

Leica FlexLine TS02plus

Data sheet



plus

Leica FlexLine TS02plus

ANGLE MEASUREMENT (HZ, V)

Accuracy ¹⁾	3" (1 mgon) / 5" (1.5 mgon) 7" (2 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	1" / 1.5" / 2"	✓
Compensator range	0.07 gon	✓
Endless Drives	Smooth movements with no de- layed response time	✓

DISTANCE MEASUREMENT WITH REFLECTOR

Range ²⁾ Round prism (Leica GPR1)	3.500 m	✓
Range ²⁾ Reflective tape (60 mm x 60 mm)	250 m > 500 m ⁸⁾	✓
Accuracy ³⁾	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 ⁴⁾	2.0 s	✓
Measurement time while in "Precise+" mode	2.4 s	✓

DISTANCE MEASUREMENT WITHOUT REFLECTOR ⁷⁾

Range ⁵⁾ PinPoint R500	500 m	○
Accuracy ³⁾	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.: 24,000 fixpoints, Max.: 13,500 measurements	✓
Interfaces	Serial (Baudrate up to 115'200)	✓
Data formats	GSI / DXF / LandXML / CSV / user definable ASCII formats	✓

TELESCOPE

Magnification / Resolving power	30 x / 3"	✓
Field of View	1° 30' (1.66 gon) 2.7 m at 100 m	✓
Focusing range	1.7 m to infinity	✓
Reticle	Illuminated, 10 brightness levels	✓

KEYBOARD AND DISPLAY

Keyboard and Display	Simple alpha-numerical keyboard with high resolution, Black & white display, Graphics, 160 x 288 pixels, display illuminated, 5 brightness levels	✓
Position	Face I, Face II	✓○

OPERATING SYSTEM

Windows CE	5.0 Core	✓
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LASERPLUMMET

Type	Laser point, 5 brightness levels	✓
Centering accuracy	1.5 mm at 1.5 m	✓

BATTERY

Type	Lithium-Ion	✓
Operating time ⁶⁾	Approx. 30 hours	✓
Battery charging time	2.3 hours	✓

WEIGHT

TS including GEB211 and tribrach	5.1 kg	✓
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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: Survey; 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;

Extra Application Programs: Reference Arc; Reference Plane; COGO; Road 2D

THEFT PROTECTION

mySecurity, PIN/PUK code		✓✓
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Model Comparison: Configurations & Options of Manual Total Stations

	TS02PLUS	TS06PLUS	TS09PLUS	VIVA TS11
1" angular accuracy	-	○	○	○
Enhanced measurement accuracy to prism	1.5 mm + 2 ppm	1.5 mm + 2 ppm	1.5 mm + 2 ppm	1.0 mm + 1.5 ppm
Reflectorless measurement range	500 m option	500 m included/1000 m option	500 m included/1000 m option	500 m included/1000 m option
Display with graphics and display illumination	Black & White high resolution	Black & White high resolution	Q-VGA Colour & Touch	Full-VGA Colour & Touch
Full alpha-numerical keyboard with function keys	-	✓	✓	✓
Second Keyboard	○	○	○	○
Keyboard illumination	-	-	✓	✓
Electronic Guide Light	-	○	✓	✓
USB Type A and mini B	-	✓	✓	✓
Bluetooth® Wireless	-	✓	✓	✓
SD Card	-	-	-	✓
Imaging capability	-	-	-	○
Smart Station GNSS capability	-	-	-	○
Onboard software (package content)	FlexField plus (standard)	FlexField plus (advanced)	FlexField plus (full)	SmartWorx Viva (pro)

Legend:

- 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) Single measurement every 30 second at 25° C. Battery time may be shorter if battery is not new. Internal battery GEB222.
- 7) Reflectorless measurement time may vary according to measuring objects, observation situations and environmental conditions.
- 8) With R500 option using non-prism mode

- ✓ Included
- Optional
- Not available



Cover picture:
Los Angeles skyline

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- when it has to be **right**

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