FARO® Laser Scanner Focus^{3D} X 330 HDR

The Imaging Laser Scanner for extended ranges

HDR PHOTO OVERLAY

With the Focus^{3D} HDR functionality, challenging lighting situations will never subtract users' scan results. Predefined HDR profiles increase the picture quality recorded in very bright or dark environments.

HD PHOTO RESOLUTION

The increased camera resolution of Focus^{3D} X 330 HDR delivers extraordinary color overlays for scanned point clouds. This improves the visualization of important details on site.

OUTDOOR SCANNING CAPABILITY

The Focus^{3D} X 330 HDR is able to perform fast and highly precise scanning in direct sunlight.

EXTENDED SCANNING - 330M RANGE

The Focus^{3D} X 330 HDR can scan objects up to 330 meters away. Large buildings, land-site excavations and vast terrains can be surveyed with fewer scans, thus resulting in quicker project scanning completion.

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.

X-SERIES HDR LASER SCANNER FOR LONG-RANGE APPLICATIONS

The FARO Focus^{3D} X 330 HDR is, a high-speed 3D scanner with extra-long range. It can scan objects up to 330 meters away even in direct sunlight, delivering realistic and true-to-detail scan results.

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 range and scan quality, the FARO Focus^{3D} X 330 HDR 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

- Safe and fast as-built data capturing with superior color detail
- Reliable life-like visualization, even under extreme lighting conditions and on enormous distance
- Reduced complexity by integrated scanning and imaging workflow for all kinds of measurements even in challenging environments
- Increased onsite productivity due to one person operation
- Revolutionary price/performance ratio, as all-in-one device

FARO® Focus3D X 330 HDR

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PERFORMANCE SPECIFICATIONS

Ranging unit

Unambiguity interval:	By 122 till 488 Kpts/sec at 614m; by 976 Kpts/sec at 307m
Range:	0.6m - 330m indoor or outdoor with upright incidence to a 90% reflective surface
Measurement speed (pts/sec):	122,000 / 244,000 / 488,000 / 976,000
Ranging error[1]:	±2mm

Ranging noise[2]	@10m	@10m - noise compressed[3]	@25m	@25m - noise compressed[3]
@ 90% refl.	0.3mm	0.15mm	0.3mm	0.15mm
@ 10% refl.	0.4mm	0.2mm	0.5mm	0.25mm

Color unit

Resolution:	Up to 170 megapixel color
HDR:	High Dynamic Range (HDR) photo recording, 3x / 5x
Parallax:	Co-axial design

Deflection unit

Field of view (vertical/horizontal):	300°[4] / 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, halfangle)
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
WLAN access:	Remote control, scan visualisation are possible on mobile devices with Flash® and HTML5

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[5]:	The electronic compass gives the scan an orientation. A calibration feature is included.
GPS:	Integrated GPS receiver

CLASS 1
LASER PRODUCT

[1] Ranging error is defined as a systematic measurement error at around 10m and 25m, one sigma. Improved compensation available for dedicated mounting (fee-based service). [2] Ranging noise is defined as a standard deviation of values about the best-fit plane for measurement speed of 122,000 points/sec. [3] A noise-compression algorithm may be activated thereby compressing raw data noise by a factor of 2 or 4. [4] 2x150° Homogenous point spacing is not guaranteed [5] Ferromagnetic objects can disturb the earth magnetic field and lead to inaccurate measurements. Subject to change without prior notice .

GENERAL

Power supply voltage:	19V (external supply) 14.4V (internal battery)
Power consumption:	40W and 80W (while battery charges)
Battery life:	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

ISO 9001 BUREAU VERITAS Certification

ANAB ACCREDITED

GSA Contract Holder

Global Offices: Australia ▪ Brazil ▪ China ▪ France ▪ Germany
India ▪ Italy ▪ Japan ▪ Malaysia ▪ Mexico ▪ Netherlands
Philippines ▪ Poland ▪ Portugal ▪ Singapore ▪ Spain ▪ Switzerland
Thailand ▪ Turkey ▪ United Kingdom ▪ USA ▪ Vietnam

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