SPECIFICATIONS

Angle Measurement
Accuracy.....1"-2"
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'/1"

Distance Measurement Range
Standard prism mode.....3500m
Reflectorless.....1000m(for 1" version)
800m(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/Fine).....0.1 /0.3 sec
Reflectorless.....0.3-3 sec

Distance Measurement
Distance Unit.....m/US ft/INT ft
Display Resolution.....1280×720

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

APR
Centering range.....3-1200m(Standard prism) 800m(360°prism)
Time.....3-5sec
Search range.....±1.5° (Support window search)
AIM accuracy.....±1 mm @ 100 m

PS
Search range.....1.5-450m
Search time.....Typically 90°: 3.5 s
Angle.....H: 360° V: ±18°

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'/2 mm

Environmental
Operating Temperature.....-30℃ to +50℃(-22℉ 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 ×2, 5400mAh
Operating time.....Up to 6 hours
Battery charger.....110/220V, charging time 4h

Others
CPU.....MTK6762
Display.....5.5-inch, TFT LCD screen, 720 x1280 px (2 displays)
Keyboard.....17 keys ×2
OS.....Android 11
Memory.....RAM: 4GB, ROM: 64GB
Interface.....RS232
USB Type-C (OTG)
Micro SIM
TF Card
Data transfer.....Long range communication 450m
WLAN
USB-OTG
Network 4G
Temperature and pressure sensor

Onboard Field Program
SurvStar

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

SOUTH
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NS 30
Robotic Total Station

- ONE PERSON SURVEY & MONITORING
- 1" -2"ANGLE ACCURACY OPTIONAL
- 1200M APR, 450M PRISM SEARCH
- LOCKNTRACK FUNCTION
- CONVENIENT NUMERIC KEYBOARD
- NEXT GENERATION SURVSTAR

(V.202412)

CATCHES SIGHT ALL-IN-ONE

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 450m.
With LocknTRack, it easier to lock onto the prism and follow its movements constantly.

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 1mm@100m under tough conditions

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.

Multiple Data Logger Options

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

Android operating system

Android 11.0, faster system response, faster app launch. Open platform, support secondary development, can be pre-installed third-party apps.

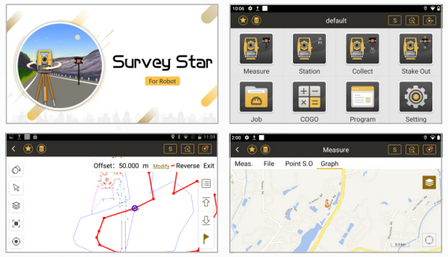
ONE ROBOTIC TS, UNLIMITED APPLICATIONS

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.