



**SIGMA<sub>3</sub>D**

**Zu vermieten:**

# **FARO® Laser Scanner Focus S150** Technische Spezifikationen



Sie haben Fragen zur Vermietung oder wollen ihre Mitarbeiter auf dieses Projekt schulen?  
Wir beraten Sie gerne!

## 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 <sup>1</sup> | 0.6-150 m   | 0.6-150 m       | 0.6-50 m   |

| Ranging noise <sup>2</sup> | @10m  | @10m - noise reduction <sup>3</sup> | @25m  | @25m - noise reduction <sup>3</sup> |
|----------------------------|-------|-------------------------------------|-------|-------------------------------------|
| 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<sup>4</sup>: ±1mm

Angular accuracy<sup>5</sup>: 19 arcsec for vertical/horizontal angles

3D position accuracy<sup>6</sup>: 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<sup>7</sup>/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:

Scanner control:

SD, SDHC™, SDXC™; 32GB card  
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:

Performs a leveling of each scan with an accuracy of 19 arcsec valid within ±2°

Height sensor:

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

Compass<sup>8</sup>:

The electronic compass gives the scan an orientation.

GNSS:

### On-site Compensation

Creates a current quality report and provides the option to improve the devices 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.

**CLASS 1 LASER PRODUCT**

<sup>1</sup> For a Lambertian scatterer. <sup>2</sup> Ranging noise is defined as a standard deviation of values about the best-fit plane for measurement speed of 122,000 points/sec. <sup>3</sup> A noise-reduction algorithm may be activated by averaging raw data. <sup>4</sup> Ranging error is defined as a systematic measurement error at around 10m and 25m. <sup>5</sup> On-site compensation required. <sup>6</sup> For distances larger 25m add 0.1mm/m of uncertainty. <sup>7</sup> 2x150°, homogenous point spacing is not guaranteed. <sup>8</sup> Ferromagnetic objects can disturb the earth magnetic field and lead to inaccurate measurements. <sup>9</sup> 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<sup>9</sup>: -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



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