LMI TECHNOLOGIES

Gocator® 2400 Series

3D SMART LINE PROFILE SENSORS



- Pre-calibrated to scan micron-level details
- X resolution down to 6µm
- Field of View up to 2 m
- Double the speed of Gocator 2300
- Setup & control via web browser or SDK
- Built-in tools, no programming
- Extend with GDK and GoMax

Gocator 2400 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). In addition, 2400 sensors are available in **red laser** and **blue laser** models to give you optimal performance and maximum flexibility in your scanning applications.

TAKE MICRON-LEVEL MEASUREMENTS

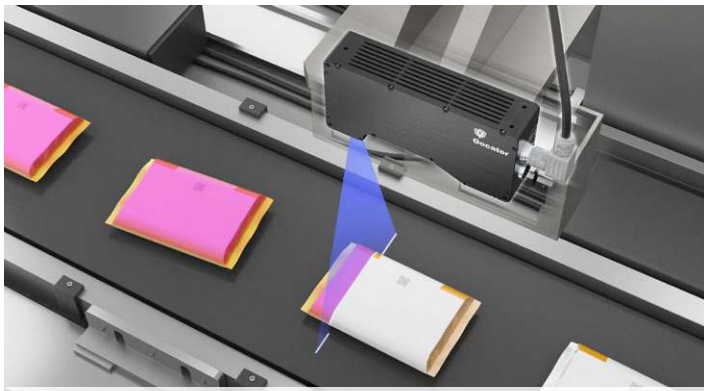
Measure micron level features with the 2400 series' 2-megapixel camera and large field of view. Scan parts for even the smallest defects and achieve superior results for 3D quality inspection.

INSPECT WITH SPEED AND PRECISION

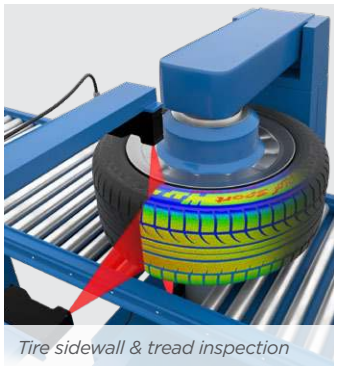
Faster scan and acquisition speeds empower you to speed up your inline process and use higher resolutions. It also means multiple exposures can be used to accurately measure high-contrast targets. With an X resolution down to 6 µm, you can generate data points even on very tiny edges or narrow gaps.

LEVERAGE A GREATER MEASUREMENT RANGE

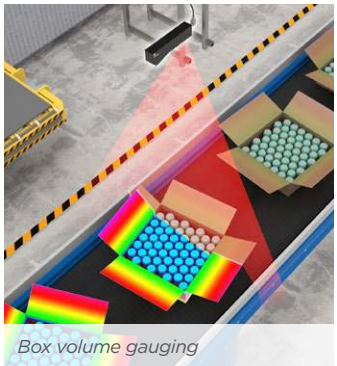
Accomplish more with fewer sensors, while still capturing the finest surface and edge details of electronics and small parts with the 2400 series' large field of view. Its deep measurement range lets you handle a wider variety of parts at production speed.



