

Leica TS13 Total Station

Basic variant



ANGLE MEASUREMENT

Accuracy ¹ Hz and V	■ Absolute, continuous, diametrical	1" (0.3 mgon), 2" (0.6 mgon), 3" (1 mgon), 5" (1.5 mgon)
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DISTANCE MEASUREMENT

Range ²	■ Prism (GPR1, GPH1P) ³ ■ Non-Prism / Any surface ⁴	0.9 m to 3,500 m R500: 0.9 m to >500 m R1000: 0.9 m to >1,000 m
Accuracy / Measurement time	■ Single (prism) ^{2,5} ■ Single (prism fast) ^{2,5} ■ Single (any surface) ^{2,4,5,6}	1 mm + 1 ppm / typically 2.4 s 2 mm + 1 ppm / typically 1.5 s ¹⁰ 2 mm + 2 ppm / typically 2 s ⁹
Laser dot size	At 50m	8 mm x 20 mm
Measurement technology	System analyser	Coaxial, visible red laser

AUTOMATIC AIMING - ATR

Target aiming range ²	■ Circular prism (GPR1, GPH1P) ■ 360° prism (GRZ4, GRZ122)	■ 1,000 m ■ 800 m
Accuracy ^{1,2} / Measurement time	ATR angle accuracy Hz, V	1" (0.3 mgon), 2" (0.6 mgon), 3" (1 mgon), 5" (1.5 mgon) / typically 3-4 s

GUIDE LIGHT (EGL)

Working range / Accuracy	5 - 150 m / typically 5 cm @ 100 m	
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GENERAL

Processor	TI OMAP4430 1 GHz Dual-core ARM® Cortex™- A9 MPCore™	
AutoHeight module for automatic instrument height measurement	■ Distance accuracy ■ Distance range	1.0 mm (1 Sigma) 0.7 m to 2.7 m
Power management	Exchangeable Lithium-Ion battery	Operating time up to 8 h
Field software	Leica Captivate with apps	Running on field controller
Data storage	■ Internal memory 2 GB ■ SD card 1 GB or 8 GB	On field controller
Interfaces	RS232, USB, Bluetooth®, WLAN	
Weight	Total station including battery	5.0 kg
Environmental specifications	■ Working temperature range ■ Dust / Water (IEC 60529) / Humidity	■ -20°C to +50°C ■ IP55 / 95%, non-condensing

Upgrades⁷



KEYBOARD DISPLAY UNIT (Optional)

Keyboard with display	Face I and face II optional	5" (inch), WVGA, colour, touch 25 keys, illumination
Operating System / Field Software	Windows EC7 / Leica Captivate with apps	Running on TS13 instrument
Data storage	Internal memory 2 GB SD card 1 GB or 8 GB	On TS13 instrument
Weight	Total station including battery	5.3 kg

TARGET LOCK (Optional)

Target locking range ²	■ Circular prism (GPR1, GPH1P) ■ 360° prism (GRZ4, GRZ122)	■ 800 m ■ 600 m
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ROBOTIC SURVEYING including PRISM FAST SEARCH (Optional)¹¹

SpeedSearch range / Search time	360° prism (GRZ4, GRZ122)	300 m / Typically 7 s
Robotic range with long-range Bluetooth® ⁸	To CS20 internal long-range Bluetooth® To CTR20 expansion pack	500 m 1,000 m