BASLER L300 SERIES

Product Specifications L304k/kc, L301k/kc

BASLER
VISION TECHNOLOGIES

L304k/kc – 4k Tri-Linear in Monochrome and Color

The L304k/kc offers high resolution and an exceptional price-performance ratio combined with new useful features for your application.

- 3 x 4080 pixels
- Monochrome or color
- Up to 7.2 kHz line rate
- Camera Link® output
- Useful new features

L304k/kc cameras are ideal for a variety of applications including:

- Document scanning
- Print inspection
- Web inspection
- Food and forestry products inspection
- Tissue sample scanning
- 3-D imaging and measurements
- Many other vision applications

Specifications

Basler L300	L304k	L304kc
Camera Section		
Resolution	3 lines x 4080 pixels	
Sensor Type	Tri-linear CCD monochrome	Tri-Linear CCD color
Pixel Size	10.0 µm x 10.0 µm x 10.0 µm pitch	
Center-to-center-spacing	90 µm	
Pixel Clock	30 MHz (in 8 bit triple output mode) 60 MHz (in dual 8 bit or 10 bit output mode)	30 MHz (in 8 bit RGB output mode) 60 MHz (in dual 8 bit or 10 bit output mode)
Max. Line Rate	7.2 kHz	
Video Output Format	Dual pixel 8 bits or 10 bits, or 8 bit RGB (selectable)	
Video Output Type	Camera Link (Base)*	
Synchronization	Via external trigger or free-run	
Exposure Control	Edge-controlled, level-controlled or programmable	
Mechanical / Electrical		
Housing Size (L x W x H)	41.3 mm x 71.0 mm x 71.0 mm	
Weight	Max. 300 g	
Power Requirements	12 VDC (±10%), max. 8.0 W	
Mount Type	F-mount, M58 x 0.75	
Certifications	CE, FCC	

Specifications may change without prior notice

* The output is RS-644 LVDS when this camera is used with an optional Basler Interface Converter (BIC)

L301k/kc – 2k Tri-Linear in Monochrome and Color

Superior image quality and features such as test images and indicator LED indicators ensure that these cameras can be easily integrated in your application.

- 3 x 2098 pixels
- Monochrome or color
- Up to 9.2 kHz line rate
- Camera Link® output
- Exceptional price-performance ratio

L301k/kc cameras are ideal for a variety of applications including:

- Document scanning
- Print inspection
- Web inspection
- Food and forestry products inspection
- Tissue sample scanning
- 3-D imaging and measurements
- Many other vision applications

Specifications

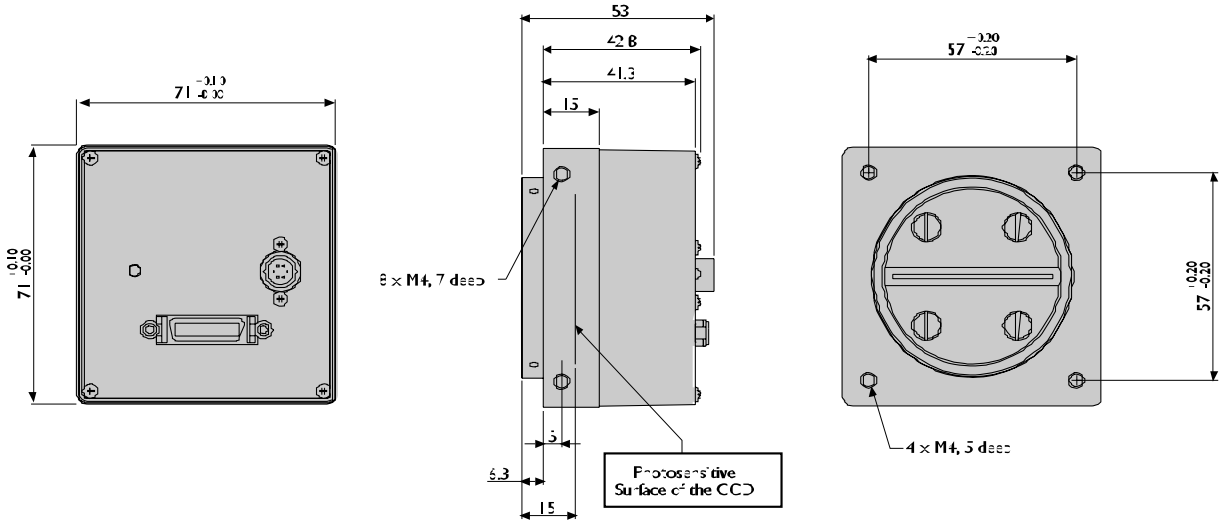
Basler L300	L301k	L301kc
Camera Section		
Resolution	3 lines x 2098 pixels	
Sensor Type	Tri-linear CCD monochrome	Tri-Linear CCD color
Pixel Size	14.0 µm x 14.0 µm x 14.0 µm pitch	
Center-to-center-spacing	112 µm	
Pixel Clock	20 MHz (in 8 bit triple output mode)	20 MHz (in 8 bit RGB output mode)
	40 MHz (in dual 8 bit or 10 bit output mode), 60 MHz (in single 8 bit or 10 bit output mode)	
Max. Line Rate	9.20 kHz (spatial correction off), 8.0 kHz (spatial correction on)	
Video Output Format	Single pixel 8 bits, single pixel 10 bits, dual pixel 8 bits, or 8 bit RGB (selectable)	
Video Output Type	Camera Link (Base)*	
Synchronization	Via external trigger or free-run	
Exposure Control	Edge-controlled, level-controlled or programmable	
Mechanical / Electrical		
Housing Size (L x W x H)	38.1 mm x 62.0 mm x 62.0 mm	
Weight	Max. 282 g	
Power Requirements	12 VDC (±10%), max. 5.1 W	
Mount Type	F-mount	
Certifications	CE, FCC	

