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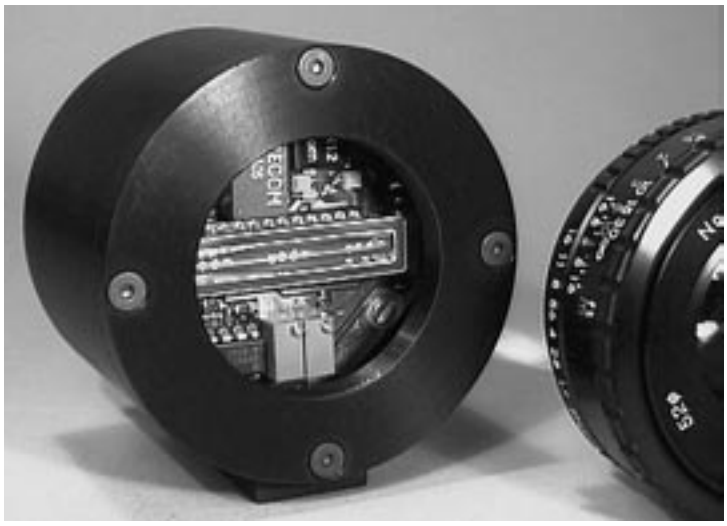
LC- linescan camera Series CCD 1000

for simple measurement and supervising tasks!



The cameras are housed in a round case (Ø70 x 53 mm, wheight 310g - without case 50g) with M42-mount for the connection of standard lenses.
The cameras are connected to an interface board located in the computer. With one cable the data transfer and the power supply of the camera is managed (therefore the power supply of the computer is used; max 5V/250mA). The digital converter and the sensor-control are located in the camera.
Almost all kinds of picture recognition could be implemented in the software when using the sourcecode. The resolution is 8 bit (Series 1000) or 12 bit (Series1010).
The software provides on line measurment. Therefore all ajustment task could be overviewed directly on the screen.

Standard version

The data transmission is 8 bit parallel with a maximum data transfer rate of 5 µs/pixel connected to a standard printer port (EPP-mode). With our ISA interface a data rate of 1 MHz (1µs/pixel) is possible. A camera with 2048 pixels is here read in : 2048 x 1 µs ≈ 2 msec.

hs-version

If running the camera with our PCI interface board the data rate can reach the sensors max. pixelclock (pclk) - up to 16 MHz. The cable length can reach a max. lenght of 3 m.

The maximum exposure time is limited to the temperature related dark noise signal of the sensors. The sensor dymanic for each measurment extends therefore from about 2.5 ms up to 2.5 seconds. The sensitivity is adjustable by software and can so be varied 1000:1.
The interface board and software are compatible to series 2000 and 2010.

For additional accessory please see series 2000 broschure.

all values are taken from the data sheets and without guarantee.

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A complete system for simple measurement tasks consists of the following items:
Camera, Interfaceboard, Software, Extension tube and Lens

Sensor specification

ILX 551/751 with 2048 Pixel

active sensor length	: 28,7 mm
pixel size	: 14 x 14 µm^2
dyn. range$_{rms}$*	: 6000 : 1
responsivity	: 40 V/lx s
ESat	: 0,045 lx s
VSat	: 1,8 V
max. exposure-time **	: 2 sec.
Pclk 8 / 12 bit ***	: 6,7MHz/3,7MHz

ILX 505 with 2592Pixel

active sensor length	: 28,5 mm
pixel size	: 11 x 11 µm^2
dyn. Range$_{rms}$*	: 5000 : 1
responsivity	: 21 V/lx s
ESat	: 0,085 lx s
VSat	: 1,8 V
max. exposure-time**	: 2 sec.
Pclk 8 / 12 bit ***	: 6,7MHz/3,7MHz

ILX 511 with 2048 Pixel

active sensor length	: 28,7 mm
pixel size	: 14 x 200 µm^2
dyn. Range$_{rms}$*	: 5000 : 1
responsivity	: 200 V/lx s
ESat	: 0,004 lx s
VSat	: 0,8 V
max. exposure-time **	: 6 sec.
Pclk 8 / 12 bit ***	: 2,5MHz/2,5MHz

ILX 514 with 3918 Pixel

active sensor length	: 27,4 mm
pixel size	: 7 x 7 µm^2
dyn. Range$_{rms}$*	: 5000 : 1
responsivity	: 11 V/lx s
ESat	: 0,14 lx s
VSat	: 1,5 V
max. exposure-time **	: 2 sec.
Pclk 8 / 12 bit ***	: 4,8MHz/3,7MHz

ILX 553 with 5150 Pixel

active sensor length	: 36 mm
pixel size	: 7 x 7 µm^2
dyn. Range$_{rms}$*	: 6000 : 1
responsivity	: 15 V/lx s
ESat	: 0,14 lx s
VSat	: 2 V
max. exposure-time **	: 1 sec.
Pclk 8 / 12 bit ***	: 16MHz/6MHz

ILX 508 with 7926 Pixel

active sensor length	: 55,5 mm
pixel size	: 7 x 7 µm^2
dyn. Range$_{rms}$*	: 5000 : 1
responsivity	: 11 V/lx s
ESat	: 0,14 lx s
VSat	: 1,5 V
max. exposure-time**	: 2 sec.
Pclk 8 / 12 bit ***	: 10MHz/3,7MHz

* dynamic range related to read out noise level.
** time at 25˚C, when the dark current reached 40 % of the saturation value.
*** The maximale pixelclock (pclk) is only available with PCI-Interface board and hs-camera version.

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