LMI TECHNOLOGIES

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 μm). 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 μm
- DOUBLE THE SPEED OF GOCATOR 2300
- SETUP & CONTROL VIA WEB BROWSER OR SDK
- BUILT-IN TOOLS, NO PROGRAMMING
- EXTEND WITH GDK AND ACCELERATOR

Gocator 2420

BLUE LASER

Gocator's browser-based graphical user interface

### 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 μm, 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.
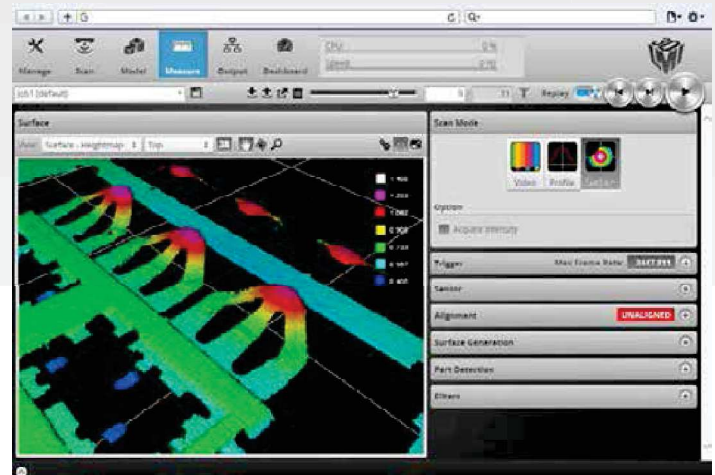
EASY TO INTEGRATE INTO TIGHT SPACES AND EXISTING SYSTEMS
A small footprint and lightweight body make this sensor ideal for fitting into tight spaces and mounting on robotic arms.
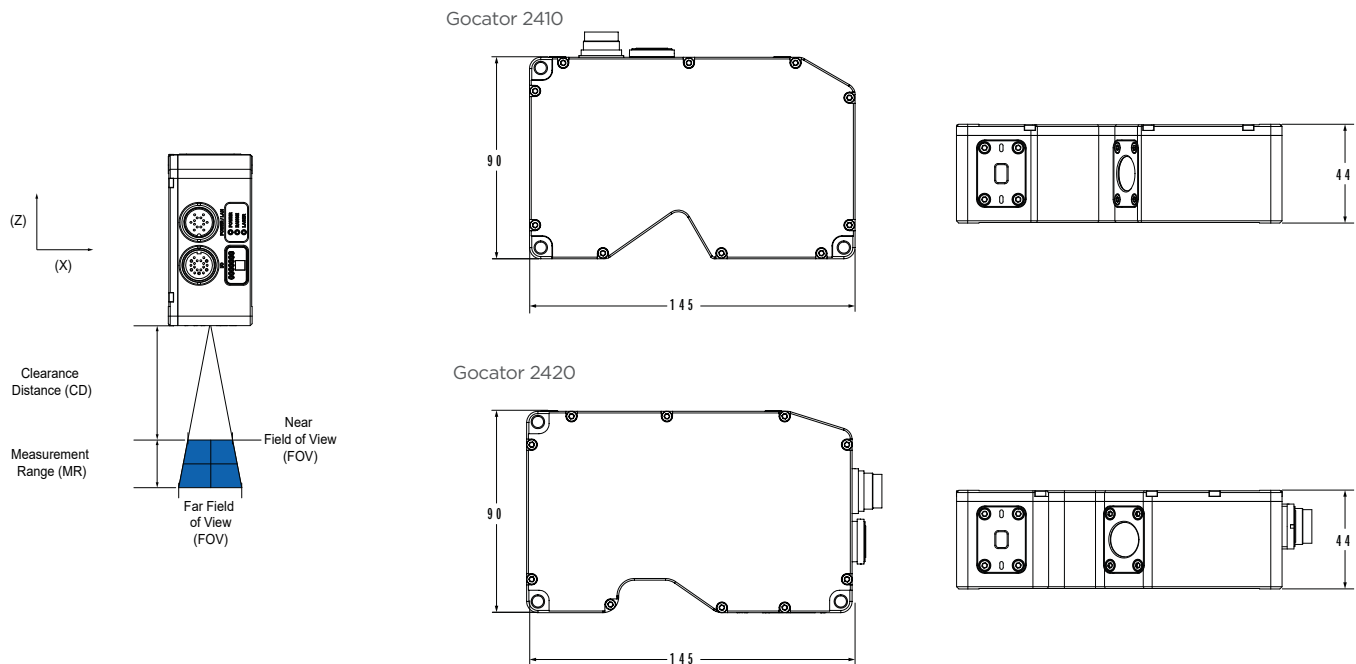
EASY TO SET UP AND USE
Gocator's built-in GUI allows for flexible configuration of settings and measurement tools using any web browser, computer or operating system. With no additional software to install, Gocator's out-of-the-box setup and configuration is fast and easy.

