

3D-A5000 SERIES AREA SCAN 3D CAMERA

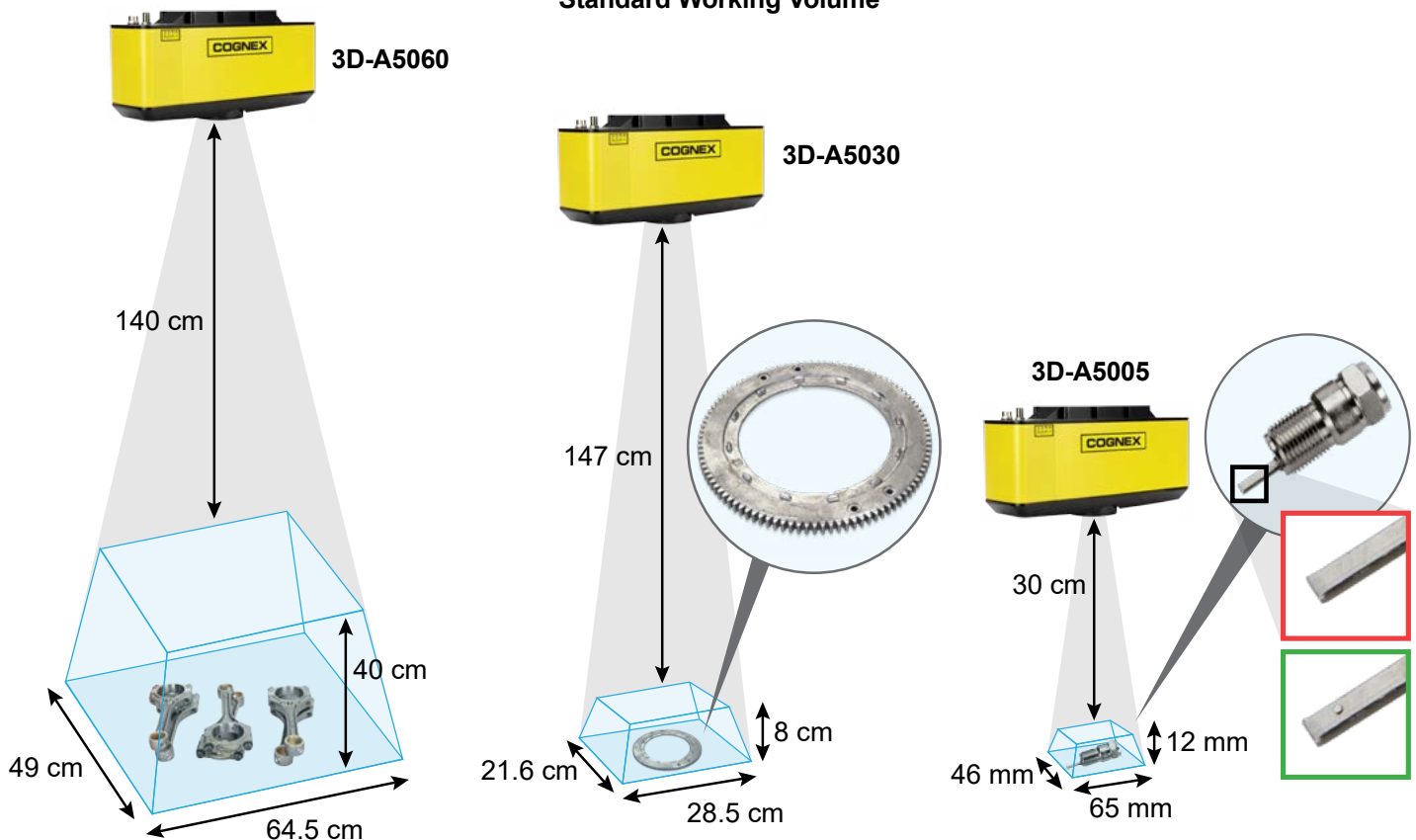
Cognex's 3D-A5000 series is a factory-calibrated, IP65-rated area scan 3D camera designed to capture high-resolution 3D images. The 3D-A5000 features patent-pending 3D LightBurst™ technology which rapidly acquires images to maximize throughput. High-resolution 3D images combined with industry-leading Cognex 3D vision tools enable reliable and accurate solutions to applications such as assembly verification, in-line measurement, and robotic guidance. The 3D-A5000 offers a variety of fields of view and measurement ranges to accommodate applications in the automotive, consumer goods, and logistics industries.



