

Leica Geosystems Terrestrial Laser Scanners

Which 3D laser scanner is right for me?



ScanStation P50

ScanStation P40

ScanStation P30

RTC360

RTC360 LT

BLK360

DISTANCE MEASUREMENT SYSTEM

Maximum range	> 1 km	270 m	120 m	130 m	130 m	60 m
Maximum scan rate	1 mio pts/sec	1 mio pts/sec	1 mio pts/sec	2 mio pts/sec	1 mio pts/sec	360,000 pts/sec
Selectable sensitivity levels	✓	✓	✗	✗	✗	✗
Resolution settings	User definable	User definable	7 (0.8 mm to 50 mm @ 10 m)	3 (3/6/12 mm @ 10 m)	3 (3/6/12 mm @ 10 m)	3 (5/10/20 mm @ 10 m)
Laser class	1	1	1	1	1	1
Laser wavelength	1550 nm (invisible)	1550 nm (invisible)	1550 nm (invisible)	1550 nm (invisible)	1550 nm (invisible)	830 nm (invisible)
Tilt sensor, Tilt accuracy	Dual axis compensator, 1.5 arcsec	Dual axis compensator, 1.5 arcsec	Dual axis compensator, 1.5 arcsec	IMU, 18 arcsec	IMU, 18 arcsec	IMU
3D accuracy	4.4 mm @ 50 m (> 1 km mode) 6.8 mm @ 100 m (> 1 km mode)	3.2 mm @ 50 m 5.9 mm @ 100 m	3.2 mm @ 50 m 5.9 mm @ 100 m	6.4 mm @ 50 m 12.5 mm @ 100 m	6.4 mm @ 50 m 12.5 mm @ 100 m	4 mm @ 10 m 7 mm @ 20 m

IMAGING SYSTEM

Internal camera	✓	✓	✓	✓	✓	✓
HDR	✓	✓	✓	✓	✓	✓
External camera	Optional	Optional	Optional	✗	✗	✗
IR camera	✗	✗	✗	✗	✗	✓

ENVIRONMENTAL

Operating temperature	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C	-5°C to +40°C	-5°C to +40°C	+5°C to +40°C
Solid particle/Liquid ingress protection	IP54	IP54	IP54	IP54	IP54	IP54

SURVEY/SETUP FUNCTIONALITY

Quick orientation	✓	✓	✓	✗	✗	✗
Set azimuth	✓	✓	✓	✗	✗	✗
Known backsight	✓	✓	✓	✗	✗	✗
Resection	✓	✓	✓	✗	✗	✗
Auto resection	✓	✓	✓	✗	✗	✗
Traverse	✓	✓	✓	✗	✗	✗

REGISTRATION

Onsite pre-registration (Cyclone FIELD 360)	✓	✓	✓	✓	✓	✓
Cloud to cloud post-processing	✓	✓	✓	✓	✓	✓
Target based post-processing	✓	✓	✓	✓	✓	✓

GENERAL FUNCTIONALITY

Onboard target acquisition	✓	✓	✓	✗	✗	✗
Check & Adjust	✓	✓	✓	✓	✓	✗
One button scan control	✓	✓	✓	✓	✓	✓
Scan area definition from video or scan	✓	✓	✓	✗	✗	✗
Batch job scanning	✓	✓	✓	✗	✗	✗
Double scan for moving objects removal	✓	✓	✓	✓	✓	✗
Remote control	✓	✓	✓	✓	✓	✓

UPGRADE OPTIONS

Upgrade options	✗	Upgrade to P50	Upgrade to P40/P50	✗	✗	✗
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ADDITIONAL SENSORS

IMU	✗	✗	✗	✓	✓	✓
GNSS	Optional/External	Optional/External	Optional/External	✓	✓	✗
Altimeter	✗	✗	✗	✓	✓	✗
Compass	✗	✗	✗	✓	✓	✗
Visual Inertial System (VIS)	✗	✗	✗	✓	✗	✗

✓ = Available ✗ = Not available

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- when it has to be right

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