Battery cell inspection



Tire sidewall & tread inspection

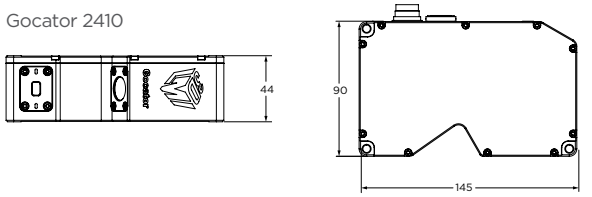


Box volume gauging

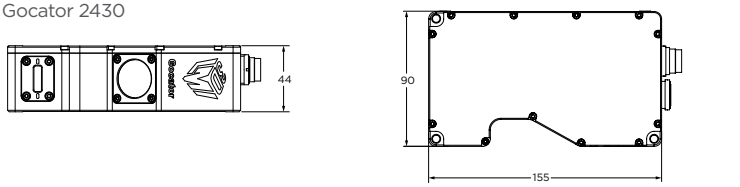
GOCATOR 2400 SERIES MODELS	2410	2420	2430	2440	2450	2490
Data Points / Profile	1710	1940	1500	1500	1800	1920
Resolution X (µm) (Profile Data Interval)	5.8 - 6.2	14.0 - 16.5	37.0 - 57.0	90.0 - 130.0	100 - 255	250.0 - 1100.0
Linearity Z (+/- % of MR)	0.015%	0.006%	0.01%	0.01%	0.01%	0.04%
Repeatability Z (µm)	0.2	0.4	0.8	1.2	2.0	12.0
Clearance Distance (CD) (mm)	19.0	60.0	75.0	183.0	270.0	350.0
Measurement Range (MR) (mm)	6.0	25.0	80.0	210.0	550.0	1525.0
Field of View (FOV) (mm)	10.0	27.0 - 32.0	47.0 - 85.0	96.0 - 194.0	145.0 - 425.0	390.0 - 2000.0
Laser Class	2M, 3R (blue, 405 nm)	2M, 3R (blue, 405 nm)	2, 3R, 3B (red, 660 nm; blue, 405nm)	2, 3R, 3B (red, 660 nm; blue, 405nm)	2, 3R, 3B (blue, 405nm)	2, 3R (red, 660 nm)
Dimensions (mm)	44x90x145	44x90x145	44x90x155	44x90x190	44x90x240	49x85x272
Weight (kg)	0.88	0.88	1.0	1.2	1.2	1.5

ALL 2400 SERIES MODELS	
Scan Rate	200 Hz, up to 5 kHz. (Note: 2400 series provides up to 2x scan rate for equivalent window size as 2300 series)
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, robots, and PLCs.

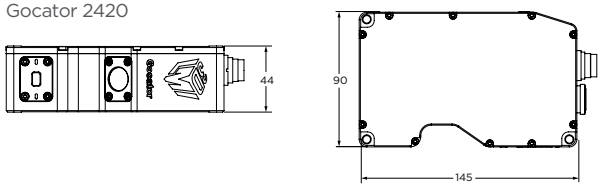
Gocator 2410



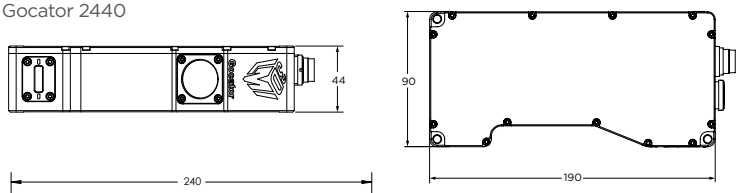
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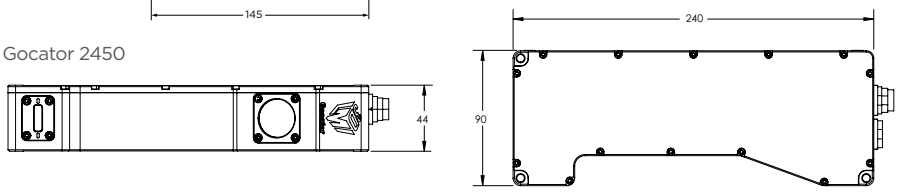
Gocator 2420



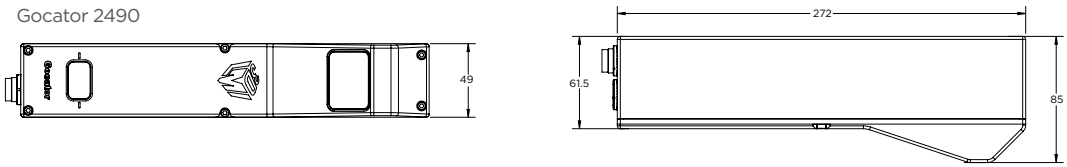
Gocator 2440



Gocator 2450



Gocator 2490



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