

# E3

## SIMPLE OPERATION TOTAL STATION

The eSurvey E3 is a high-precision manual total station, with accurate angle and distance measurement. It works reliably and delivers precise results even in harsh environments. And its simple operations make most survey and stakeout tasks more efficiently.



### More Accurate Measurement

Measure angle more accurate, supported by our absolute encoder and distance, and measure distance more accurate, supported by our powerful EDM unit.

### Rich Software Applications

Experience rich applications, including offsets, tie distance, area & volume, remote height, reference line/arc, construction, and 2D road, to meet your field measurement needs.

### Faster and More Convenient Measurement

Measure more points per day due to faster measurement and stakeout (including guide light, trigger key for instant measuring), supported by our comprehensive and user-friendly software.

### High Quality, Designed for Harsh Environments

Operate the device even under harsh environments (like dust, mud, rain, extreme heat, and cold) for many years, supported by its high level of quality.

### More Reliable Result

Use both X-axis and Y-axis compensators to ensure the reliability of your measurement result.

### Multiple Interfaces

Support RS-232C (6-pin) which the user can use to update firmware, SD card, and mini-USB that the user can import and export data.



Website



Social media

# Product Specification

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Angle Measurement	
Reading system	Absolute encoder
Display resolution	1" / 5" / 10"
Accuracy	2"

Distance Measurement	
Minimum reading	0.0001 m
Measurement display	10 digits
Range	<ul style="list-style-type: none"> <li>■ Prism: 2 - 3000 m</li> <li>■ Reflector: 2 - 800 m</li> <li>■ Non-Prism: 2 - 800 m</li> </ul>
Accuracy	<ul style="list-style-type: none"> <li>■ Prism: <math>\pm (2 \text{ mm} + 2 \text{ ppm} \cdot D)</math></li> <li>■ Reflector: <math>\pm (3 \text{ mm} + 2 \text{ ppm} \cdot D)</math></li> <li>■ Non-Prism:                             <ul style="list-style-type: none"> <li>● 2 - 150 m: <math>\pm (3 \text{ mm} + 2 \text{ ppm} \cdot D)</math></li> <li>● 150 - 300 m: <math>\pm (5 \text{ mm} + 3 \text{ ppm} \cdot D)</math></li> <li>● 300 - 500 m: <math>\pm (10 \text{ mm} + 5 \text{ ppm} \cdot D)</math></li> <li>● 500 - 800m: <math>\pm (20 \text{ mm} + 10 \text{ ppm} \cdot D)</math></li> </ul> </li> </ul>

Telescope	
Magnification	30x
Field angle	1°30'
Minimum focus	1 m
Objective aperture	EDM 50 mm
Image	Erect
Resolution	3"
Reticle illumination	10 levels
Laser pointer	Support
Guide light	Support

Compensator	
Compensator type	Dual axis
Compensator range	$\pm 3'$
Compensator resolution	1"

Measurement Time	
Tracking/rapid/fine	0.2 seconds / 0.6 seconds / 1 second

Level Vial Sensitivity	
Plate level	30" / 2 mm
Circular level	8' / 2 mm

Laser Plummet	
Laser accuracy	$\pm 1 \text{ mm}$ within 0.8 - 1.5 m
Laser spot	$\leq 2 \text{ mm}$ within 0.8 - 1.5 m
Wavelength	635 nm
Safety	Class 2
Output power	0.7 - 1.0 mW

Data Management	
Memory	50,000 points
SD card	8 GB
Bluetooth	Support

Software Menu Style	
Text-based	Support

Battery	
Voltage	DC 7.4 V
Capacity	2600 mAh
Alert	<ul style="list-style-type: none"> <li>■ Low voltage</li> <li>■ Power off automatically after 10 minutes</li> </ul>
Working time	<ul style="list-style-type: none"> <li>■ Angle and distance measurement: &gt;8 hours (measure distance every 30 seconds)</li> <li>■ Angle measurement: &gt;12 hours</li> </ul>
Charge time	4 hours

Physical Specification	
Dimension	170 mm x 190 mm x 345 mm
Screen	<ul style="list-style-type: none"> <li>■ Alphanumeric keyboard</li> <li>■ Dual screens (240 x 128 dots)</li> <li>■ 30 x Keys (per side)</li> <li>■ Graphic LCD (8 lines)</li> </ul>
Key for fast measurement	Support
Interface	RS-232C, SD card, mini USB
Water/dust proof	IP55
Working temperature	-20°C - +50°C
Storage temperature	-40°C - +70 °C
Prism constant range	-99.9 - +99.9 mm
Atmos correction PPM	-499 - +499 ppm
Certificate	CE, FCC