Leica FlexLine TS10
Manual Total Station

FlexLine

LEICA FLEXLINE TS10 MANUAL TOTAL STATION

- **Work faster**: measure more points per day due to faster measurements and stakeout procedures, supported by the revolutionary Leica Captivate field software. The software is made to make your work easier and more enjoyable.
- **Use it trouble-free**: increase productivity and minimise downtime by relying on instruments that simply work and come with a global service and support network.
- **Choose products that are built to last**: even after years of use under harsh conditions (like mud, dust, blowing rain, extreme heat and cold), FlexLine still operates with the same high level of quality.
- **Control your investment**: reliability, speed and accuracy ensure a lower investment over the product lifetime and a higher resell value.
- **Save time with AutoHeight:** this revolutionary feature enables the FlexLine TS10 manual total station to automatically measure, read and set the instrument height. Errors are minimised and the setup process onsite is faster.

The Leica FlexLine TS10 manual total station combines user-friendly, ergonomic design with high-end reliability under harsh conditions. It enables you to tie into the modern 3D dataflow, including enhanced linework and coding. The TS10 offers mobile data device integration as an option. The larger, highly visible colour- and touchscreen helps you to complete your surveying tasks with the highest speed and accuracy. The new FlexLine generation of manual total stations relies on a proven product concept that has been revolutionising the world of measurement and survey for nearly 200 years.

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ANGULAR MEASUREMENT		
Accuracy Hz and V	Absolute, continuous, diametrical[1]	1'' / 2'' / 3'' / 5''
	■ Display resolution: 0.1'' (0.1 mgon) ■ Quadruple axis compensation ■ Compensator setting accuracy[2]: 0.5'' / 1''/ 1.5'' ■ Compensator range: +/- 4' ■ Electronic level resolution: 2'' ■ Circular level sensitivity: 6` / 2 mm	✔
DISTANCE MEASUREMENT		
Range	■ Prism (GPR1, GPH1P): 0.9 m to 3,500 m ■ Prism GPR1 (Long Range mode) › 10,000 m	✔
	Non-Prism / Any surface ■ R500[3] ■ R1000[4]	✔ •
Accuracy / Measurement time	Single prism ■ Precise+ / Once: 1 mm + 1.5 ppm (typical 2.4 s) ■ Once&Fast: 2 mm + 1.5 ppm (typical 2 s) ■ Continously: 3 mm + 1.5 ppm (typical ‹ 0.15 s) ■ Averaging: 1 mm + 1.5 ppm ■ Long Range mode / › 4 km: 5 mm + 2 ppm (typical 2.5 s)	✔
	Non-Prism / Any surface ■ 0 m - 500 m: 2 mm + 2 ppm (typical 2.4 s[5]) ■ › 500 m: 4 mm + 2 ppm	✔
Laser dot size	■ At 30 m: 7 mm x 10 mm ■ At 50 m: 8 mm x 20 mm ■ At 100 m: 16 mm x 25 mm	✔
Telescope	■ Magnification: 30x ■ Resolving power: 3'' ■ Focusing range: 1.55 m / 5.08 ft to infinity ■ Field of view: 1°30' / 1.66 gon / 2.7 m at 100 m	✔
GENERAL		
Display and keyboard	5'' (inch), 800 x 480 pixels WVGA, colour and touch ■ 25 keys[6a] ■ 37 keys with function keys[6b]	✔ •
	2nd keyboard	•
	Key illumination	✔
Operation	■ Endless drives for HZ & V ■ Trigger-Key: user definable with 2 functions	✔
Power management	Exchangeable Lithium-Ion battery[7] ■ Operating time with GEB361 ■ Operating time with GEB331	up to 18 h, up to 19 h[8] up to 9 h
	Battery charging time with ■ GKL341 charger for GEB361 / GEB331 ■ GKL311 charger for GEB361 / GEB331	3 h 30 min / 3 h 6 h 30 min / 3 h 30 min
	External supply voltage ■ Nominal voltage 13.0 V DC & 16 W max	✔
Data storage	■ Internal memory: 2 GB Flash ■ Memory card: SD card 1 GB or 8 GB ■ USB memory stick: 1 GB	✔
Processor	■ TI OMAP4430 1GHz Dual-core ARM® Cortex™ A9 MPCore™ ■ Operating system – Windows EC7	✔
Interfaces	RS232[9], USB device	✔
	Bluetooth®[10], WLAN[11]	✔
	Mobile Data sidecover: LTE-Modem for internet access	•
Guide Light (EGL)	■ Working range: 5 m to 150 m ■ Position accuracy: 5 cm at 100 m ■ Wavelength red /orange: 617 nm / 593 nm	✔ (R1000)
Laser plummet (Laserclass 2)	Accuracy ■ Plumb line deviation: 1.5 mm at 1.5 m instrument height ■ Diameter of laser point: 2.5 mm at 1.5 m instrument height	✔
AutoHeight module for automatic instrument height measurement (Laserclass 2)	Accuracy ■ Distance accuracy: 1.0 mm (1 Sigma) ■ Distance range: 0.7 m to 2.7 m	✔
Weight		4.4 - 4.9 kg
Environmental specifications	■ Working temperature range: –20°C to +50°C[12] ■ Arctic version: –35°C to +50°C ■ Dust / Water (IEC 60529) / Humidity: IP66 / 95%, non-condensing ■ Military Standard 810G, Method 506.5	✔ • ✔ ✔
Imaging	■ 5 megapixel CMOS sensor ■ Overview camera with field of view 19.4°	•
LOC8	Tracking and theft deterrence device	•

Legend:
1. 1'' (0.3 mgon), 2'' (0.6 mgon), 3'' (1 mgon), 5'' (1.5 mgon)
2. Angular accuracy / Compensator setting accuracy: 1'' /0.5'' (0.2 mgon), 2''/0.5'' (0.2 mgon), 3''/1.0'' (0.3 mgon), 5''/1.5'' (0.5 mgon)
3. R500: Kodak gray 90% reflective (0.9 m to ›500 m), Kodak gray 18% reflective (0.9 m to ›200 m)
4. R1000: Kodak gray 90% reflective (0.9 m to ›1000 m), Kodak gray 18% reflective (0.9 m to ›500 m)
5. Up to 50m, max. measurement time 15s
6. (a) Face I standard, face II optional, (b) face I optional, face II optional
7. Distance/angle measurement every 30 seconds
8. Continuous angle measurement only
9. 5 PIN Lemo-0 for power, communication and data transfer
10. For communication and data transfer
11. For internet access, communication and data transfer, WLAN range up to 200 m
12. Storage temperature: –40°C to +70°C

✔ = Included • = Optional ✗ = Not available

Laser radiation, avoid direct eye exposure.
Class 3R laser product in accordance with IEC 60825-1:2014.

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- when it has to be **right**

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