FARO® Freestyle 2 Handheld Scanner

The Most Portable 3D Scanner for Fast, Photorealistic 3D Reality Capture

The FARO Freestyle 2 is a superior handheld 3D scanner designed for professionals who require quick and easy complete scene documentation. Delivering fast, photorealistic 3D reality capture with unparalleled real-time display results, Freestyle 2 offers total mobility to scan even the most confined spaces and difficult objects.







Features

Real-Time Visualization

• Display lets you view what you capture as you scan

Wide-Range of Scanning Distances

- Captured 3D Points starts at 0.4 m
- Can be set to a maximum of 10 m

Capture in Variety of Lighting Conditions

- Designed for normally illuminated interiors and outdoors, including in overcast conditions
- Even provides usable data in complete darkness

One-Hand Operation

· Lightweight with no bulky tablet or long cables

Guided Scanning

- Haptic feedback alerts operator when adjustmentsneed to be made to the users scanning technique
- Proprietary tracking engine enables users to make natural movements while scanning

On-Site Compensation

- White-balancing, post-processing can be done at the scene
- No annual calibration required

Integrated Training

 Live display of data quality with integrated training videos, and tutorials



Benefits

Ultimate Flexibility

- Freestyle 2 is portable, without the need for bulky computers
- Self-contained unit gives the freedom to scan around objects or inside spaces

Save Time

- Scan scenes and objects without data voids in minutes
- Captures data easily and in more detail in less time

Photorealistic Results

 Get high-quality, colored, 3D data with up to 0.5 mm accuracy

Confidence in What You Capture

 See a display of data as you capture to ensure you are getting what you need

Easy-to-Learn & Easy-to-Use

 Modern user interface, proprietary tracking algorithms, integrated video tutorials

