

HTS Series Total Station

VEREX
SURVEYING INSTRUMENTS

Single Axis



HTS-220R

Dual Axis



HTS-420R

Bluetooth
SD-Card

Technical Features



Powerful and Fast EDM Capability

ATS-120 series Total Station's no prism measurement range can up to 800 meters. No prism measurement accuracy 3mm+2ppm. Accurate measurement 0.8S, Track measurement 0.3S.



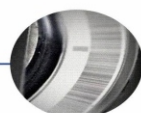
STM32 Architecture

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



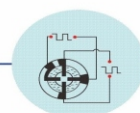
Intelligent Calibration Software

Accessible for real-time diagnosis to ensure trouble-free operation. The software can determine 90 percent of the Problem.



Absolute Encoder Angle Measurement

1023 pairs of absolutely coded disc. All Series' angle measurement accuracy is two seconds. Starting without initialization. The data will save automatically when the power failure.



Stable Dual-axis Compensation

Stable Dual-axis Compensation. Compensation range 3". Operation can be visualized and High accuracy of angle measurement.



Rich Communication and Transmission

With RS232C, SD, USB and MiniUSB communication interface. Using Bluetooth for data transmission, make data transmission more convenient.

Description	Model	HTS-220R	HTS-420R	HTS-420L6
Angle Measurement				
Measurement Method	Absolute Encoding			
Minimum Readout	1"			
Accuracy ¹	2"			
Telescope				
Magnification	30X			
Field of view	1°30' (2.7m at 100m)			
Minimum Focusing Distance	1.5m			
Reticle	illuminated			
Compensator		Liquid Tilt Sensor		
System	Single Axis	Dual Axis	Dual Axis	
Working	±3'			
Setting Accuracy	1"			
Distance Measurement		(Reflector less)		
Reflector less Range ²	350m	350m	600m	
Single Prism	5500	7000m	7500m	
Accuracy	3mm+2ppm			
Measuring	1.5s			
Distance Measurement		(with Reflector)		
Single Prism Under good condition ³	2500/3000m	3000m	4000/5000m	
Reflective Sheet	800m		1000m	
Accuracy	2mm+2ppm			
Measuring Time (Fine/Quick/Tracking)	1.5s/1.2s/0.8s	1.3s/1s/0.5s	1s/0.8s/0.5s	

Description	Model	HTS-220R	HTS-420R	HTS-420L6
Communication				
Wireless Communication		None	Bluetooth	
Interface		Port Rs232,SD - Card, ⁴ Micro USB		
Internal Data Memory		Approximate 20000 Points		
Data Format		ASCII		
Operation				
Operating System		Real Time Operating System		
Display		Gray and white Display with adjustable contrast 280 x 160 pixel		
Keyboard		2 Sides alphanumeric backlit crystal keyboard		
Laser Plummet				
Type		Laser point, 4 brightness level adjustment		
Centering Accuracy		1mm at 1.5m Instrument height		
Environmental Condition				
Operating Temperature		-20 ⁰ c to +50 ⁰ c		
Storage Temperature		-40 ⁰ c to +70 ⁰ c		
Dust & Water proof(IEC60529 standard)		IP55		IP65
Power Supply				
Battery Type		Rechargeable Li-Ion Battery		
Voltage/Capacity		ZBA-400 7.4V DC / 3000mAh		
Operating Time with ZBA-400		Optimal 16 hr ⁵ (continuous angle measurement every 30 seconds / 10 hr Typical		
Measuring Time		Approx. 12000 times		
Weight				
Including Battery & Tribtach		5.5 Kg Approx.		

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Tilt Sensor Compensator



Features:

- High Accuracy of 2"
- Laser Plummet
- Absolute Encoding gives Quick & Reliable angle measurement
- Digital wide Dual Side Back-lit Display for comfortable reading



Rugged Design

Specification

Angle Measurement	
Accuracy	2"
Reading System	Absolute Encoding
Minimum Reading	1"/5"/10" Optional
Diameter of circle (VHz)	71mm
Telescope	
Image	Erect
Magnification	30X
Length of Telescope	155mm
Objective Lens Aperture	45mm
Field of View	1°30'
Resolving Power	3.5"
Shortest Sighting Distance	1.3 m
Stadia Ratio	100
Stadia Constant	0
Display	
LCD Display Type	Dual Side Back-lit LCD

Compensator	
Tilt Sensor	Vertical Angle Compensation
Compensating Range	±3'
Accuracy	1"
Laser Plummet	
Accuracy	1mm/1.5m
Level Sensitivity	
Sensitivity of Long Vial	30"/2mm
Sensitivity of Bubble	8'/2mm
Power Supply	
Battery Type	Rechargeable Ni-H Battery
Operating Time	10 Hours
Weight	
Weight	4.8 Kgs
Environmental	
Operating Temperature Degree C	-20 to +50 Degree C
Water & Dust Proof	IP54

Tribrach & Adapter with Optical Plummet



Automatic Levels

AVEREX
SURVEYING INSTRUMENTS

Simple & Fast Measurement



AL 24



A-32



B40



DSZ-32X

Specifications:

PARAMETERS	DSZ-32X	B40	AL24	A-32
Standard Deviation Per Kilometer Double - Run	2mm	2mm	2mm	1.5mm
Image	Positive Image	Positive Image	Positive Image	Positive Image
Magnification	32X	32X	24X	32X
Clear Objective Aperture	42mm	34mm	30mm	36mm
Field of View	1°20'	1°20'	1°30'	1°20'
Shortest Focusing Distance	0.5 m	0.3 m	0.5 m	0.4 m
Stadia multiplication constant	100	100	100	100
Stadia additive constant	0	0	0	0
Circular Bubble Precision	8' /2mm	8' /2mm	8' /2mm	8' /2mm
Horizontal Circle	360°	360°	360°	360°
Compensator Type	Magnetic suspension - Damping	Magnetic suspension- Damping	Magnetic suspension - Damping	Magnetic suspension- Damping
Working Range	±15'	±15'	±12'	±15'
Setting Accuracy	±0.3"	±0.3"	±0.5"	±0.3"
Screw Thread	M16 or 5/8"	M16 or 5/8"	M16 or 5/8"	M16 or 5/8"
IP Rating	IP54	IPX6	IP52	IP51

Reliable, high precision
Auto Levels

Accurate & Stable Magnetic
Compensator

Precision instruments for Engg.
And construction

Anodised Section



Aluminium Tripod

Ext. Length-1675mm
Closed Length - 975 mm
Weight - 3.5 kg

Ext. Length-1860mm
Closed Length - 975 mm
Weight - 5 kg



Wooden Tripod

Ext. Length-1860mm
Closed Length - 975 mm
Weight - 8 kg



Features

Strong Die Casting Parts
Complete Powder Coated Rust Proof

Features

Strong Seasoned Wood
Heavy & Strong Die Casting Parts
Water Proof Enameled Paint

Easy To Hold Instruments With Standard 5/8 " X11 Thread

Prism Poles Tripod



PPT-1

Prism Poles

2.15mtr Length

Bright Red/White Painted



PP-1

2.6mtr Length



PP-2

3.5mtr Length



PP-3

Aluminium Levelling Staff

Complete Powder Coated

4mtr Length/ 4 Section



AS-4-1

5mtr Length/ 5 Section



AS-5-1

6mtr Length/ 5 Section



AS-6-1

Graduation
Front-5mm
Back-1mm



PRISM



MINI PRISM



LEICA TYPE PRISM



CONCRETE TEST HAMMER