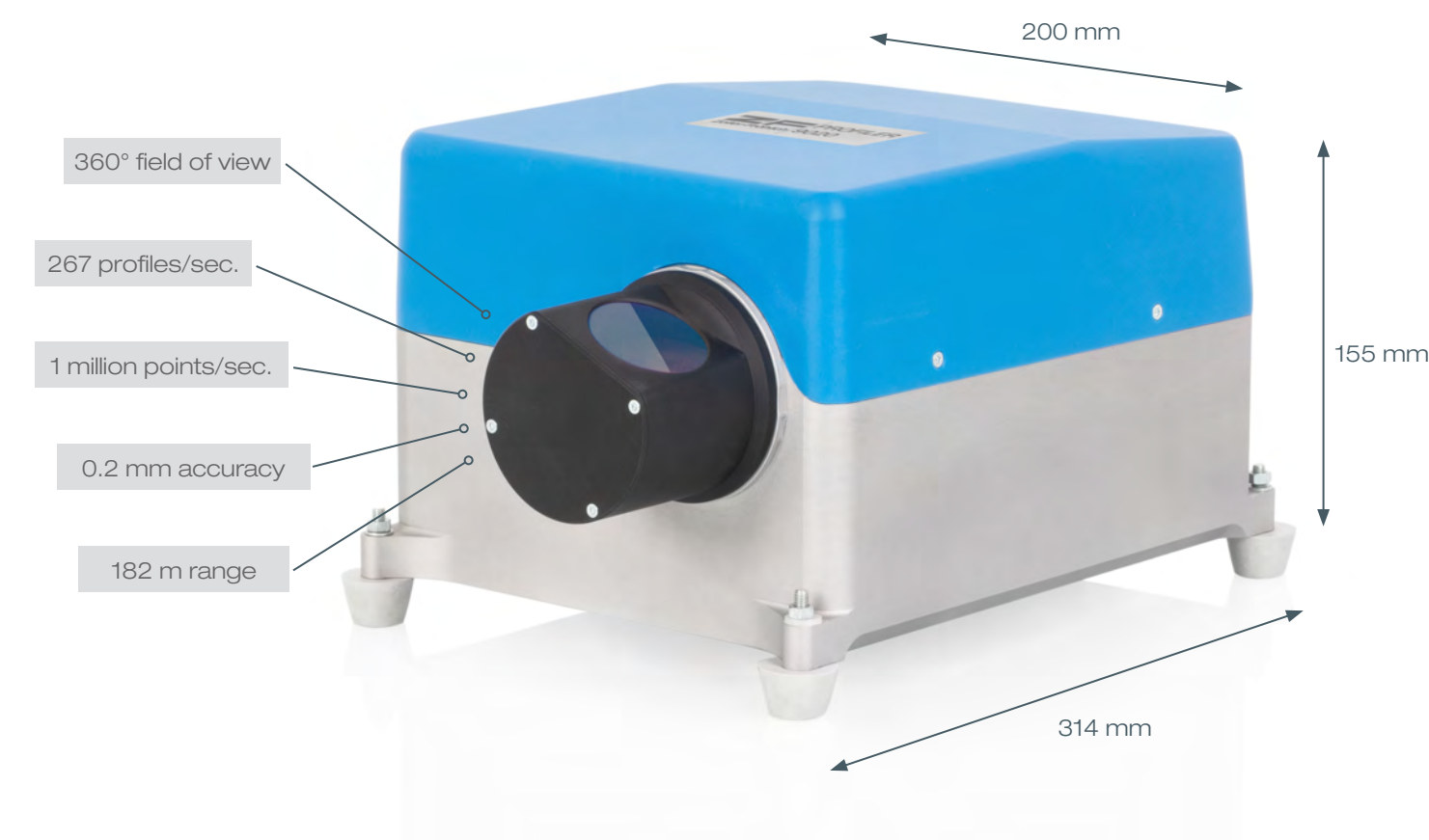




# Z+F PROFILER® 9020

The Z+F PROFILER® 9020 is a highly efficient 2D laser scanner for mobile mapping applications. The rotation speed of the Z+F PROFILER® 9020 is 267 Hz or 16,020 rpm max.. It measures up to 182 m and has a very high data quality. For data capturing in close range, it is equipped with special optics. Compared to previous models, it has an internal reference plate , a very low power consumption, very fast startup time and over 50% reduced weight and size.