Benefits

- Patent-pending 3D LightBurst technology enables rapid image acquisition
- More than 1.5 million 3D data points detect fine features on parts
- High Dynamic Range (HDR) mode captures scenes with high contrast
- Powerful, industry proven VisionPro® 3D tools solve challenging 3D applications
- Factory calibration delivers accurate measurement results in real-world units
- Rugged IP65-rated housing provides protection in harsh factory environments

Standard Working Volume

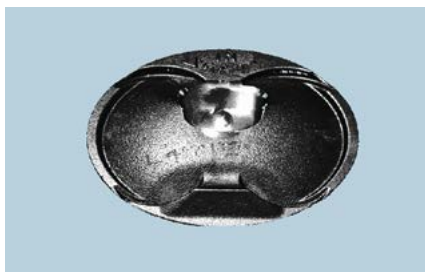
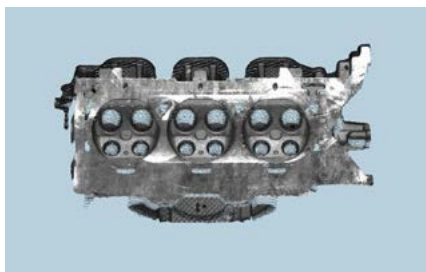


Completes more 3D inspections in less time

The 3D-A5000 features patent-pending 3D LightBurst technology which casts a unique blue light pattern on a part to acquire high-resolution 3D images at an unparalleled speed. It delivers a full field-of-view (FOV) 3D point cloud image as fast as 200 milliseconds, allowing higher throughput and shorter cycle times for time-critical in-line applications.

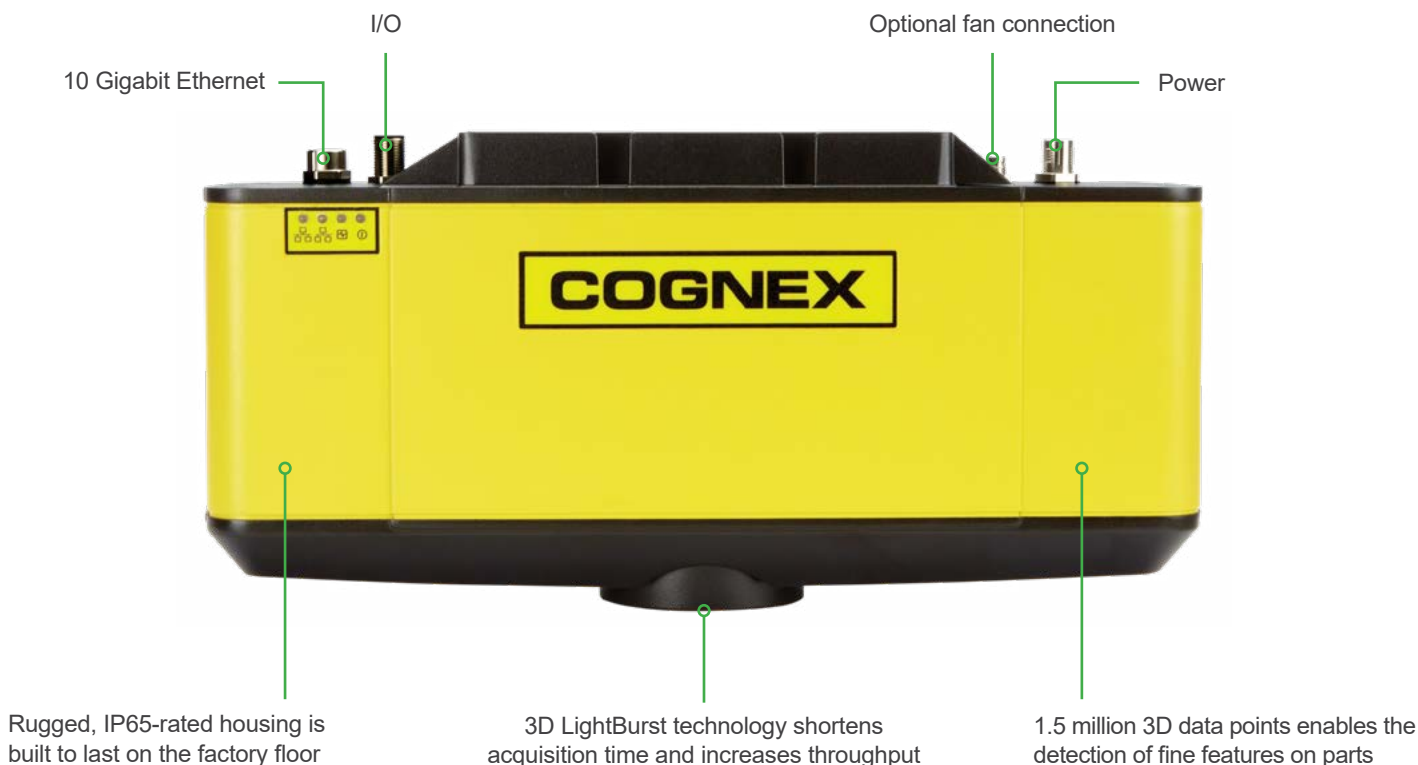
Delivers accurate, repeatable 3D vision inspection results

