

# FARO Scanner Freestyle<sup>3D</sup>

Efficiency in your hands

**FARO**



#### Best value in its class

The Freestyle<sup>3D</sup> delivers extraordinary performance at an affordable price, unique to the market.

#### Automatic flash

The auto mode automatically activates and de-activates the built-in LED light depending on the existing light conditions.

#### Real-Time Point Cloud Visualization

The real-time point cloud visualization supports the intuitive data acquisition, even for untrained operators.

#### Up to 8m<sup>3</sup> scanning volume

The extensive scan volume boosts productivity by reducing scan time.

#### Best point filter

The best point filter minimizes the noise and allows to get optimum data quality.

#### Optional on-site calibration

The device can be easily calibrated on-site ensuring high quality data. A PDF report with key data permits maximum and verifiable confidence in the acquired data.

## Efficient handheld laser scanning

The FARO Freestyle<sup>3D</sup> is a smart handheld 3D laser scanner. It provides a fast and easy to use scanning solution with verifiable accuracy of the 3D colour scan data. The device is suitable for all applications in which installations or properties must be quickly measured from various perspectives. The applications of the FARO Freestyle<sup>3D</sup> are diverse and range from construction to industrial production and forensics. With its lightweight carbon fibre body, the handheld scanner weighs less than a kilogramme and is therefore extremely portable and mobile. The software on the tablet PC provides intuitive user guidance, even for inexperienced operators.

## Most Common Applications

Architecture, Construction & Engineering, Forensics & Law Enforcement, Oil & Gas, Maritime, Virtual Reality, 3D Scanning Service Providers

## Benefits

- ▶ Best ROI on the market
- ▶ FARO certified accuracy
- ▶ Auto levelling
- ▶ Flexibility to work without artificial targets
- ▶ No extra power supply required
- ▶ Easy-to-use scanning software
- ▶ Seamless integration with FARO Laser Scanner Focus<sup>3D</sup> laser scan data, even in grey scale
- ▶ Worldwide service and support from local FARO facilities

[www.faro.com/Scanner/sg](http://www.faro.com/Scanner/sg)



## Performance Specifications Freestyle<sup>3D</sup>

|                                                               |                                                                                                          |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Range</b>                                                  | 0.5 - 3m                                                                                                 |
| <b>Resolution @ 0.5m</b>                                      | Lateral: 0.2mm - 1mm<br>Depth: 0.2mm                                                                     |
| <b>3D point accuracy/<br/>whole scan accuracy<sup>1</sup></b> | <1.5mm                                                                                                   |
| <b>Typical lateral accuracy<sup>2</sup></b>                   | <1mm                                                                                                     |
| <b>Single image point<br/>density</b>                         | Up to 45,000 points/m <sup>2</sup> in 0.5m distance<br>Up to 10,500 points/m <sup>2</sup> in 1m distance |
| <b>Recorded 3D points<sup>3</sup></b>                         | Up to 88,000 points/s,<br>point cloud density increases with time                                        |
| <b>Best point filter<sup>4</sup></b>                          | Noise reduction of typically 40% when<br>scanning the same object from<br>different distances            |
| <b>Typical Noise (rms)</b>                                    | 0,7mm @ 0,5m distance<br>0,75mm @ 1m distance<br>2,5mm @ 2m distance<br>5mm @ 3m distance                |
| <b>Eye safety</b>                                             | Class 1 laser                                                                                            |
| <b>Lighting conditions<sup>5</sup></b>                        | Up to 10,000 Lux                                                                                         |
| <b>Light source</b>                                           | Inbuilt auto LED flash                                                                                   |
| <b>Scan volume</b>                                            | 8.1 m <sup>3</sup>                                                                                       |
| <b>Typical field of view<br/>(HxW)</b>                        | 450mm x 530mm @ 0.5m<br>930mm x 1,100mm @ 1m<br>1,800mm x 2,000mm @ 2m<br>2,600mm x 2,900mm @ 3m         |
| <b>Typical angular field of<br/>view (HxW)</b>                | 45°x56° @ 0.5m<br>45°x59° @ 1m<br>49°x54° @ 2m<br>49°x52° @ 3m                                           |

|                                    |                                                                                    |
|------------------------------------|------------------------------------------------------------------------------------|
| <b>Exposure time</b>               | 0.02ms - 10ms (auto exposure)                                                      |
| <b>Texture color</b>               | 24bit                                                                              |
| <b>Dimensions</b>                  | 260mm x 310mm x 105mm                                                              |
| <b>Connectivity</b>                | USB 3.0                                                                            |
| <b>Weight</b>                      | 0.98Kg                                                                             |
| <b>Power supply</b>                | 5W, USB3.0-powered                                                                 |
| <b>IP rating</b>                   | IP 5X                                                                              |
| <b>Calibration</b>                 | Optional in-field user calibration with<br>supplied carbon fibre calibration plate |
| <b>Operating temperature range</b> | 0 - 40°C                                                                           |
| <b>Operating humidity range</b>    | Non-condensing                                                                     |
| <b>Laser power</b>                 | max. 800mW                                                                         |
| <b>Duration of pulse</b>           | <= 10ms                                                                            |
| <b>Wavelength</b>                  | 798-821nm                                                                          |

<sup>1</sup> Measured on a 1m reference scale, in 1m distance, for a lateral scanner movement of 1m, using targets for distance measurement <sup>2</sup> Measured in 0.5m-3m distance <sup>3</sup> Point density depends on scanned surface and lighting conditions <sup>4</sup> Noise reduction for equal scan times at 0.5m, 1m, 2m and 3m distance from object <sup>5</sup> Limited range and point density in sunlight

### Recommended System Requirements for Tablet

Microsoft Windows 8.1 pro, 64-Bit  
4th generation Intel® Core™ i5  
256GB hard disc with 8GB RAM  
MicroSDHC  
Microsoft® Surface Pro 2 or 3 is a recommended device



GSA Contract Holder



To learn more, visit: [www.faro.com/Scanner/sg](http://www.faro.com/Scanner/sg)

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