

ZTS-320R

Total Station



SPECIFICATIONS

Angle Measurement

Measurement Method.....Absolute Encoding
 Minimum Readout.....1"/5"/10"
 (0.3mgon/1.5mgon/3mgon) adjustable
 Accuracy¹.....2"

Distance Measurement

Single Prism.....3000m (9,842ft.) under good condition³
 Three Prisms.....6000m (19,685ft.) under good condition³
 Reflective Sheet.....800m (2,624 ft.)
 Accuracy..... 2mm+2ppm
 Measuring Time (Fine/Quick/Tracking).....1.5s/1s/ 0.5s

Distance Measurement

Reflectorless² Range600m(1,969 ft.)
 Single Prism.....>7500m (24,606ft.)
 Accuracy.....3mm+2ppm
 Measuring Time.....1.5s

Telescope

Magnification.....30X
 Field of View.....1°30' (2.7m at 100m)
 Minimum Focusing Distance.....1.2m
 Reticle.....Illuminated

Compensator

System.....Dual-axis liquid tilt sensor
 Working Range.....±3'
 Setting Accuracy.....1"

Communication

Bluetooth
 Interface.....Standard RS232, SD card⁴, Micro USB
 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.....192 x 96 pixels
 Character: 6 lines x 25 characters
 Keyboard.....2 sides Alphanumeric backlit crystal keyboard

Laser Plummet

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

Power Supply

Battery Type.....Rechargeable Li-ion battery
 Voltage/Capacity..... BT10:7.4V (DC) / 3000mAh
 Operating Time With BT10..... Optimal 16 hours⁵ (Continuous angle measurement every 30 seconds) / 10 hours (typical)
 Measuring Times.....Approx. 12000 times

Weight

Weight (Incl. Battery&Tribrach)..... Approx. 5.5kg (12.1lb.)

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 (IEC60529 Standard)/Humidity.....IP65, 95%, non-condensing

¹ Standard deviation based on ISO 17123-3.

² Calculated by Kodak Gray Card white side (90% reflective), exact distance depends on measuring object, observation and environment conditions.

³ Good condition: no haze, visibility about 40km, moderate sunlight,

⁴ Maximum extension up to 32GB.

⁵ New battery at 25 C, 24 hours continuously angel measurement mode.

Descriptions and specifications are subject to change without notice



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① **Dual-axis Compensation**

The ZTS-320R is configured with advanced dual-axis compensator for auto error elimination and auto accuracy compensation.

② **Absolute Encoding**

The absolute encoding disk ensures high accuracy, efficiency and stable performance. Initialization is needless but to measure the angle immediately as the ZTS-320R is turned on. The azimuth information won't be missed even the ZTS-320R is power-off unexpectedly.

③ **High-performance MCU SMT32**

The SMT32 MCU based on ARM Cortex™-M processor enables the ZTS-320R has extra high processing speed and low-power consumption.

④ **Bluetooth**

The Bluetooth wireless technology makes ZTS-320R accessible to any data collector for real-time communication. The third party field software such as Carlson SurvCE is fully compatible with the ZTS-320R.

⑤ **Data Storage**

Diversified data transfer options such as SD card, Micro USB.

⑥ **Backlight**

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

⑦ **Diagonal Eyepiece**

Support diagonal eyepiece for observations at steep line of sight.

⑧ **Calibration Software**

The proprietary HI-TARGET calibration software is accessible for real-time diagnosis to ensure trouble-free operation.

⑨ **Data Transfer Software**

The proprietary HI-TARGET data transfer software supports different type of output data format, which can be used in AutoCAD or other brands' post processing software.



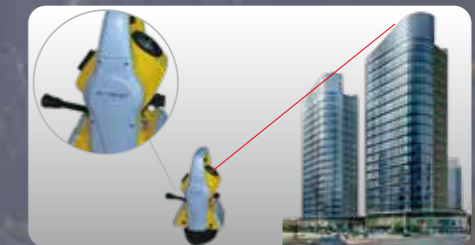
Absolute Encoding



Bluetooth



High-performance MCU



Diagonal Eyepiece



Backlight



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