LMI TECHNOLOGIES

Gocator® 2490

3D SMART LASER LINE PROFILE SENSOR

- **2 m field of view and deep measurement range provide scan area up to 1 m × 2 m**
- **2.5 mm XYZ resolution for complete dimensional measurement (W×H×D) at conveyor speeds of 2 m/s**
- **0.06 mm Z resolution for precision height measurement**
- **Built-in measurement tools and PLC interfaces result in lower total system cost**

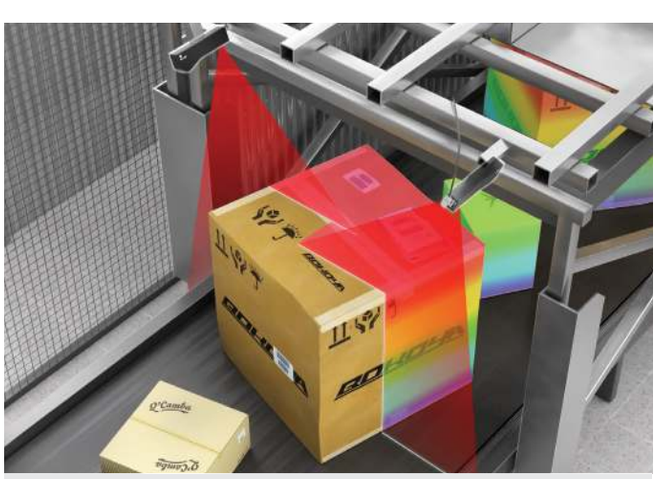
Gocator® 2490 is designed to scan large targets in packaging & logistics, automotive manufacturing, and food processing applications. The sensor leverages an ultra-wide field of view and large measurement range to achieve an extensive scan area, allowing engineers to perform complete dimensional gauging and high-resolution 2D/3D quality inspection of large targets at inline production speed.

HIGH-RESOLUTION 3D SCANNING AT PRODUCTION SPEED

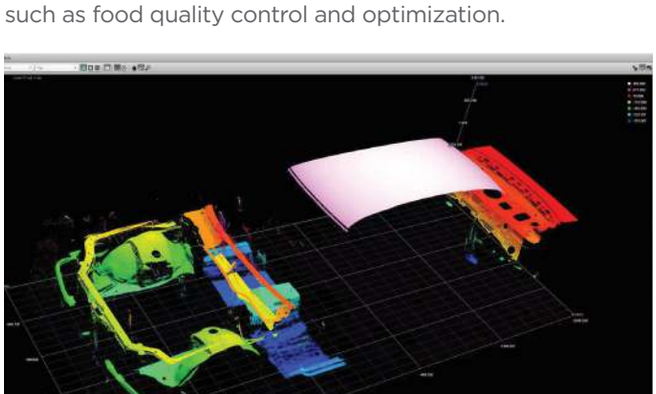
For packaging & logistics applications, the 2-megapixel imager allows Gocator 2490 to scan and measure object dimensions at a rate of 800 Hz and resolutions of 2.5 mm in all three dimensions (X, Y, Z), even at conveyor speeds of 2 m/s. Competing systems typically offer just 5 mm resolution in the X, Y, and Z axes.

LARGE SCAN AREA

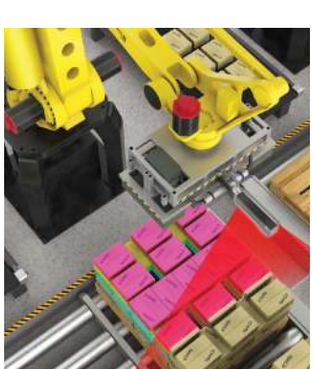
The combination of wide field of view and large measurement range enables engineers to cover a scan area up to 1 m × 2 m for handling a variety of large targets (e.g., automotive body frame inspection and transverse board scanning). In addition, high Z resolution (for height measurement) makes the 2490 well suited to applications such as food quality control and optimization.



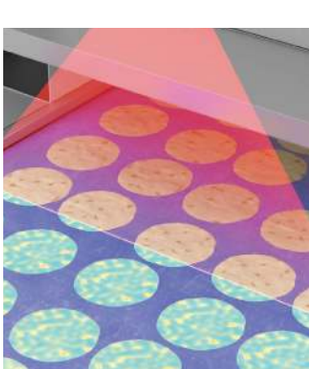
Package volume measurement and sorting



Single 2490 scan of a car body frame

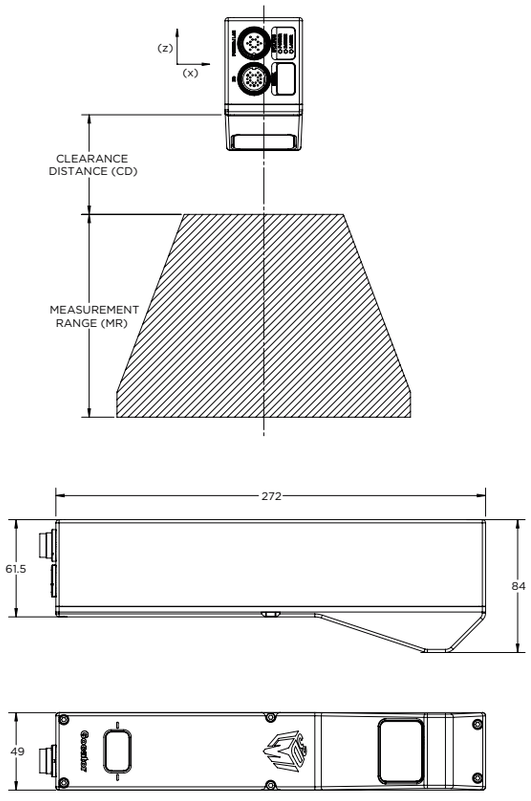


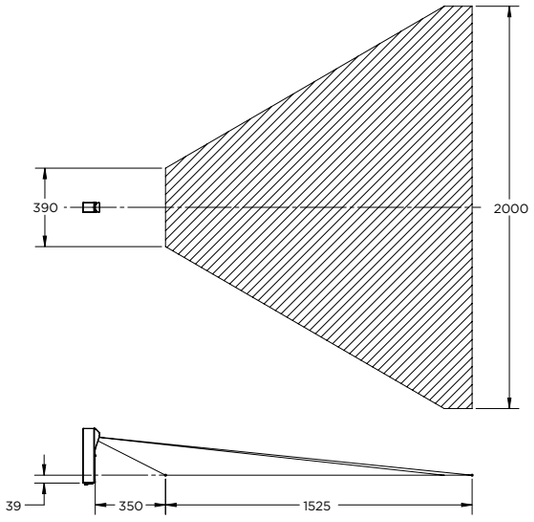
Depalletization



Baking quality control

GOCATOR 2490	
Data Points / Profile	1920
Resolution Z (mm)	0.06 - 1.5
Resolution X (mm) (Profile Data Interval)	0.25 - 1.1
Linearity Z (+/- % of MR)	0.04%
Clearance Distance (CD) (mm)	350
Measurement Range (MR) (mm)	1525
Field of View (FOV) (mm)	390 - 2000
Laser Class	2, 3R
Dimensions (mm)	49x85x272
Weight (kg)	1.5
Scan Rate	370 Hz (full view), 800 Hz (configured for 1 m x 2 m field of view) to 5000 Hz
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 (13 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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