Leica ScanStation P30/P40
Because every detail matters

The right choice
Whether capturing 3D geometry of roads, rails, tunnels and bridges or high-definition scan data for topographic maps and as-built surveys, you know you’ll need an accurate long range scanning tool for your projects – the new ScanStation laser scanners from Leica Geosystems are the right choice, because every detail matters.

Reduced downtime
The Leica ScanStations deliver highest quality 3D data and HDR imaging at an extremely fast scan rate of 1 mio points per second at ranges of up to 270 m. Unsurpassed range and angular accuracy paired with low range noise and survey-grade dual-axis compensation form the foundation for highly detailed 3D colour point clouds mapped in realistic clarity.

Complete scanning solution
Leica Geosystems offers the new Leica ScanStation portfolio as an integrated part of a complete scanning solution including hardware, software, service, training and support. 3D laser scanner data can be processed in the industry’s leading 3D point cloud software suite, which consists of Leica Cyclone standalone software, Leica CloudWorx plug-in tools for CAD systems and the free Leica TruView.

leica-geosystems.com
Leica ScanStation P30/P40 Product Specifications

SYSTEM ACCURACY

Accuracy of single measurement

<table>
<thead>
<tr>
<th>Calibration</th>
<th>Range accuracy</th>
<th>Angular accuracy</th>
<th>Target acquisition</th>
<th>Dual-axis compensator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 mm + 10 ppm</td>
<td>1.2 mm + 10 ppm</td>
<td>8° horizontal, 8° vertical</td>
<td>2 mm standard deviation at 50 m</td>
<td>Liquid sensor with real-time onboard compensation, selectable on/off, resolution 1&quot;, dynamic range ± 5&quot;, accuracy 1.5&quot;</td>
</tr>
</tbody>
</table>

DISTANCE MEASUREMENT SYSTEM

Type: Ultra-high speed time-of-flight enhanced by Waveform Digitising (WFD) technology

Wavelength: 1550 nm (invisible) / 658 nm (visible)

Beam divergence: ≤ 0.23 mrad (FWHM, full angle)

Beam diameter at front window: ≤ 3.5 mm (FWHM)

Range and reflectivity: Minimum range 0.4 m, Maximum range at reflectivity 120 m, 180 m, 270 m

Scan rate: Up to 1,000,000 points per second

Range noise: 0.4 mm rms at 10 m, 0.5 mm rms at 50 m

Field-of-View

Horizontal: 360°

Vertical: 290°

Data storage capacity: 256 GB internal solid-state drive (SSD) or external USB device

Communications/Data transfer: Gigabit Ethernet, integrated Wireless LAN or USB 2.0 device

Onboard display: Touchscreen control with stylus, full colour VGA graphic display (464×480 pixels)

Laser plummet: Laser class 1 (IEC 60825-2014) Centring accuracy: 1.5 mm at 1.5 m Laser dot diameter: 2.5 mm at 1.5 m Selectable ON/OFF

IMAGING SYSTEM

Internal camera

Resolution: 4 MP per each 17°×17° colour image; 700 MP for panoramic image

Pixel size: 2.2 μm

Video: Streaming video with zoom; auto-adjusts to ambient lighting

White balancing: Sunny, cloudy, warm light, cold light, custom

HDR

External camera: Canon EOS 60D/70D/80D supported

POWER

Power supply: 24 V DC, 100 – 240 V AC

Battery type: 2x internal: Li-ion; External: Li-ion (connect via external port, simultaneous use, hot swappable)

Duration: Internal > 5.5 h (2 batteries); External > 7.5 h (room temp.)

ENVIRONMENTAL

Operating temperature: -20°C to +50°C / -4°F to +122°F

Storage temperature: -40°C to +70°C / -40°F to +158°F

Humidity: 95 %, non-condensing

Dust/Water: Solid particle/liquid ingress protection IP54 (IEC 60529)

PHYSICAL

Scanner

Dimensions (D×W×H): P30 187×72×77 mm / 7.4" × 2.8" × 3.0"; P40 238×358×395 mm / 9.4" × 14.1" × 15.6"

Weight: P30 8 kg / 17.6 lbs; P40 18 kg / 39.7 lbs

Battery type: 2x Internal: Li-Ion; External: Li-Ion (connect via external USB device)

Storage temperature: -40°C to +70°C / -40°F to +158°F

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