FARO® Laser Scanner FocusS™ 350
The world’s most popular terrestrial laser scanner with ultra-high accuracy and ingress protection

LASER SCANNER FOR LONG-RANGE APPLICATIONS
The FocusS™ series is the latest addition to FARO’s popular, compact, lightweight and intuitive laser scanner product line. The devices of this series are the most forward-thinking laser scanners on the market, adding several customer-centric features, such as Ingress Protection Rating (IP54), increased scanning accuracy and range, an internal accessory bay and a built-in on-site compensation routine.

The FocusS 350 combines all benefits from FARO’s well-known Focus3D Laser Scanners with today’s most innovative features to perform laser scanning in both indoor and outdoor environments - truly mobile, fast and reliable.

The FARO FocusS 350 provides the next level of laser scanning for all applications in industries like Construction, BIM/CIM, Public Safety and Forensics.

ACCURACY
The FocusS now captures environments with increased accuracy regarding distance, dual-axis compensator and angular measurement.

TEMPERATURE
Extended temperature range allows scanning in challenging environments - take your FocusS to the desert or run a project in Antarctica.

ON-SITE COMPENSATION
With the on-site compensation functionality users can verify and adjust the FocusS compensation on-site or in the office, ensuring the highest scan data quality. A comprehensive compensation document is automatically generated.

IP RATING - CLASS 54
With the sealed design, the FocusS is certified with the industry standard Ingress Protection (IP) Rating and classified in class 54 against environmental influences.

HDR PHOTO OVERLAY
The HDR camera captures detailed imagery easily while providing a natural color overlay to the scan data captured under extreme brightness gradients.

ACCESSORY BAY
With this future-proof interface users can connect additional accessories to the scanner, which offers an option for user specific customization.

BENEFITS
- Scanning in rough environments while providing protection from dust, debris and water splashes
- Confident data quality through the on-site compensation
- Reality-like scan data by increased distance accuracy and angular accuracy
- Future-proof investment and expandability due to the integrated accessory bay
- Easy handling of scanner control through its large and luminous touchscreen
PERFORMANCE SPECIFICATIONS

**Ranging unit**
- Unambiguity interval: 614m for 122 to 488 kpts/s
- 307m for 976 kpts/s
- Reflectivity: 90% [white] | 10% [dark-gray] | 2% [black]
- Range: 0.6-350m | 0.6-150m | 0.6-50m
- Ranging noise: 0.10m | 0.10m - noise reduction | 0.25m | 0.25m - noise reduction
- 90% reflectivity: 0.3mm | 0.15mm | 0.3mm | 0.15mm
- 10% reflectivity: 0.4mm | 0.2mm | 0.5mm | 0.25mm
- 2% reflectivity: 1.3mm | 0.65mm | 2mm | 1mm
- Measurement speed (pts/sec): 122,000 / 244,000 / 488,000 / 976,000
- Ranging error: ±1mm
- Angular accuracy: 19 arcsec for vertical/horizontal angles
- 3D position accuracy: 10m: 2mm / 25m: 3.5mm

**Color unit**
- Resolution: Up to 165 megapixel color
- High Dynamic Range (HDR): Exposure Bracketing 2x, 3x, 5x
- Parallax: Minimized due to 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: 97Hz

**Laser (optical transmitter)**
- Laser class: Laser class 1
- Wavelength: 1550nm
- Beam divergence: 0.3mrad (1/e)
- Beam diameter at exit: 2.12mm (1/e)

**Data handling and control**
- Data storage: SD, SDHC™, SDXC™, 32GB card
- Scanner control: Via touchscreen display and WLAN connection. Access by mobile devices with HTML5

**Interface Connection**
- WLAN: 802.11n (150Mbit/s), as Access Point or client in existing networks

**Integrated Sensors**
- Dual axis compensator:
- Height sensor:
- Compass:
- GNNS:
- On-site Compensation
- Accessory Bay

**Measurement specifications**
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1 For a Lambertian scatter. 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-reduction algorithm may be activated by averaging raw data. 4 Ranging error is defined as a systematic measurement error at around 10m and 25m.
5 On-site compensation required. 6 For distances larger 25m add 0.1mm/m of uncertainty. 7 2x150°, homogenous point spacing is not guaranteed. 8 Ferromagnetic objects can disturb the earth magnetic field and lead to inaccurate measurements. 9 Low temperature operation; scanner has to be powered on while internal temperature is at or above 15°C, high temperature operation: additional accessory required, further information on request | All accuracy specifications are one sigma, after warm-up and within operating temperature range; unless otherwise noted. Subject to change without prior notice.

**GENERAL**
- Power supply voltage: 19V (external supply) 14.4V (internal battery)
- Power consumption: 15W idle, 25W scanning, 80W charging
- Battery service life: 4.5 hours
- Operating temperature: 5° - 40°C
- Extended operating temperature: -20° - 55°C
- Storage temperature: -10° - 60°C
- Ingress Protection: IP54
- Humidity: Non-condensing
- Weight incl. battery: 4.2kg
- Size: 230 x 183 x 103mm
- Maintenance / calibration: Annual