Faro Laser Scanner Focus S 150
The world’s most popular terrestrial laser scanner with ultra-high accuracy and ingress protection

Laserscanner for medium-range applications

The Focus S 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 Focus S 150 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 150 provides the next level of laser scanning for all applications in industries like Construction, BIM/CIM, Public Safety and Forensics.

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

Accuracy
The Focus S 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 Focus S to the desert or run a project in Antarctica.

On-site Compensation
With the on-site compensation functionality users can verify and adjust the Focus S 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 Focus S 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.

HDR
High Dynamic Range

Temperature

IP Rating - Class 54

On-Site Compensation

HDR Photo Overlay

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:**
  - 0.6-150 m
  - 0.6-150 m
  - 0.6-50 m
- **Ranging noise:**
  - @10m: 10mm
  - @10m - noise reduction:
  - @25m: 10mm
  - @25m - noise reduction:
  - 90% reflectivity: 0.3mm
  - 10% reflectivity: 0.4mm
  - 2% reflectivity: 1.3mm

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

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

## Integrated Sensors
- **Dual axis compensator:**
  - 19 arcsec for vertical/horizontal angles

## 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)

## Reflectivity
- **90% reflectivity:**
  - 0.3mm
  - 0.2mm
  - 2mm
- **10% reflectivity:**
  - 0.4mm
  - 0.3mm
  - 1mm
- **2% reflectivity:**
  - 1.3mm
  - 0.65mm
  - 2mm

## 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
- **Storage temperature:**
  - -20° - 55°C
- **Ingress Protection:**
  - IP54
- **Humidity:**
  - Non-condensing
- **Weight incl. battery:**
  - 4.2kg
- **Size:**
  - 230 x 183 x 103mm
- **Maintenance / calibration:**
  - Annual

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**www.faro.com**

Freecall 00 800 3276 7253
info.emea@faro.com