

SPECIFICATIONS

Model	HTS-420R
Angle measurement	
Angle measuring principle	Absolute Encoding
Minimum Readout	1°/5"/10" (0.3mgon/1.5mgon/3mgon) optional
Accuracy ¹	2"
Distance measurement (Prism mode)	
Range ³	Single Prism: 3000m (9,842ft.) Three Prisms: 6000m (19,685ft.) Reflective Sheet: 800m (2,624 ft.)
Accuracy	±(2mm + 2ppm)
Measuring Time	Repeat/Tracking: 0.8s/0.3s
Distance measurement (Reflectorless)	
Range	Single Prism: >7500m (24606 ft) Reflectorless Range ² : 600m (1968.5 ft)
Measuring Time	1.5s
Accuracy	±(3mm+2ppm)
Telescope	
Magnification	30X
Field of view	1°30' (2.7m at 100m)
Minimum Focusing Distance	1.5 m
Reticle	Illuminated
Tilt Sensor	
System	Dual-axis liquid tilt sensor
Working Range	±3'
Accuracy	1"
Communication	
Internal Data Memory	Approx. 20,000 Points
Interface	Standard RS232, SD card ⁴ , Micro USB
Wireless Communication	Bluetooth
Data Format	ASCII
Power Supply	
Battery Type	Rechargeable Li-ion battery
Voltage/Capacity	BT10: 7.4V (DC) / 3000mAh
Operating Time ⁵ With BT10	Optimal 16 hours (Continuous angle measurement every 30 seconds) / 10 hours (typical)
Measuring Times	Approx. 12000 times
Other	
Display	LCD display with adjustable contrast; 280 X 160 pixels; 6 lines X 25 characters
Keyboard	2 sides Alphanumeric backlit crystal keyboard
Operation System	Real-time Operating System (UDOS)
Weight	Incl. Battery&Tribrach: Approx. 5.5kg (12.1lb)
Plummet	
Type	Laser point, 4 brightness levels adjustment / Optical plummet (optional)
Centering Accuracy	1mm at 1.5m instrument height
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 Battery life specification at 25°C. It might be shorter in low temperature or if the battery is old.



AUTHORIZED DISTRIBUTION PARTNER

22A223

Hi-Target Surveying Instrument Co., Ltd

ADD: Building 13, Tian'An Technology Zone HQ Center, No. 555,
North of Panyu RD, Panyu District, 511400 Guangzhou, China.
www.hi-target.com.cn +86-20-28688296 info@hi-target.com.cn

CE IP65

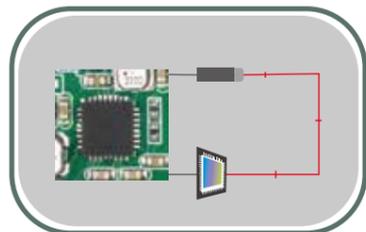
HTS-420R

Total Station

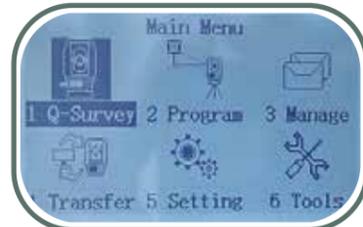


HTS-420R

HTS-420R adopts absolute coding technology, the angle measurement accuracy is 2". The prism-free measurement range reaches 600m with the advanced EDM design. The stable performance provides customers with a wonderful user experience. It adopts an icon-based operation interface and has a variety of interfaces, such as RS232, USB, SD card, etc., which provides better human-computer interaction. A great diversity of measurement procedures meet various professional measurement scenarios.



- 1. Advanced EDM design ensures measurement accuracy and stability. Reflectorless range 600m.



- 2. Built-in multi-function calibration software, the maintenance convenience is greatly improved.



- 3. Double-axis compensator, high-precision bead shafting, sealed encoder disk, stable measurement and high precision.



- 4. Support a variety of interface RS232, USB, OTG-U disk, SD card. Supports USB cable and U disk data transmission in various formats, such as (*.csv), (*.txt), (*.dat), (*.dxf), (*.gt7), (*.htf) etc.



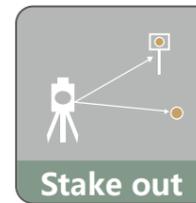
- 5. Backlit keyboard. dark environment, also easy to operate.



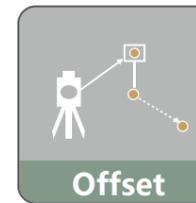
- 6. Support SurVCE, FieldGenius and Hi-Survey connection, and support secondary development.



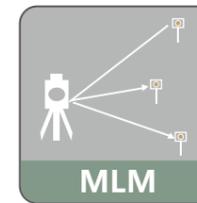
Function



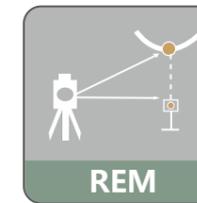
Stake out



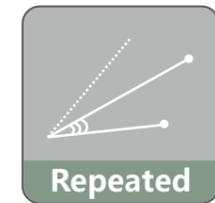
Offset



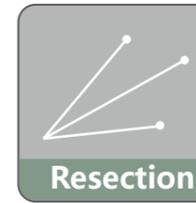
MLM



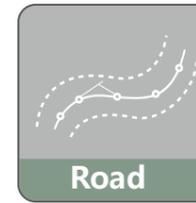
REM



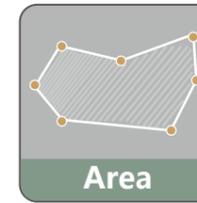
Repeated



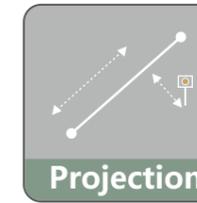
Resection



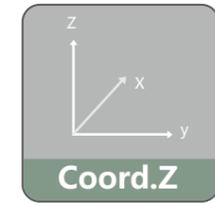
Road



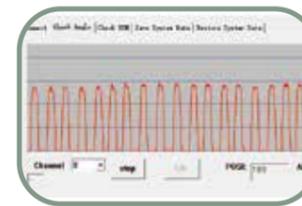
Area



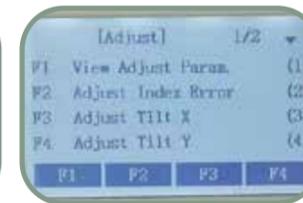
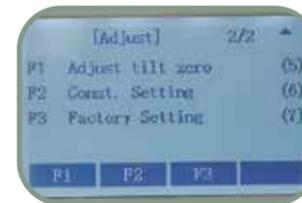
Projection



Coord.Z



- Built-in multi-function calibration software, the maintenance convenience is greatly improved.
- TS-Check professional fault diagnosis software can locate the fault point accurately and provide you with more convenient after-sales service.



Application



Bridges



Construction



Mining



Tunnel



Railway



Road