

Leica ScanStation P16

Because every detail matters



Easy-to-use

The Leica ScanStation P16 features an intuitive and user-friendly touch screen interface. The one-touch scan button and wizard style software guarantees an easy workflow and enable a fast data check in the field. Combined with WLAN remote control, the Leica ScanStation P16 can be operated by any handheld device.

Value for money

Its attractive price-performance ratio, worldwide support and quality service from Leica Geosystems result in a low cost of ownership and make the Leica ScanStation P16 the perfect solution for companies entering the laser scanning business.

Reduced downtime

The extremely durable new laser scanner performs even under the toughest environmental conditions, such as extreme temperatures ranging from -20°C to $+50^{\circ}\text{C}$ and complies with the IP54 rating for dust and water resistance.

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.

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Product specifications

System Accuracy	
Accuracy of single measurement *	
Range accuracy	1.2 mm + 10 ppm over full range
Angular accuracy	8" horizontal; 8" vertical
3D position accuracy	3 mm at 40 m
Target acquisition **	Up to 40 m in post-processing software
Dual-axis compensator	Liquid sensor with real-time onboard compensation, selectable on/off, resolution 1", dynamic range $\pm 5'$, 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)
Laser class	1 (in accordance with IEC 60825:2014)
Beam divergence	< 0.23 mrad (FWHM, full angle)
Beam diameter at front window	≤ 3.5 mm (FWHM)
Range and reflectivity	Up to 40 m; 18% reflectivity (minimum range 0.4 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 40 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 (640x480 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 megapixels per each 17° x 17° colour image; 700 megapixels for panoramic image
Pixel size	2.2 μ m
Video	Streaming video with zoom; auto-adjusts to ambient lighting
White balancing	Sunny, cloudy, warm light, cold light, custom
HDR	Tonemapped / full range
External camera	Canon EOS 60D and 70D 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 (DxWxH)	238 mm x 358 mm x 395 mm / 9.4" x 14.1" x 15.6"
Weight	12.25 kg / 27.0 lbs, nominal (w/o batteries)
Battery (internal)	
Dimensions (DxWxH)	40 mm x 72 mm x 77 mm / 1.6" x 2.8" x 3.0"
Weight	0.4 kg / 0.9 lbs
Mounting	Upright or inverted

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	
One button scan control	Scanner operation with one button concept
Scan area definition	Scan area selection from video or scan; batch job scanning

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 ScanStation P30/40



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Leica Cyclone MODEL

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- when it has to be **right**

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