



HIGH RESOLUTION
AND FAST

LIXUS-d 6144

Digital CCD Line Scan Camera Specification

SPECIAL FEATURES

- High resolution (6.144 pixels)
- High scan rate (≤ 4.810 scans/s)
- Anti-blooming, electronic shutter
- Rugged, industrial strength model
- Asynchronous triggering
- Operating voltage 20...30 V
- Compatible with all cameras of the LIXUS-d – series

POSSIBLE APPLICATIONS

- Surface checks
- Position, width and diameter measurement
- High resolution document scanner

The digital line scan camera **LIXUS-d 6144** is exceptional in its very high resolution and scan rate. The integrated electronic shutter permits extremely short exposure times.

The mechanically and electrically sturdy design of all LIXUS line scan cameras means that they can be used in rough industrial surroundings.

The anti-blooming function of the **LIXUS-d 6144** camera suppresses the saturation of individual pixels. Integrated signal conditioning in the camera ensures stable operation and flexible integration ability of the camera. The exposure time, gain and video offset (contrast adjustment) can be adapted via a serial RS232/422 interface or an integrated device. Thus the **LIXUS-d** camera is capable of correcting modified object illumination and ensuring optimal adaptation of the sensor. All parameters can be configured and saved in the camera with user-friendly software under Windows NT/95.

The parallel 8-bit or 16-bit interface according to the RS422 or RS644 standard enables linkage to frame grabbers made by several different manufacturers.

Different means of triggering and synchronization of video data acquisition can be used.

Several **LIXUS-d** cameras can be linked together.

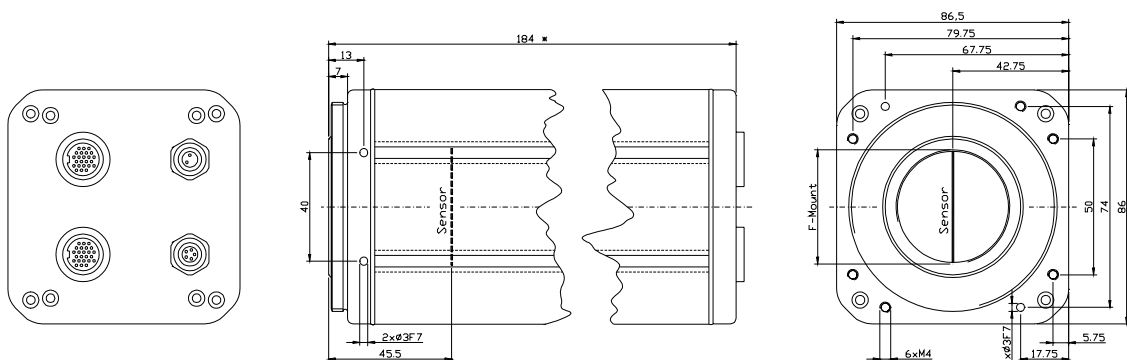
The lens and the sensor are fastened to a low-distortion precision camera head. The critical optical path is inside the camera casing. A protective tube for the lens is sufficient for keeping dust and water (degree of protection IP65) out of the camera. Two T-grooves on the bottom of the camera and thread holes on the front of the camera provide flexible fastening options. Reference holes ensure that positioning is such that it can be reproduced.

LIXUS-d 6144

PHYSICAL/TECHNICAL PROPERTIES

Sensor	CCD, 6.144 pixels, $7\mu\text{m} \times 7\mu\text{m}$
Active sensor surface	43 mm x $7\mu\text{m}$
Sensitivity	1.700 lsb / μJ / cm^2 at 700 nm
Irregularity	typically 5%
Transfer efficiency	typically 0.99995
Min. exposure time	-S 4,0 μs -D 3,0 μs
Pixel pulse	-S 1 x 20 MHz -D 2 x 15 MHz
Scan rate	-S max. 3.210 scans/s -D max. 4.810 scans/s
Adjustment (manually/automatically)	Exposure time, gain, offset (contrast) with windowing
Serial interface	RS232 or RS422 (for configuration purposes)
Outputs	-S 1 x 8-bit video data, RS644 / RS422 -D 2 x 8-bit video data, RS644 / RS422 CLK-OUT pixel pulse, RS644 / RS422 LDV line data valid, RS644 / RS422
Inputs	SYNC-IN synchronous and trigger input, RS644 / RS422 CLK-IN pixel pulse, RS644 / RS422 (optional)
Synchronization	internally (continuously), externally, asynchronous triggering
Lens connection	F-Mount (M42x1) M72 x 1 (optional) Nikon-bayonet (optional) Mamiya-bayonet (optional)
Fastening	2 T-grooves, each with 2 M4 sliding blocks, 4 reference holes $\varnothing 3\text{F7}$ for alignment pins $\varnothing 3\text{m6}$, 6 x M4 thread holes on the front
Degree of protection	IP65 (with lens protection tube)
Operating voltage	20 V...30 V DC
Power consumption	app. 12 W
Operating temperature	0°C...+40°C

DIMENSIONS



* Please inquire about the length when using other lens connections!

OPTIONS

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|------------------|-----------------------------|----------------------|------------------|
| ➤ LIXUS-d 6144-S | 1 x 8-bit video data stream | ➤ LIXUS-d 6144-?-422 | RS422 interface |
| ➤ LIXUS-d 6144-D | 2 x 8-bit video data stream | | (standard RS644) |

ACCESSORIES

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|----------------------------------|-----------------------------|
| ➤ Lens protection tube | ➤ Line lighting LIXUS-LIGHT |
| ➤ Prefabricated connecting cable | ➤ Lenses, lens adapter |
| ➤ Adjustment aids | ➤ Mains adaptor |