



Agricultural IoT Product Provider



**Make agricultural production smarter and more efficient
Help farmers increase production and income**



Temperature / Humidity



Water



The soil



Environment



Sensing



Company introduction

Changsha Zoko Link Technology Co., Ltd. (Brand: NiuBoL) : production and sales of soil nitrogen, phosphorus and potassium sensors, soil PH sensors, soil moisture sensors, soil temperature and humidity sensors, soil Electrical conductivity sensors, automatic weather stations, wind speed sensors, wind direction sensors, ultrasonic integrated sensors, louvered box temperature, humidity and pressure sensors, rain sensors and other sensors, and widely used in poultry breeding , greenhouse automation, irrigated agriculture, forest monitoring, digital agriculture and other application scenarios.

With reliable quality, complete range and reasonable price, our products are exported to many countries such as USA, Argentina, Egypt, India, Thailand, Singapore, Malaysia and Australia. And we will always keep the momentum of development, continue to deeply expand the market, and cooperate with everyone for a win-win situation.

Whether it is treating products or customers, we have always been adhering to the business management philosophy of "seeking truth and being pragmatic, and striving for excellence". When dealing with products, every employee of Zhongke Zhilian is meticulous, and firmly grasps the quality of each product. When treating customers, we will provide the most professional advice and provide customers with the most professional and most suitable products. For after-sales, we value every customer's feedback and deal with customer needs immediately. A perfect after-sale can best reflect the true value of a product.

Core competence



Focus on agriculture

Deep technical precipitation
User-centric
Boutique to open up the market



Fully self-produced

Professional R&D team
Standardize the production base
Standard Quality Control



One-stop customized service

Better understanding of needs tailor-made
System integration extension development
Customized special service



Sound service system

Professional marketing team
Efficient technical support
Reliable after-sales service



