Leica FlexLine TS03
Manual Total Station

FlexLine

LEICA FLEXLINE TS03 MANUAL TOTAL STATION

- **Work faster**: measure more points per day due to faster measurement and stakeout procedures (endless drives, trigger key, drives on both sides, pinpoint EDM and more), supported by our comprehensive and user-friendly Leica FlexField software.
- **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**: FlexLine operates with the same high level of quality even after years of use under harsh conditions (like mud, dust, blowing rain, extreme heat and cold).
- **Control your investment**: reliability, speed and accuracy ensure a lower investment over the product lifetime and a higher resell value.

The Leica FlexLine TS03 high-quality, manual total station is based on a proven product concept that has been revolutionising the world of measurement and survey for nearly 200 years. The instrument is equipped with a comprehensive application-based software package - Leica FlexField software - that enables most survey and stakeout tasks to be carried out easily and efficiently. The new FlexLine manual total stations work reliably and deliver accurate results even in harsh environments.

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ANGULAR MEASUREMENT		
Accuracy Hz and V	Absolute, continuous, diametrical[1]	3''
	■ Display resolution: 0.1'' (0.1 mgon) ■ Quadruple axis compensation ■ Compensator setting accuracy[2]: 0.5'' / 1''/ 1.5'' / 2'' ■ 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]	✔
Accuracy / Measurement time	Single prism ■ Precise+ / Once: 1 mm + 1.5 ppm (typical 2.4 s) ■ Precise&Fast / Once&Fast: 2 mm + 1.5 ppm (typical 2 s) ■ Tracking / 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])	✔
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		3.5" (inch), 320 x 240 px QVGA, grayscale, 28 keys[6]
Operation	■ Endless drives for HZ & V ■ Trigger-Key: user definable with 2 functions	✔
Power management	Exchangeable Lithium-Ion battery[7] ■ Operating time with GEB361 (optional) ■ Operating time with GEB331 (default)	 up to 30 h up to 15 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 ■ Support USB and SD card	✔
Processor	■ TI OMAP4430 1GHz Dual-core ARM® Cortex™ A9 MPCore™ ■ Operating system – Windows EC7	✔
Interfaces	RS232[8], USB device	✔
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	✔
Weight		4.3 kg
Environmental specifications	■ Working temperature range: -20°C to +50°C[11] ■ Dust / Water (IEC 60529) / Humidity: IP66 / 95%, non-condensing ■ Military Standard 810G, Method 506.5	✔ ✔ ✔
LOC8	Tracking and theft deterrence device	•

Legend:

1. 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)
5. Up to 50 m, max. measurement time 15 s
6. Face I standard
7. Distance/angle measurement every 30 seconds
8. 5 PIN Lemo-0 for power, communication and data transfer
9. 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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