A new, very powerful laser technology and further developed algorithms ensures highly accurate measurement results on rails, roads, street signs and other traffic control systems such as traffic lights.



How we build reality

English

## Mapping the future Z+F PROFILER® 9020

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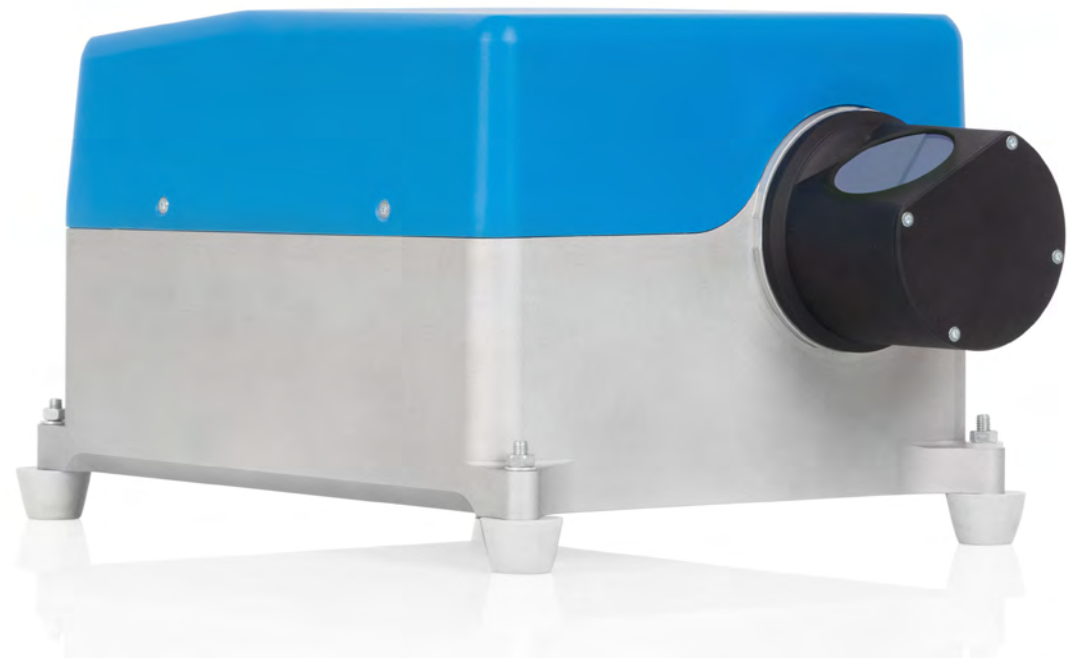
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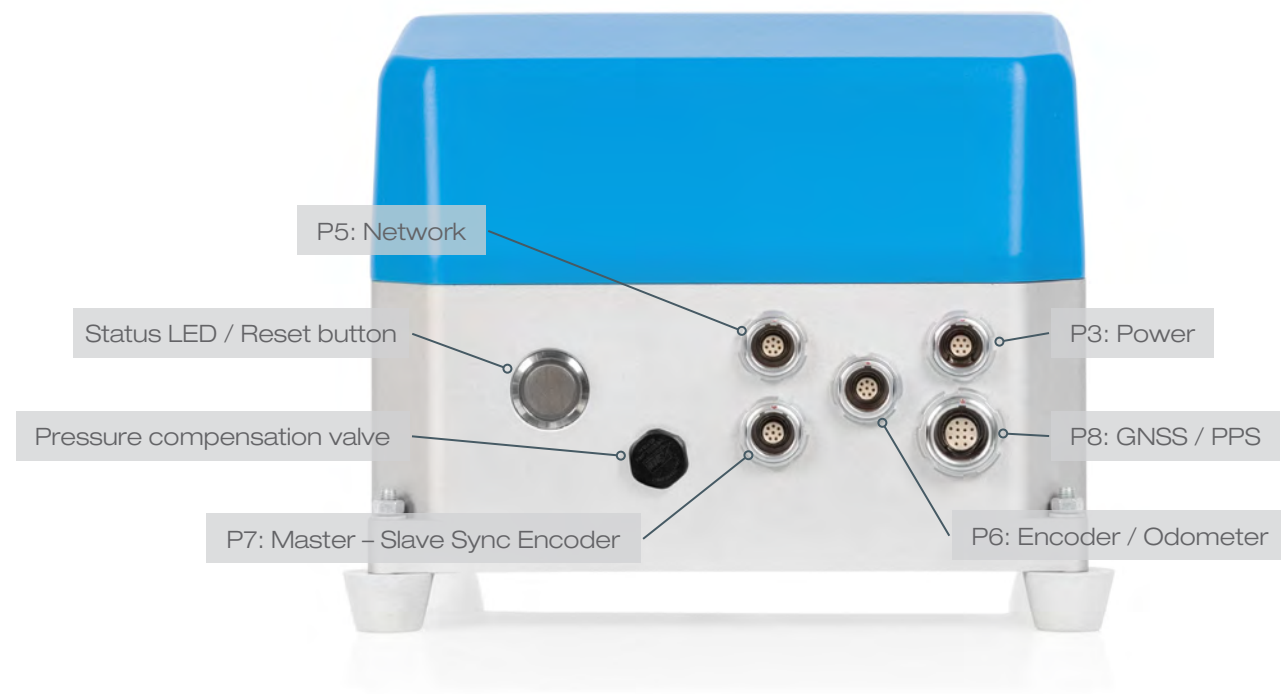
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# Z+F PROFILER® ports

