LINE CONFOCAL SENSOR LCI1201

The LCI1201 is a new, fast and accurate multipurpose sensor. It is even smaller in size and weight than the LCI1200. The measurement performance of the sensor is improved further, and it has a better tolerance for demanding environmental conditions. The sensor is designed for 3D profile and dimensions measurements in electronics and medical applications.

Hardware

Optical profile length	11.26	mm
Pixel size X	5.50	µm
Z-resolution	0.66	µm
Stand-off distance	20.58	mm
Z-range	3	mm
Measurement speed at full z-range	500	Hz
Max measurement speed	5000	Hz
Number of points/profile *	2048	
Wavelength	VIS	
Max slope of objects	20	deg
Dimensions	419x354x91	mm
Weight	14	kg
Level of protection (EN 60529)	IP55	

Power	24 VDC, 2A	
PC connectivity	Gigabit Ethernet	
Line synchronization	Three fast isolated digital inputs, 24 V	

Software

FocalSpec Software Development Kit (FSSDK) for Windows: C/C++, C#, LabVIEW and HALCON

FocalSpec Software Development Kit (FSSDK) for Linux: C/C++ with Qt and HALCON

Analysis software: FocalSpec Map

**Output: X (µm), Z (µm) and intensity for each profile point*

Specifications are subject to change without notice. Technology is world wide patented.

1804

LINE CONFOCAL SENSOR LCI1200

The LCI1200 is a fast and accurate multipurpose sensor. It is suited for 3D profile and dimensions measurements in electronics and medical applications. The LCI1200 has one of the widest angle tolerances on the market. It is suited especially well for the most demanding measurements such as 3D glass dimensions and topography.

Hardware

Optical profile length	11.26	mm
Pixel size X	5.50	µm
Pixel size Y	25	µm
Z-resolution	0.55	µm
Stand-off distance	16.16	mm
Z-range	2.80	mm
Measurement speed at full z-range	500	Hz
Max measurement speed	5000	Hz
Number of points/profile *	2048	
Wavelength	VIS	
Max slope of objects	20	deg
Dimensions	645x314x130	mm
Weight	24	kg
Level of protection (EN 60529)	IP30	

Power	24 VDC, 2A	
PC connectivity	Gigabit Ethernet	
Line synchronization	Three fast isolated digital inputs, 24 V	

Software

FocalSpec Software Development Kit (FSSDK) for Windows: C/C++, C#, LabVIEW and HALCON
FocalSpec Software Development Kit (FSSDK) for Linux: C/C++ with Qt and HALCON
Analysis software: FocalSpec Map

**Output: X (µm), Z (µm) and intensity for each profile point*

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1804

LINE CONFOCAL SENSOR LCI401

The LCI401 is designed for applications requiring extreme dimensional accuracy, such as measuring the burr height of batteries. The sensor is smaller and lighter than its predecessor, the LCI400. The measurement performance of the sensor is improved further, and it has a better tolerance for demanding environmental conditions.

Hardware

Optical profile length	4.30	mm
Pixel size X	2.10	µm
Pixel size Y	10	µm
Z-resolution	0.11	µm
Stand-off distance	8	mm
Z-range	1.20	mm
Measurement speed at full z-range	300	Hz
Max measurement speed	5000	Hz
Number of points/profile *	2048	
Wavelength	VIS	
Max slope of objects	15	deg
Dimensions	300x202x62	mm
Weight	4	kg
Level of protection (EN 60529)	IP55	

Power	24 VDC, 2A
PC connectivity	Gigabit Ethernet
Line synchronization	Three fast isolated digital inputs, 24 V

Software

FocalSpec Software Development Kit (FSSDK) for Windows: C/C++, C#, LabVIEW and HALCON

FocalSpec Software Development Kit (FSSDK) for Linux: C/C++ with Qt and HALCON

Analysis software: FocalSpec Map

**Output: X (µm), Z (µm) and intensity for each profile point*

Specifications are subject to change without notice. Technology is world wide patented.

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LINE CONFOCAL SENSOR LCI1600

The LCI1600 is FocalSpec's fastest sensor for continuous on-line measurement. It is especially well suited for applications requiring the widest measurement line length and the most extensive combination of z-range and stand-off distance.

Hardware

Optical profile length	16.40	mm
Pixel size X	8.00	µm
Pixel size Y	36	µm
Z-resolution	0.98	µm
Stand-off distance	59.00	mm
Z-range	5.50	mm
Measurement speed at full z-range	500	Hz
Max measurement speed	5000	Hz
Number of points/profile *	2048	
Wavelength	VIS	
Max slope of objects	13.50	deg
Dimensions	431x358x113	mm
Weight	20	kg
Level of protection (EN 60529)	IP30	

Power	24 VDC, 2A	
PC connectivity	Gigabit Ethernet	
Line synchronization	Three fast isolated digital inputs, 24 V	

Software

FocalSpec Software Development Kit (FSSDK) for Windows: C/C++, C#, LabVIEW and HALCON

FocalSpec Software Development Kit (FSSDK) for Linux: C/C++ with Qt and HALCON

Analysis software: FocalSpec Map

**Output: X (µm), Z (µm) and intensity for each profile point*

Specifications are subject to change without notice. Technology is world wide patented.

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LINE CONFOCAL SENSOR MCP100

The MCP100 is a sensor for accurate and fast two-point thickness measurement. The sensor is designed for continuous one-sided, non-contact measurement of plastic and glass bottles and containers.

Hardware

Optical profile length	5.50	mm
Pixel size X	4	µm
Pixel size Y	25	µm
Z-resolution	0.05	µm
Stand-off distance	12	mm
Z-range	5.50	mm
Measurement speed at full z-range	10000	Hz
Max measurement speed	10000	Hz
Number of points/profile *	2	
Wavelength	IR	
Max slope of objects	15	deg
Dimensions	262x127x38	mm
Weight	1.40	kg
Level of protection (EN 60529)	IP30	

Power	24 VDC, 2A	
PC connectivity	Gigabit Ethernet	
Line synchronization	Three fast isolated digital inputs, 24 V	

Software

FocalSpec Software Development Kit (FSSDK) for Windows: C/C++, C#, LabVIEW and HALCON
FocalSpec Software Development Kit (FSSDK) for Linux: C/C++ with Qt and HALCON
Analysis software: FocalSpec Map

**Output: X (µm), Z (µm) and intensity for each profile point*

Specifications are subject to change without notice. Technology is world wide patented.

1804

FocalSpec LCI sensors

FocalSpec Line Confocal Imaging (LCI) sensors provide the highest measurement speed and accuracy to meet the uppermost standards of today's high-speed smart manufacturing environments, which require continuous measurement and analysis of a large variety of surface materials. Among others, they can be utilized in the electronics, medical and plastics and packaging industries.

Available applications for the sensors include 3D surface profiles, 3D dimensions and tomography, burr height, surface roughness and seal integrity inspection. They are well suited not only for continuous product quality control but also to help optimize various stages of manufacturing processes.

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