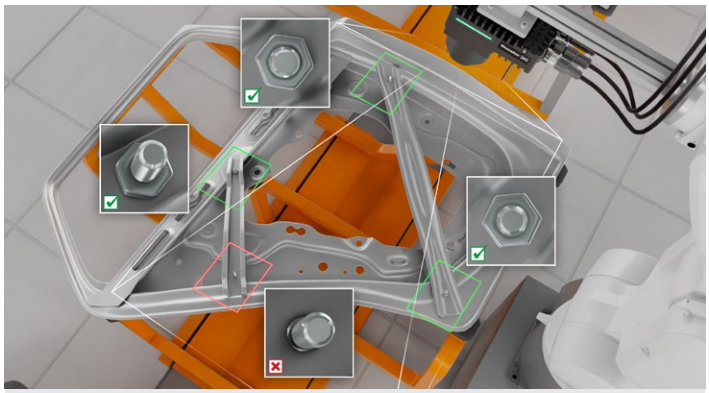
LMI TECHNOLOGIES

# Gocator 2D

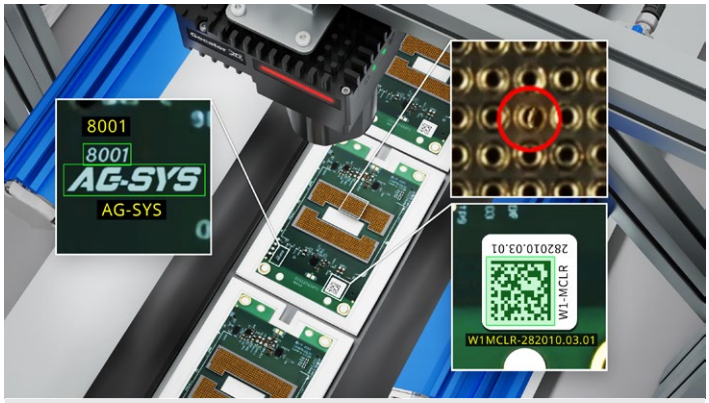
## Smart Cameras

powered by **GoPxL** and **Deep Edge AI***


GoPxL
TKH VISION
NVIDIA



*Car door impact beam inspection*




*PCB Socket Inspection with Data Matrix Reading and OCR*

Gocator 2D Smart Cameras provide a complete solution for industrial 2D measurement and inspection. Built on LMI's proven smart sensor platform, they combine high-resolution imaging, integrated lighting control, **deep edge AI*** (deep learning-powered intelligence executed on-device), and intuitive GoPxL™ software—delivering fast, accurate inspection without PCs or cloud infrastructure for demanding factory automation applications.

- **High-speed imaging: Up to 84 FPS global shutter capture for fast-moving parts and short-exposure inspections**
- **High-performance processing: NVIDIA® Jetson™ Orin NX GPU and CPU share distributed inspection tasks including calibration, transformation, inspection logic, communication, and on-device AI training and inference**
- **Integrated inspection toolset: Rules-based alignment, edge, blob, barcode, and dimensioning tools plus AI anomaly detection, image classification, OCR, and feature detection**
- **Integrated lighting control: Native trigger, strobe, and overdrive control for RMX140 ring lights and LSR300 bar lights**
- **Rugged industrial design: IP67 housing with C-mount lens support for flexible field-of-view configuration**

PROFINET® Modbus EtherNet/IP ASCII FTP

### HIGH-SPEED, HIGH-RESOLUTION

Global shutter imaging up to 84 FPS captures parts in motion with short exposures—supporting defect detection, calibrated measurement in real-world units, and reliable code/OCR reading without motion blur.

### NVIDIA-POWERED EDGE AI

The powerful Jetson Orin NX processor runs training and inference on the device using real production data—low latency, fast iteration, and factory-local operation with no cloud dependency or data egress.

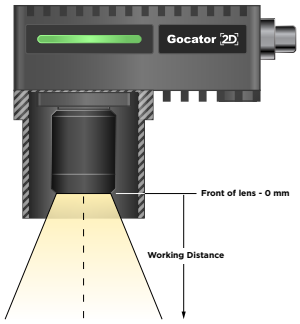
### SCALABLE WEB-BASED VISION SOFTWARE

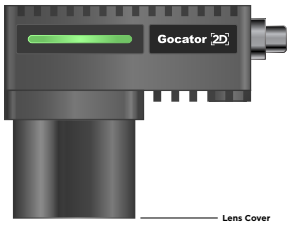
GoPxL provides a web UI and GoHMI to configure, validate, and run inspections in one environment. Engineers manage inspection logic, model training, and system behavior without leaving the application—supporting consistent setup and scalable deployment across lines and facilities.

### PYTHON-CUSTOMIZABLE

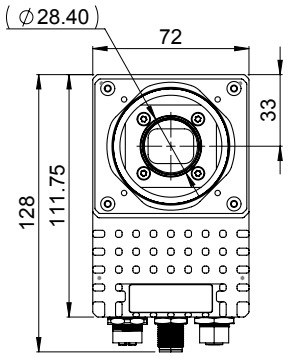
Extend workflows with Python, OpenCV pipelines, and third-party models—combining no-code build speed with full programmatic control as requirements evolve.