The Z+F PROFILER® 9020 can be flexibly integrated into different MMS. The Z+F PROFILER® 9020 has several ports for fast and free from interference communication between the components like Z+F MapCam®, GNSS receiver and operator PC.



The external signals of GNSS and IMU are directly fed into the Z+F PROFILER® 9020 data stream.

# Mobile Mapping in color

With the new camera systems of Zoller + Fröhlich, color information can be mapped onto data measured by the Z+F PROFILER® 9020.

The camera systems Z+F MapCam® S and C have high-resolution sensors, a very wide field of view and cover the entire measuring area.



Z+F MapCam® C



Z+F MapCam® S

The high frame rate of the cameras allow gapless and sharp images at speeds of up to 100 km/h.

The cameras are easy to install with just one tool. In addition, it may be used with any mobile mapping system (MMS).

# Z+F SynCaT®

With Z+F SynCaT®, Zoller+Fröhlich creates a connection between the Z+F PROFILER® 9020 and external positioning and navigation systems. Z+F SynCaT® stands for synchronization, calibration, colorization and transformation - also representing the main tasks of the software. Z+F SynCaT® includes all the features below:

- Synchronization: Synchronize Z+F PROFILER® 9020 laser scanner data with trajectory data and generate 3D point cloud files
- Calibration: Processing of calibration parameters due to different system integrations (translation, rotation offsets between the coordinate systems of the navigation-unit (trajectory) and the Z+F PROFILER® 9020 laser scanner)
- Colorization: Z+F SynCaT® can be used to map color information captured by the Z+F MapCam® on the data captured by Z+F PROFILER® 9020
- Transformation: Transform 3D point cloud data to different local coordinate systems and apply different local/global height correction models (geoid correction files)
- Correction: Individual offset estimation referring to predefined ground control points (GCP's)

Z+F SynCaT® is a modular structured mobile mapping plug-in for Z+F LaserControl®. The modularization allows to combine the software package specifically for the customer needs.