GOCATOR 2400 SERIES MODELS	2410	2420
Data Points / Profile	1710	1940
Linearity Z (+/- % of MR)	0.015	0.006
Resolution Z (µm)	1.100	1.800 - 3.000
Resolution X (µm) (Profile Data Interval)	5.8 - 6.2	14.0 - 16.5
Repeatability Z (µm)	0.2	0.4
Clearance Distance (CD) (mm)	19.0	60.0
Measurement Range (MR) (mm)	6.0	25.0
Field of View (FOV) (mm)	10.0 - 10.0	27.0 - 32.0
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.

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.

Gocator 2410

Gocator 2420

RoboVision
machine vision & id

Gocator® 2430/2440

ALL-IN-ONE 3D SMART SENSORS

Gocator 2430 and 2440 extend the Gocator 2400 series to cover rubber & tire applications, as well as scanning medium-sized objects such as electronics enclosures, automotive components, and packaged products. With the latest 2-megapixel imaging technology and a new processor, these sensors achieve higher scan rates and excellent repeatability.

- **UP TO 2X SPEED AND SENSITIVITY OF GOCATOR 2300**
- **SETUP & CONTROL VIA WEB BROWSER OR SDK**
- **BUILT-IN TOOLS, NO PROGRAMMING**
- **EXTEND WITH GDK AND ACCELERATOR**

Gocator 2430/2440

Gocator's browser-based graphical user interface

INSPECT WITH SPEED AND PRECISION

Faster scanning and acquisition let you speed up your inline process and attain higher resolutions. Multiple exposures for high dynamic ranges are also easier to use at production speed.

HIGHER SENSITIVITY

The increased sensitivity of Gocator 2430/2440 lets you capture better data on dark targets, such as rubber and tires.