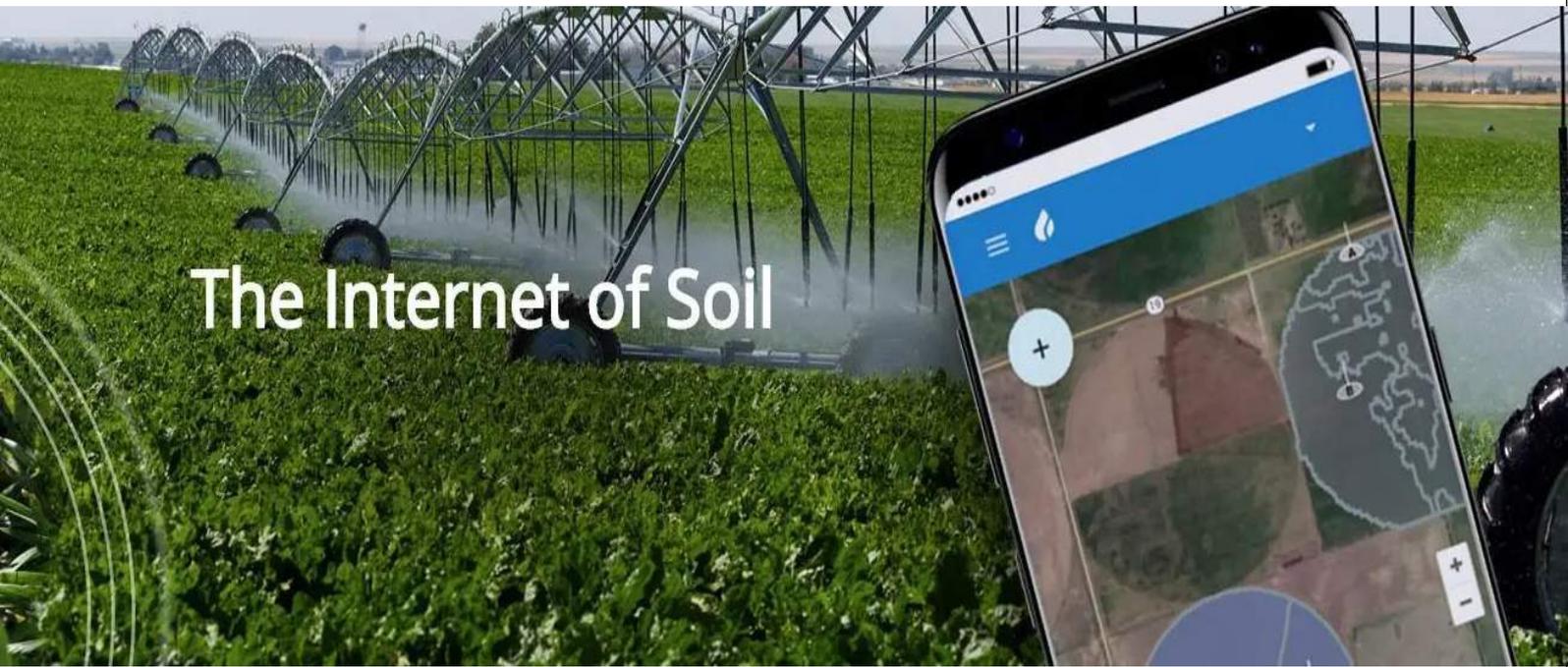
Catalog

1 Soil Sensor Series

NBL-S-TMC/Soil Temperature & Moisture&EC Sensor	01
NBL-S-HS/Soil Handheld Sensor	02
NBL-S-TH/Soil temperature and humidity sensor	03
NBL-S-THR/Soil temperature and humidity sensor (round)	04
NBL-S-NPK/Soil NPK sensor	05
NBL-S-PH/Soil PH sensor	06

2 Weather Station Series

NBL-W-SS/Wind speed sensor	07
NBL-W-DS/Wind direction sensor	08
NBL-W-LBTH/Louver box type temperature, humidity and pressure sensor	09
NBL-W-51MUWS/5 in1 Miniature Ultrasonic Weather Station	10
NBL-W-HPRS/High precision radiation sensor	11
NBL-W-SRS/Solar Radiation Sensors	12
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The Internet of Soil

Soil sensor series



NBL-S-TMC/soil temperature & humidity & EC sensor has stable performance and high sensitivity, and can measure soil temperature and soil humidity at the same time; by measuring the dielectric constant of soil, it can directly and stably reflect the real moisture content of various soils. The soil moisture sensor can measure the volume percentage of soil moisture and is a soil moisture measurement method in line with current international standards.

Suitable for soil moisture monitoring, scientific experiments, agricultural irrigation, greenhouses, flowers and vegetables, grassland and pastures, soil rapid testing, plant cultivation and other occasions.



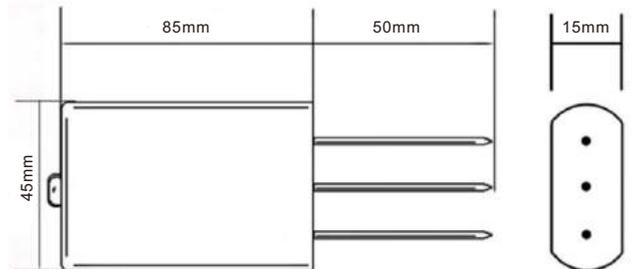
Performance characteristics

- | Simultaneous measurement of soil temperature & soil moisture & electrical conductivity
- | Withstand strong external impact, not easy to damage
- | Completely sealed, acid and alkali corrosion resistant
- | High precision, fast response, good interchangeability

Technical parameter

Soil temperature range	-40~80℃ Resolution: 0.1, Accuracy: ±0.5
Soil moisture range	0-100%RH Resolution: 0.1%RH, Accuracy: 5%
Conductivity range	0-10000us/cm. Accuracy: ±3%
Supply voltage	DC5V-24V
Signal output	<input type="checkbox"/> RS485 <input type="checkbox"/> Modbus protocol
Measurement principle: soil moisture FDR	
Protection class	Ip68 submerged in water for long-term use
Operating environment	-40~85 °C
Probe material: anti-corrosion special electrode	
Sealing material	Black flame retardant epoxy resin
Installation method: all buried or all probes are inserted into the measured medium	
Default cable length: 5 meters, cable length can be customized	
Connection method	Pre-assembled cold-pressed terminals
External dimensions	45*15*135mm
Electrode length	50mm

Product Size



Installation method



vertical measurement
(1)



Buried measurement
(2)

Instructions for use

Wire the sensor according to the instructions in the wiring method, then insert the probe pin of the sensor into the soil to be measured, turn on the power supply and the switch of the collector, and you can obtain the soil temperature and soil moisture at the measurement point

Application field



Agricultural irrigation



Greenhouse farming



Soil Quick Test



Meadow pastures



Flowers and vegetables

NBL-S-HS/It is used to quickly measure agricultural environmental parameters such as soil temperature and humidity, PH, salinity and electrical conductivity, which are displayed in real time on the display and the data is stored in the internal chip of the speed recorder. After measurement the data from the logger can be downloaded to the calculator via the included software for easy research or storage. Multi-purpose machine with soil temperature and humidity sensor, salt sensor, PH meter and other components

Widely used in meteorology, environmental protection, agriculture, forestry, hydrology, military, storage, scientific research and other fields.



