OPTO LOGIC

Faster
More Precise
More Intelligent

LIXUS-i 2048C

Intelligent Line Scan Camera

Specification

SPECIAL FEATURES

- **Autonomous measuring and monitoring system**
- **Integrated signal processing for evaluating each scan in real-time**
- **High resolution (2.048 picture elements)**
- **Integrated electronic shutter**
- **Electrically separated digital inputs and outputs**
- **Analog current interface**
- **Sturdy, industrial strength design**
- **Asynchronously triggerable**

APPLICATIONS

- **Measurement and monitoring of geometric dimensions (position, width, diameter)**
- **Monitoring of surface faults, holes and tears in web materials (sheet metal, paper, foil, textiles, wood)**
- **Radial and axial measurement**
- **Level sensing**
- **Monitoring the presence of components (adhesives, coatings, etc.)**
- **Particle count**
- **Web path adjustments**

DESCRIPTION

The intelligent line scan camera **LIXUS-i 2048C** is an autonomously functioning, inexpensive measurement and monitoring system with high resolution. 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 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 camera **LIXUS-i 2048C** 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 2048C

PHYSICAL/TECHNICAL CHARACTERISTICS

Sensor	CCD, 2.048 pixels, 14 μm x 14 μm, shutter
Sensing area	28,7mm x 14 μm
Exposure time	10,0 μs...100 ms (adjustable internally or via synchronous input)
Line scan rate	max. 2.380 scans/s
Control	Exposure time, gain, offset (contrast) for a selected section
(manually/automatically)	
Interface	RS232, RS422 or RS485 (max. 115kBaud), opto-isolated
	Separate RS232 connection for configuration on site (optional)
Inputs	5 x digital (optionally 8), opto-isolated
Outputs	3 x digital (optionally 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	F-Mount (M42x1)
	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	20V...30V DC
Power consumption	app. 7W
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
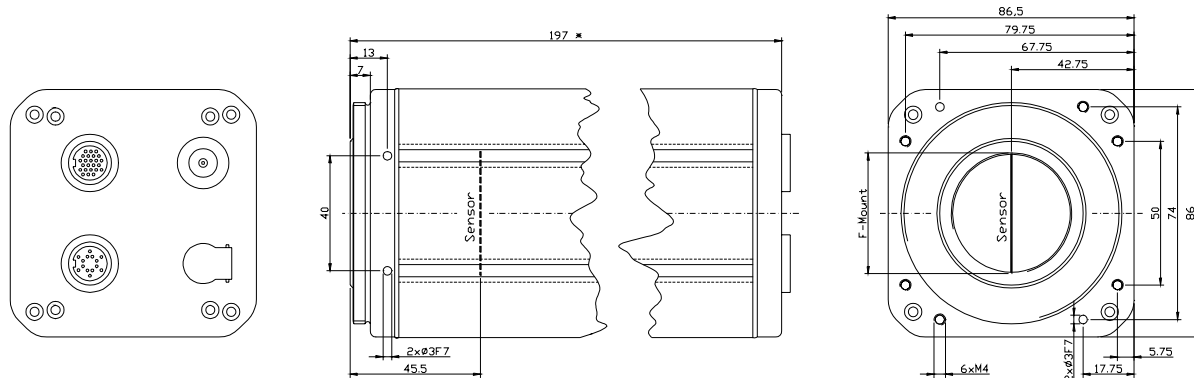
* Please check total length using different lens attachments!

OPTIONS/ACCESSORIES

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