BASLER L200 SERIES

The BASLER L200 series line scan cameras are designed for high -resolution industrial line scan applications requiring 4000 pixels. 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

- 4096 pixels
- 20 and 40MHz pixel rates
- High sensitivity
- 8-bit single or dual digital output
- Electronic exposure time control
- High signal-to-noise ratio
- Anti-blooming
- Programmable
- Super size
- Compact housing manufactured with high planar, parallel and angular precision

Outline

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

SPECIFICATIONS

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Camera Series

The L200 Series of Line Scan cameras have been designed for advanced users of digital industrial cameras. The series includes:

L201 20MHz Pixel Clock
4096 Pixels

L203 40MHz Pixel Clock
4096 Pixels

Sample Applications

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

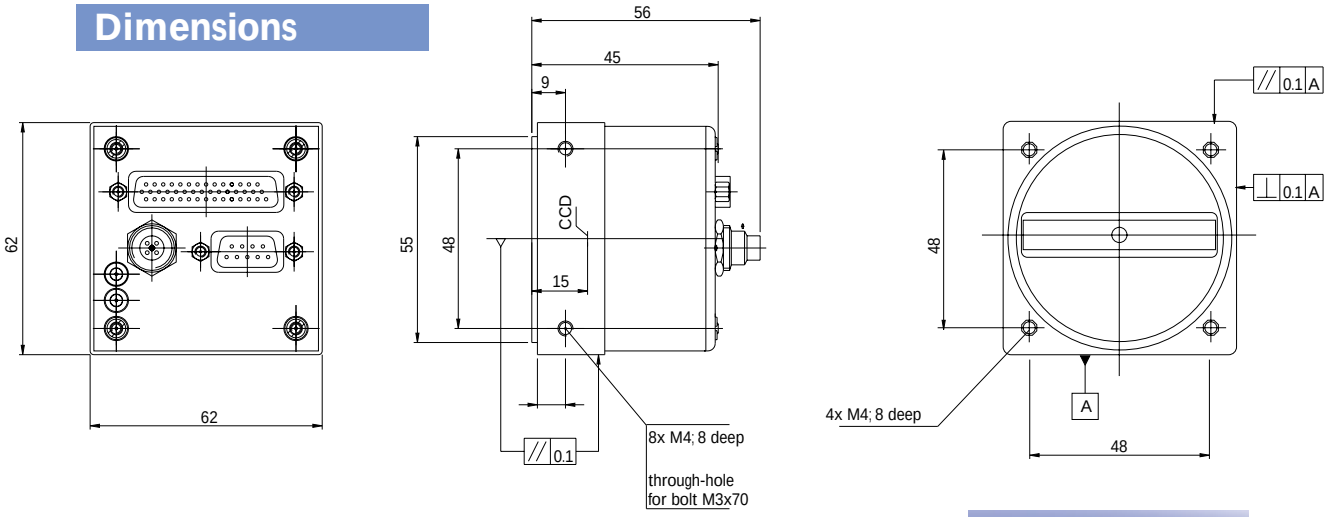
Input Signals

The ExSync (external synchronization) signal on the L200 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 L200 cameras transmits 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.

Dimensions



Digital Monochrome High Performance Line Scan

Specifications

BASLER L200 Series

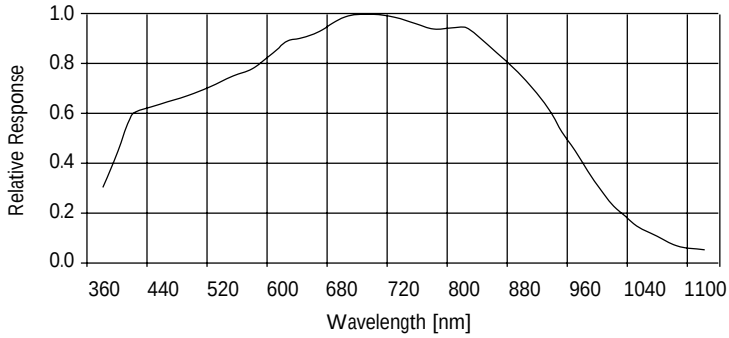
Sensor	Linear CCD	
Pixels	4096x1	
Pixel clock	20, 40MHz	
Product	L201	L203
Line scan rate (kHz)	4.73kHz	9.50kHz
Pixel size	7 µm (H) x 7 µm (V)	
FPN	±1%	
PRNU	- Edge controlled mode:	±3%
		±5%
	- Programmable mode:	±5%
		±10%
	- Level controlled mode:	±5%
		±10%
Video output	8-bit (digitization via 10-bit A/D) single & dual, RS-644	
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	

Specifications may change without notice.

BASLER L200 SERIES

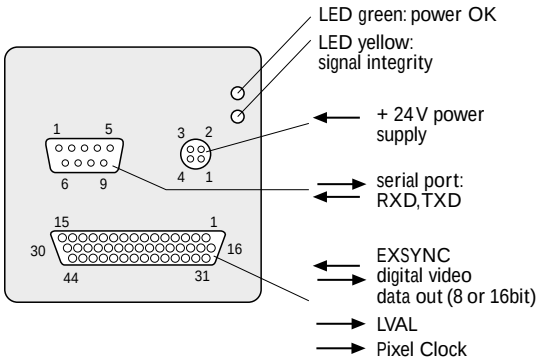
Responsivity

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.



Pin # RS-644

1	DOUT0	17	/DOUT1	33	LVAL
2	DOUT1	18	/DOUT2	34	/LVAL
3	DOUT2	19	/DOUT3	35	PIXEL CLOCK
4	DOUT3	20	/DOUT4	36	/PIXEL CLOCK
5	DOUT4	21	/DOUT5	37	EXSYNC
6	DOUT5	22	/DOUT6	38	/EXSYNC
7	DOUT6	23	/DOUT7	39	FVAL
8	DOUT7	24	n.c.	40	/FVAL
9	n.c	25	n.c.	41	n.c.
10	n.c.	26	n.c.	42	n.c.
11	n.c	27	n.c.	43	GND
12	n.c	28	n.c..	44	GND
13	n.c.	29	n.c.		
14	n.c.	30	n.c.		
15	n.c.	31	n.c.		
16	/DOUT0	32	n.c.		

Pin # RS-232

1	n.c.
2	RxD
3	TxD
4	n.c.
5	GND
6	n.c.
7	n.c.
8	n.c.
9	n.c.

Pin # Power

1	GND
2	GND
3	+ 24V
4	+ 24V

MACHINE VISION COMPONENTS

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