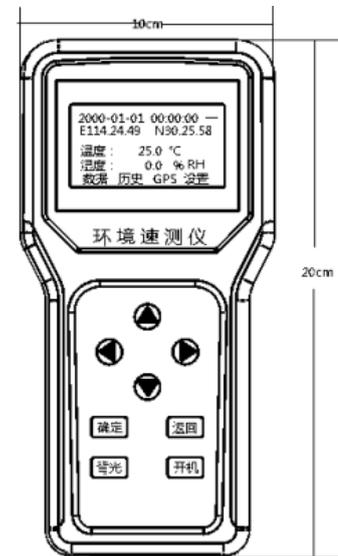
Performance characteristics

- | Easy to carry, the interface can be interchanged, does not affect the accuracy
- | Can automatically identify the sensor type, no need to manually set
- | Data storage function, can store up to 22528 pieces of data
- | The instrument has built-in GPS, with latitude and longitude positioning function

Technical parameter

	Measurement elements	Scope	Resolution	Accuracy
Environmental parameters	Soil temperature	-50-80℃	0.1℃	±0.5℃
	Soil moisture	0-100%	0.1%RH	±3%RH
	Soil salinity	0-8000mg/L	1mg/L	±50mg/L
	Soil conductivity	0-10mS/cm	0.01mS/cm	±5mS/cm
	Soil Ph	0-14PH	0.01PH	±0.02PH
	Power supply	Lithium-ion battery (4000mA.h)		
Communications	USB			
Storage	20,000 data			
Size	Mainframe: 100×200×28 mm			
	Whole machine: 405×100×100 mm			
Weight	About 0.5Kg			
Working environment	-20℃ ~ 80℃; 5%RH ~ 95%RH			

Product Size



Host computer software description

Double-click the included HandRTU_setup.exe program, select the installation language, confirm to start the automatic installation, click Next until it is completed

Instructions for use

There are 8 keys on the instrument: parameter plus (▲), parameter minus (▼) previous parameter (◀), next parameter (▶) confirm key, return key, backlight key, and power-on key. The backlight key and the power-on key can be used directly in any interface of the device.

Application field



Meteorological



Agriculture



Ocean



Environment



Science

NBL-S-TH/The soil temperature and humidity sensor has stable performance and high sensitivity, and can measure soil temperature and soil moisture at the same time; by measuring the dielectric constant of soil, it can directly and stably reflect the real water content of various soils. The soil moisture sensor can measure the volume percentage of soil moisture and is a soil moisture measurement method in line with current international standards.

Suitable for soil moisture monitoring, scientific experiments, agricultural irrigation, greenhouses, flowers and vegetables, grassland and pastures, soil rapid testing, plant cultivation and other occasions.



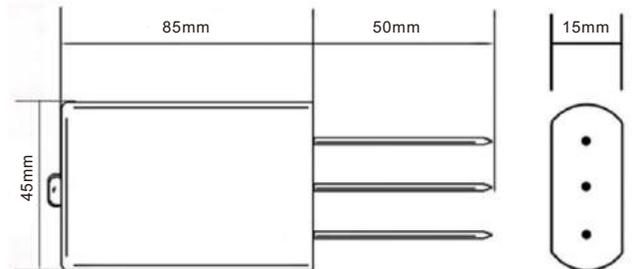
Performance characteristics

- | Simultaneously measure soil temperature and soil moisture
- | Withstand strong external impact, not easy to damage
- | Completely sealed, acid and alkali corrosion resistant
- | High precision, fast response, good interchangeability

Technical parameter

Soil temperature range	-40~80°C Resolution: 0.1 , Accuracy: ±0.5
Soil moisture range	0-100%RH Resolution: 0.1%RH, Accuracy: 5%
Supply voltage	DC5V-24V
Signal output	<input type="checkbox"/> RS485 <input type="checkbox"/> Modbus protocol
Measurement principle: soil moisture	FDR
Protection class	Ip68 submerged in water for long-term use
Operating environment	-40~85°C
Probe material:	anti-corrosion special electrode
Sealing material	Black flame retardant epoxy resin
Installation method:	all buried or all probes are inserted into the measured medium
Default cable length:	5 meters, cable length can be customized
Connection method	Pre-assembled cold-pressed terminals
External dimensions	45*15*135mm
Electrode length	50mm

