

# Gocator 2410/2420

## ALL-IN-ONE 3D SMART SENSORS

Gocator 2410 and 2420 3D smart sensors are designed for the exacting demands of electronics and medical component inspection. With the latest 2 MP imaging technology and a new processor, these sensors achieve fast scan speeds, the highest X resolution in the industry and excellent Z repeatability (0.2  $\mu\text{m}$ ). Plus, their use of blue lasers means they generate “cleaner” data and highly reliable results even on shiny surfaces.

- PRE-CALIBRATED TO SCAN MICRON-LEVEL DETAILS
- X RESOLUTION DOWN TO 6  $\mu\text{m}$
- DOUBLE THE SPEED OF GOCATOR 2300
- SETUP & CONTROL VIA WEB BROWSER OR SDK
- BUILT-IN TOOLS, NO PROGRAMMING
- EXTEND WITH GDK AND ACCELERATOR

### TAKE MICRON-LEVEL MEASUREMENTS

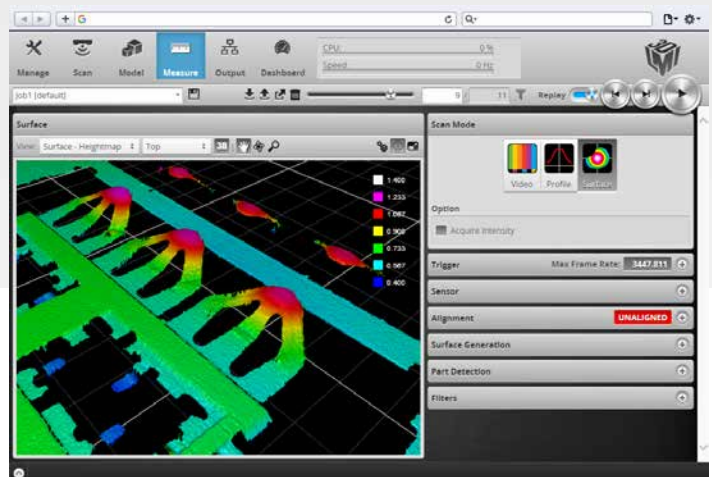
Measure micron level features with the 2400's 2 megapixel camera and large field of view. Scan parts for even the smallest defects and achieve superior results for 3D quality inspection.

### INSPECT WITH SPEED AND PRECISION

Faster scan and acquisition speeds empower you to speed up your inline process and use higher resolutions. It also means multiple exposures can be used to accurately measure high-contrast targets. With an X resolution down to 6  $\mu\text{m}$ , you can generate data points even on very tiny edges or narrow gaps.

### LEVERAGE A GREATER MEASUREMENT RANGE

Accomplish more with fewer sensors, while still capturing the finest surface and edge details of electronics and small parts with the 2400's large field of view. Its deep measurement range lets you handle a wider variety of parts at production speed.



Gocator's browser-based graphical user interface

### EASY TO INTEGRATE INTO TIGHT SPACES AND EXISTING SYSTEMS

A small footprint and lightweight body make this sensor ideal for fitting into tight spaces and mounting on robotic arms.

### EASY TO SET UP AND USE

Gocator's built-in GUI allows for flexible configuration of settings and measurement tools using any web browser, computer or operating system. With no additional software to install, Gocator's out-of-the-box setup and configuration is fast and easy.

