SPECIFICATIONS

Angle Measurement

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

Telescope

Magnification/ Field of view.....30x/1°30'
Tube Length..... 154mm
Minimum focus distance..... 1.2m
Reticle..... 5 brightness levels adjustable
Objective aperture..... 45 mm (EDM: 50 mm)
Pointer..... Red laser dot

Tilt Sensor

Type..... Dual axis, liquid photoelectric sensor
Compensation range/ accuracy..... ±4'

Distance Measurement Range

Standard prism mode..... 3500m
Reflectorless..... 1000m(800 m, for 2" version)

Distance Measurement Accuracy

Standard prism mode..... ±1 mm+1 ppm
Reflectorless.....D<500 m: ±2 mm + 2ppm
D>500 m: +5 mm + 2ppm

Measurement Time

Standard prism mode (Tracking/Precise)..... 0.1 /0.3 sec
Reflectorless..... 0.3-3 sec

Distance Measurement

Distance Unit..... m/US ft/INT ft
Display Resolution..... 1mm

Motorization

Technology.....DC Servo Motor
Max rotation speed.....60°/sec
Rotation time F1/F2..... 2.9 sec

APR

Centering range..... 3-1200m
Time..... 3-5sec
Search range..... 3-600m
AIM accuracy.....±1 mm @ 100 m

PS

Search range..... 3-300m
Search time.....Typically 90°: 3.5 s
Angle..... H: 360° V: ±18°
Lock range..... 3-600m

Laser Plummet

Laser Type..... Red laser dot, 635 nm
Accuracy..... ±1.5 mm at 1.5 m

Level Vial Sensitivity

Plate level..... 30"/2 mm
Circular level..... 8'

Environmental

Operating Temperature..... -20℃ to +50℃(-4℉ to 122℉)
Storage Temperature..... -40℃ to +70℃(-40℉ to 158℉)
Waterproof/Dustproof..... IP55
Humidity..... 95% non-condensing

Physical

Dimensions..... 217 x 198 x378 mm
Weight (battery and tribrach inclusive) .....7 kg

Electrical

Battery Voltage/Capacity/Type.....Li-ion rechargeable battery, 5400mAh
Operating time..... Up to 6 hours
Battery charger..... 110/220V, charging time 4h

Others

CPU.....MT6762
Display.....5.5-inch, TFT LCD screen, 720 x1280 px (2 displays)
Keyboard.....13 keys
OS..... Android 11
Memory..... RAM: 4GB, ROM: 64GB
Interface..... RS232
USB Type-C (OTG)
Micro SIM
TF Card
Data transfer..... Bluetooth long-range 300 m
WLAN
USB-OTG
Network 4G

Onboard Field Program

SurvStar&SurveyStar

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

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NS 30

Robotic Total Station

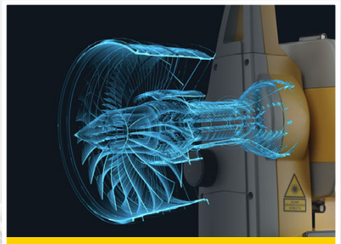
- ONE PERSON SURVEY & MONITORING
- 0.5" -1"ANGLE ACCURACY OPTIONAL
- 1200M APR, 300M PRISM SEARCH
- LOCKNTRACK FUNCTION
- CONVENIENT NUMERIC KEYBOARD
- NEXT GENERATION SURVSTAR

(V.202412)

CATCHES SIGHT ALL-IN-ONE

Key Features

- Angle accuracy: 0.5”/1” optional
- Distance accuracy: 1+1ppm
- Worm&Gear motor APR: 1200m
  Prism Search: 300m LockNTRack
- 5.5-inch color and touch screen with 13 shortcut key
- Intelligent onboard connectivity
- IP55protection



DC Servo Motor Control

Direct Worm&Gear, more stable and reliable for motorization, with positioning accuracy less than 1”

APR-Automatic Prism Recognition

Able to recognize the prism and measure within 1200m line of sight, accuracy best up to 15cm@100m under tough conditions

Zigbee or Long-range BT

Excellent connectivity includes multiple communication methods like Zigbee or long-range BT, and others.

Prism Search and LockNTRack

NS30 enables you to search, recognize and aim a prism in 300m. With LocknTRack, it easier to lock onto the prism and follow its movements constantly.

Multiple Data Logger Options

Ready to work with different external devices such as tablets, smartphones, controllers, etc.

4+64GB Memory & LTE Support

NS30 has 4GB of RAM and 64GB of internal storage, making multitasking and storing files fast and stable; With 4G LTE modem, NS30 can connect to internet and share data.

ONE ROBOTIC TS, UNLIMITED APPLICATIONS

NS30 One Person Survey

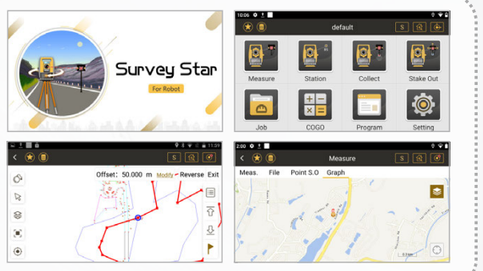
Traditional Mode (without RTK)

Under Tradition mode, NS30 is able to achieve functions like Prism Search, APR, and LocknTRack. Also Long-range data link offers a flexible and agile remote control for One Person Survey system.

Prism Plus Position Mode (with RTK)

Prism Plus Position (PPP) mode includes NS30, RTK, 360° Prism, Prism Pole and SurvStar APP. Under this mode, SurvStar receives data from NS30 and RTK at the same time and can switch surveying mode freely: When NS30 can find prism directly, we use NS30 to survey, when there's blockings, we use RTK. With the help of RTK data, NS30 Station Setting is more convenient. RTK Search solution makes NS30 much faster to find the Prism again. All those features increases efficiency of One Person Survey system.

APPs for NS30



Survey Star and Survey Star Pilot

Survey Star helps you collect the data and stake out efficiently by graphical and iconic guidance.

Map-Driven Workflow-It is an interactive function embedded in Survey Star, with visible features.

CAD Stakeout-Not necessary to extract the coordinate from CAD files anymore. The only thing you need to do is import the CAD files directly to stake out the points.

SurvStar

SurvStar is next generation of Surveying and Mapping App which supports multiple platforms and multiple SOUTH instruments Besides, SurvStar has features like:

Code Library Survey-We can give Code and Graphic features to surveying points, which makes mapping and road survey easier.

High performance CAD-We can survey, stakeout, draw and edit CAD seamless switching between Survey and CAD modules. Also optimized algorithm makes SurvStar load big size CAD files faster.

PPP Mode-We can use SurvStar to connect TS and RTK at the same time to get a powerful One Person Survey system.

Automated Monitoring

By delivering exceptional angular and distance measurement accuracy, NS30 enables precise detection of minor displacement changes at monitoring points. This robotic device helps to improve monitoring efficiency and reduce labor costs through automated targets recognizing, aiming, measuring, data recording. Enjoying extraordinary environmental adaptability, it features superb reliability under adverse weather conditions. In addition, wireless communication on board allows users to perform remote control and data management anytime, which makes it an ideal choice for monitoring jobs.