LMI TECHNOLOGIES

ADEPT TURNKEY

SMARTER IMAGING FOR BETTER LIVES

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Gocator® 2600 Series

3D SMART LASER LINE PROFILE SENSORS

The industry leading Gocator® 3D smart sensor family introduces **4K+ resolution laser profiling** to measure microscopic features or larger objects. Custom optics and a powerful **9-megapixel imager** deliver 4200 data points per profile for high-resolution 3D scanning and inspection across wide fields of view—in applications such as EV battery inspection, food processing (baked goods production), building materials (furniture, doors/windows, planks, sheet metal), automotive (air spring and wheel inspection), rubber and tire production, and general factory automation.

- 9-Megapixel Imager
- 4200 Points per Profile for High-Resolution Measurement
- X Resolutions Up to 0.018 mm (at 71 mm FOV)
- Fields of View Up to 2 m (at 0.55 mm X Resolution)
- On-Sensor Measurement Tools and I/O Connectivity
- Native Multi-Sensor Alignment and Networking Support

4K+ LINE PROFILER

MEASURE SMALLER FEATURES WITH 4K+ RESOLUTION

The Gocator® 2600 Series laser profilers use a 4K+ imager to generate high-resolution profile and surface data for measurement of microscopic features such as defect detection (e.g., dents) on EV battery modules.

WIDER SCAN COVERAGE. GREATER VERSATILITY.

The Gocator® 2600 Series models offer **fields of view up to 2 m** to address a broad range of scanning applications. Increased field of view is beneficial when you need to scan larger objects, or many objects positioned across a larger area (e.g. rows of baked goods travelling on a wide conveyor).

## NATIVE MULTI-SENSOR ALIGNMENT AND NETWORKING

Gocator® offers native support for multi-sensor networks from 2 sensors up to 24, with on-sensor pairing, point-and-click alignment, and automatic image stitching. After scanning, Gocator® outputs a single, high-density 3D point cloud ready for measurement. Users can even capture 360° of a scan target, or multiple views, by **mixing different 2600 sensor models** that optimize for field of view and resolution.

SMART DESIGN FOR MAXIMUM COST-EFFICIENCY

Gocator® 2600 series sensors are built on LMI's leading smart sensor design architecture, which includes an easy-to-use web-based interface, on-sensor measurement tools, data processing, I/O connectivity, native multi-sensor networking, and more. The result is the most cost-efficient 3D sensor solution on the market.
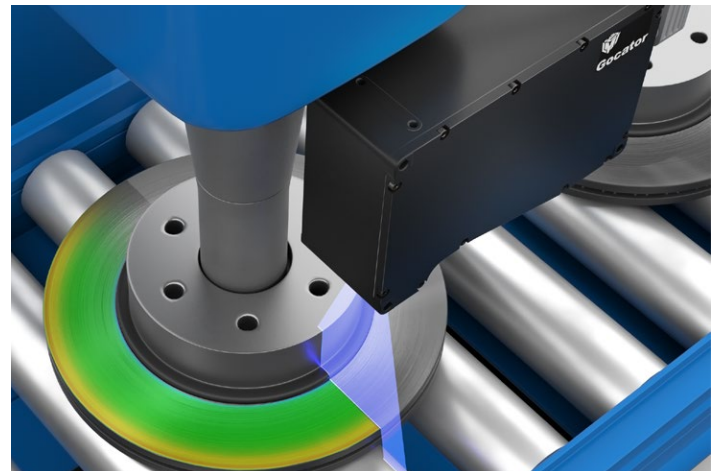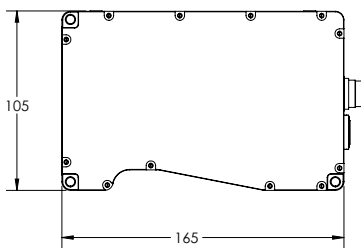
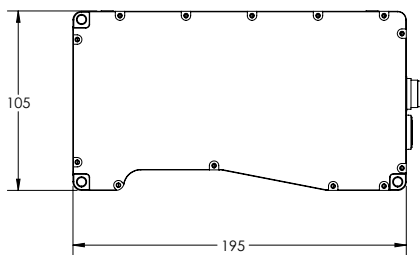*Rotor roughness inspection with Gocator 2630*
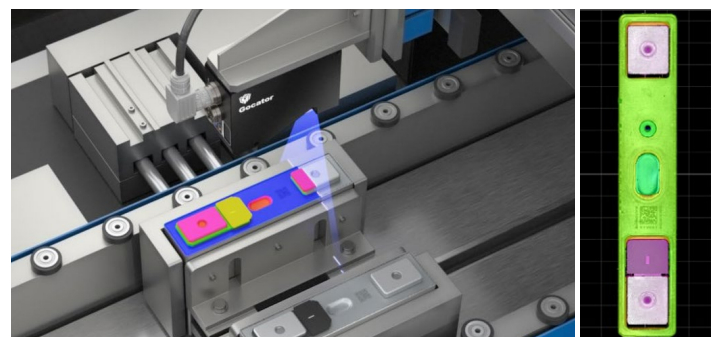
EV Battery Module Inspection with Gocator 2640

