BASLER L100 SERIES

The BASLER L100 series line scan cameras are designed for industrial applications, with superb image sensing quality, even at high-speed data acquisition. 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 PERFORMANCE. DIGITAL MONOCHROME. LINE SCAN.

LINE SCAN

LINE SCAN CAMERAS

Features

- 1024 & 2048 pixels
- High sensitivity
- 8-bit or selectable 8- or 10-bit digital output*
- Electronic exposure time control
- High signal-to-noise ratio
- Anti-blooming
- Programmable via RS 232 port
- Compact housing manufactured with high planar, parallel and angular precision

Outline

This series of cameras is ideal for a variety of applications. The camera outputs digital data via RS-644 LVDS or Channel Link LVDS*. The series allows for asynchronous pixel readout and exposure time control by external synchronization via an ExSync signal. Pixel data can be output as a single 8-bit, selectable 8 or 10-bit* data stream, or a dual 8-bit data stream.

SPECIFICATIONS

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Camera Series

The L100 Series of Line Scan cameras have been designed for advanced users of digital industrial cameras. The series includes:

L101 20MHz Pixel Clock
1024 or 2048 Pixels

L102 30MHz Pixel Clock
1024 or 2048 Pixels

L103 40MHz Pixel Clock
1024 or 2048 Pixels

L104 60MHz Pixel Clock
1024 or 2048 Pixels

Additional camera feature options:

- 1024 pixels (1k)
- 2048 pixels (2k)
- Channel Link output (b)*

Sample Applications

- Semiconductor / electronics inspection
- Ident. code reading
- Document processing / OCR
- Web inspection
- And many more

Input Signals

The ExSync (external synchronization) signal on the L100 cameras uses RS-644 technology. 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, programmable, level-control, and free-run the ExSync signal is used to control exposure time and/or line read out.

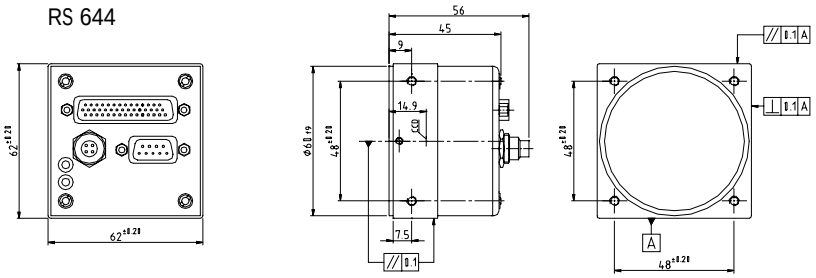
Output Signals

The standard L100 cameras transmit in 8-bit single or dual mode using RS-644 technology. For data output in single mode, the pixels are in sequential order, starting with the first valid pixel and ending with the last pixel. For data output in dual mode, the odd and even pixels are transferred as pairs. The pairs are made up of an odd and the next following are even pixels. The low byte b_7 - b_0 transfers the odd pixels, the high byte b_{15} - b_8 the even pixels. Line valid signals are available to identify when valid line data is being transmitted.

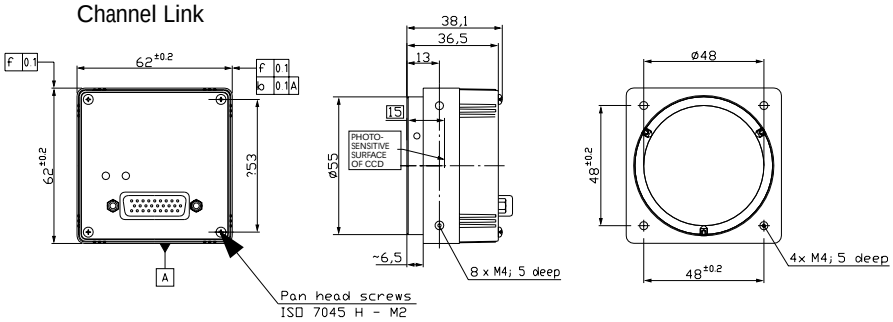
The channel link (b) version of the L100 camera output data is transmitted using 28 bit Channel Link technology. The camera transmits 8-bit or 10-bit output data. Line valid signals are available to identify when valid line data is being transmitted.

Dimensions

RS 644



Channel Link



Digital Monochrome High Performance Line Scan

Specifications

BASLER L100 Series

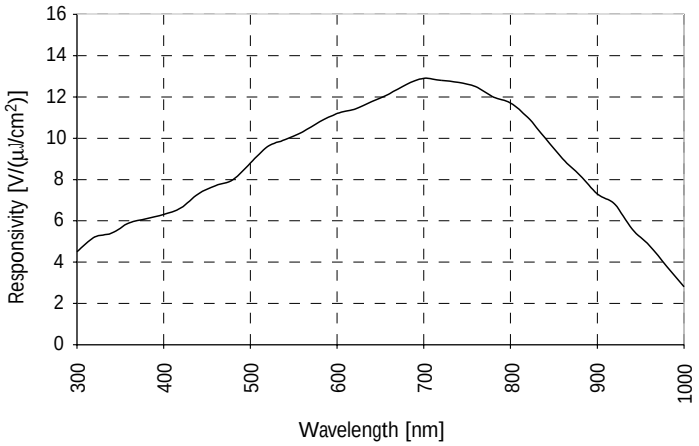
Sensor	1024 pixel version				2048 pixel version			
Product	L101-1k	L102-1k	L103-1k	L104-1k	L101-2k	L102-2k	L103-2k	L104-2k
Pixel clock* (MHz)	20	32	40	62.50	20	32	40	62.50
Line scan rate (kHz)	18.35	29.39	36.75	57.45	9.42	15.11	18.90	29.56
Pixel size	10 µm (H) x 10 µm (V)							
Dark Signal NU	±1 DN							
PRNU	±5%							
Video output	8-bit or selectable 8- or 10-bit* (digitization via 10-bit A/D), RS-644 or Channel Link*							
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 or 12 V DC* (±10%, max 5 W)							
Vibration	8G (10Hz ~ 150Hz) 1 hour each axis							
Shock	80G (IEC 68)							
Size (housing only)	45 x 62 x 62 mm (LxWxH)							
Weight	380 g							
Lens mount	F-mount, C-mount or M42							
Conformity	CE, FCC							

* Available with the "b" option cameras in Q4-2000.
Specifications may change without notice.

BASLER L100 SERIES

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