

FARO FocusS Plus 350/FocusS Plus 150 3D Laser Scanner

The most compact, lightweight, intuitive laser scanner series



FocusS Plus □ There is no quickest, only the faster.....

FARO's star product, Focus large space laser scanner, is an ideal 3 D digital tool used in AEC, public safety and law enforcement forensics, product design and other fields. Once published, it has attracted wide attention and positive evaluation in the industry.

With the deepening of the domestic market in recent years, the FARO Focus large space three-dimensional laser scanner has been applied and embedded in geology, mining, archaeology, tunnel, bridge, building construction, aerospace, seismic monitoring and many other fields. The Focus family features two upgrades, FocusS Plus 350 and FocusS Plus 150. With the same external style maintained, Plus optimizes the internal performance, bringing in faster scanning speed and more accurate scanning data.

FocusS Plus 350/FocusS Plus 150 Performance advantages □

01 □ Maximum scan speed

The maximum scan speed has been increased from 976,000 points per second to 2 million points per second.

02 □ Scan distance

1 □ The FocusS Plus 350 provides long-distance scanning services, with a maximum scanning radius of 350 meters.

2 □ FocusS Plus 150 is suitable for medium-distance scans with a maximum scan radius of 150 m.

03 □ IP54, Protection Level

Using the seal design, it has passed the industrial standard foreign body protection (IP) grade certification of IP54.

04 On-site compensation

With the field compensation function, users can immediately verify or adjust the Focus compensation in the site or in the office before scanning, ensuring high-quality scan data and traceable documentation. Automatically generate detailed compensation files.

05 On-site registration

During the field data acquisition period, the laser scanner can instantly wirelessly transmit the scanned data to the FARO SCENE for real-time scanning processing and registration, thus improving efficiency and saving time.

06 Scan group function (re-scan for remote targets)

The scan group function identifies multiple regions to be rescanned at higher resolution to perform accurate target detection or to capture more details of the region of interest.

07 Photo remake option

No need to redo the entire scan. Select the image and recreate the photo within seconds.

08 Attachment extension

With this extended interface, users can connect more accessories to the scanner, providing options for special customization.

09 Light quantity, small size

Weight only 4.2 kg, the Focus laser scanner is truly mobile and portable.

10 The HDR photo overlay

With Focus HDR features, light problems will no longer affect the user's scan results. preset HDR configurations improve the quality of scanned images in very bright or dark environments.

11 Processing function of the digital hash algorithm

The automatic digital hash algorithm processing function provides encryption security for all raw scans by hashing algorithm processing for data during acquisition. Use the scan validation tool to ensure that the scanned file is not changed in any way and the data has not changed since first acquisition.

Technical Parameter:

Specifications

	Focus [®] Plus 350	Focus [®] Plus 150	Focus [®] 350	Focus [®] 150	Focus [®] 70	Focus [®] 70
Ranging unit						
Visual range:	Maximum 500000 points / s at 614 meters 1 million points / second at 307 meters 2 million points / second at 153 meters		Maximum 500000 points / s at 614 meters 1 million points / second at 307 meters			Maximum 500000 points / s at 614 meters
Distance ¹						
90% reflectivity (white)	0.6-350m	0.6-150m	0.6-350m	0.6-150m	0.6-70m	0.6-70m
10% reflectivity (black gray)	0.6-150m	0.6-150m	0.6-150m	0.6-150m	0.6-70m	0.6-70m
2% reflectivity (black)	0.6-50m	0.6-50m	0.6-50m	0.6-50m	0.6-50m	0.6-50m
Ranging noise ² (mm)						
Ø10m 90% reflectivity (white)	0.1		0.3			0.7
Ø10m 10% reflectance (black gray)	0.3		0.4			0.8
Ø10m 2% reflectivity (black)	0.9		1.3			1.5
Ø25m 90% reflectivity (white)	0.2		0.3			0.7
Ø25m 10% reflectivity (black gray)	0.5		0.5			0.8
Ø25m 2% reflectivity (black)	1.6		2.0			2.1
Maximum measurement speed (million. Points / sec.):	The maximum is 2		The maximum is 1			The maximum is 0.5
Range error ³	±1					±3
Angle accuracy ⁴	The vertical / horizontal angle is 19 arcsec					Not indicated
Three dimensional position accuracy ⁵	2 @10m 3.5 @25m		2 @10m 3.5 @25m			Not indicated

Other performance specifications	
Color unit	
resolving power:	Up to 165 megapixel colors
High dynamic range (HDR):	Surround exposure 2x, 3x, 5x
Parallax:	Because coaxial design has been minimized
Rotating unit	
Field of vision:	300 ° longitudinal ⁶ / 360 ° transverse
Step size:	009 ° (the 3D pixels of 360 ° are 40960) longitudinally /0009 ° (40960 for 360 ° 3D pixels)
Maximum vertical scanning speed:	Longitudinal (97hz)
Laser (laser transmitter)	
Laser grade:	Class 1 laser
Wavelength:	1550nm
Beam divergence angle:	0.3mrad (1/e)
Output beam diameter:	2.12mm (1/e)
Data processing and control	
Data storage:	SD, SDHC™, SDXC™, 32GB Memory card

Other functions	
Biaxial compensator:	The accuracy of each scan is 19 seconds and the error range is ± 2 degrees
Height sensor:	By means of an electronic barometer, the height relative to the fixed point can be added to the scanned image
Compass ⁷	The electronic compass can indicate the direction of scanning
GNSS:	Integrated GPS and GLONASS
On site compensation *:	Create current quality report and automatically improve compensation
Attachment extension interface *:	The accessory extension interface is used to connect a variety of accessories to the scanner
Reverse installation:	yes
Real time field registration in scene software *:	Connect to scene, scan, process and register in real time, and create overview maps
Electronic automation interface *:	Available options, only available at the time of sale
Digital hash function:	The scanner will hash encrypt and sign the scanned data
Target rescan:	The data of defined area can be reacquired with higher resolution at a longer distance
Remake:	Select a single photo with extra objects and take it again

*Not integrated with focus⁸/70

General specifications	
Power supply voltage:	19v (external power supply) 14.4V (internal battery)
power waste:	15W (standby) 25W (scanning) 80W (charging)
Battery life:	4.5 hours
Temperature:	Working temperature: 5 - 40 °C Extended working temperature ⁹ : - 20 - 55 °C storage temperature: - 10 - 60 °C
Protection level:	IP54
Humidity:	No condensation
Weight:	4.2kg including battery
Size:	230 x 183 x 103mm
Maintenance / calibration:	once a year

Please feel free to contact us if you are interested in this product.