

# TS1000

## TOTAL STATION

Brand New Experience With Surveying Software



### PRECISE MEASUREMENT

For distance measurement, the TS1000 total station supports up to 1000m non-prism measurement range with an accuracy of 5mm. With a single prism, the range can be extended to 7500m in 2mm accuracy. For angle measurement, the TS1000 can reach 2" accuracy.

### RTK SURVEYING SOFTWARE

Connected via Bluetooth, the TS1000 can realize easy measurement and data storage in RTK surveying software SingularPad. Both GNSS and optical survey tasks can be performed smoothly under the same project and datum. You can share the real-time stakeout position with prism operators through SingularPad for convenient stakeout, providing brand new experience for total station users.

### EASE TO USE

The dual-side display and keyboard of TS100 shows high convenience for your operation and viewing. Internal 40,000 points memory, external USB and software storage provide enough capacity for your various tasks. The built-in red laser plummet allows fast instrument setup in any environment.

## DISTANCE MEASUREMENT

|                  |  |
|------------------|--|
| Range            | - Non-prism: 1000 m<br>- Single prism: 7500 m  |
| Accuracy         | - Non-prism: 5 mm+3 ppm<br>- Single prism: 2 mm+2 ppm  |
| Minimum reading  | - Fine measurement mode:<br>1 mm (0.005 ft.)<br>- Coarse measurement mode:<br>10 mm (0.02 ft.) / 1 mm (0.005 ft.)<br>- Tracking measurement mode:<br>10 mm (0.02 ft.)  |
| Measurement time | - Fine measurement mode:<br>1.0 s (first time 2 s)<br>- Coarse measurement mode:<br>0.7 s (first time 2 s)<br>- Tracking measurement mode:<br>0.3 s (first time 1.5 s) |

## ANGLE MEASUREMENT

|                  |                           |
|------------------|---------------------------|
| Minimum reading  | 5"/1" (1 mgon / 0.2 mgon) |
| Accuracy         | 2" (0.6 mgon)             |
| Measurement time | 0.1 s                     |

## TILT COMPENSATION

|                   |           |
|-------------------|-----------|
| Type              | Dual axis |
| Compensator range | ±3'       |
| Correction unit   | 1"        |

## LEVEL SENSITIVITY

|                            |          |
|----------------------------|----------|
| Circular level sensitivity | 8'/2 mm  |
| Plate level sensitivity    | 30'/2 mm |

## TELESCOPE

|                      |         |
|----------------------|---------|
| Magnification        | 30x     |
| Aperture             | 45 mm   |
| Field of view        | 1° 30'  |
| Minimum focus        | 1.5 m   |
| Image                | Erect   |
| Reticle illumination | Support |

## DISPLAY

|          |                                  |
|----------|----------------------------------|
| Display  | Dual side, 192 × 128 pixel       |
| Keyboard | Alphanumerical keyboard, 24 keys |

## PLUMMET

|              |                                   |
|--------------|-----------------------------------|
| Plummet type | Red laser                         |
| Accuracy     | 1.5 mm (Instrument height: 1.5 m) |

## DATA MANAGEMENT

|                   |   |
|-------------------|---|
| Memory            | Up to 40000 points storage, support external USB expansion. |
| Data transmission | - RS232 serial port<br>- Bluetooth<br>- USB                 |

## ELECTRICAL

|                                   |   |
|-----------------------------------|---|
| Battery voltage                   | DC 7.2 – 7.4V   |
| Battery capacity <sup>1</sup>     | 25000 mAh Ni-MH battery   |
| Operating time (with one battery) | - Distance + angle measurement: 6 hours<br>- Angle measure only: 20 hours |

## PHYSICAL

|        |                    |
|--------|--------------------|
| Size   | 190 × 210 × 350 mm |
| Weight | 6.5 kg             |

## ENVIRONMENTAL

|                        |                   |
|------------------------|-------------------|
| Working temperature    | -20 °C to + 55 °C |
| Storage temperature    | -40 °C to + 60 °C |
| Waterproof & dustproof | IP54              |

1. The default Ni-MH battery can be replaced with optional Lithium battery:
- Capacity: 32000 mAh
  - Distance + angle measurement: 8 hours
  - Angle measure only: 25 hours

All specifications are subject to change without notice.

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