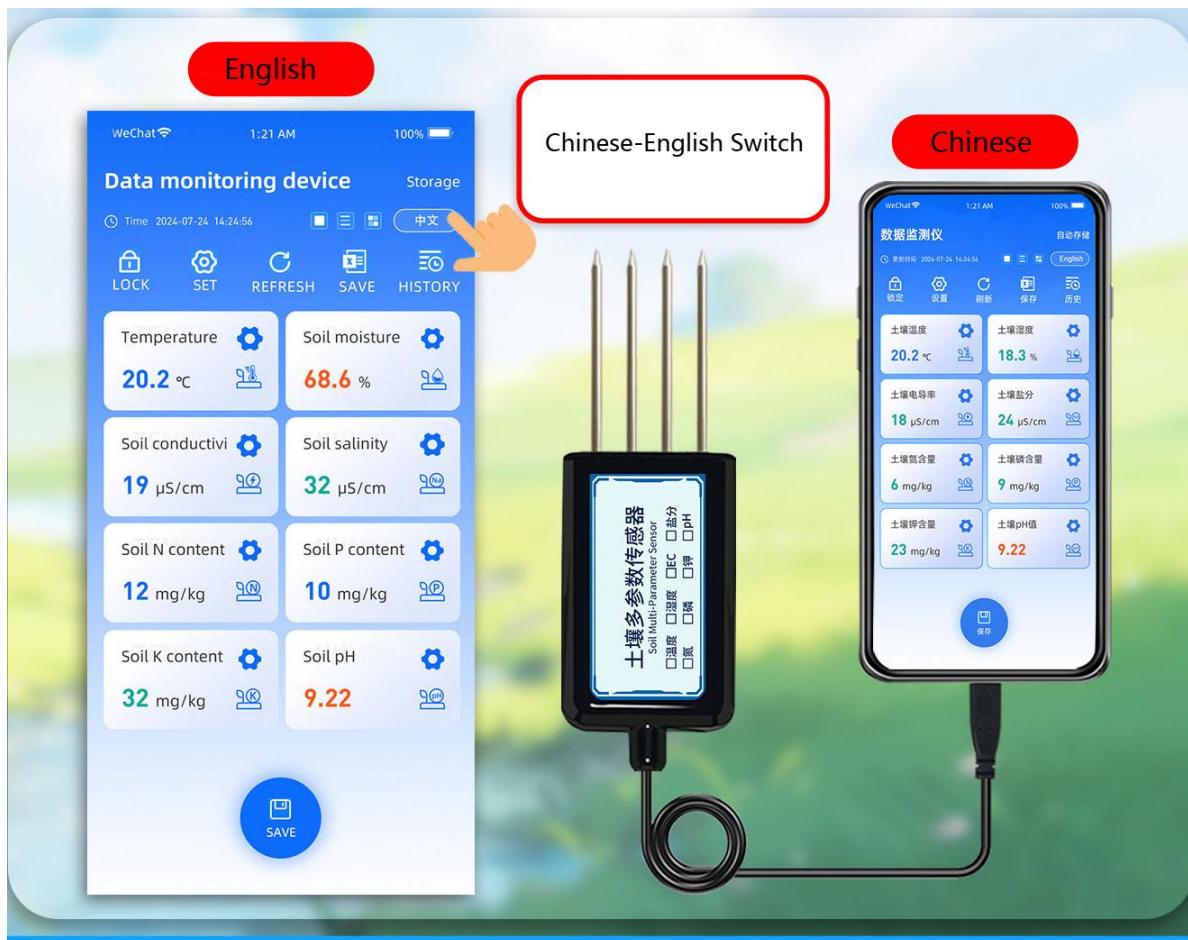


Soil Multi-Parameter Monitor User Manual



Changsha Zoko Link Technology Co., Ltd.

www.niubol.com

1. Product Overview

The Soil Multi-Parameter Monitor is compatible with Android and HarmonyOS smartphones. After installing the APP, it can measure eight soil parameters: soil temperature, soil moisture, soil EC (electrical conductivity), soil salinity, soil nitrogen, phosphorus, potassium, and soil pH. It offers high measurement accuracy, good stability, and easy operation.

The free mobile APP supports parameter configuration, data calibration, data storage, Excel export, historical data, curve charts, language switching (Chinese/English), etc. If a new version is available, the APP will automatically update during startup.

This product is suitable for applications including water-saving irrigation, meteorological monitoring, environmental monitoring, greenhouses, flowers and vegetables, grassland and pasture, rapid soil testing, plant cultivation, and scientific experiments that require measuring soil moisture, temperature, EC, salinity, nitrogen, phosphorus, potassium, and pH.

2. Technical Specifications

Parameter	Range	Accuracy	Resolution
Soil Temperature	-40~80°C	±0.3°C	0.1°C
Soil Moisture	0~100% (m ³ /m ³)	±2%	0.1% (m ³ /m ³)
Soil EC	0~20000 µS/cm	±3%	1 µS/cm
Soil Salinity	0~20000 mg/L	±3%	1 mg/L
Available Nitrogen	0~1999 mg/kg	±3%	1 mg/kg
Available Phosphorus	0~1999 mg/kg	±3%	1 mg/kg
Available Potassium	0~1999 mg/kg	±3%	1 mg/kg
Soil pH	3~10	±0.2	0.01

3. APP Download

3.1 Scan the QR code on the product label or in this manual to download the APP. Compatible with Android / HarmonyOS 4.3 and below. iOS devices and HarmonyOS 5.0 or above are not supported.



3.2 If the installation is blocked by the system, please follow the instructions:

- Huawei: Disable Pure Mode
- Xiaomi: Allow single installation authorization
- OPPO: Allow this installation
- VIVO: Disable Security Guard

Huawei: Disable Pure Mode	Xiaomi: Allow one-time installation authorization	OPPO: Allow this installation	VIVO: Turn off Security Guard
			

3.3 If a password is required due to installation restrictions, enter the password to continue. If forgotten, reset it via SMS.

4. Usage Instructions

4.1 After installation, connect the sensor plug to the phone's charging port.



Insert the sensor connector into

4.2 Some phones have OTG disabled by default. If the device does not respond, manually enable OTG. Go to Settings → search 'OTG' → enable OTG.



①找到手机设置

① Find phone settings

②搜索OTG

② Search OTG

③打开OTG

③ Open OTG

4.3 After successful connection, insert the sensor probe completely into the soil—or bury it long-term—for measurement.

5. Precautions for Use

- 5.1. Check that the packaging is intact and that the sensor specifications match the product you purchased.
- 5.2. The installation site should be far away from chemical-corrosion environments, high voltage, heat sources, etc.
- 5.3. Sensors are precision instruments and should be stored in a dry, ventilated room at room temperature.
- 5.4. The sensor is a precision device. Do not disassemble it by yourself to avoid damage.

5.5. Remark:

Soil NPK sensor actually measures the electrical conductivity of the soil. The manufacturer multiplies the measured conductivity value by a corresponding factor (based on the conventional soil content of nitrogen, phosphorus and potassium) to arrive at a value for the nitrogen, phosphorus and potassium content. Due to the different soils and environments on site, such sensors cannot accurately measure the actual nitrogen, phosphorus and potassium content of the soil on site, but give an empirical, theoretical value.

6. Product Warranty

The warranty period for this product is one year. Within twelve months from the date of shipment, the company will provide free repair or replacement for faults caused by sensor quality issues (excluding human damage). After the warranty period expires, only the cost of repair or replacement will be charged.

7. Contact Us

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