

Z+F FlexScan[®] 22

Mobile Scanning-Platform



Acquisition efficiency

Highly accurate measurement results require static scans from multiple angles, whereas mobile solutions focus on efficiency.

The Z+F FlexScan[®] 22 platform developed by Zoller + Fröhlich combines the advantages of static scan quality with the efficiency of mobile systems. The perfect complement for any time-sensitive or large-scale application: AEC, facility management, process industries, heritage documentation and forensics.

Flexible mounting

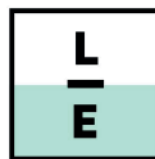
The Z+F FlexScan[®] 22 can be used flexibly on different mobile systems. If the area or terrain is difficult to pass, the system can be used as a backpack to be able to climb stairs and ladders without any problems. If there are no big obstacles, the Z+F FlexScan[®] 22 also allows installation on mobile systems like on a trolley. For static scans, the scan sensor can be switched from the platform to a tripod by using the new quick-acting closure Z+F Quick Mount.

Project efficiency

A project-adaptive approach allows for efficient customization of the Z+F FlexScan[®] 22 to meet the specific requirements of each project, saving time and resources. Utilizing this flexible system can optimize cost structures, as both the scanner and support system can be adapted according to the project's scope and nature. With a project-adaptive and cost-effective approach, companies and surveying offices can enhance their competitiveness while improving the profitability of their scanning projects.

Camera system

The Z+F FlexScan[®] 22 is equipped with a panoramic camera to color map the mobile scan data.



+39 080 645 8405



+39 333 703 0168



info@enzolaterza.it



Via Anna Frank 22 - 70017 Putignano (BA)



www.enzolaterza.it

Easy data collection

Static and mobile data is backed up locally and will be passed on for processing from there.

Offline data processing

Process your data without hidden additional costs and without passing it on to third parties, for data security.

Measurement accuracy for the highest demands

The Z+F FlexScan[®] 22 benefits from the very high quality and range of the static high-end scanner Z+F IMAGER[®] 5016 and achieves an accuracy of up to 2.5 mm in the SLA SLAM result.¹ Each profile scanned with the Z+F FlexScan[®] 22 has 10,000 points, which ensure the finest details in the 3D model. For very high accuracy requirements, the SLAM data can be improved by adding control points or static scans.

Z+F FlexScan[®] 22

- + Turns your Z+F IMAGER[®] 5016/A into a mobile system through SLAM technology
- + Suitable indoors and outdoors
- + Cutting edge camera system
- + Accurate SLAM-system
- + Add-on platform for IMAGER[®] 5016/A
- + Fast, mobile data capture

¹ 3D comparison result of SLAM point cloud to a mesh of static Z+F IMAGER[®] 5016 scans, approx. 550 m², SLAM data downsampled to 1 cm, 80 % of compared points within 2.5 mm. To optimize the result, only multiple loop closures have been used. The result of 2.5 mm is not a guaranteed benchmark. The accuracy highly depends on multiple situational factors, such as the scene geometry and well-distributed static features, the data acquisition process, postprocessing of the dataset and additional support data, such as targets or static scans.



Z+F FlexScan[®] 22

Data sheet

Z+F IMAGER [®] 5016 ²	Static scans	SLAM mode
Measuring range	0.3 m - 365 m	Min. 0.6 m
Data acquisition rate	Max. 1.1 million pixel/sec. ³	550,000 pixel/sec.
Resolution	Max. 100,000 pixel/profile	10,000 pixel/profile
Laser class	1 (IEC 60825 - 1) eye-safe	

Operational data	
Mounting	a) Cart-setup b) Backpack-setup
Connector system	5/8" thread screw or 4x M5 Compatible with Z+F IMAGER [®] Quick Mount
Camera	2x 20 MP, minimum distance 0.5 m
Data storage	1TB internal SSD, USB 3.0 connection for external backup
Connectivity	Wifi 802.11 n/g standard, 1 GBit ethernet
Accuracy	Up to 2.5 mm relative accuracy ¹
Adjustment data	Reference points, static scans
Export formats	E57, LAS/LAZ, PLY, PTS, ASC, ZFDB

Ambient conditions	
Environment	Indoor and outdoor
Operating temperature	-10 °C ... +45 °C
Storage temperature	-20 °C ... +50 °C
Protection class	IP 54 (IEC 60529) dust- / splash-proof

Power	
Batteries	Min. 2 / max. 4 batteries Z+F IMAGER [®] 5016
Operating time	3 – 4 hours scanning time (4 batteries)
External Power	24 V DC, 5 A (Z+F IMAGER [®] 5016 power supply)

Dimensions and weights	
Cart setup with camera	262 x 262 x 146 mm, 3.7 kg (8.1 lbs) 351 x 262 x 612 mm, 4.9 kg (10.8 lbs)
Backpack setup with camera	380 x 421 x 628 mm, 6.3 kg (13.8 lbs) 380 x 421 x 1015 mm, 7.3 kg (16.0 lbs)
Z+F IMAGER 5016/A, with Quick Mount	150 x 258 x 333 mm, 6.8 kg (14.9 lbs)
Operation with two or four batteries	each 0.5 kg (1.1 lbs)

1. 3D comparison result of SLAM point cloud to a mesh of static Z+F IMAGER[®] 5016 scans, approx. 550 m², SLAM data downsampled to 1cm, 80% of compared points within 2.5 mm. To optimize the result, only multiple loop closures have been used. The result of 2.5 mm is a not guaranteed benchmark. The accuracy highly depends on multiple situational factors, such as the scene geometry and well-distributed static features, the data acquisition process, postprocessing of the dataset and additional support data, such as targets or static scans.
2. More details see Z+F IMAGER[®] 5016/A data sheet
3. Z+F IMAGER[®] 5016A: max. 2.2 million pixel/sec.