SPECIFICATIONS

Angle Measurement	Measurement Method: Absolute Encoding Minimum Readout: 1″/5″/10″（0.3mgon/1.5mgon/3mgon）optional Accuracy[1] : 2″
Distance Measurement (HTS-420 with Reflector)	Single Prism: 3000m (9,842ft.) under good condition[3] Three Prisms: 6000m (19,685ft.) under good condition[3] Reflective Sheet: 800m (2,624 ft.) Accuracy: 2 mm +2ppm Measuring Time (Fine/Quick/Tracking): 1.5s/1s/ 0.5s
Distance Measurement (HTS-420R Reflectorless)	Reflectorless[2] Range: 600m (1968.5 ft) Single Prism: >7500m (24606ft.) 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 card[4], Micro USB Internal Data Memory: Approx. 20,000 Points Data Format: ASCII
Operation	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
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 hours[5] (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℃ ~ + 50℃(-4℉ to +122℉) Storage Temperature: -40℃ ~ + 70℃(-40℉ to + 158℉) 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℃, 24 hours continuously angel measurement mode.

AUTHORIZED DISTRIBUTION PARTNER

21J330

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CE IP65

Hi-Target
Surveying the World, Mapping the Future

HTS-420R

Total Station

Key Features

- 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

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 STM32
Based on ARM Cortex™-M processor, the STM32 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.rd

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 party post processing software.