



HANDHELD SOIL MONITOR WITH INSERTION-TYPE SENSOR

Introduction

This handheld soil moisture tester adopts an integrated structural design, integrating the LCD meter, sensor and portable carrying case into one portable suitcase.

The device features compact size, simple operation, reliable performance and excellent portability for field work.

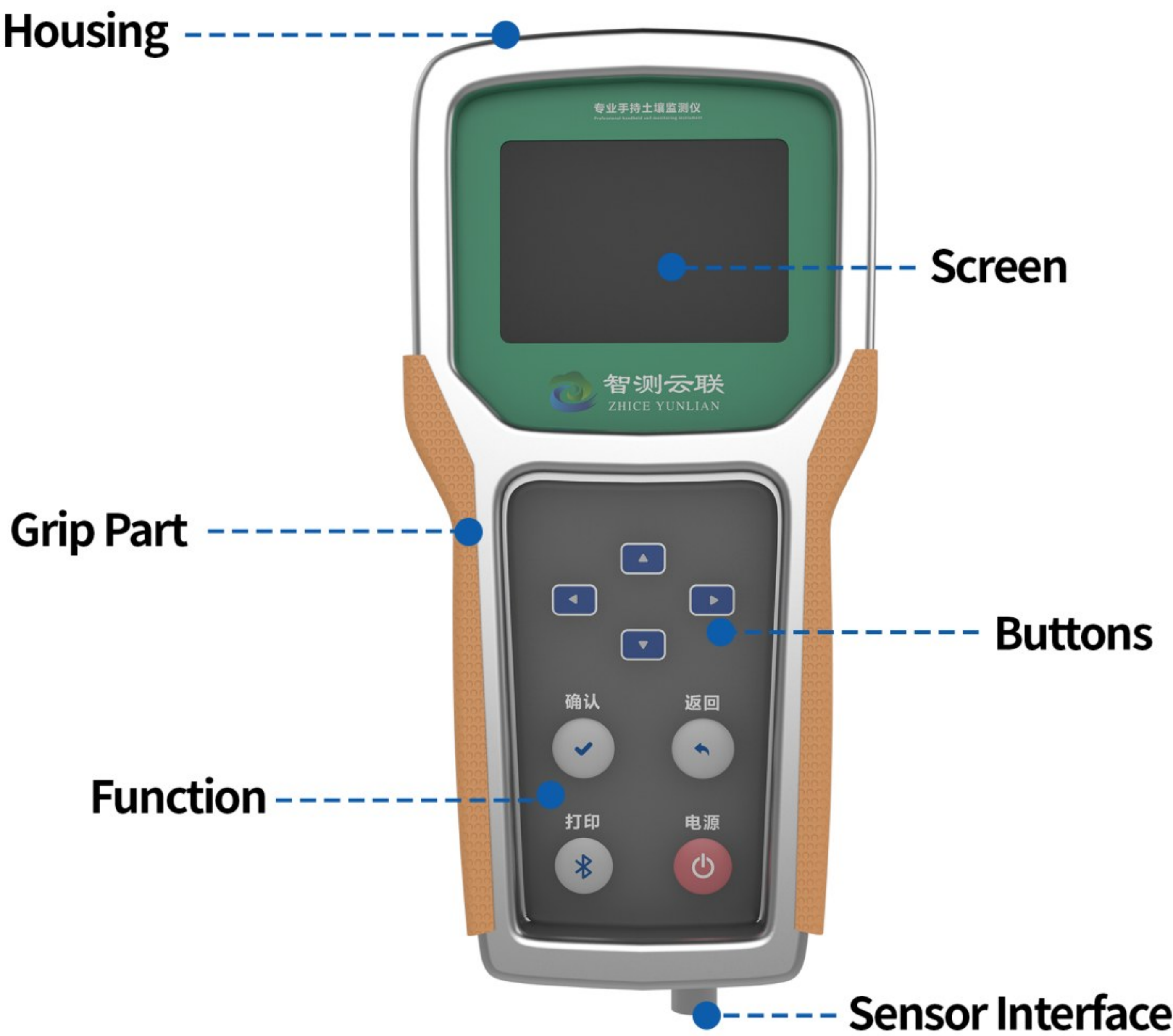


Function

- **Display:** Large-screen Chinese LCD display, suitable for portable field operation.
- **System:** Displays real-time temperature, moisture, group number, low-voltage warning and stored data. The meter supports multiple soil formula settings for moisture measurement of different soil types.
- **Storage:** Stores soil temperature and moisture data of each measuring point. The powerful upper computer software allows data export to computers via USB interface, saves data as Excel files and generates data curves for further analysis.
- **Printing:** Supports Bluetooth-connected printing.



Structure



CASE



SIGNAL



USB



SENSOR



Data Acquisition Host

Item	Parameter Description
Acquisition / Recording Interval	Freely adjustable from 5 minutes to 99 hours
Voice Broadcast	Mandarin Chinese
Power Supply	7.4V lithium battery; supports both AC and DC power supply, built-in large-capacity rechargeable lithium battery
Working & Standby Current	Standby power consumption 3mA / working current 19mA; other power consumption depends on configuration; max. working current 300mA
Standby Duration	≥18 days with standard battery (12V/10AH)
Working Ambient Temperature	-10°C ~ 55°C
Working Ambient Humidity	5% ~ 98%
Data Storage Capacity	30,000 entries in built-in Flash, expandable via standard 4G SD card
Communication Interface	USB interface
Longitude & Latitude Range	Longitude: 0~180°; Latitude: 0~90°
Test Response Time	≤2 seconds

Sensor Parameters

Parameter Type	Measuring Range	Resolution	Accuracy
Electrical Conductivity	0-20000μs/cm	10μs/cm	±3% FS (0-10000μs/cm); ±5% FS (10000-20000μs/cm)
Soil Moisture	0-100%	0.1%	±2% (0-50%); ±3% (50-100%)
Soil Temperature	-40~80°C	0.1°C	±0.5°C (at 25°C)
Soil pH	3-9 pH	0.1	-
Soil Salinity	0-23mS/cm / 0-50g/Kg	0.01mS/cm / 0.001g/Kg	< 2% FS (or ±5%)
Soil NPK (Nitrogen, Phosphorus, Potassium)	0~1999mg/kg	1mg/kg	±2% FS