FARO® Laser Scanner Focus^{3D}

Intuitive touchscreen display

Control all scanner functions with a touch interface for unparalleled ease of use and control

Stand-alone solution

Ultraportable design allows for operation without external devices

Small and compact

With a size of only 9.5 x 8 x 4 in. and a weight of just 11lbs., the Focus^{3D} is the smallest 3D scanner ever built

Integrated color camera

Photorealistic 3D color scans due to an integrated color camera featuring an automatic 70 megapixels parallax-free color overlay

High-performance battery

Integrated lithium-ion battery provides up to five hours of battery life and can be charged during operation

Data management

All data is stored on a SD card enabling easy and secure transfer to a PC. Using SCENE WebShare images can be shared on the internet

FARO Focus^{3D}: Small, light, user-friendly

The Focus^{3D} is a high-speed 3D scanner for detailed measurement and documentation. The Focus^{3D} uses laser technology to produce incredibly detailed three-dimensional images of complex environments and geometries in only a few minutes. The Focus^{3D} has a touch operated screen to control scanning functions and parameters. The resulting image is an assembly of millions of 3D measurement points in color which provides an exact digital reproduction of existing conditions.

A leap in innovation and efficiency to lower your costs

The Focus^{3D} offers the most efficient method for three-dimensional documentation of building construction, excavation volumes, façade and structural deformations, crime scenes, accident details, product geometry, factories, process plants and more. Given its minimal size and weight as well as touch interface, the Focus^{3D} is easy to work with and saves up to 50% of scan time compared to conventional scanners.

Benefits

- **Complete 3D documentation**: Suitable for documentation of large environments, quality control of components and reverse engineering
- **Precise & fast:** Its millimeter-accuracy and its 976,000 measurement points/sec mean precise and efficient measurement
- **Economical:** Unsurpassed cost-value proposition make every scanning project economical
- **Easy**: Compact design and touch interface

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Specifications

Ranging unit
- **Unambiguity interval:** 153.49m (503.58ft)
- **Range Focus^{3D} 120[1]:** 0.6m - 120m indoor or outdoor with low ambient light and normal incidence to a 90% reflective surface
- **Range Focus^{3D} 20:** 0.6m - 20m at normal incidence on >10% matte reflective surface
- **Measurement speed:** 122,000 / 244,000 / 488,000 / 976,000 points/sec
- **Ranging error[2]:** ±2mm at 10m and 25m, each at 90% and 10% reflectivity
- **Ranging noise[3]:**
- **@10m - raw data:** 0.6mm @ 90% refl. | 1.2mm @ 10% refl.
- **@10m - noise compressed[4]:** 0.3mm @ 90% refl. | 0.6mm @ 10% refl.
- **@25m - raw data:** 0.95mm @ 90% refl. | 2.2mm @ 10% refl.
- **@25m - noise compressed[4]:** 0.5mm @ 90% refl. | 1.1mm @ 10% refl.

Color unit
- **Resolution:** Up to 70 megapixel color
- **Dynamic color feature:** Automatic adaption of brightness

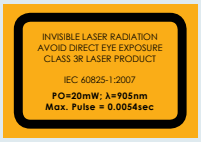
Deflection unit
- **Vertical field of view:** 305°
- **Horizontal field of view:** 360°
- **Vertical step size:** 0.009° (40,960 3D pixels on 360°)
- **Horizontal step size:** 0.009° (40,960 3D pixels on 360°)
- **Max. vertical scan speed:** 5,820rpm or 97Hz

Laser (Optical transmitter)
- **Laser power (cw Ø):** 20mW (Laser class 3R)
- **Wavelength:** 905nm
- **Beam divergence:** Typical 0.16mrad (0.009°)
- **Beam diameter at exit:** 3.8mm, circular

Data handling and control
- **Data storage:** SD, SDHC™, SDXC™; 32GB card included
- **Scanner control:** Via touch- screen display

1) Depends on ambient light, which can act as a source of noise. Bright ambient light (e.g. sunshine) may shorten the actual range of the scanner to lesser distances. In low ambient light, the range can be more than 120m for normal incidence on high-reflective surfaces.
2) Ranging error is defined as the maximum error in the distance measured by the scanner from its origin point to a point on a planar target.
3) Ranging noise is defined as a standard deviation of values about the best-fit plane.
4) 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.
Subject to change without prior notice.

Patented: US7,430,068 B2 & 7,733,544



General

- **Power supply voltage:** 19V (external supply), 14.4V (internal battery)
- **Power consumption:** 40W and 80W respectively (while battery charges)
- **Battery life:** Up to 5 hours
- **Ambient temperature:** 5° - 40°C
- **Humidity:** Non-condensing
- **Cable connector:** Located in scanner mount
- **Weight:** 5.0kg
- **Size:** 240x200x100mm^3
- **Maintenance calibration:** Annual
- **Parallax-free:** Yes
- **Dual-axes inclination sensor:** Accuracy 0.015°; Range ±5°

ISO 9001 BUREAU VERITAS Certification — ANAB ACCREDITED

GSA Contract Holder