# 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.

### High performance under harsh conditions

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.

### **Reduced downtime**

The extremely durable new laser scanners perform even under the toughest environmental conditions, such as extreme temperatures ranging from –  $20^{\circ}$ C to + $50^{\circ}$ C and comply 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.





### Leica ScanStation P30/P40 **Product specifications**

System Accuracy	
Accuracy of single measurement * Range accuracy Angular accuracy 3D position accuracy	1.2mm + 10ppm over full range 8" horizontal; 8" vertical 3mm at 50m; 6mm at 100m
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 $\pm 5$ ', accuracy 1.5"

	accuracy 1.5"			
Distance Measurement Sy	stem			
Туре	Ultra-high speed time-of-flight enhanced by Waveform Digitising (WFD) technology			
Wavelength	1550nm (invisible) / 658nm (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 (FWH/	M)		
Range and reflectivity	Minimum range	0.4 m		
		Maximu	m range at refl	ectivity
		120m	180 m	270 m
	P30	18%	-	-
	P40	8%	18%	34%
Scan rate	Up to 1'000'000	0 points per	second	
Range noise *	0.4 mm rms at 1 0.5 mm rms at 5			
Field-of-View Horizontal Vertical	360° 290°			
Data storage capacity	256GB internal external USB de		drive (SSD) or	
Communications/ Data transfer	Gigabit Etherne USB 2.0 device	t, integrated	d Wireless LAN	or
Onboard display	Touchscreen co graphic display			ır VGA
Laser plummet	Laser class 1 (IE Centring accura Laser dot diame Selectable ON/O	cy: 1.5 mm a eter: 2.5 mm	it 1.5 m	

Imaging System	
Internal camera	
Resolution	4 megapixels per each 17°×17° colour image;
	700 megapixels 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	Tonemapped / full range
External camera	Canon EOS 60D/70D/80D supported

Power	
Power supply	24 V DC, 100 - 240 V AC
Battery type	2× 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) Weight	238 mm × 358 mm × 395 mm / 9.4" × 14.1" × 15.6" 12.25 kg / 27.0 lbs, nominal (w/o batteries)
Battery (internal) Dimensions (D×W×H) Weight	40 mm × 72 mm × 77 mm / 1.6" × 2.8" × 3.0" 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		
Survey workflows and onboard registration	Quick orientation, Set azimuth, Known backsight, Resection (4 and 6 parameters), 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	

### Ordering Information

Contact your local Leica Geosystems representative or an authorised Leica Geosystems

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

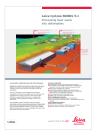
Scanner: Laser class 1 in accordance with IEC 60825:2014 Laser plummet: Laser class 1 in accordance with IEC 60825:2014

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Leica ScanStation P16

Leica Cyclone REGISTER

Leica Cyclone MODEL



### Your Trusted Active Customer Care

Active Customer care is a true partnership between Leica Geosystems and its customers. Customer Care Packages (CCPs) ensure optimally maintained equipment and the most up-to-date software to deliver the best results for your business. The myWorld@Leica Geosystems customer portal provides a wealth of information 24/7.

### Leica Geosystems AG

leica-geosystems.com