Product Size



Installation method



vertical measurement (1)



Buried measurement (2)

Instructions for use

Wire the sensor according to the instructions in the wiring method, then insert the probe pin of the sensor into the soil to be measured, turn on the power supply and the switch of the collector, and you can obtain the soil temperature and soil moisture at the measurement point

Application field



Agricultural irrigation



Greenhouse farming



Soil Quick Test



Meadow pastures



Flowers and vegetables

NBL-S-THR/Soil temperature and humidity sensor is a high-precision, high-sensitivity soil moisture measuring instrument. The electromagnetic wave pulse emitted by the sensor is transmitted to the probe through the coaxial cable, and then enters the soil medium to measure the apparent dielectric constant of the soil, thereby obtaining the real water content of the soil. The influence of metal ions, etc.

It can be widely used in soil moisture monitoring, water-saving irrigation, greenhouses, grassland pastures, soil rapid testing and other fields.

Performance characteristics

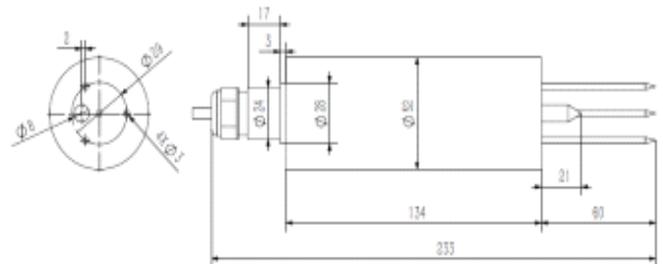
- ▮ Simultaneously measure soil temperature and soil moisture
- ▮ Withstand strong external impact, not easy to damage
- ▮ Completely sealed, acid and alkali corrosion resistant
- ▮ High precision, fast response, good interchangeability



Technical parameter

Measuring range	Soil wetness 0-100%, soil temperature 50-100°C
Power supply method	DC 12-24V
Resolution	Soil moisture 0.1%, temperature 0.1°C
Accuracy	Soil humidity ±3%, temperature ±0.5°C
Product power consumption	1.8mW
Signal output	Rs485/Current 4 ~ 20mA (RL≤250Ω) Voltage 0-5V (RL≥1KΩ)
Product power consumption	About 0.3W
Runtime environment	-40°C ~ 80°C
Protection class	Ip68
Measurement principle	Frequency Domain Reflectometry (FDR)
Interchange accuracy	<3%
Retest error	<1%
Response time	<1S
Measurement settling time	1S

Product Size



Installation method



vertical measurement
(1)



Buried measurement
(2)

Instructions for use

Wire the sensor according to the instructions in the wiring method, then insert the probe pin of the sensor into the soil where the humidity is to be measured, turn on the power supply and the switch of the collector, and then the soil temperature and humidity at the measurement point can be obtained.

Application field



Agricultural irrigation



Greenhouse farming



Soil Quick Test



Meadow pastures



Flowers and vegetables

NBL-S-NPK/The soil nitrogen, phosphorus and potassium sensor has stable performance and high sensitivity. It can judge the fertility of the soil by detecting the content of nitrogen, phosphorus and potassium in the soil to evaluate the soil condition.

It is suitable for soil moisture monitoring, scientific experiments, agricultural irrigation, greenhouses, flowers and vegetables, grassland pastures, soil rapid testing, plant cultivation and other occasions.



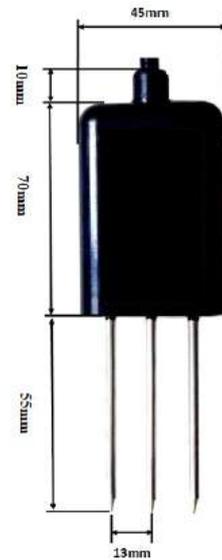
Performance characteristics

- | Measure the NPK content of the solution
- | Withstand strong external impact, not easy to damage
- | Completely sealed, acid and alkali corrosion resistant
- | High precision, fast response, good interchangeability

Technical parameter

Soil NPK	Range 0-2000mg/kg
	Resolution 1mg/kg(mg/l)
	Accuracy $\pm 2\%$ F.s
Supply voltage	DC 12V
Output method	Rs485
Static power	10mA@12V DC
Protection class	Ip68
External dimensions	45*15*135mm
Working environment	-40~85°C
Sealing material	Black epoxy

Product Size



Installation method



vertical measurement
(1)



Buried measurement
(2)

Instructions for use

Wire the sensor according to the instructions in the wiring method, then insert the sensor probe pin into the soil to be measured, turn on the power supply and the switch of the collector, and the soil parameters at the measurement point can be obtained.

