

# FARO Laser Scanner Focus<sup>3D</sup> X 330

The Perfect Instrument for  
3D Documentation and Land Surveying

**FARO**<sup>®</sup>



## Extended Scanning - 330m Range

The Focus<sup>3D</sup> X 330 can scan objects up to 330 meters away. Distant and large buildings, building excavations or objects in terrain difficult to access can be surveyed with fewer scans and therefore considerably quicker.

## Easy Positioning - Integrated GPS Receiver

With its integrated GPS receiver, the laser scanner is able to correlate individual scans in post-processing making it ideal for surveying based applications.

## Outdoor Scanning - in Direct Sunlight

The Focus<sup>3D</sup> X 330 now is able to perform fast and highly precise scanning in direct sunlight.

## Low Noise Performance

The Focus<sup>3D</sup> X 330 delivers extraordinary scan data quality at extended range with very low noise.

## WLAN

WLAN remote control permits you to start, stop, view or download scans at a distance.

## Extended outdoor scanning in direct sunlight

The Focus<sup>3D</sup> X 330 is a high-speed 3D scanner with extra long range. The Focus<sup>3D</sup> X 330 advances into entirely new dimensions: it can scan objects up to 330 metres away even in direct sunlight.

With its integrated GPS receiver, the laser scanner is able to correlate individual scans in post-processing, making it ideal for surveying based applications.

With its increased accuracy and range, the Focus<sup>3D</sup> X 330 considerably reduces the effort involved in measuring and post-processing. The 3D scan data can easily be imported into all commonly used software solutions for accident reconstruction, architecture, civil engineering, construction, forensics, industrial manufacturing and land surveying. Distance dimensions, area and volume calculations, analysis and inspection tasks and documentation can thus be carried out quickly, precisely and reliably.

## Benefits

The Focus<sup>3D</sup> X 330 with scanning range of 330m, integrated GPS and possibility to work under direct sunlight makes it an ideal tool for surveying task and 3D Documentation.

## Performance Specifications: Focus<sup>3D</sup> X 330

### Ranging unit

Unambiguity interval: 307m @ 976,000 pts/sec  
 Range Focus<sup>3D</sup> X 330<sup>1</sup>: 0.6m - 330m  
 Measurement speed (pts/sec): 122,000 / 244,000 / 488,000 / 976,000  
 Ranging error<sup>2</sup>: ±2mm

Ranging noise <sup>3</sup>	@10m	@10m - noise compressed <sup>4</sup>	@25m	@25m - noise compressed <sup>4</sup>
@ 90% refl.	0.3mm	0.15mm	0.3mm	0.15mm
@ 10% refl.	0.4mm	0.2mm	0.5mm	0.25mm

### Colour unit

Resolution: Up to 70 megapixel colour  
 Dynamic colour feature: Automatic adaption of brightness  
 Parallax: Co-axial design

### Deflection unit

Field of view (vertical/horizontal): 300° / 360°  
 Step size (vertical/horizontal): 0.009° (40,960 3D-Pixel on 360°) / 0.009° (40,960 3D-Pixel on 360°)  
 Max. vertical scan speed: 5,820rpm or 97Hz

### Laser (optical transmitter)

Laser class: Laser class 1  
 Wavelength: 1550nm  
 Beam divergence: Typical 0.19mrad(0.011°)(1/e, half angle)  
 Beam diameter at exit: Typical 2.25mm (1/e)

### Data handling and control

Data storage: SD, SDHC™, SDXC™; 32GB card included  
 Scanner control: Via touchscreen display and WLAN  
 New WLAN access: Remote control, scan visualisation and download are possible on mobile devices with Flash®

### Multi-Sensor

Dual axis compensator: Levels each scan: Accuracy 0.015°; Range ± 5°  
 Height sensor: Via an electronic barometer the height relative to a fixed point can be detected and added to a scan.  
 Compass<sup>5</sup>: The electronic compass gives the scan an orientation. A calibration feature is included.  
 GPS: Integrated GPS receiver

All specifications are subjected to change without prior notice:

<sup>1</sup> Indoor or outdoor with normal incidence to a 90% reflective surface. <sup>2</sup> Ranging error is defined as a systematic measurement error at around 10m and 25m, one sigma. <sup>3</sup> Ranging noise is defined as a standard deviation of values about the best-fit plane for measurement speed of 122,000 points/sec. <sup>4</sup> A noise-compression algorithm may be activated to average points in sets of 4 or 16, thereby compressing raw data noise by a factor of 2 or 4. <sup>5</sup> Ferromagnetic objects can disturb the earth magnetic field and lead to inaccurate measurements

## General

Power supply voltage: 19V (external supply)  
 14.4V (internal battery)  
 Power consumption: 40W and 80W  
 (while battery charges)  
 Battery life: Up to 4.5 hours  
 Ambient temperature: 5° - 40°C  
 Humidity: Non-condensing

Cable connector: Located in scanner mount  
 Weight: 5.2kg  
 Size: 240 x 200 x 100mm  
 Maintenance / calibration: Annual

