BASLER L300 SERIES

Basler has taken great steps to make it easier to integrate and capture color in line scan applications, and the BASLER L300 Series is the product of our efforts. 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.

COLOR. LINE SCAN. DIGITAL. 2098 PIXELS.

LINE SCAN

LINE SCAN CAMERAS

Features

- Tri-linear color 2098 pixel sensor
- High sensitivity
- Selectable 8- or 10-bit digital output
- Electronic exposure time control
- High signal-to-noise ratio
- Anti-blooming
- Programmable
- Super compact size
- Housing manufactured with high planar, parallel and angular precision

Outline

The BASLER L301bc outputs color (RGB) by using a tri-linear image sensor. The sensor consists of three rows of 2098 pixels fabricated on a single sensor. Each row of pixels has a different primary color filter - red, green or blue - thus giving you color images. The BASLER L301bc is a digital camera with an 8-bit or 10-bit output and has a pixel clock of up to 60MHz. The BASLER L301bc is an extremely cost effective way to implement color into line scan applications.

SPECIFICATIONS

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Camera Series

The BASLER L300 Series of Line Scan cameras have been designed for advanced users of color digital industrial cameras. The series includes:

L301bc	2098 Pixels 20MHz (x3) Pixel Clock

Sample Applications

- Print and currency inspection
- Lumber sorting and inspection
- Food processing and inspection
- And many more

Input Signals

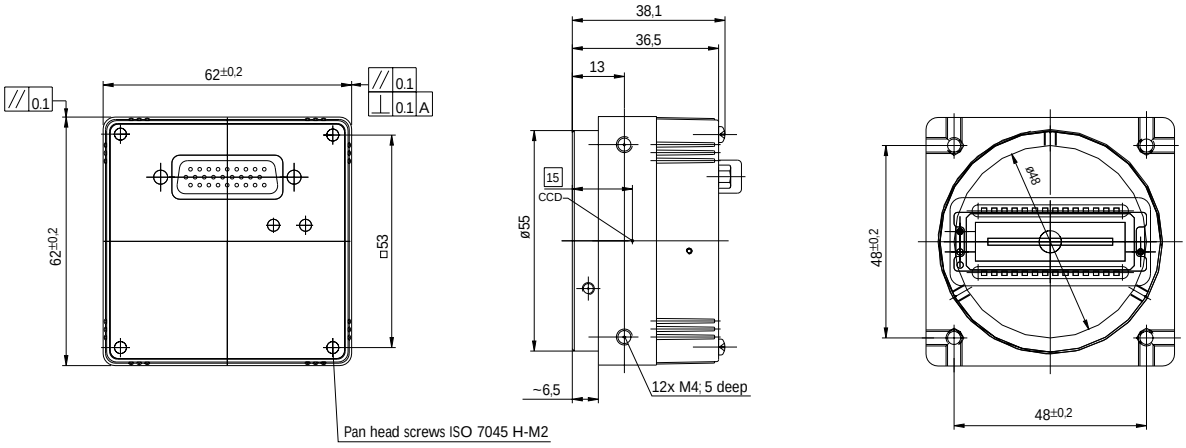
The ExSync (external synchronization) signal on the BASLER L301bc camera uses LVDS technology as specified for RS-644. The camera can be programmed to function under the control of an externally generated synchronization signal in one of three exposure time control modes. In these modes, edge-controlled, level-controlled, and programmable, the ExSync signal is sent to control exposure time and line read out.

Output Signals

The BASLER L301bc output data is transmitted using 28-bit Channel Link technology. The camera can operate in 20MHz / 3 x 8-bit (RGB) mode, in 60MHz / 10-bit mode*, or in 60MHz / 8-bit monochrome mode*. Line valid bits are available to identify when a valid line is being transmitted.

* 60MHz 8-bit and 10-bit modes require three cycles of the pixel clock to output full RGB data.

Dimensions



Line Scan Color Digital 2098 Pixels

Specifications

	BASLER L301bc
Sensor	Tri-linear CCD
Pixels	2098 x 3
Pixel size	14µm x 14µm
Color offset	8 pixels or 112µm (center to center)
Fill factor	100%
Output sensitivity	11.5µV/e
Saturation	170k electrons
PRNU	±5%
Pixel clock	20MHz x 3 (60MHz)
Max. line rate	9.25kHz
Video output	Channel Link (Optional RS-644) dual/single
Synchronization	External via ExSync or internal Free-run
Exposure control	Edge, level or programmable
Gain and offset	Programmable via serial link
Connector	One, 26 pin, high-density, MDR plug
Power	12VDC (±10%, max 5W)
Vibration	8G (10Hz ~ 150Hz) 1 hour each axis
Shock	80G (IEC 68)
Size (housing only)	37.5 x 62 x 62mm (LxWxH)
Weight	380g
Lens mount	F-mount, M42
Conformity	CE, FCC

Specifications may change without notice.

L300 SERIES

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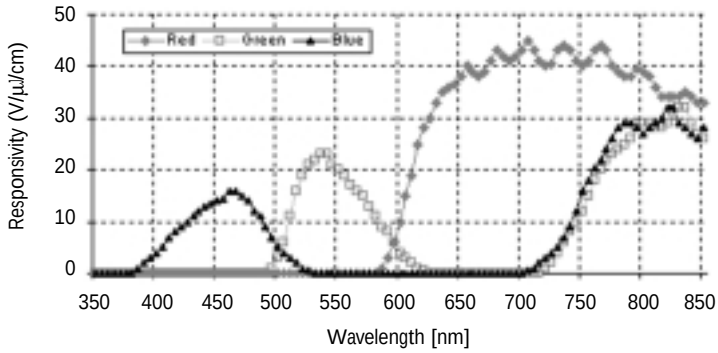
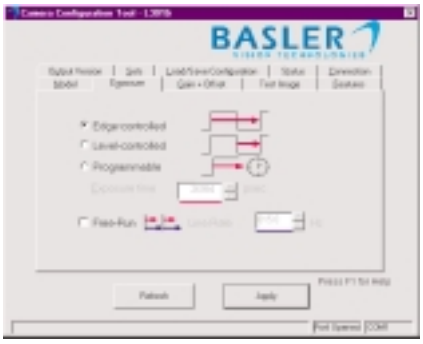
Responsivity

Spectral Response Sensitivity Characteristics Chart has 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.

MACHINE VISION COMPONENTS

basler-mvc.com

BASLER VISION TECHNOLOGIES

USA
Phone +1 (610) 280-0171
Fax +1 (610) 280-7608

Germany
Phone +49 (4102) 463-500
Fax +49 (4102) 463-599

Singapore
Phone +65 425 0472
Fax +65 425 0473

Taiwan
Phone +886 2 2766 9575
Fax +886 2 2766 9576