Specifications may change without prior notice

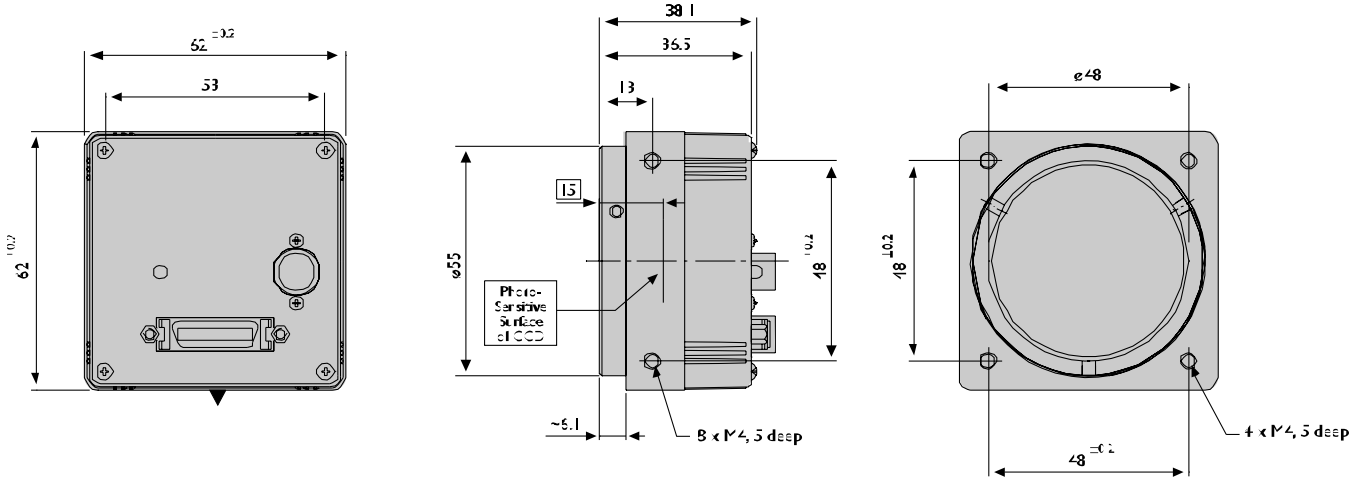
* The output is RS-644 LVDS when this camera is used with an optional Basler Interface Converter (BIC)

Dimensions

L304k/kc



L301k/kc

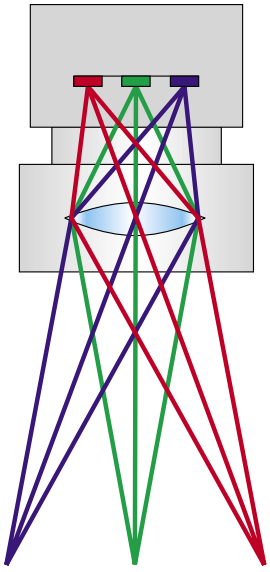


Basler L300 Series Cameras

The L300 Series highlights Basler's commitment to common sense camera design. These tri-linear cameras offer users an extremely cost-effective way of implementing color in line scan applications. The mono versions with their three monochrome lines can be easily used as a high sensitivity line scan camera.

The Basler L300 Series features the following benefits:

- An expensive matched lens is not required to capture optimum image quality, providing you with an affordable solution for color imaging
- Use of a tri-linear sensor results in a very compact camera, reducing the space needed in your installation
- LED indicators and test image generation capability reduce your integration time and aid troubleshooting
- Extensive and complete factory testing ensures consistent product quality
- An integrated spatial correction feature combines pixel data and the lines in the sensor, eliminating the need for computer resources to perform this task
- Electronic exposure time control provides maximum flexibility
- Simple integration into your application is ensured with a combination of new useful features and a Windows setup tool.



Principle of the Tri-Linear Color Line Scan Camera

With a choice of three different integration modes as well as adjustable gain and offset, these are very flexible cameras. L300 cameras can be triggered via an external sync signal or operated in an internally controlled „free-run" mode. All settings can be adjusted by means of simple programming commands via a serial port. The cameras operate with a single voltage power supply and have simple cabling requirements.

What Makes Basler Camera Quality so Special?

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

Camera Test Tool CTT+ proven

- 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 compliance to 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.
- As a final check, our cameras must pass a stress test. Each camera is tested over the entire temperature range specified in our documentation. By doing this, we can identify and remove temperature sensitive weak spots in the camera. Thus, consistent image quality in conditions with quickly changing temperatures is guaranteed.