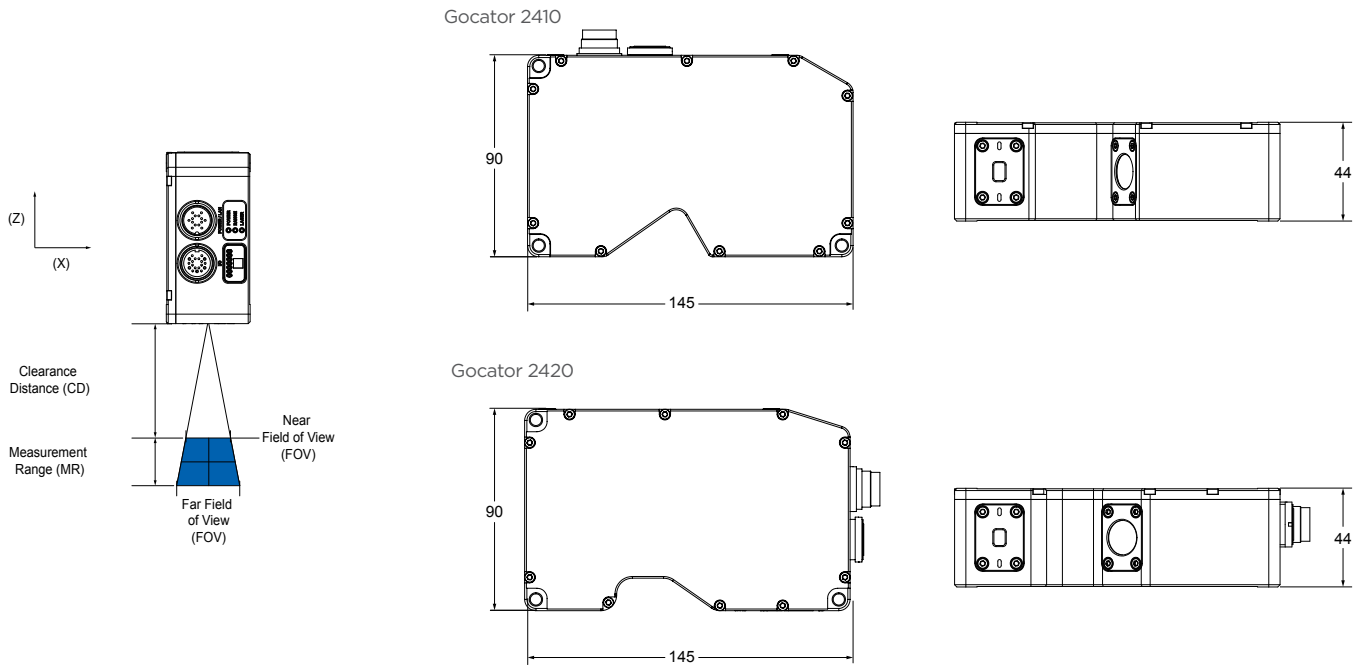
| GOCATOR 2400 SERIES MODELS                                | 2410              | 2420              |
|---|-------------------|-------------------|
| Data Points / Profile                                     | 1710              | 1940              |
| Linearity Z (+/- % of MR)                                 | 0.005             | 0.006             |
| Resolution Z ( $\mu\text{m}$ )                            | 11                | 1.8 - 3.0         |
| Resolution X ( $\mu\text{m}$ )<br>(Profile Data Interval) | 5.8 - 6.2         | 14.0 - 16.5       |
| Repeatability Z ( $\mu\text{m}$ )                         | 0.2               | 0.4               |
| Clearance Distance (CD) (mm)                              | 19                | 60                |
| Measurement Range (MR) (mm)                               | 6                 | 25                |
| Field of View (FOV) (mm)                                  | 9.6 - 10.6        | 27 - 32           |
| Recommended Laser Class                                   | 3R (blue, 405 nm) | 3R (blue, 405 nm) |
| Other Laser Classes                                       | 2M (blue, 405 nm) | 2M (blue, 405 nm) |
| Dimensions (mm)   | 44x90x145         | 44x90x145         |
| Weight (kg)   | 0.88              | 0.88              |

Optical models, laser classes, and packages can be customized. Contact LMI for more details.

Specifications stated are based on Recommended laser classes. Linearity Z, Resolution Z, and Repeatability Z may vary for other laser classes.

Specifications for Gocator 2410 are preliminary.

| ALL 2400 SERIES MODELS |  |
|------------------------|--|
| Scan Rate              | 200 Hz (expanded full window), 400 Hz (G23xx equivalent full window), up to 5 kHz  |
| Interface              | Gigabit Ethernet   |
| Inputs                 | Differential Encoder, Laser Safety Enable, Trigger   |
| Outputs                | 2x Digital output, RS-485 Serial (115 kBaud), 1x Analog Output (4 - 20 mA)   |
| Input Voltage (Power)  | +24 to +48 VDC (9 Watts); RIPPLE +/- 10%   |
| Housing                | Gasketed aluminum 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, and PLCs. |



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