

Leica Geosystems Total Station Comparison Chart



	Leica FlexLine TS03	Leica FlexLine TS07	Leica FlexLine TS10	Leica TS13	Leica Viva TS16	Leica Nova TM50	Leica Nova TS60	Leica Nova MS60
	Manual Total Stations			Automated Total Stations				MultiStation
Angular accuracy	2", 3", 5"	1", 2", 3", 5", 7"	1", 2", 3", 5"	1", 2", 3", 5"	1", 2", 3", 5"	0.5", 1"	0.5"	1"
Prism range (GPR1, GPH1P)	0.9 m to 3'500 m > 10'000 m (Long Range mode)	0.9 m to 3'500 m > 10'000 m (Long Range mode)	0.9 m to 3'500 m > 10'000 m (Long Range mode)	1.5 m to 3'500 m > 10'000 m (Long Range mode)	1.5 m to 3'500 m > 10'000 m (Long Range mode)	1.5 m to 3'500 m > 10'000 m (Long Range mode)	0.9 m to 3'500 m > 10'000 m (Long Range mode)	1.5 m to > 10'000 m
Distance measurement accuracy on prism	1.0 mm + 1.5 ppm	1.0 mm + 1.5 ppm	1.0 mm + 1.5 ppm	1.0 mm + 1.5 ppm	1.0 mm + 1.5 ppm	0.6 mm + 1 ppm	0.6 mm + 1 ppm	1.0 mm + 1.5 ppm
PinPoint EDM: Reflectorless range ¹	R500: > 500 m	R500: > 500 m R1000: > 1'000 m	R500: > 500 m R1000: > 1'000 m	R500: > 500 m R1000: > 1'000 m	R500: > 500 m R1000: > 1'000 m	R1000: > 1'000 m	R1000: > 1'000 m	R2000: > 2'000 m
Distance measurement accuracy reflectorless	2 mm + 2 ppm	0 m - 500 m: 2 mm + 2 ppm > 500 m: 4 mm + 2 ppm	0 m - 500 m: 2 mm + 2 ppm > 500 m: 4 mm + 2 ppm	0 m - 500 m: 2 mm + 2 ppm > 500 m: 4 mm + 2 ppm	0 m - 500 m: 2 mm + 2 ppm > 500 m: 4 mm + 2 ppm	0 m - 500 m: 2 mm + 2 ppm > 500 m: 4 mm + 2 ppm	0 m - 500 m: 2 mm + 2 ppm > 500 m: 4 mm + 2 ppm	0 m - 500 m: 2 mm + 2 ppm > 500 m: 4 mm + 2 ppm
Display	3.5" QVGA 28 keys grayscale	3.5" QVGA 28 keys colour touchscreen	5" WVGA 25 keys (standard) colour touchscreen 5" WVGA 37 keys (optional) colour touchscreen	Keyboard Unit 4 keys (standard) 5" WVGA 25 keys (optional) colour touchscreen	5" WVGA 37 keys colour touchscreen	3.5" VGA 36 keys colour touchscreen	5" WVGA 37 keys colour touchscreen	5" WVGA 37 keys colour touchscreen
Key Illumination	X	✓	✓	• (keyboard/display unit)	✓	✓	✓	✓
Face II Display	X	•	•	• (keyboard/display unit)	•	•	✓	✓
Electronic Guide Light (EGL)	X	• (R1000 only)	• (R1000 only)	✓	✓	X	✓	✓
RS232 / SD / USB	✓	✓	✓	✓	✓	✓	✓	✓
BT / WLAN	X	✓	✓	✓	✓	✓	✓	✓
Mobile Data (GSM / UMTS / LTE)	X	•	•	X	X	X	X	X
Long Range BT Communication	X	X	X	• (with radio handle)	✓ (with radio handle)	✓ (with radio handle)	✓ (with radio handle)	✓ (with radio handle)
AutoHeight	X	•	✓	X	X	X	✓	✓
Overview camera	X	X	•	X	•	•	✓	✓
Telescope camera	X	X	X	X	X	•	✓	✓
SmartStation (GNSS) capability	X	X	X	•	•	•	•	•
Motorisation	X	X	X	DC drives	DC drives	Piezo drives	Piezo drives	Piezo drives
Automatic Target Aiming	X	X	X	✓ (ATR)	• (ATRplus)	✓ (Long Range ATR)	✓ (ATRplus)	✓ (ATRplus)
Prism fast search	X	X	X	• (SpeedSearch)	• (PowerSearch)	X	✓ (PowerSearch)	✓ (PowerSearch)
Prism Lock	X	X	X	•	✓ (except TS16M)	X	✓	✓
Scanning	X	X	X	X	X	X	X	✓ (up to 30'000 pts/s)
Autofocus	X	X	X	X	X	•	✓	✓
Remote Control	X	Leica CS20 Leica CS35	Leica CS20 Leica CS35	Leica CS20	Leica CS20 Leica CS35	Leica CS20 Leica CS35	Leica CS20 Leica CS35	Leica CS20 Leica CS35
Operating time	30 h (GEB361)	30 h (GEB361)	Up to 19 h (GEB361)	8 - 10 h (GEB222)	5 - 8 h (GEB222)	7 - 9 h (GEB242)	Up to 9h (GEB242)	Up to 9h (GEB242)
Weight ²	4.3 kg	4.3 kg	4.4 kg	4.8 kg	5.1 kg	6.8 kg	7.3 kg	7.3 kg
Field Software	FlexField	FlexField	Captivate	Captivate (optional keyboard/display unit)	Captivate	SmartWorx Viva	Captivate	Captivate
LOC8 ³	•	•	•	•	•	•	•	•

Legend: 1. Kodak gray 90% reflective 2. Standard instrument weight without battery 3. Tracking & theft deterrence device ✓ = Included • = Optional X = Not available