

## SPECIFICATIONS

<b>Angle Measurement</b>	Measurement Method: Absolute Encoding Minimum Readout: 1"/5"/10" ( 0.3mgon/1.5mgon/3mgon ) optional Accuracy <sup>1</sup> : 2"
<b>Distance Measurement (HTS-420 with Reflector)</b>	Single Prism: 3000m (9,842ft.) under good condition <sup>3</sup> Three Prisms: 6000m (19,685ft.) under good condition <sup>3</sup> Reflective Sheet: 800m (2,624 ft.) Accuracy: 2 mm +2ppm Measuring Time (Fine/Quick/Tracking): 1.5s/1s/ 0.5s
<b>Distance Measurement (HTS-420R Reflectorless)</b>	Reflectorless <sup>2</sup> Range: 600m (1968.5 ft) Single Prism: >7500m (24606ft.) Accuracy: 3mm+2ppm Measuring Time: 1.5s
<b>Telescope</b>	Magnification: 30X Field of View: 1°30' (2.7m at 100m) Minimum Focusing Distance: 1.2m Reticle: Illuminated
<b>Compensator</b>	System: Dual-axis liquid tilt sensor Working Range: ±3' Setting Accuracy: 1"
<b>Communication</b>	Bluetooth Interface: Standard RS232, SD card <sup>4</sup> , USB pen drive, mini-B Internal Data Memory: Approx. 20,000 Points Data Format: ASCII
<b>Operation</b>	Operation system: Real-time Operating System Display: Gray and white display with adjustable contrast; 280 X 160 pixels; 6 lines X 25 characters Keyboard: 2 sides Alphanumeric backlit crystal keyboard
<b>Laser Plummet</b>	Type: Laser point, 4 brightness levels adjustment / Optical plummet (optional) Centering Accuracy: 1 mm at 1.5m instrument height
<b>Power Supply</b>	Battery Type: Rechargeable Li-ion battery Voltage/Capacity: ZBA-400: 7.4V (DC) / 3000mAh Operating Time With ZBA-400: Optimal 16 hours <sup>5</sup> (Continuous angle measurement every 30 seconds) / 10 hours (typical) Measuring Times: Approx. 12000 times
<b>Weight</b>	Weight (Incl. Battery&Tribrach): Approx. 5.5kg (12.1lb.)
<b>Environmental</b>	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

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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.

# HI-TARGET

Surveying the world, Mapping the future.

## HTS-420R Total Station

- Dual-axis reflectorless total station
- 2" accuracy with 600meter range
- Wireless bluetooth communication
- Big storage, can be extended up to 32GB
- Convenient data import and export with USB port



FC CE  IP65

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#### Dual-axis Compensation

The HTS-420R is configured with advanced dual-axis compensator for auto error elimination and auto accuracy compensation.



#### Absolute Encoding

The absolute encoding disk ensures high accuracy, efficiency and stable performance. No need to initialize but to measure the angle immediately as the HTS-420R is turned on. The previous data and setting are automatically saved. No data or setting is missed even though the HTS-420R is power-off unexpectedly.



#### High-performance MCU SMT32

Based on ARM Cortex™-M processor, the SMT32 MCU enabling the HTS-420R extra high processing speed and low-power consumption.



#### Bluetooth

The Bluetooth wireless technology makes HTS-420R accessible to any data collector for real-time communication. The third party field software such as Carlson SurvCE is fully compatible with the HTS-420R.



#### Data Storage

Multiple data transfer options such as SD card and Micro-USB port, which can work perfectly with our complimentary dual port USB disk.



#### Backlight

Adjustable backlight of the screen and the keyboard offer you a visible condition to work in the dark.



#### Diagonal Eyepiece

Support diagonal eyepiece for observations at steep line of sight.



#### Calibration Software

Real-time diagnosis can be run with HI-TARGET Calibration software, to find out the problem quickly to ensure trouble-free operation.



#### New Data Transfer Software

The newly easy-to-use data transfer software supports different type of output data format, which can be used in AutoCAD or other 3<sup>rd</sup> party post processing software.