

Data sheet

Z+F IMAGER [®] 5016 ²	Static scans	SLAM mode
Measuring range	0.3m - 365m	Min. 0.6 m
Data acquisition rate	Max. 2.2 million pixels/s ³	550,000 pixels/s
Resolution	Max. 100,000 pixels/profile	10,000 pixels/profile
Laser class	1	1

Operational data	
Mounting	Upright orientation, e.g. for push-carts, small vehicles or robotic plat- forms, tilted orientation for backpack usage
Universal connection	5/8" thread screw or 4x M5 Compatible with Z+F IMAGER Quick Mount
Camera	2x 20MP, min distance 0.5m
Data storage	1TB internal drive, 1TB removable SSD drive
Connectivity	Wifi 802.11 n/g standard, 1GBit Ethernet
Accuracy	Up to 2.5mm relative accuracy ¹
Control data	Black and white targets, picked points, static scans
Output	E57, LAS/LAZ, PLY, PTS, ASC, ZFDB

Ambient conditions	
Environment	Indoor and outdoor usage
Operating temperatur	-10 °C ... +45 °C
Storage temperature	-20 °C ... +50 °C
Protection class	IP 54

Power	
Batteries	uses the batteries of the static system, min. 2 / max. 4 batteries
Operating time	3-4 hours scanning time (4 batteries)
Weight	0.5 kg per battery
External Power	24 VDC, 5 A

Dimensions and weights	
Cart setup	262 x 262 x 146 mm, 3.5 kg
with camera	351 x 262 x 612 mm, 4.7 kg
Backpack setupiv	380 x421 x 628 mm, 6.1 kg
with camera	380 x 421 x 1015 mm, 7.1 kg
Imager 5016 / A, with Quick Mount	150 x 258 x 333 mm, 6.6 kg
two or four batteries, each	0.5 kg

¹3D comparison result of SLAM point cloud to a mesh of static Z+F IMAGER 5016 scans, ca 550 m², SLAM data downsampled to 1cm, 80% of compared points within 2.5mm. No targets or static scans were used to optimize the result, only multiple loop closures.. The re-
sult of 2.5mm should only be seen as an example of an achievable accuracy of a pointcloud, solely based on SLAM data, and cannot
be guaranteed. In general, the accuracy depends on multiple factors, such as the scene geometry and well-distributed static features,
the data acquisition process, postprocessing optimization of the dataset and additional support data, such as targets or static scans.

² More details available in the Z+F IMAGER[®] 5016/A data sheet

³ Z+F IMAGER[®] 5016 A

Z+F FlexScan 22

Mobile Mapping
SLAM platform

- + Accurate tracking system
- + Cutting edge camera system
- + Suitable indoors and outdoors



A Z+F FlexScan 22 3D scanner is shown on a tripod. The scanner is blue and white, with a panoramic camera mounted on top. The Z+F logo is visible on the side.

+ Camera system

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

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

The Z+F FlexScan platform developed by Zoller + Fröhlich combines the advantages of static scans 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.

+ Universal mounting

The Z+F FlexScan 22 can be used universally 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 allows installation on mobile systems. For static scans, there is also the option of placing the system on tripods.

+ Project efficiency

The solution offered by Zoller + Fröhlich with the Z+F FlexScan 22 enables a project-adaptive and balanced level of documentation in order to be as cost-effective as possible.

A woman is shown in profile, wearing the Z+F FlexScan 22 scanner as a backpack. The scanner is mounted on a black frame that she is holding. The scanner is blue and white, with a panoramic camera mounted on top.

+ Easy data collection

Static and mobile data is synchronized locally on an internal hard drive and also on a removable medium for backup and processing.

+ blue workflow®

The data is seamlessly integrated into the blue workflow® and Z+F LaserControl® or exported to standard formats for third-party software.

+ 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 SLAM result. Each profile scanned with the Z+F FlexScan 22 has 10,000 points, which ensure finest details in the 3D model. For very high accuracy requirements, the SLAM data can be enhanced by adding control points or survey controls.