

Total Station

GX-TS30

350m reflectorless, 2" accuracy instrument and a measurement range up to 3000m with single prism

Communication with Bluetooth, SD Card, Pen Drive, mini USB port or RS232 to load/download data

Laser technology (class 3 laser with a wavelength between 650 and 690nm) for distance measurement

Alphanumeric keyboard on both sides with high resolution LCD display and backlight, 6 lines of 25 characters

Large storage capacity with 20.000 points internal memory plus external SD Card up to 32GB



Total Station **GX-TS30**

GEOGEX GX-TS30 Total Station, gives you precise distance and angles measurements and it is the perfect tool whenever the topographic works requires a light and fast machine, all day working in surveying jobs or construction works.

On-board field programs, included as standard, make GX-TS30 suitable for any construction site, cadastral, mapping and staking out, works. No limitation for distance measurements, up to 3.000 m with a single prism - 350 m reflectorless– and 2" as angular accuracy, always guarantee a reliable points calculation. It has been designed to hold out against rain and dust: the IP65 certification allows to go ahead with the survey.

Features

Dual-axis Compensation

The GX-TS30 is configured with advanced dual-axis compensator for auto error elimination and auto accuracy compensation.

High-performance MCU SMT32

The STM32 MCU based on ARM Cortex™-M processor enables the GX-TS30 has extra high processing speed and low-power consumption.

Backlight

The display and keyboard with backlight for working in the dark.

Calibration Software

The proprietary GEOGEX Calibration software is accessible for real-time diagnosis to ensure trouble-free operation.

Data Transfer Software

The proprietary GEOGEX data transfer software supports different type of output data format, which can be used in CAD processing software.

Diagonal Eyepiece

Support optional diagonal eyepiece for observations at steep line of sight.

Absolute Encoding

The absolute encoding disk ensures high accuracy, efficiency and stable performance. Initialization is needless but to measure the angle immediately as the GX-TS30 is turned on. The azimuth information won't be missed even the GX-TS30 is power-off unexpectedly.

Data Storage

Diversified data transfer options such as SD card, USB pen drive, mini-B interface and Bluetooth.

Bluetooth

The Bluetooth wireless technology makes GX-TS30 accessible to any data collector for real-time communication. The third party field software such as Carlson SurvCE is fully compatible with the GX-TS30.

Technical Parameters

Angle Measurement

Measurement Method:	Absolute Encoding
Minimum Readout:	1"/5"/10" (0.3mgon/1.5mgon/3mgon) adjustable
Accuracy ¹ :	2"

Distance Measurement (with reflector)

Single Prism ³ :	3000m (9,842ft.) under good condition
Three Prisms ³ :	6000m (19,685ft.) under good condition
Reflective Sheet:	800m (2,624 ft.)
Accuracy:	2 mm +2ppm
Measuring Time (Fine/Quick/Tracking) ⁵ :	1.5s/1s/ 0.5s

Distance Measurement (without reflector)

Reflectorless ² Range:	350m (1,148 ft.)
Single Prism:	>7500m (24,606ft.)
Accuracy:	3mm+2ppm
Measuring Time ⁵ :	1.5s

Telescope

Magnification:	30x
Field of View:	1°30' (2.7m at 100m)
Minimum Focusing Distance:	1.5m
Reticle:	Illuminated

Compensator

System:	Single-axis liquid tilt sensor/Dual-axis (optional)
Working Range:	±3'
Setting Accuracy:	1"

Laser Plummet

Type:	Laser point, 4 brightness levels adjustment / Optical plummet (optional)
Centering Accuracy:	1 mm at 1.5m instrument height

Communication

	Bluetooth
Interface:	Standard RS232, SD card ⁴ , USB pen drive, mini-B
Internal Data Memory:	Approx. 20,000 Points
Data Format:	ASCII

Operation

Operation system:	Real-time Operating System
Display:	High resolution backlight black and white display with contrast adjustment/ Graphics: 280 x 160 pixels / Character: 6 lines x 25 characters
Keyboard:	2 sides Alphanumeric backlit crystal keyboard

Power Supply

Battery Type:	Rechargeable Li-ion battery
Voltage/Capacity:	ZBA-400: 7.4V (DC) / 3000mAh
Operating Time With ZBA-400:	Optimal 16 hours ⁵ (Continuous angle measurement every 30 seconds) / 10 hours (typical)
Measuring Times:	Approx. 12000 times

Weight

Weight (Incl. Battery & Tribach):	Approx. 5.5kg (12.1lb.)
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Environmental

Operating Temperature:	-20°C ~ +50°C (-4°F to +122°F)
Storage Temperature:	-40°C ~ +70°C (-40°F to + 158°F)
Dust&Water Proof Humidity:	IP65, 95%, non-condensing (IEC60529 Standard)/

¹ The standard deviation conforms to ISO 17123-3 standard.

² Calculated by the white side of Kodak Gray Card with 90% reflectivity, the precise distance shall be dependent on the measuring tool, observation and environment conditions.

³ The optimal conditions mean no haze, moderate sunlight and the visibility of 40km.

⁴ The maximum storage is up to 32GB.

⁵ The measuring time is calculated with new battery at 25°C with the working mode of 24-hour continuous surveying