The 3D-A5000 delivers high-resolution 3D point cloud images constructed from over 1.5 million 3D data points. These high-resolution images coupled with a powerful Cognex 3D toolset in VisionPro, including PatMax 3D™, allow the 3D-A5000 to solve a wide range of applications from assembly verification to in-line measurement and robotic guidance.



Performs reliably in harsh factory environments

The 3D-A5000 has a rugged IP65-rated, die cast aluminum housing that is built to last on the factory floor. The industrial design ensures consistent measurement results, even under varying temperatures.



SPECIFICATIONS

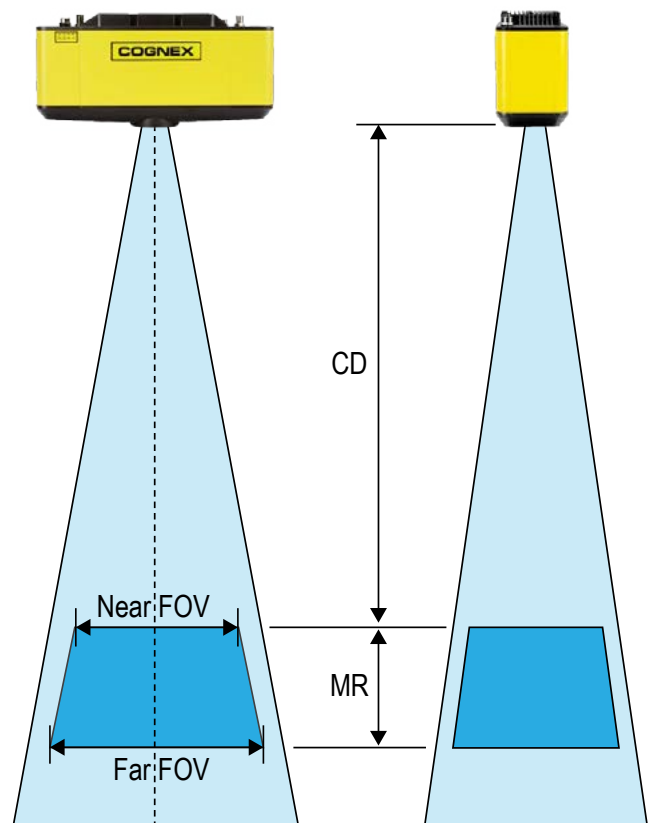
Dimensions	324 x 137 x 97 mm
Weight	3.0 kg
Operating Temperature	0–40 °C (32–104 °F)
Storage Temperature	-10–60 °C (14–140 °F)
Operating Humidity	<85% (non-condensing)
Protection	IP65
Shock	50 gs (11 ms half-sine pulse)
Vibration	4 gs (10–120 Hz for 30 minutes)
Trigger	Trigger input voltage limits: 24 VDC Input ON: >10 VDC (>6 mA) Input OFF: <2 VDC (<1.5 mA)
Power	Voltage: +24 VDC (22–26 VDC) Current: 6.0 A max
Acquisition Time	200 msec
Software	VisionPro
Ethernet	10 Gigabit Ethernet interface
Certifications	CE, FCC, KCC, TUV SUD NRTL, RoHS
Optional Accessories	Fan

MODELS

Standard Working Volume	3D-A5060	3D-A5030	3D-A5005
Clearance Distance (CD)	1400.0 mm	1465.0 mm	299.3 mm
Measurement Range (MR)	400.0 mm	80.0 mm	12.0 mm
Near FOV	520 x 390 mm	280 x 210 mm	60 x 44 mm
Far FOV	645 x 490 mm	285 x 216 mm	65 x 46 mm
Resolution XY	361–454 µm	195–200 µm	42–44 µm
Resolution Z	338–559 µm	178–198 µm	7–8 µm
Repeatability Z (σ)	100–150 µm	55–66 µm	5–6 µm

For minimum PC requirements, please refer to the 3D-A5000 user manual.

Standard Working Volume



COGNEX

Companies around the world rely on Cognex vision and barcode reading solutions to optimize quality, drive down costs and control traceability.

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