LEVERAGE A GREATER MEASUREMENT RANGE

Accomplish more with fewer sensors, while still capturing fine surface and edge details with Gocator 2430/2440's large field of view. Its deep measurement range lets you handle larger depth variation and a wider variety of parts.
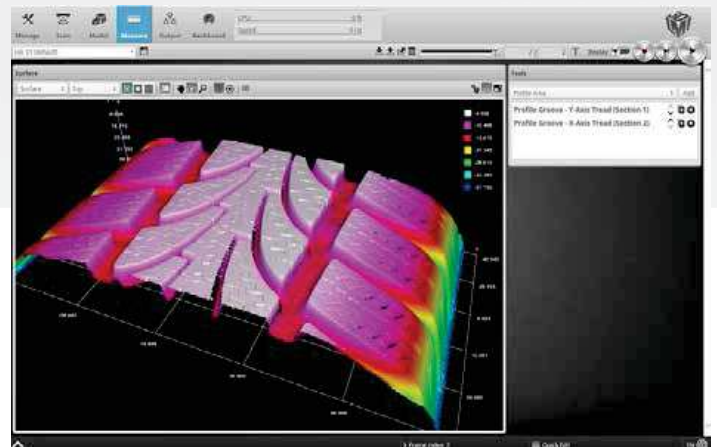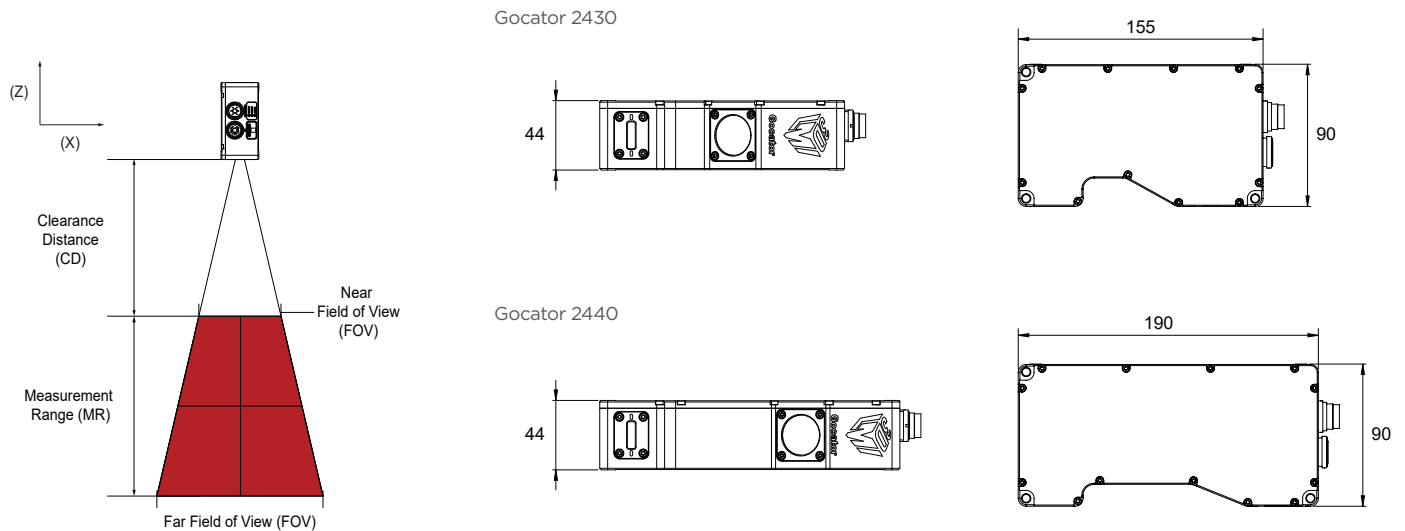
EASY TO SET UP AND USE

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	2430	2440
Data Points / Profile	1500	1500
Linearity Z (+/- % of MR)	0.01	0.01
Resolution Z (μm)	6 - 14	13 - 37
Resolution X (μm) (Profile Data Interval)	37 - 57	90 - 130
Repeatability Z (μ m)	0.8	1.2
Clearance Distance (CD) (mm)	75	183
Measurement Range (MR) (mm)	80	210
Field of View (FOV) (mm)	47 - 85	96 - 194
Recommended Laser Class	2	3R
Other Laser Classes	3R, 3B	2, 3B
Dimensions (mm)	44 x 90 x 155	44 x 90 x 190
Weight (kg)	1.0	1.2

Optical models, laser classes, and packages can be customized. Contact LMI for more details.
Specifications stated are based on Recommended laser classes. Repeatability Z may vary for other laser classes.

2430/ 2440 MODELS	
Scan Rate	340 Hz, 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.

Gocator 2430

Gocator 2440

LASER RADIATION
AVOID EXPOSURE TO THE BEAM
CLASS 3B LASER PRODUCT

PEAK POWER: 130 mW
EMITTED WAVELENGTH: 660 nm

This product is designated for use solely as a component and as such it does not fully comply with the standards relating to laser products specified in U.S. FDA CFR Title 21 part 1040 and IEC 60825-1

IEC 60825-1:2007

Robo Vision
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