Application field



Agricultural irrigation



Greenhouse farming



Soil Quick Test



Meadow pastures



Flowers and vegetables

NBL-S-PH/Soil PH value sensor, which solves the shortcomings of traditional soil PH, such as needing to be equipped with professional display instrument, cumbersome calibration, difficult integration, high power consumption, high price, and difficult to carry.

Can be widely used in agricultural irrigation, flower gardening, grassland pastures, soil rapid testing, plant cultivation, scientific experiments and other fields.



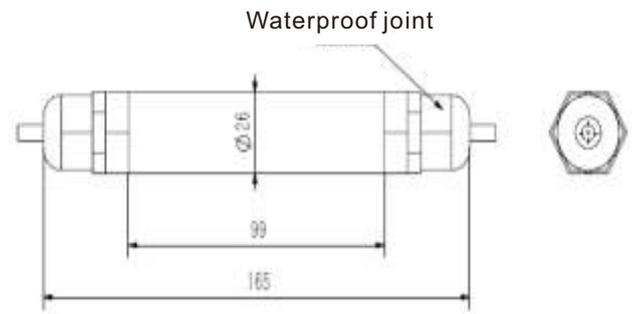
Performance characteristics

- | Not easy to block, maintenance free
- | High integration and small size
- | Low power consumption, easy to carry
- | Real low cost, low price, high performance

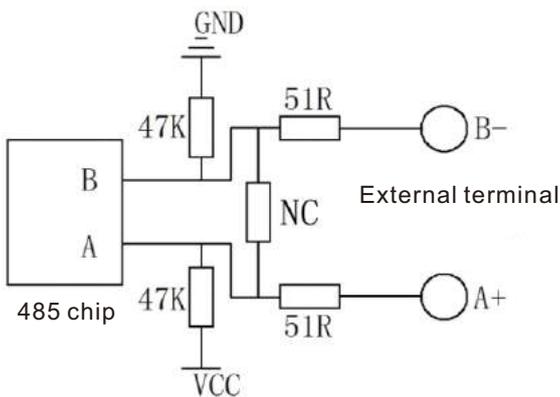
Technical parameter

Measuring range	0-14pH
Accuracy	±0.1pH
Resolution	0.01pH
Response time	<10 seconds (in water)
Power supply method	DC 12V-24V
Output format	<input type="checkbox"/> Rs485 <input type="checkbox"/> 0 ~ 5V <input type="checkbox"/> 4 ~ 20mA
Instrument cable length	10 meters
Working environment	Temperature 0~80℃, humidity 0~95%RH
Power consumption	0.2W
Shell material	Waterproof plastic case
Transmitter size	98*66*49mm

Product Size



Rs485 circuit



Specifications and models

Model	Power supply	output method	Description
NBL-S-PH			Rain sensor (transmitter)
	12V-24V		12V-24V power supply
		A1	4-20mA
		V	0-5V
		W2	Rs485

Example: 12V-A1: Soil PH Sensor (Transmitter)
12V power supply, 4-20mA current signal output

Application field



Agricultural irrigation



Greenhouse farming



Soil Quick Test



Meadow pastures



Flowers and vegetables



Weather Station Series



NBL-W-SS/The wind speed sensor adopts the traditional three-wind cup wind speed sensor structure, and the wind cup is made of carbon fiber material, which has high strength and good start-up; the built-in signal processing unit of the cup body can output the corresponding wind speed signal according to user needs.

Can be widely used in meteorology, ocean, environment, airports, ports, laboratories, industry and agriculture and transportation and other fields.



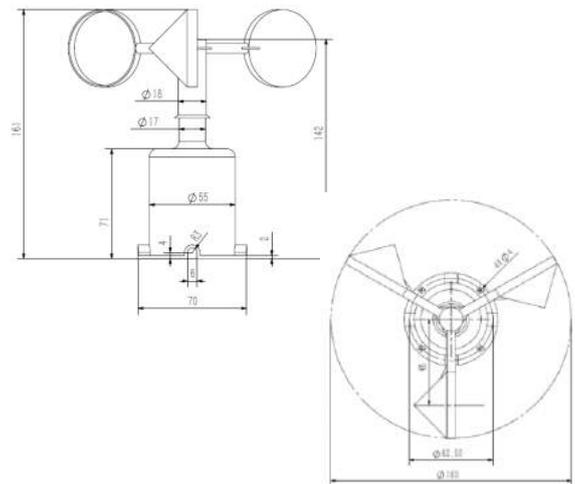
Performance characteristics

- | Easy to observe and stable performance
- | Choose carbon fiber material
- | High strength, good start
- | Low power consumption and IP45 protection design

