# Leica ScanStation P30/P40

# Because every detail matters





## The right choice

Whether you need an as-built representation of a large industry complex, a detailed scan of a piping system or a 3D point cloud of a ship hull, you know you'll need accurate life cycle representations in plant engineering and ship building. The combination of speed, range, accuracy and ruggedness make the new ScanStation laser scanners from Leica Geosystems 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 *					
Range accuracy		1.2 mm + 10 ppm over full range			
Angular accuracy	8" horizontal; 8" vertical				
3D position accuracy	3 mm at 50 m; 6 mm at 100 m				
Target acquisition **	2 mm standard deviation at 50 m Liquid sensor with real-time onboard compensation,				
Dual-axis compensator		/off, resolution			
DISTANCE MEASUREMENT	T SYSTEM				
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 (FW	'HM)			
Range and reflectivity	Minimum ran	ge 0.4 m			
	Maximum range at reflectivity				
		120m	180 m	270 m	
	P30	18%	-	-	
	P40	8%	18%	34%	
Scan rate	Up to 1,000,0	000 points per	second		
Range noise *	0.4mm rms a 0.5mm rms a				
Field-of-View					
Horizontal	360°				
Vertical	290°				
Data storage capacity		256GB internal solid-state drive (SSD) or external USB device			
Communications/ Data transfer	Gigabit Ethernet, integrated Wireless LAN or USB 2.0 device				
Onboard display		control with st ay (640×480 pi	,	r VGA	
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 OI	N/OFF			
IMAGING SYSTEM					
Internal camera					
Resolution		n 17°×17° colo anoramic image	ur image;		
Pixel size	2.2 µm				
Video	lighting	eo with zoom; a	•		
White balancing		, warm light, co	ld light, custon	1	
HDR	Tonemapped	/ full range			

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 / 27.0lbs, 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  $capable\ device,\ including\ iPad,\ iPhone\ and\ other\ SmartPhones;\ external\ simulator.$ 

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	
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

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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External camera

## 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.

Canon EOS 60D/70D/80D supported



Leica RTC360 3D Reality Capture Solution



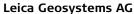
Leica Cyclone REGISTER



Leica Cyclone MODEL

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