

## SPECIFICATIONS

Performance			
Angle Measurement	Accuracy	1"	
	Measure Method(HZ/V)	Absolute, continuous, 4 path detective	
	Diameter of Encoder Disk	79mm	
	Minimum Reading	1"/0.1"	
	Compensator Type	Dual axis, liquid photoelectric	
	Compensator Accuracy	1"	
	Compensator Range	±6'	
Distance Measurement	Laser Output*1	Class 3R	
	Measuring Range	Prism*2	3500m
		Reflectorless*3	1000m
	Accuracy	Prism	±(1mm+1xppm•D)
		Reflectorless	D<500m: ±(2mm+2xppm•D) D>500m: ±(5mm+2xppm•D)
	Measuring Time	Prism	Fine: 0.3S, Tracking 0.1S
		Reflectorless	0.3-3S
Minimum Reading		1mm/0.1mm	
Robotic Specification			
Motorization	Motor Type	DC Servo Motor	
	Rotate speed	60°/s	
	Rotation Time F1/F2	2.9s	
Prism Search	Range	3-300m	
	Scope*4	Horizontal: 360°; Vertical: ±18°	
Auto Prism Recognition	Search Time	Typically 3.5s per 90°	
	Range*5	3-1200m	
	Time	3-5s	
	Search Window	Customized	
General Specification			
Telescope	Image	Erect	
	Tube Length	154mm	
	Effective Aperture	45mm (EDM: 50mm)	
	Magnification	30x	
	Resolving Power	3"	
	Field of View	1°30'	
	Minimum Focus	1.2m	
OS, Interface and Data	Reticle Illumination	5 brightness levels	
	Operation System	Android 11	
	Display	5inch, TFT color LCD with LED backlight, touch screen, dual face	
	Keyboard	13 keys with backlight, 4 keys for function	
	Processor	MT6833, 8 Core, 2.2GHz	
	Data Storage	Internal Memory	4GB RAM, 64GB ROM
		Plug-in Memory Device	Type-C for USB OTG, TF card
Communication	Interface	RS-232, Bluetooth 5.1	
	WLAN	2.4G/5G/WIFI	
	SIM Slot	Micro Sim, 5G	
	Long-range Remote Control	Powered by Zigbee, 450m	
Levels	Plate Level	30"/2mm	
	Circular Level	8'	
Laser Plummet	Type	Red laser dot, 635nm	
	Accuracy	±1.5mm at 1.5m	
Power Supply	Operating Time (20°C)	4 hours	
	Battery	Li-ion rechargeable battery, 5400mAh	
Working Environment	Working Temperature	-20°C to +50°C	
	Storage Temperature	-40°C to +70°C	
	Protection /Humidity	IP54 / 95% non-condensing	
Dimension	Size	217mm*198mm*378mm (without antenna)	
	Weight	7kg (with battery)	

\*1: A built-in rangefinder product equipped with a Class 3R laser has a harmful distance of 1000m (3300ft). Beyond this distance, the laser intensity will be reduced to Class 1.  
 \*2: Standard clear, no haze, overcast situations. Range and accuracy are dependent on atmospheric conditions.  
 \*3: With Kodak Gray Card White Side (90% reflective)  
 \*4/5: For 64mm round prism.



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# NS30

Robotic Total Station



- High accuracy - 1" for angle, 1+1ppm for distance
- Long range prism (3500m) and reflectorless (1000m) measurements
- Reliable prism search to 300m
- Auto prism recognition to 1200m
- LocknTrack function
- Hyper Drive, direct motor powered by worm and gear
- Flexible data transfer by USB OTG, TF card and Bluetooth
- Fully robotic control with H6 Plus Controller, up to 450m
- Practical Survey Star onboard

Version: NS30 1.0

## Catches All in One Sight

# NS30

### HyperDrive

Direct Motor by Worm & Gear.  
 Stable and reliable for motorization.  
 Positioning accuracy <1"

### PrismSearch

When Prism Search is activated,  
 NS30 enables you to search,  
 recognize and aim a prism in 300m  
 with both versatility and agility.

### Auto Prism Recognition

NS30 featuring a powerful algorithm  
 that automatically aim and recognize  
 the prism within the sight of view for  
 1200m. It can handle every task with  
 ease.

### LocknTrack

With **LocknTrack**, it easier to lock  
 onto the prism and follow its  
 movements constantly, which is able  
 to eliminate the need for standing  
 around and waiting when collecting  
 data or staking out.

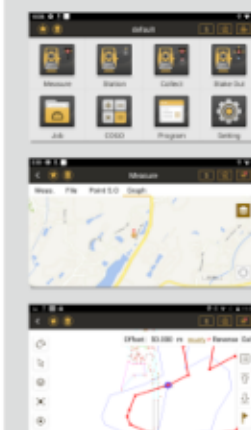


# NS30

## The Ultimate One-Man System

Benefit from Zigbee technology, NS30 can be used to connect  
 with your H6 Plus Controller in maximum 450m.  
 Long-range data link offers a flexible and agile remote control  
 for one-man survey system.

### Practical Onboard Software - Survey Star



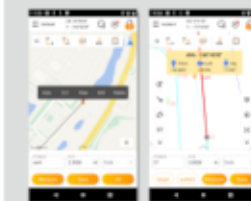
**Survey Star** helps you collect the  
 data and stake out efficiently by  
 graphical and iconic guidance.

#### Map-Driven Workflow

It is an interactive function  
 embedded in Survey Star, with  
 visible features.

Not necessary to extract the  
 coordinate from **CAD** files any  
 more. The only thing you need to  
 do is import the CAD files directly  
 to stake out the points.

### Flexible Collector Software - Survey Star Pilot



**Survey Star Pilot** is a powerful  
 and practical field software design  
 for NS30, it enables you to  
 change the settings, collect data  
 and stake out points easily on  
 your controller.



- 1 Zigbee antenna for 450m fully robotic remote control
- 2 Seamless data transfer with Bluetooth 4.1
- 3 Easy access to network - dual nano-sim card and WLAN available
- 4 5 inches capacitive touch screen
- 5 Android 11 operating system, 64GB ROM
- 6 Fully keypad for quicker entry
- 7 Waterproof and dustproof IP65 design
- 8 Market-leading 15 hours battery working life and 240 hours stand-by

### Ultra Flexible!

**Efficient for 3rd Party Developer**  
 Combined with Survey Star Pilot, NS30  
 offers a flexible workflow. Also it provides  
 the software suite which can be developed  
 by your own requests. Faster and easier to  
 locate points from points to fields by using  
 NS30 robotic total station.

### Ultra Fast!

**Flexibility Makes It Easy to Start**  
 You just need to carry a prism pole with H6  
 Plus Controller, then you can visit all the  
 points by only one person. Not necessary to  
 communicate with operator at the  
 instrument, just following the guidance on  
 your controller.