

# Leica FlexLine TS03 Manual Total Station



FlexLine



## LEICA FLEXLINE TS03 MANUAL TOTAL STATIONS

- **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 <sup>1</sup> <ul style="list-style-type: none"> <li>■ Display resolution: 0.1" (0.1 mgon)</li> <li>■ Quadruple axis compensation</li> <li>■ Compensator setting accuracy<sup>2</sup>: 0.5" / 1" / 1.5" / 2"</li> <li>■ Compensator range: +/- 4"</li> <li>■ Electronic level resolution: 2"</li> <li>■ Circular level sensitivity: 6 / 2 mm</li> </ul>	2" / 3" / 5" <ul style="list-style-type: none"> <li>✓</li> </ul>
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## DISTANCE MEASUREMENT

Range	<ul style="list-style-type: none"> <li>■ Prism (GPR1, GPH1P): 1.5 m to 3.500 m</li> <li>■ Prism GPR1 (Long Range mode) &gt; 10.000 m</li> <li>■ Non-Prism / Any surface</li> <li>■ R500<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> </ul>
Accuracy / Measurement time	<ul style="list-style-type: none"> <li>■ Single prism</li> <li>■ 1 mm + 1.5 ppm (typical 1 - 2 s)</li> <li>■ Non-Prism / Any surface</li> <li>■ 0 m - 500 m: 2 mm + 2 ppm (typical 3 - 6 s)</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>✓</li> </ul>
	Display resolution: 0.1 mm	✓
Laser dot size	<ul style="list-style-type: none"> <li>■ At 30 m: 7 mm x 10 mm</li> <li>■ At 50 m: 8 mm x 20 mm</li> <li>■ At 100 m: 16 mm x 25 mm</li> </ul>	✓
Telescope	<ul style="list-style-type: none"> <li>■ Magnification: 30x</li> <li>■ Resolving power: 3"</li> <li>■ Focusing range: 1.55 m / 5.08 ft to infinity</li> <li>■ Field of view: 1°30' / 1.66 gon / 2.7 m at 100 m</li> </ul>	✓

## GENERAL

Display and keyboard		3.5" (inch), 320 x 240 px QVGA, grayscale, 28 keys
	2 <sup>nd</sup> keyboard	X
Operation	<ul style="list-style-type: none"> <li>■ Endless drives for HZ &amp; V</li> <li>■ Trigger-Key: user definable with 2 functions</li> </ul>	✓
Power management	<ul style="list-style-type: none"> <li>■ Exchangeable Lithium-Ion battery<sup>4</sup></li> <li>■ Operating time with GEB361</li> <li>■ Operating time with GEB331</li> </ul>	up to 30 h up to 15 h
	<ul style="list-style-type: none"> <li>■ External supply voltage</li> <li>■ Nominal voltage 13.0 V DC &amp; 16 W max</li> </ul>	✓
Data storage	<ul style="list-style-type: none"> <li>■ Internal memory: 2 GB Flash</li> <li>■ Memory card: SD card 1 GB or 8 GB</li> <li>■ USB memory stick: 1 GB</li> </ul>	✓
Processor	<ul style="list-style-type: none"> <li>■ TI OMAP4430 1GHz Dual-core ARM® Cortex™ A9 MPCore™</li> <li>■ Operating system – Windows EC7</li> </ul>	✓
Interfaces	RS232 <sup>5</sup> , USB device	✓
Laser plummet (Laserclass 2)	<ul style="list-style-type: none"> <li>■ Accuracy</li> <li>■ Plumb line deviation: 1.5 mm at 1.5 m instrument height</li> <li>■ Diameter of laser point: 2.5 mm at 1.5 m instrument height</li> </ul>	✓
Weight		4.3 kg
Environmental specifications <sup>6</sup>	<ul style="list-style-type: none"> <li>■ Working temperature range: -20°C to +50°C</li> <li>■ Dust / Water (IEC 60529) / Humidity: IP66 / 95%, non-condensing</li> <li>■ Military Standard 810G, Method 506.5</li> </ul>	✓

### Legend:

1. 1" (0.3 mgon), 2" (0.6 mgon), 3" (1 mgon), 5" (1.5 mgon), 7" (2 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), 7" / 2.0" (0.7 mgon)
3. R500: Kodak gray 90% reflective (1.5 m to >500 m), Kodak gray 18% reflective (1.5 m to >200 m)
4. Distance/angle measurement every 30 seconds

5. 5 PIN Lemo-0 for power, communication and data transfer
6. Storage temperature: -40°C to +70°C

✓ = Included • = Optional X = Not available

Laser radiation, avoid direct eye exposure.

Class 3R laser product in accordance with IEC 60825-1:2014.

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