



# 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

### **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.

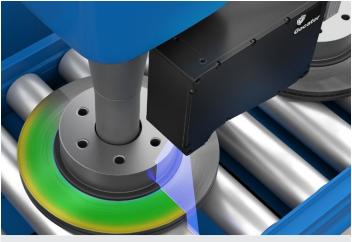
The Gocator® 2600 Series models offer **fields of view up to 2 m** to address a broad range of scanning applications. Increased field of view is beneficial when you need to scan larger objects, or many objects positioned across a larger area (e.g. rows of baked goods travelling on a wide conveyor).

#### NATIVE MULTI-SENSOR ALIGNMENT AND NETWORKING

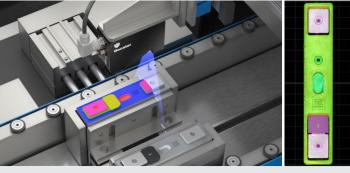
Gocator® offers native support for multi-sensor networks from 2 sensors up to 24, with on-sensor pairing, point-and-click alignment, and automatic image stitching. After scanning, Gocator® outputs a single, high-density 3D point cloud ready for measurement. Users can even capture 360° of a scan target, 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.

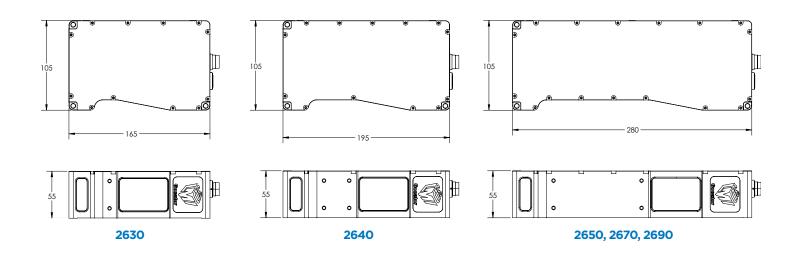


Rotor roughness inspection with Gocator 2630



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)<br>(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<br>(blue, 405 nm)  | 2, 3R, 3B<br>(blue, 405 nm) | 2, 3R, 3B<br>(blue, 405 nm) | 2, 3R, 3B<br>(blue, 405 nm) | 2, 3R, 3B<br>(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. |                             |                             |                             |                            |



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