The RIEGL VZ-400i is a cutting-edge 3D Laser Scanning System which combines a future-oriented, innovative processing architecture and internet connectivity with RIEGL’s latest waveform processing LiDAR technology.

This real-time data flow is enabled through dual processing platforms: a dedicated processing system for data acquisition, waveform processing and system operations, and a second processing platform which enables automatic on-board registration, geo-referencing, and analysis to be executed simultaneously.

**RIEGL VZ-400i**

**Ultra High Performance 3D Laser Scanner**

**Redefining Productivity!**

**Typical Applications**

- Architecture & Facade Measurements
- As-Built Surveying
- Archeology & Cultural Heritage Documentation
- City Modeling
- Civil Engineering
- Building Infrastructure Management (BIM)
- Forensics & Crash Scene Investigation
- Emergency Management
- Tunnel Surveying
- Forestry
- Research
- Monitoring

Scan this QR code to watch the VZ-400i video.
RIEGL VZ-400i Main Features

- ultra high speed data acquisition with up to 500,000 meas./sec, survey-grade accuracy ≤ 5 mm, up to 800 m measurement range
- easy to use / easy to train: user-friendly touchscreen interface, single touch operation, etc.
- orientation sensor for pose estimation
- advanced flexibility through support for external peripherals and accessories, e.g. external Bluetooth GNSS receiver on top
- cloud connectivity via Wi-Fi and 3G/4G LTE
- fully compatible with the RIEGL VMZ Hybrid Mobile Laser Mapping System
- RiSCAN PRO standard processing software (included), RiSOLVE for fully automatic registration and colorization of scan data (optional)

NEW Automatic On-board Registration

With two processors on-board, the RIEGL VZ-400i is able to perform different processes in real-time such as automatic on-board registration in parallel to the scan data acquisition.

<table>
<thead>
<tr>
<th>Processor 1</th>
<th>Processor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>scan data acquisition</td>
<td>conversion of scan data into RIEGL data base</td>
</tr>
<tr>
<td>acquisition of photographs</td>
<td>on-board multiple time around resolution</td>
</tr>
<tr>
<td>pose estimation (using GNSS/IMU/environment sensors)</td>
<td>registration of scan data as a background process</td>
</tr>
</tbody>
</table>

RIEGL VZ-400i Technical Data

- Laser Pulse Repetition Rate PRR (peak): 100 kHz, 200 kHz, 300 kHz, 600 kHz, 1,200 kHz
- Max. Effective Measurement Rate (meas./sec): 42,000, 125,000, 250,000, 500,000
- Max. Measurement Range (p ≥ 90%): 800 m, 480 m, 350 m, 250 m
- Max. Measurement Range (p ≥ 20%): 400 m, 230 m, 160 m, 120 m
- Minimum Range: 1.5 m, 1.2 m, 0.5 m, 0.5 m
- Accuracy / Precision: 5 mm / 3 mm
- Field of View (FOV): 100° vertical / 360° horizontal
- Eye Safety Class: Laser Class 1 (eyesafe)
- Main Dimensions (width x height) / Weight: 206 mm x 308 mm / 9.7 kg

Further details to be found on the current RIEGL VZ-400i Data Sheet.