SPECIFICATIONS

Angle Measurement

Accuracy.....0.5"-1"
Reading System..... Absolute, four-quadrant
Display Resolution.....0.1"
Angle Units..... DMS 360°/GON 400/MILL 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.....±4.0'/1"

Distance Measurement Range

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

Distance Measurement Accuracy

Standard prism mode..... 1 mm+1 ppm
Reflectorless..... 3mm + 2ppm

Measurement Time

Standard prism mode (Tracking/Fine)..... < 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.....1.5-300m
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℃ to +50℃(-4℉ to 122℉)
Storage Temperature.....-20℃ to +60℃(-4℉ to 140℉)
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

SOUTH
Target your success

SOUTH SURVEYING & MAPPING TECHNOLOGY CO., LTD.
E-mail: mail@southsurvey.com http://www.southinstrument.com

SOUTH
Target your success

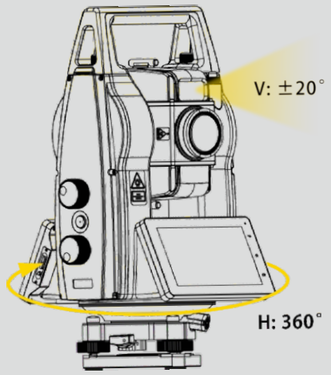
NS 10

Robotic Total Station

- 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

(V.202501)

Catches All in One Sight



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

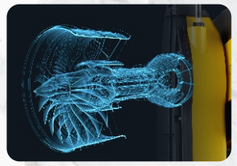
Prism Search
Scan and detect the prism within 300m from the entire working site

LocknTRack
Follow and lock a moving prism at 20°/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°/s
  - -APR: 1000m
  - -PS: 300m LockNTR
- Guide light
- Touch-to-aim camera
- 6.0-inch color and touch screen
- Intelligent onboard connectivity
- IP65 protection

Product Advantages



T-DRIVE MOTOR
Find Target Smooth
Rotation speed: 180°/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 in1000m.With the improved APR algorithm, NS10 is able to recognize the prism in 15cm @100m under tough conditions.

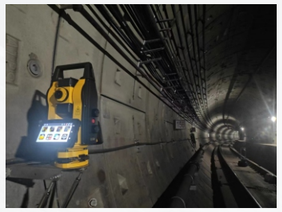
FLEXIBLE CONECTIVITY
Convenient To Transfer Data
NS10 offers superior connectivity with USB, Wi-Fi, Bluetooth, long-range Bluetooth, serial port, enabling effortless data exchange and remote control.

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.

One Robotic TS, Unlimited Applications

Excellent measurement procedures

Equipped with commonly used basic measurement modes, as well as a variety of measurement procedures（Resection、Point to Line、Reference Line，etc），including road software, calculation procedures, a wealth of functions to meet the requirements of a variety of professional measurements.



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.

Single Person Survey

The Single Person Survey solution is a surveying system that combines the high accuracy of prism measurements with the ablity 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. Single 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.