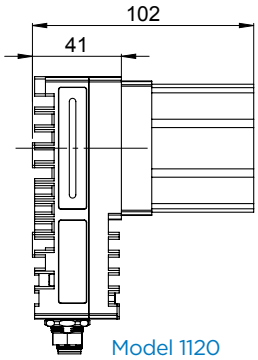
| GOCATOR 2D SMART CAMERAS | 1050-M | 1050-C | 1120-M | 1120-C |
|---|---|---|---|---|
| Image Type | Mono | Color | Mono | Color |
| Resolution (pixels) | 5 MP (2464 × 2064) | | 12 MP (4128 × 3008) | |
| Frames per Second (Burst, no processing) | 84 fps | | 41 fps | |
| Sensor Type | 1/1.8" CMOS, global shutter | | 1/1.1" CMOS, global shutter | |
| Sensor Properties | 8.9 mm diagonal, 2.74 × 2.74 µm | | 14.0 mm diagonal, 2.74 × 2.74 µm | |
| Lens Mount | C-mount | | | |
| Non-volatile Memory | 88 GB | | | |
| Memory | 16 GB | | | |
| Indicator LEDs | Power and network LED | | | |
| Light Control | External lights using I/O connector | | | |
| Network | Gigabit Ethernet (10/100/1000 Mbps) | | | |
| Alignment and Status I/O | 2 x input, 2 x output (opto-isolated) | | | |
| Trigger and Strobe | 1 x Trigger, 1 x Strobe | | | |
| Industrial M12 Connectors | Power, I/O, Ethernet | | | |
| Protection | IP67 with C-mount lens cover | | | |
| Power | +24 VDC (camera only, 48 W; with RMX140 light, 168 W) | | | |
| Dimensions (L × W × H) | 49.3 × 72 × 111.75 mm | | | |
| Dimension with lens cover (L × W × H) | 102 × 72 × 111.75 mm | | 122.4 × 72 × 111.75 mm | |
| Camera Weight (without lens/cover) | 650 g | | 650 g | |
| Lens Cover Weight | 160 g | | 202 g | |



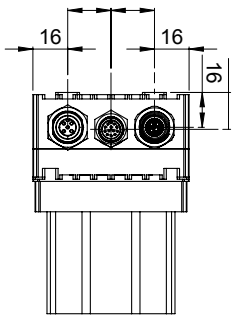



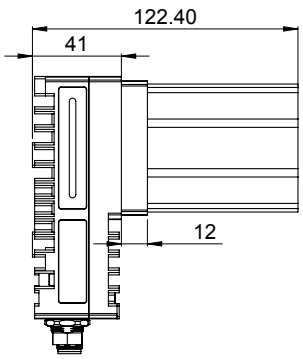

Model 1050



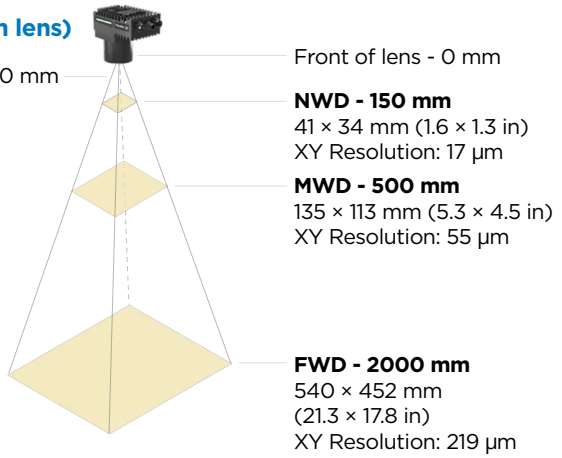




Model 1120

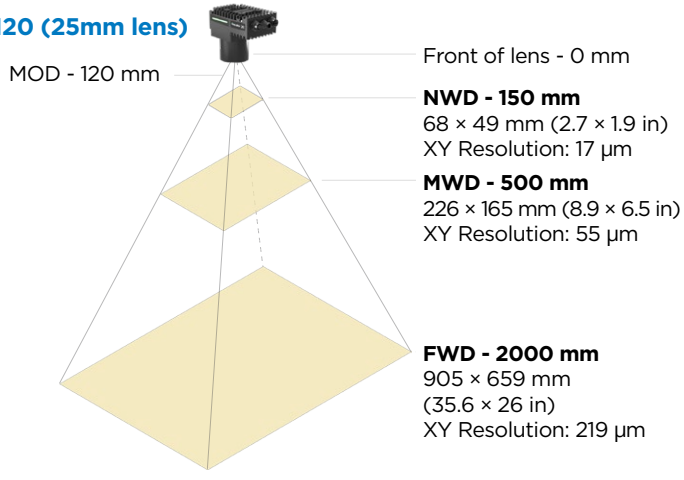



**1050 (25mm lens)**




**1120 (25mm lens)**




**MOD** = Minimum Object Distance; **NWD** = Near Working Distance
**MWD** = Mid Working Distance; **FWD** = Far Working Distance
FWD is not the maximum distance the camera can focus at, the FOV continues past this point.

LMI Technologies has sales offices and distributors worldwide. All contact information is listed at lmi3D.com/contact