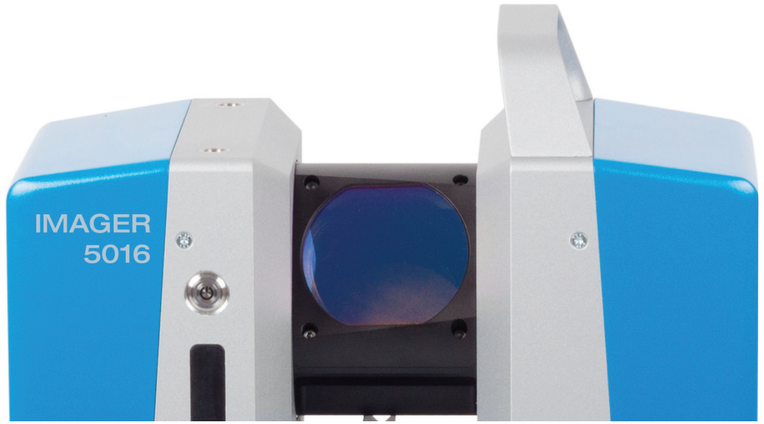
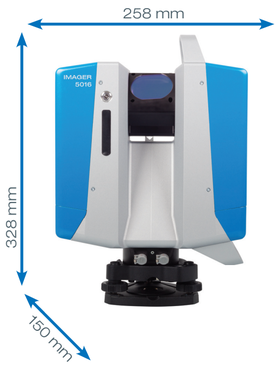


Z+F IMAGER® 5016 / Innovative Design

Dimensions



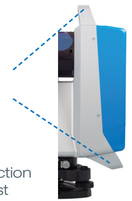
- Usable in smallest spaces
- Carry-on luggage size

Weight

- Scanner without battery: 6,5 kg (14.3 lbs)
- Scanner with 2 batteries: 7,5 kg (16.5 lbs)
- Ideal weight for stable setup
- Makes field work easier

Housing

- Ergonomic streamline design
- Additional grip with two handles
- Makes setup with high tripods or overhead applications easy



Protection class IP 54, protection against splash water and dust

Operation temperature -10 °C ... +45 °C (14°F ... 113°F)

Visual feedback by illuminated power switch

Easily accessible plugs for external power supply or ethernet data exchange

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How we build reality

Zoller+Fröhlich

English

Reaching new levels

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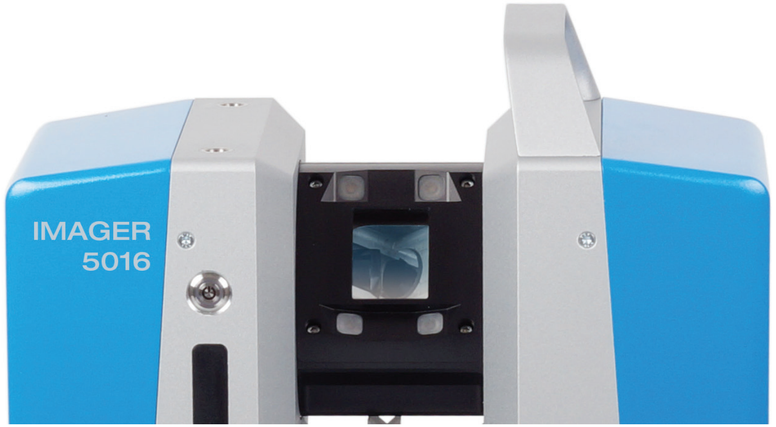
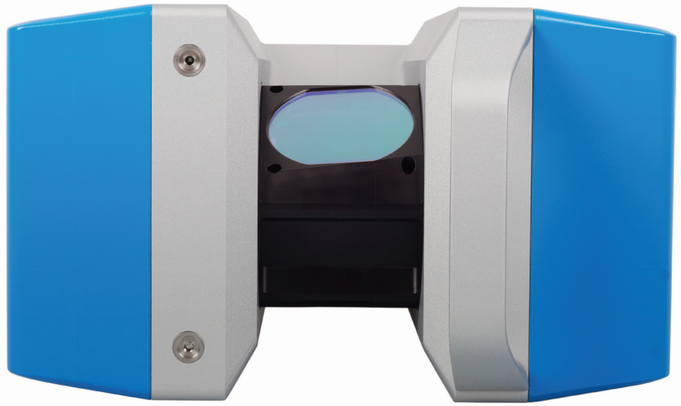




Z+F IMAGER® 5016 / Laser Scanner

Reaching new levels

The new Z+F IMAGER® 5016 combines compact and lightweight design with state-of-the-art laser scanning technology - allowing the user to reach new levels. The new phase-based laser scanner is equipped with an integrated HDR camera, internal lighting and positioning system - already proven from its predecessors, the Z+F IMAGER® 5010C and the Z+F IMAGER® 5010X. However, all components have been further developed and adjusted to the new design, resulting in even better scanning results and a more efficient workflow.

