OPTO LOGIC

Faster

More Precise

More Intelligent

LIXUS-i 1024

Intelligent Line Scan Camera

Specification

SPECIAL FEATURES

- **Autonomous measuring and monitoring system**

- **Integrated signal processing for evaluating each scan in real-time**

- **Extremely high line scan rate (≤35.400 scans/s)**

- **High resolution (1.024 picture elements)**

- **Anti-blooming**

- **Electronic shutter**

- **Electrically separated digital inputs and outputs**

- **Analogue current interface**

- **Sturdy, industrial strength design**

- **Asynchronously triggerable**

APPLICATIONS

- **Monitoring of surface faults, holes and tears in web materials (sheet metal, paper, foil, textiles, wood)**

- **Measurement and monitoring of geometric dimensions (position, width, diameter)**

- **Radial and axial measurement**

- **Monitoring the presence of components (adhesives, coatings, etc.)**

- **Counting parts**

DESCRIPTION

The intelligent line scan camera **LIXUS-i 1024** is an autonomously functioning measurement and monitoring system with an extremely high line scan rate. The integrated, highly powerful signal processing system exactly evaluates each scan. It delivers measurement results, and it can filter these results as well as monitor defined deviations. It can intervene directly in the process via several outputs.

The electronically integrated shutter enables the achievement of very short exposure times. Fast and short events create an external impulse that asynchronously triggers the camera. Several systems can be linked and synchronized.

High flexibility is achieved through a configurable signal processing core. The range of functions is regularly extended. User-friendly software for Windows NT/95 is being used to select the functional modules and their parameters. When the modules have been set up and the settings have been stored, the camera works autonomously.

The anti-blooming function prevents the camera **LIXUS-i 1024** from being sensitive to saturation of individual pixels. The camera has manual and automatic controllers for exposure time, gain and video offset (contrast adjustment). Thus it is capable of correcting object illumination, and it guarantees optimum adjustment of the sensor to signal processing.

COMPATIBILITY

Compatible with all cameras in the **LIXUS-i** series.

LIXUS-i 1024

PHYSICAL/TECHNICAL CHARACTERISTICS

Sensor	CCD, 1024 pixels, $10\mu m$ x $10\mu m$, anti-blooming, shutter
Sensing area	10,2 mm x 10 μm
Exposure time	-15 option 4,0μs... 13ms
	-35 option 2,0μs... 6,5ms
Line scan rate	-15 option max. 17.700 scans/s
	-35 option max. 35.400 scans/s
Control (manually/automatically)	Exposure time, gain, offset (contrast) for a selected section
Interface	RS232, RS422 or RS485 (max. 115kBaud), opto-isolated
	Separate RS232 connection for configuration on site (optional)
Inputs	5 x digital (optional 8), opto-isolated
Outputs	3 x digital (optional 7), opto-isolated
	1 x analog 4...20mA, 0...20mA, opto-isolated (optional)
	1 x video $1V_{SS}$ with synchronous impulse, opto-isolated (optional)
Synchronization	Internal, external, asynchronously triggerable
	1 x input, opto-isolated
	1 x output, opto-isolated
Lens mounting	C-mount
	F-mount (M42x1) (optional)
	M72 x 1 (optional)
	Nikon-bayonet (optional)
	Mamiya-bayonet (optional)
Fastening	2 T-grooves with 2 M4 sliding blocks each,
	4 reference holes $\varnothing$3F7 for fitting pins $\varnothing$3m6,
	6 x M4 screw tap holes on the front
Degree of protection	IP65 (with lens protector)
Power supply	20 V...30 V DC
Power consumption	app. 9 W
Operating temperature	0°C...+50°C

FUNCTIONS

- Edge detection for position and width measurement with threshold values that can be uniformly defined or set for each picture element and with different filtering methods (elimination of background noise and severely structured background, measurement from the edge or from a definable center, pre-selection of edges, localization of measurement window, etc.)
- Monitoring of deviation from position and width of several webs or objects
- Monitoring of the number of objects
- Monitoring of the tolerance limits of a light intensity progression
- Detection of surface faults (dirt, scratches, tears, holes, etc.)

Please refer to our current list of functions for further details!

DIMENSIONS
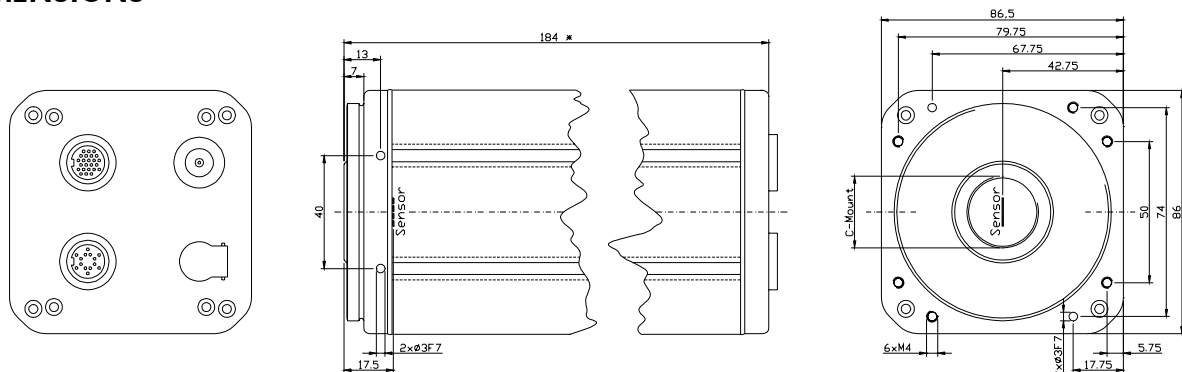
* Please check total length using different lens attachments!

OPTIONS/ACCESSORIES

- Lens protector
- Ready-made connection cable
- Lamps **LIXUS-LIGHT**
- Lenses, lens mount adapter