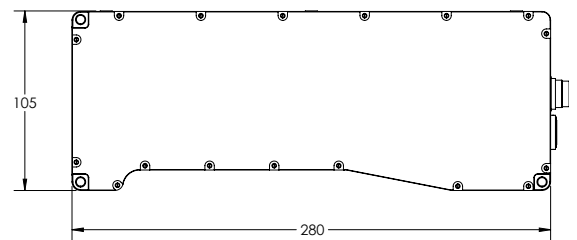| GOCATOR 2600 SERIES MODELS	2630	2640	2650	2670	2690
Data Points / Profile	4200	4200	4200	4200	4200
Resolution X (µm) (Profile Data Interval)	18 - 33	28 - 46	47 - 104	67 - 197	124 - 550
Linearity Z (+/- % of MR)	0.03	0.04	0.04	0.05	0.08
Repeatability Z (µm)	0.30	1.00	2.70	10.00	12.00
Clearance Distance (CD) (mm)	110	170	330	495	325
Measurement Range (MR) (mm)	130	190	475	1060	1550
Field of View (FOV) (mm)	71 - 135	105 - 198	190 - 430	272 - 817	385 - 2000
Laser Class	2, 3R, 3B (blue, 405 nm)	2, 3R, 3B (blue, 405 nm)	2, 3R, 3B (blue, 405 nm)	2, 3R, 3B (blue, 405 nm)	2, 3R, 3B (red, 660 nm)
Dimensions (mm)	55 x 105 x 165	55 x 105 x 195	55 x 105 x 280	55 x 105 x 280	55 x 105 x 280
Weight (kg)	1.34	1.48	2.12	2.12	2.12

ALL 2600 SERIES MODELS	
Scan Rate	300 to 5000 Hz
Interface	Gigabit Ethernet
Inputs	Differential Encoder, Laser Safety Enable, Trigger
Outputs	2x Digital output, RS-485 Serial (115 kBaud)
Input Voltage (Power)	+24 to +48 (15 Watts); Ripple +/- 10%
Housing	Gasketed metal enclosure, IP67
Operating Temperature	0 to 50°C
Storage Temperature	-30 to 70°C
Vibration Resistance	10 to 55 Hz, 1.5 mm double amplitude in X, Y, and Z directions, 2 hours per direction
Shock Resistance	15 g, half sine wave, 11 ms, positive and negative for X, Y, and Z directions
Scanning Software	Browser-based GUI and open source SDK for configuration and real-time 3D visualization. Open source SDK, native drivers, and industrial protocols for integration with user applications, third-party image processing applications, robots, and PLCs.

2630

2640

2650, 2670, 2690

DATASHEET_Gocator_2600_US-1.0