Range Identifiable feature Up to 0.2 mm 3D point accuracy¹ so.5 mm at 1 m distance 5 mm at 5 m distance 15 mm at 10 m distance Up to 45,000 points/m² in 1 m distance Up to 10,500 points/m² in 1 m distance Single image point density Up to 220,000 points/m² in 1 m distance Acquisition Rate³ Up to 220,000 points/s, point cloud density increases with time Typical Noise⁴ 10,3 mm @ 0.4 m distance 10,75 mm @ 1 m distance 100 mm @ 3 m distance 100 mm @ 3 m distance 100 mm @ 3 m sance 100 mm x 3160 mm x 3160 mm @ 3 m 100 mm x 2160 mm x 2150 mm @ 1 m x 4160 mm @ 4 m 1800 mm x 2160 mm @ 2 m 1470 mm @ 5 m 1800 mm x 2160 mm 2 m 1470 mm @ 5 m 1800 mm x 256 mm x 130 mm Connectivity HDMI, USB 3.0, WiFi Weight 1.48 kg IP rating IP 52 Compensation Op temperature range On -40° C Op humidity range Eye Safety Class 1 Laser Wavelength	Performance Specifications	
3D point accuracy¹ Long range accuracy² Single image point density Up to 45,000 points/m² in 0.5 m distance Up to 10,500 points/m² in 1 m distance Acquisition Rate³ Up to 220,000 points/s, point cloud density increases with time 10.3 mm @ 0.4 m distance 10 mm @ 3 m distance 10 mm @ 3 m distance 10 mm @ 3 m distance 110 mm @ 5 m distance 110 mm @ 3 m distance 110 mm @ 5 m distance 110 mm	Range	0.4 - 5 m (up to 10 m with limited data quality)
Long range accuracy² 5 mm at 5 m distance 5 mm at 5 m distance 15 mm at 10 m distance Up to 45,000 points/m² in 0.5 m distance Up to 10,500 points/m² in 1 m distance 4 cquisition Rate³ Up to 220,000 points/m² in 1 m distance Up to 10,500 points/m² in 1 m distance • 0.3 mm @ 0.4 m distance • 0.75 mm @ 1 m distance • 100 mm @ 3 m distance • 100 mm @ 10 m distance • 100 mm @ 10 m distance •	Identifiable feature	Up to 0.2 mm
Long range accuracy² 5 mm at 5 m distance 15 mm at 10 m distance Up to 45,000 points/m² in 0.5 m distance Up to 10,500 points/m² in 1 m distance Acquisition Rate³ Up to 220,000 points/s, point cloud density increases with time **O.3 mm @ 0.4 m distance** **O.75 mm @ 1 m distance** **O.75 mm @ 1 m distance** **O.10 mm @ 3 m distance** **O.10 mm @ 1 m distance* **O.10 mm @ 1 m	3D point accuracy ¹	≤0.5 mm
Acquisition Rate³ Up to 10,500 points/m² in 1 m distance 10 to 220,000 points/s, point cloud density increases with time 10 mm @ 0.4 m distance	Long range accuracy ²	5 mm at 5 m distance
**O.3 mm @ 0.4 m distance **0.75 mm @ 1 m distance **0.75 mm @ 1 m distance **100 mm @ 10 m dist	Single image point density	
Typical Noise ⁴ • 0.75 mm @ 1 m distance • 100 mm @ 10 m distance • 1	Acquisition Rate ³	Up to 220,000 points/s, point cloud density increases with time
Light source Scan volume 39.5 m³ @ max range 5 m • 420 mm x 550 mm @ 0.5 m • 930 mm x 1170 mm @ 1 m • 1800 mm x 2160 mm @ 2 m • 4470 mm x 5150 mm @ 5 m Exposure time 0.1 ms - 7 ms (autoexposure) Texture color 24 bit Dimensions 285 mm x 256 mm x 130 mm Connectivity HDMI, USB 3.0, WiFi Weight 1.48 kg IP rating IP 52 Compensation On site - with supplied compensation plate Op temperature range 0 - 40° C Op humidity range Eye Safety Class 1 Laser	Typical Noise ⁴	• 0.75 mm @ 1 m distance • 100 mm @ 10 m distance
Scan volume 39.5 m³ @ max range 5 m Typical field of view (HxW) • 420 mm x 550 mm @ 0.5 m	Lighting conditions ⁵	Full daylight, 10,000-45,000 lux (reduced performance in direct sunlight)
Typical field of view (HxW) • 420 mm x 550 mm @ 0.5 m • 930 mm x 1170 mm @ 1 m • 1800 mm x 2160 mm @ 2 m • 1800 mm x 5150 mm @ 5 m Exposure time 0.1 ms - 7 ms (autoexposure) Texture color 24 bit Dimensions 285 mm x 256 mm x 130 mm Connectivity HDMI, USB 3.0, WiFi Weight 1.48 kg IP rating IP 52 Compensation Onsite - with supplied compensation plate Op temperature range Op humidity range Eye Safety Class 1 Laser	Light source	Integrated LED flash
Typical field of view (HxW) • 930 mm x 1170 mm @ 1 m • 1800 mm x 2160 mm @ 2 m • 4470 mm x 5150 mm @ 5 m Exposure time 0.1 ms - 7 ms (autoexposure) Texture color 24 bit Dimensions 285 mm x 256 mm x 130 mm Connectivity HDMI, USB 3.0, WiFi Weight 1.48 kg IP rating IP 52 Compensation Onsite - with supplied compensation plate Op temperature range 0 - 40° C Op humidity range Eye Safety Class 1 Laser	Scan volume	39.5 m³ @ max range 5 m
Texture color Dimensions 285 mm x 256 mm x 130 mm Connectivity HDMI, USB 3.0, WiFi Weight 1.48 kg IP rating IP 52 Compensation Onsite - with supplied compensation plate Op temperature range 0 - 40° C Op humidity range Non-condensing Eye Safety Class 1 Laser	Typical field of view (HxW)	• 930 mm x 1170 mm @ 1 m • 3600 mm x 4160 mm @ 4 m
Dimensions 285 mm x 256 mm x 130 mm Connectivity HDMI, USB 3.0, WiFi Weight 1.48 kg IP rating IP 52 Compensation Onsite - with supplied compensation plate Op temperature range 0 - 40° C Op humidity range Non-condensing Eye Safety Class 1 Laser	Exposure time	0.1 ms - 7 ms (autoexposure)
Connectivity HDMI, USB 3.0, WiFi 1.48 kg IP rating IP 52 Compensation Onsite - with supplied compensation plate Op temperature range O- 40° C Op humidity range Non-condensing Eye Safety HDMI, USB 3.0, WiFi 1.48 kg IP 52 Compensation Onsite - with supplied compensation plate O- 40° C Op humidity range Non-condensing	Texture color	24 bit
Weight 1.48 kg IP rating IP 52 Compensation On site - with supplied compensation plate Op temperature range 0 - 40° C Op humidity range Non-condensing Eye Safety Class 1 Laser	Dimensions	285 mm x 256 mm x 130 mm
IP rating Compensation Onsite - with supplied compensation plate Op temperature range O- 40° C Op humidity range Non-condensing Eye Safety Class 1 Laser	Connectivity	HDMI, USB 3.0, WiFi
Compensation Onsite - with supplied compensation plate Op temperature range 0 - 40° C Op humidity range Non-condensing Eye Safety Class 1 Laser	Weight	1.48 kg
Op temperature range0 - 40° COp humidity rangeNon-condensingEye SafetyClass 1 Laser	IP rating	IP 52
Op humidity range Non-condensing Eye Safety Class 1 Laser	Compensation	Onsite - with supplied compensation plate
Eye Safety Class 1 Laser	Op temperature range	0 - 40° C
	Op humidity range	Non-condensing
Wavelength 798-816 nm	Eye Safety	Class 1 Laser
	Wavelength	798-816 nm

¹ 1 sigma standard deviation measured on reference scales of lengths between 0.3 m and 1 m, in 1 m distance, for a lateral scanner movement of 1 m, using targets for distance measurement | ² Typical error at measured distances | ³ Point density depends on scanned surface and lighting conditions | ⁴ RMS | ⁵ Limited range and point density in sunlight

Microsoft Windows 10 pro, 64-Bit Intel® Core™ i7

256 GB hard disc with 16 GB RAM

HDMI; USB 3.0 ports; WiFi

CERTIFIED ISO 9001

BUREAU

^{*} Dust protection 5. Water protection 2: Protection against dripping water whilst device in standard idle position with sensor side facing downward. Mobile PC Specifications