



Mobile Soil Detector

Product Manual



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I. Product Introduction

一. Diagram



This mobile soil comprehensive detector is a patented product independently developed by Siro with our OEM plant. The product uses national standard 304 stainless steel and high-quality alloy materials as the soil detector probes; the interior is poured with anti-corrosion, flame-retardant high-density epoxy resin; the waterproof rating reaches the highest level IP68.

II.Accuracy and Range of Each Parameter

Interface	micro-USB/Type-C	
Supported System	Android/HarmonyOS	
Maximum Power Consumption	0.2W	
Operating Temperature	-20°C~+80°C	
Core Chip Temperature Resistance	85°C	
Electrical Conductivity	Range	0-2000 $\mu\text{s/cm}$
	Resolution	1 $\mu\text{s/cm}$
	Accuracy	$\pm 3\%$ FS
Soil Moisture	Range	0-100% RH
	Resolution	0.10%
	Accuracy	3%
Soil Temperature	Range	-20°C~+80°C
	Resolution	0.1°C
	Accuracy	$\pm 0.5^\circ\text{C}$ (at 25°C)
Soil pH	Range	4-9 pH
	Resolution	0.1
	Accuracy	± 0.3 pH
Soil Nitrogen	Range	0-666 mg/kg
	Values calculated via electrical conductivity serve as auxiliary reference only	
	Range	0-700 mg/kg
Soil Phosphorus	Values calculated via electrical conductivity serve as auxiliary reference only	

	Range	0-726 mg/kg
Soil Potassium	Values calculated via electrical conductivity serve as auxiliary reference only	
	Range	0-1850 mg/kg
Soil Fertility	Values calculated via electrical conductivity serve as auxiliary reference only	

III. Configuration

1. This mobile soil detector comes with a default 1.5-meter USB data cable, paired with an Android TYPE-C dual-interface adapter cable. For other configurations, refer to the figure below:

2. The product has been comprehensively upgraded. For details, refer to the figure below:

以上测量数据为手工测量，实际产品可能存在少许误差

防护等级	IP68		
最大功耗	0.2W		
工作温度	-20°C ~ +80°C		
探针材质	防腐特制电极		
密封材料	黑色阻燃环氧树脂		
线缆长度	1.5M		
参数	量程	分辨率	精度
温度	-20°C~+80°C	0.1°C	±0.5°C(25°C)
湿度	0-100%RH	0.10%RH	3%
PH	4~9PH	0.1	±0.3
电导率	0-2000us/cm	1us/cm	±3%
氮	0-666mg/kg		
磷	0-700mg/kg		
钾	0-726mg/kg		
肥力	0-1850mg/kg		

注：氮磷钾以及肥力是计算值，只能作为侧面参考
氮磷钾肥力是商家赠送附带功能

3. The APP comes with 8 national languages covering most languages --- Chinese, English, Korean, Japanese, German, Spanish, French, Russian. For details, refer to the figure below:



4. The APP has an automatic detection data saving function. Users can freely edit the automatic data upload time (from 10S to 180S) according to their needs. After detection is completed and data is saved, an EXCEL file can be generated and stored in the phone (the folder name can be freely edited by the user for classification and differentiation of detection scenarios). Data can be exported to a computer for specific analysis via the phone. For details, refer to the figure below:



5. This soil comprehensive detector supports not only mobile devices but also computer usage (requires Windows 10 or above system). For details, refer to the figure below:



II. Precautions

1. This device does not support Apple phones (iOS system).

2. Pure HarmonyOS system is currently not supported either (as shown in the figure)



3. During detection, avoid stones (to prevent damage to the probes)