Basler's IEEE1394 technology products.
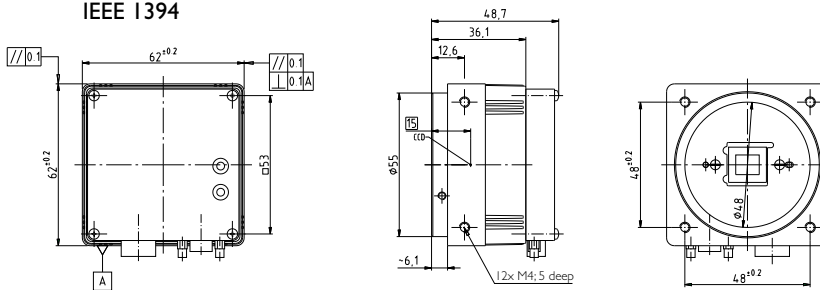
The Channel Link (b) version transmits data using 28-bit technology. The camera transmits data in a 18MHz / dual 10-bit mode or a 18MHz / dual 8-bit mode. Frame valid and line valid signals are available to identify when valid frame and valid line data is being transmitted.

Dimensions

ChannelLink

IEEE 1394

Digital Monochrome
High Performance
Area Scan

Specifications

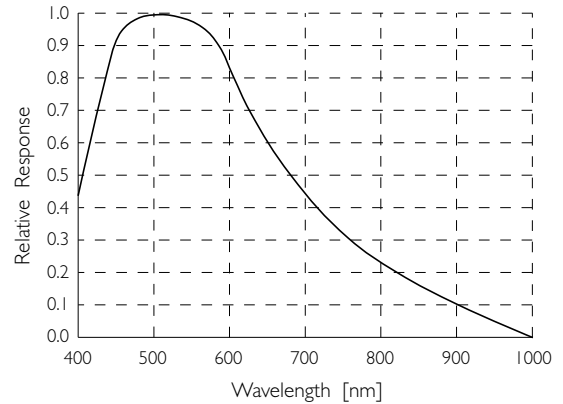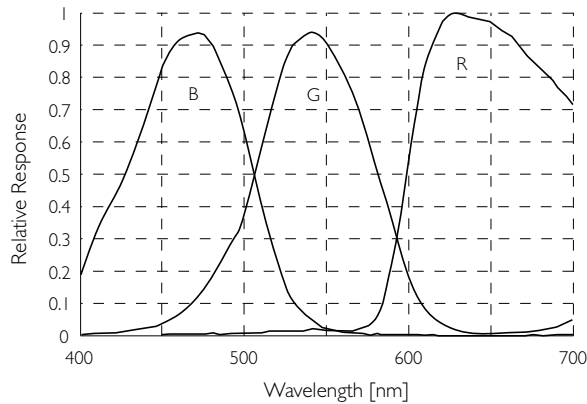|	BASLER A301b/f	BASLER A302b/f
Sensor	Interline transfer progressive scan ¹/₂" CCD	
Pixels	659 (H) x 494 (V)	782 (H) x 582 (V)
Pixel clock	2 x 18MHz (b), 18.75 MHz (f)	2 x 18MHz, 18.75 MHz (f)
Frame rate	80fps (b) / 75fps (f)	60fps (b) / 30fps (f)
Pixel size	9.9µm x 9.9µm	8.3µm x 8.3µm±1 DN
Video output	8-or 10-bit (digitization via 10-bit A/D), Channel Link or IEEE 1394	
Synchronization	External via ExSync or internal Free-run	
Exposure control	Level or programmable	
Gain and offset	Programmable via serial link	
Power	12VDC (±10%, max 5W)	
Vibration	8G (10Hz ~ 150Hz) 1 hour each axis	
Shock	80G (IEC 68)	
Size (housing only)	38.1 x 62 x 62mm³ (b) / 48.7 x 62 x 62mm³ (f) (L x W x H)	
Weight	380g max.	
Lens mount	F-mount, C-Mount, others possible	
Conformity	CE, FCC	

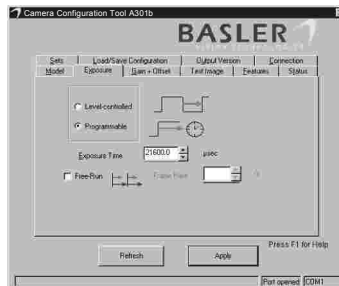Specification may change without notice.

BASLER A300 SERIES

Responsivity

Spectral Response Sensitivity Characteristics Charts have been supplied by the sensor manufacturer. The A301 and A302 have identical characteristics.

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. The IEEE (f) versions of the A300 Series will be configured by the IEEE1394 software supplied by the image processing company.

MACHINE VISION COMPONENTS

basler-vc.com

BASLER VISION TECHNOLOGIES