Leica ScanStation P30/P40
Because every detail matters

The right choice

Whether you have to document a crime scene, reconstruct a traffic accident or create virtual reality scenarios for security planning, factual evidence is vitally important in forensics. The new ScanStation laser scanners from Leica Geosystems are the right choice for preserving, analysing or reconstructing forensic science, 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 270m. 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 stand-alone 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**
  - Range accuracy: 1.2 mm + 10 ppm over full range
  - Angular accuracy: 8° horizontal, 8° vertical
  - Target acquisition: ± 2 mm standard deviation at 50 m
  - Dual-axis compensator: Liquid sensor with real-time onboard compensation, selectable on/off, resolution 1°, dynamic range ± 5°, accuracy 1.5°

**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**:
  - P30: 0.4 mm rms at 10 m
  - P40: 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 external USB device

**Onboard display**
- Touchscreen control with stylus, full color VGA graphic display (640×480 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 6D/70D/80D supported

**POWER**
- **Power supply**: 24 V DC, 100 – 240 V AC
- **Battery type**: 2 x 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 (W×H×D): 238 mm × 358 mm × 395 mm / 9.4” × 14.1” × 15.6”
  - Weight: 12.25 kg / 27.0 lbs, nominal (w/o batteries)
- **Battery (internal)**
  - Dimensions (W×H×D): 40 mm × 72 mm × 77 mm / 1.6” × 2.8” × 3.0”
  - Weight: 0.4 kg / 0.9 lbs

**CONTROL OPTIONS**
- Full colour touchscreen for onboard scan control.
- Remote control: Leica CS10/CS15/CS20/CS35 controller or any other remote desktop capable device, including iPad, iPhone and other SmartPhones; external simulator.

**FUNCTIONALITY**
- **Survey workflows and onboard registration**
  - Quick orientation, Set azimuth, Known back sights, Traverse Check & Adjust
  - Field procedure for checking of angular parameters, tilt compensator and range offset
- **Onboard target acquisition**
  - Target selection from video or scan
- **Onboard user interface**
  - Switchable from standard to advanced
- **One button scan control**
  - Scanner operation with one button concept
- **Scan area definition**
  - Scan area selection from video or scan; batch job scanning
- **Double scan**
  - Automatic removal of point cloud noise introduced by moving objects

**ORDERING INFORMATION**
Contact your local Leica Geosystems representative or an authorised Leica Geosystems dealer.

All specifications are subject to change without notice. All accuracy specifications are one sigma unless otherwise noted. * At 78% albedo ** Algorithmic fit to planar HDS 4.5° B/W targets

Scanner: Laser class 1 in accordance with IEC 60825:2014 Laser plummet: Laser class 1 in accordance with IEC 60825:2014

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Leica RTC360 3D Reality Capture Solution
Leica Cyclone REGISTER
Leica Cyclone MODEL