Technical features

Due to innovative developments, the maximum range of the new Z+F IMAGER® 5016 has been extended to up to **360 m (1,180 ft)** - thus establishing new opportunities and applications. The maximum measurement rate of more than **1 Mio. points/sec.** guarantees highly accurate results even with long distances.

Its **360° x 320° field-of-view** assures great coverage of the scanned area, reducing the number of scan positions necessary to a minimum.

The scanner is classified as „eye-safe" according to **laser class 1** and can therefore be used in public areas without any restrictions.

The Z+F IMAGER® 5016 is equipped with an integrated positioning system, which allows the automatic registration in the field, with or without targets. All preprocessing tasks can be taken care on the fly, increasing efficiency. Please read the "real-time registration" section of this brochure for more information.

In addition, the scanner comes with an integrated HDR camera, which allows the user to quickly capture colour information - even in challenging lighting conditions.

Rapid picture capturing

Capturing colour information is very important in many fields of application. Generating a **full HDR panorama (80 MPixel)** only takes about 3:30 min. - which is the shortest capturing time for integrated HDR cameras in terrestrial laser scanners on the market. Combined with quick scanning times, this allows the user to rapidly generate geometric and colour data.

Integrated LED spots

The new HDR camera of the Z+F IMAGER® 5016 is now equipped with **integrated LED spots**, which grant additional flexibility when scanning. No more external lighting sources are necessary when capturing images in dark environments.

Internal data storage and data transfer

The scanner has internal storage capacities for **128GB** of data. Data can rapidly be transferred either by using the **SD-card slot**, ethernet link or WiFi connection. The **WiFi** operates to the **802.11a/n/g standard** and in the frequency range of **2.4GHz / 5GHz**.

Z+F IMAGER® 5016 / Real-Time Registration

The Blue Workflow

It happens to the best of us at some point. The scanning job is completed, but back at the office, one realizes that some targets were not scanned properly, were moved or simply forgotten to be sub-scanned. In many other cases, registration fails because there is not enough overlap between scanning positions. Whatever the reason is, one struggles to register and finalize the point cloud model back at the office, it is not unusual that additional field work is necessary to complete the project.

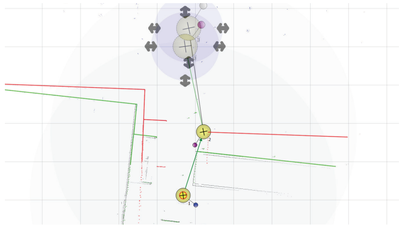
Z+F LaserControl® Scout and in addition the new Z+F IMAGER® 5016 will take these worries off your mind. A complete new workflow allows you to be certain to have completed your field work, before heading back to the office.

Z+F IMAGER® 5016

Until now, cloud-to-cloud based algorithms needed an initial alignment for the registration process to find the correct scan alignment. Together with the new **position sensors inside the Z+F IMAGER® 5016**, Z+F LaserControl® Scout will be able to automatically place and register your scan data during your field work - on the fly.

Automatic registration

Z+F LaserControl® Scout will keep a constant link to the scanner. After a scan is finished, the data is downloaded onto the tablet PC automatically. Once completed, the software immediately attempts a preliminary registration.



Automatic registration - on the fly

Should the automatic process fail, Z+F LaserControl® Scout provides easy tools for manual adjustments by simply dragging the scan into the approximate position. Scout further provides a new tool for complex geometries to manually align scans quickly in 3D.

Registration Guard

One of the most common reasons for frustrations back at the office with cloud-to-cloud based registration algorithms is poor overlap between different scanning positions. Realizing such a problem in the office can be fatal to a project. Hence, Scout will assist you with early detection of these problems in the field already, in order to fill gaps immediately with additional scans and make sure you return with a complete dataset.

Fail-safe target workflow

Besides all automatic registration features, targets are still of great importance for some specific workflows. So far, their major down-side has been that they could only be verified in the office, when re-scanning is impossible. Scout allows you to acquire and process scanned targets in the field automatically or manually to guarantee leaving the site with a safe registration.

Brand new look and feel

The new Z+F LaserControl® Scout is well optimized and prepared for Windows® touch tablets. Its intuitive new user-interface is simple to use and has all major tools always at hand for you.

Stay updated through advanced synchronization

Z+F LaserControl® Scout will automatically synchronize all scan data locally and, after registration, update all scans on the scanner accordingly. Therefore, at any time, the scanner and tablet display the same results.

Remote Scanner Control

Free yourself of time pressure to hectically hide from the scanner. Control the instrument and check its status comfortably from a distance.

Remote control and synchronization

Quick insights with detailed top-cuts

Z+F LaserControl® will create a detailed top-view, outlining the features in the scene for easy orientation and verification of the positioning.