

# SPECIFICATIONS

## Angle Measurement

Accuracy.....0.5"-1"  
 Reading System..... Absolute, four-quadrant  
 Display Resolution.....0.1"  
 Angle Units.....DEG 360°/GON 400/MIL 6.400

## Telescope

Magnification/ Field of view.....30x/1°30'  
 Tube Length.....164.5mm  
 Minimum focus distance.....1.5m  
 Objective aperture.....45 mm  
 Laser pointer.....Red light, coaxial

## Tilt Sensor

Type.....Dual axis, liquid-electric sensor  
 Compensation range/ accuracy.....±3.0°/1"

## Distance Measurement Range

Standard prism mode.....6000m  
 Reflectorless.....1000m

## Distance Measurement Accuracy

Standard prism mode.....1 mm+1 ppm  
 Reflectorless.....2 mm + 2ppm

## Measurement Time

Standard prism mode (Tracking/Precise).....≤ 0.3 /0.7 sec  
 Reflectorless.....Typically 0.8 sec(>500 m, >5 sec)

## Distance Measurement

Distance Unit.....m/US ft/INT ft  
 Display Resolution.....0.0001 m/0.001 m; 0.001 ft/0.01 ft

## Motorization

Technology.....Tdrive  
 Max rotation speed.....180°/sec  
 APR-Target Aiming Range.....1.5-1000m  
 APR-Measurement Time.....< 10 sec  
 PS-Target Aiming Range.....1.5-600m  
 PS-Angle.....H: 360°-V: 20°  
 AIM accuracy.....±1 mm @ 100 m

## Laser Plummet

Laser type.....635nm semiconductor laser  
 Accuracy.....1mm/1.5 m  
 Spot.....±1.8mm/1.5 m

## Level Vial Sensitivity

Circular level.....8'/2mm

## Environmental Conditions

Operating Temperature.....-20°C to +50°C(-4°F to 122°F)  
 Storage Temperature.....-20°C to +60°C(-4°F to 140°F)  
 Waterproof/dustproof.....IP65/IP66  
 Humidity.....95% non-condensing

## Physical Specification

Dimensions.....430 x 255 x 235 mm  
 Weight Including Battery .....9.3 kg  
 And Tribrach

## Power

Battery Voltage/capacity/type.....14.4 V/6400 mAh / Li-ion  
 Operating Time.....6 hours (one internal battery)  
 Battery Charger.....100/240 V, charging time 4h

## Other Specifications

Cpu.....MSM8953  
 Display.....Two sides, 6" color LCD  
 720x1280 pixel touch screen  
 Os.....Android 11  
 Memory.....RAM:3GB, ROM:32GB  
 Interface.....RS232  
 Micro USB  
 Bluetooth long-range  
 Camera.....√  
 Guide Light.....√  
 Sensor.....Temperature/Pressure

## Onboard Field Application Programs

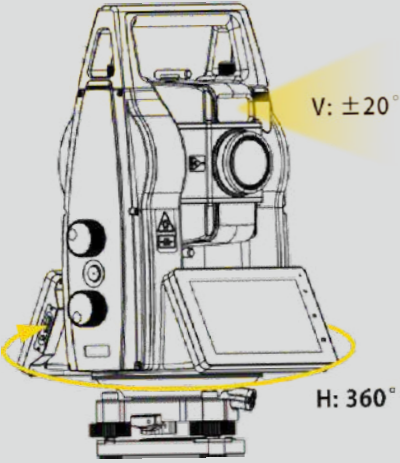
Survey Star



- ONE PERSON SURVEY & MONITORING
- HIGH-SPEED, SILENT, SMOOTH T-DRIVE MOTOR
- 0.5"- 1" ANGLE ACCURACY OPTIONAL
- PRISM SEARCH & LOCKNTRACK
- CAMERA&GUIDE LIGHT FOR DETECTION

# Catches All in One Sight

# One Robotic TS, Unlimited Applications



V:  $\pm 20^\circ$   
H:  $360^\circ$

**Prism Recognize**  
To recognize and measure the prism automatically in the sight of view in 1000m

**Prism Search**  
Scan and detect the prism within 300m from the entire working site

**LocknTRack**  
Follow and lock a moving prism at  $20^\circ/s$ , which eliminate the need for standing around

**KEY FEATURES**

- ▶ Angle accuracy:  $0.5''$ ,  $1''$
- ▶ Distance accuracy:  $1+1ppm$
- ▶ Smooth Slient Powerful:
  - T-Drive  $180^\circ/s$
  - APR: 1000m
  - PS: 300m LockNTR
- ▶ Guide light
- ▶ Touch-to-aim camera
- ▶ 6.0-inch color and touch screen
- ▶ Intelligent onboard connectivity
- ▶ IP65 protection



## Excellent measurement procedures

Equipped with commonly used basic measurement modes (angle measurement, distance measurement, coordinate measurement), as well as a variety of measurement procedures, including road software, calculation procedures, a wealth of functions to meet the requirements of a variety of professional measurements.

## Product Advantages



### T-DRIVE MOTOR Find Target Smooth

Rotation speed:  $180^\circ/s$  No noise, no touch, no wear  
Change face in 2.6s Longer life.



### CAMERA & GUIDE LIGHT Find Target Fast

To recognize and measure the prism automatically in the sight of view in 1000m. With the improved APR algorithm, NS10 is able to recognize the prism in 15cm @100m under tough conditions.



### FLEXIBLE CONECTIVITY Convenient To Transfer Data

NS10 offers superior connectivity with USB, Wi-Fi, Bluetooth, long-range Bluetooth, serial port, enabling effortless data exchange and remote control.



### TABLET SUPPORT Suitable For Surveying And Mapping

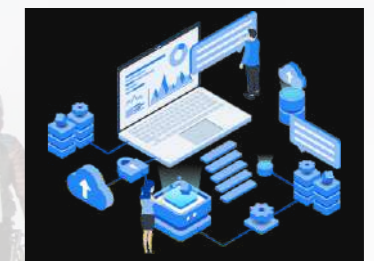
8-inch display with 500 nits brightness ensures clear visibility, even in bright light. 600m remote control makes one-person operations efficient and effortless.



**ACCURATE**  
for Monitoring Project



**STABLE**  
for Machine Control



**FLEXIBLE**  
for 3rd Party Customization

## Monitoring

Robotic total stations have extremely high angular and distance measurement accuracy, enabling precise measurement of the slight displacement changes of the monitoring points; by automatically recognizing, aiming, measuring, and recording data, they can improve monitoring efficiency and reduce labor costs; they have good environmental adaptability and can operate normally in adverse weather conditions; they have wireless communication technology, allowing users to remotely operate and manage the monitoring site from a distance.



## One Person Survey

The One Person Survey solution is a surveying system that combines the high accuracy of prism measurements with the ability to measure points that are not visible from the Total station (TS) using GNSS technology. While a Ts requires reference point that must be visible from the station, an RTK GNSS receiver can quickly determine its position with centimeter-level accuracy using data from satellites. One Person Survey Solution allows for the simultaneous use of TS and GNSS, and can easily switch between the two with a simple tap on a button. Additionally, the system reduces prism search times through auto-aiming to the current GNSS position.

