

- Tools for inspection include height, tilt, plane-fitting, volume and cross-section
- Factory-calibrated with results in real world units, micron-level accuracy
- Complete 2D and 3D machine vision solution
- Industrial IP65 laser and camera

The DS925B 3D sensor optimizes product quality by providing three-dimensional inspection of your products. Compact and industrially designed for even the harshest factory environment, it also includes industry-leading Cognex vision software with a powerful 3D toolset.

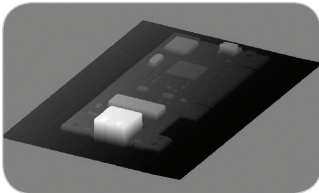
### Calibrated 3D Vision from Cognex

The factory-calibrated DS925B provides results in real units of measurement with micron-level accuracy, making 3D applications easier to use and quicker to deploy.

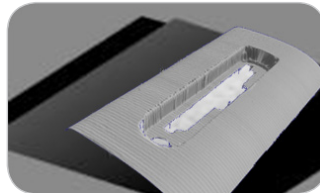
Unlike traditional 2D machine vision, the system provides a topographical representation of your part from which you can measure 3D features such as length, width, height, tilt or volume relative to any surface. It also simplifies challenging presence/absence applications by creating contrast from height changes, independent of color.

Application examples include:

- Measuring component height, tilt and spacing to ensure correct assembly
- Verifying depth of screw holes and machined slots in housings
- Identifying surface defects and foreign debris introduced prior to assembly
- Inspecting quality and quantity of glue and sealant dispense



Measure component heights



Verify housing slot depth

### Benefits

#### Complete 2D and 3D machine vision solution

- Expanded range of sensor options
- Bundled with VC5 Controller
- Easy deployment with Cognex Designer™ software

#### Results in real-world units (mm)

- Calibrated 3D system
- Micron-level accuracy

#### Contrast independent inspection

- Dark object on dark background
- Independent of color

#### Ability to combine 3D and 2D cameras

- Many applications require both

#### World-class 3D and 2D vision tools

- Height, volume, plane-fitting, tilt, cross-section, circle fitting and curvature removal tools
- PatMax®, IDMax® and OCRMax™ algorithms

#### Industrial IP65 Housing




Cognex Designer makes it easy to set up a professional looking graphical user interface such as the PCB inspection application interface displayed below.



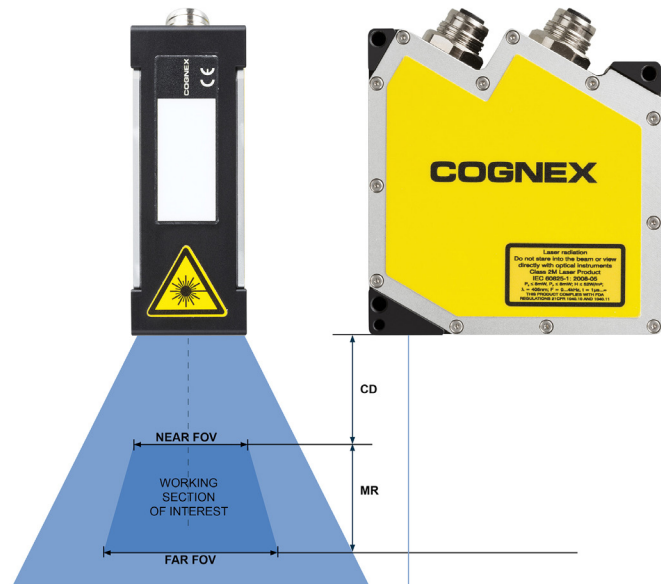
PCB Inspection

## Specifications

|                              |  |
|------------------------------|--|
| Dimensions                   | 96 mm (H) x 33 mm (W) x 85 mm (L)  |
| Weight                       | 380 g  |
| Operating Temperature        | 0°C to 45°C (32°F to 113°F)  |
| Storage Temperature          | -20°C to 70°C (-4°F to 158°F)  |
| Maximum Humidity             | 5-95% (non-condensing)   |
| Housing                      | IP65 (with Cognex recommended IP65 Ethernet and power I/O cables)  |
| Laser Power                  | 8mW (class 2M)<br>405nm wavelength   |
| Encoder Input Specifications | Single-ended quadrature encoder.<br>A+/B+ voltage limits:<br>+5 VDC (TTL); +30 VDC (HTL)<br>Input ON: > 2.4 VDC (TTL); > 11 VDC (HTL)<br>Input OFF: < 0.8 VDC (TTL); < 3 VDC (HTL)<br>A-/B-: +0VDC |
| Power Supply                 | Voltage: +24 VDC (11-30 VDC)<br>Current: 500 mA max<br>IEEE 802.3af Power over Ethernet  |
| Scan Rate                    | Up to 2 kHz  |
| Software                     | Cognex Designer software   |
| Ethernet                     | Gigabit Ethernet interface<br>Standard M12-8 female connector  |
| Certifications               |   |
| Accessories                  | Ethernet cable: 5m, IP65-rated<br>Power: + I/O + Encoder cable, IP65-rated   |
| VC5 Controller               | Intel i5 processor<br>Precision I/O Real Time Communication<br>207 mm (H) 132.6 mm (W) x 229.5 (L)   |

## DS925B Specifications

|                         |               |
|-------------------------|---------------|
| Near Field of View (mm) | 23.4          |
| Far Field of View (mm)  | 29.1          |
| Clearance Distance (mm) | 53.5          |
| Measurement Range (mm)  | 25            |
| Laser Class             | 2M            |
| Resolution X (mm)       | 0.0183-0.0227 |
| Resolution Z (mm)       | 0.002         |



## COGNEX

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

Corporate Headquarters One Vision Drive Natick, MA 01760 USA Tel: +1 508 650 3000 Fax: +1 508 650 3344

### Americas

Americas +1 508 650 3000

### Europe

Austria +49 721 6639 393  
Belgium +31 403 05 00 43  
France +33 1 4777 1551  
Germany +49 721 6639 393  
Hungary +36 1 501 0650  
Ireland +0808 168 3001  
Italy +39 02 6747 1200

Netherlands +31 403 05 00 43  
Poland +48 71 776 07 52  
Spain +34 93 445 67 78  
Sweden +46 21 14 55 88  
Switzerland +49 721 6639 393  
Turkey +90 212 306 3120  
United Kingdom +0808 168 3001

### Asia

China +86 21 5050 9922  
India +9120 4014 7840  
Japan +81 3 5977 5400  
Korea +82 2 539 9047  
Singapore +65 632 55 700  
Taiwan +886 3 578 0060

[www.cognex.com](http://www.cognex.com)