

# Leica FlexLine TS09plus Full Precision at High Performance



## Leica FlexLine TS09plus

The new Leica FlexLine TS09plus Total Station is ideal for mid to high-accuracy applications. The brilliant colour display with touch operation, built-in Bluetooth, USB host and device board offer the highest performance and ease of use.

- when it has to be **right**

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### The First Plus:

#### Original Leica Geosystems Quality

For most, "quality" is relative. Not so at Leica Geosystems. To ensure our instruments meet the highest precision and quality requirements, we manufacture them in State-of-the-Art facilities around the world. Swiss technology combines with exceptional craftsmanship to provide best-in-class devices.

### The Second Plus:

#### Real Features, True Benefits.

Among others the extensive configuration of the TS09plus offers a new cloud based theft protection, increased EDM speed and accuracy, increased Non-Prism range, USB and Bluetooth® and the large colour & touch display.

### The Third Plus:

#### Superior Convenience and Performance.

Work productively with the new Leica FlexField plus on-board software and the new colour & touch display. The new Leica FlexField plus software is without a doubt a highlight of the FlexLine plus series. Its advantages are immediately apparent with the extra large colour & touch display.

Proven Specifications, Reliable Instruments. Leica FlexLine TS09plus Specifications:

Angle Measurement (Hz, V)		
Accuracy <sup>1)</sup>	1" (0.3 mgon) / 2" (0.6 mgon) 3" (1 mgon) / 5" (1.5 mgon)	✓
Method	Absolute, continuous, diametrical: at all models	✓
Display resolution	0.1" / 0.1 mgon / 0.01 mil	✓
Compensation	Quadruple Axis Compensation: at all models	✓
Compensator Setting Accuracy	0.5" / 0.5" / 1" / 1.5"	✓
Distance Measurement with Reflector		
Range <sup>2)</sup> Round prism (Leica GPR1)	3.500 m	✓
Accuracy <sup>3)</sup>	Precise+: 1.5 mm+2.0 ppm / Precise Fast: 2.0 mm+2.0 ppm / Tracking: 3.0 mm+2.0 ppm	✓
Typical Measurement time <sup>4)</sup>	1.0 s	✓
Distance Measurement without Reflector <sup>8)</sup>		
Range <sup>5)</sup> PinPoint R500 / R1000	> 500 m / > 1000 m	✓○
Accuracy <sup>3)6)</sup>	2 mm+2 ppm	✓
Laser dot size	At 30 m: approx. 7 x 10 mm / At 50 m: approx. 8 x 20 mm	✓
Data Storage / Communication		
Internal memory	Max.: 100'000 fixpoints, Max.: 60'000 measurements	✓
USB memory stick	1 Gigabyte, Transfer time 1'000 points/s	✓
Interfaces	- Serial (Baudrate up to 115'200) / - USB Type A and mini B, / - Bluetooth® Wireless, class 1, 150 m - > 1000 m (with TCPS29)	✓ ○
Data formats	GSI / DXF / LandXML / CSV / user definable ASCII formats	✓
Keyboard and Display		
Keyboard and Display	Full Alpha-numerical keyboard with Colour & Touch display, Graphics, Q-VGA, key&display illumination, 5 brightness levels	✓
Position	Face I, Face II	✓○
Laserplummet		
Type	Laser point, 5 brightness levels	✓
Battery		
Type, Operating time <sup>7)</sup>	Lithium-Ion, approx. 30 hours	✓
Environmental		
Temperature range (operation)	-20° C to +50° C (-4° F to +122° F) Arctic Version -35° C to 50° C (-31° F to +122° F)	✓ ○
Dust / Water (IEC 60529) Humidity	IP55, 95%, non condensing	✓
Leica FlexField plus Onboard Software		
Included Application Programs: Topography; Stake Out; Station Setup including: Resection, Local Resection, Helmert Resection, Orientation (Angles & Coordinates), Height Transfer; Area (Plan & Surface); DTM Volume calculation; Tie Distance (MLM); Remote Height; Hidden Point; Backsight Check; Offset; Reference Line; Reference Arc; Reference Plane; Road 2D; COGO; Road 3D; Traverse		✓
Theft protection		
mySecurity, PIN/PUK Code		✓✓

✓ = included    ○ = option

- 1) Standard deviation ISO-17123-3
- 2) Overcast, no haze, visibility about 40 km; no heat shimmer
- 3) Standard deviation ISO-17123-4
- 4) Prism Precise Fast mode

- 5) Under optimal conditions on Kodak Grey Card (90% reflective). Maximum range varies with atmospheric conditions, target reflectivity and surface structure
- 6) Range > 500m 4mm+2ppm
- 7) Single Measurement every 30 second by 25° C. Battery time may be shorter if battery is not new. Internal battery GEB222
- 8) Reflectorless measurement time may vary according to measuring objects, observation situations and environmental conditions

Illustrations, descriptions and technical specifications are not binding and may change.  
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