

FARO® Laser Scanner Focus^s 350

The world's most popular terrestrial laser scanner with ultra-high accuracy and ingress protection

FARO®



ACCURACY

The Focus^s now captures environments with an increased accuracy and outperforms previous Focus Laser Scanner models. This ensures the most accurate scan data acquisition in the field.



ON-SITE COMPENSATION

With the on-site compensation functionality users can verify and adjust the Focus^s accuracy 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 Focus^s is certified via the industry standard Ingress Protection (IP) Rating and classified in class 54 for environmental protection.



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.

LASER SCANNER FOR MEDIUM-RANGE APPLICATIONS

The Focus^s series is the latest addition to FARO's popular, compact, lightweight and intuitive laser scanner product line. Both devices 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 compensation routine.

The Focus^s 350 combines all benefits from FARO's well-known Focus^{3D} 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 Focus^s 350 provides the next level of laser scanning for all applications in industries like Construction BIM/CIM and Public Safety Forensics.

BENEFITS

- ▶ Scanning in extreme 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 and angular accuracy
- ▶ Future-proof investment and expandability by the integrated accessory bay
- ▶ Easy handling of scanner control through its large and luminous touch-screen

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 ¹	0.6-350 m	0.6-150 m	0.6-50 m

Ranging noise ²	@10m	@10m - noise compressed ³	@25m	@25m - noise compressed ³
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 error⁴: ±1mm

Angular accuracy: 19 arcsec for vertical/horizontal angles

3D position accuracy⁵: 10m: 2mm / 25m: 3.5mm

Color unit

Resolution: Up to 165 megapixel color
HDR: High Dynamic Range (HDR) photo recording, 2x, 3x, 5x

Parallax: Co-axial design

Deflection unit

Field of view (vertical⁶/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: 2.12 mm (1/e)



¹ For a Lambertian scatterer. 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 Ranging error is defined as a systematic measurement error at around 10m and 25m, one sigma. ⁵ For distances larger 25m add 0.1mm/m of uncertainty. ⁶ 2x150°, homogenous point spacing is not guaranteed. ⁷ Ferromagnetic objects can disturb the earth magnetic field and lead to inaccurate measurements. | Subject to change without prior notice.

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), Ad-hoc network, Infrastructure mode
Yes (WPAN)

Bluetooth:

Integrated Sensors:

Dual axis compensator:

Accuracy: 0.015°

Height sensor: Via an electronic barometer the height relative to a fixed point can be detected and added to a scan.

Compass⁷:

The electronic compass gives the scan an orientation. A calibration feature is included.

GPS:

On-site compensation:

Creates a current quality report and provides the option to improve the device's compensation automatically.

Accessory Bay:

The accessory bay is located on top of the laser scanner and is used to connect versatile accessories to the scanner.

GENERAL

Power supply voltage: 19V (external supply)
14.4V (internal battery)
Power consumption: 15W idle, 25W scanning,
80W charging
(while battery charges)
Battery life: 4.5 hours
Operating temperature: 5° - 40°C
Storage temperature: -10° - 60°C
Ingress Protection: IP 54
Humidity: Non-condensing

Weight incl. battery: 4.2kg
Size: 230 x 183 x 103mm
Maintenance / calibration: Annual



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