Technical parameter

Measuring range	<input type="checkbox"/> 0-45m/s <input type="checkbox"/> 0-70m/s
Accuracy	$\pm (0.3+0.03V)$ m/s
Resolution	0.1m/s
Start wind speed	≤ 0.5 m/s
Power supply	<input type="checkbox"/> DC5V <input type="checkbox"/> DC12V <input type="checkbox"/> DC24V
Output signal	<input type="checkbox"/> 4-20mA <input type="checkbox"/> RS485 <input type="checkbox"/> 0-5V <input type="checkbox"/> 0-2.5V
Line length	Standard 2.5m (can be customized)
Load capability	Current-mode output impedance: $\leq 600\Omega$
	Voltage type output impedance $\geq 1K\Omega$
Operating temperature	-40-50°C
Working humidity	$\leq 100\%$ RH
Protection class	Ip45
Product weight	130g
Product power consumption	50mW

Product Size



Installation method



Specifications and models

Model	Power supply	output method	Description
NBL-W-SS			Wind speed sensor
	5V-		5V power supply
	12V-		12V power supply
	24V-		24V power supply
		A1	0-5V
		V2	0-2.5V
		A1	4-20mA
		W2	Rs485
		M	Pulse
	For example: 5V-M: wind speed sensor (transmitter) 5V power supply, pulse output		

Application field



Meteorological



Agriculture



Ocean



Environment



Harbor

NBL-W-DS/The wind direction sensor adopts a high-precision magnetic sensor chip, and selects a low-inertia ABS wind vane to respond to the wind direction, with good dynamic characteristics. The product has the advantages of large range, good linearity, strong lightning resistance, convenient observation, stability and reliability.

Can be widely used in meteorology, ocean, environment, airports, ports, laboratories, industry and agriculture and transportation and other fields.



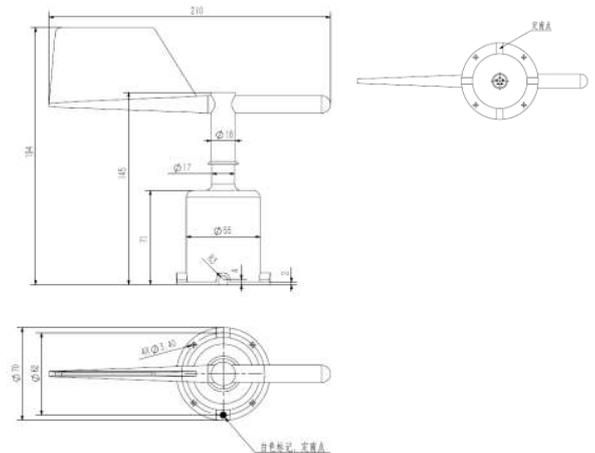
Performance characteristics

- | Ip45 protection dynamic characteristics are good
- | Large range and good linearity
- | Strong anti-lightning ability
- | Easy to observe, stable and reliable

Technical parameter

Measuring range	0-360°
Accuracy	±3°
Resolution	1°
Start wind speed	≤0.5m/s
Power supply	<input type="checkbox"/> DC5V <input type="checkbox"/> DC12V <input type="checkbox"/> DC24V
Output signal	<input type="checkbox"/> 4-20mA <input type="checkbox"/> 0-5V <input type="checkbox"/> 0-2.5V <input type="checkbox"/> RS485
Line length	2.5m (can be customized)
Load capability	Current-mode output impedance: ≤250Ω
	Voltage type output impedance ≥ 1KΩ
Operating temperature	-40-50℃
Working humidity	≤100%RH
Protection class	Ip45
Product weight	210g
Product power consumption	0.15W
Cable grade	Rated voltage: 300V Temperature class: 80℃

Product Size



Installation method



As shown in the picture, use M3 screws and nuts to pass through the sensor 4 mounting holes. Fasten the sensor to the mounting bracket. Please avoid disassembling the sensor during installation.

Specifications and models

Model	Power supply	output method	Description
NBL-W-DS			Wind direction sensor
	5V		5V power supply
	12V-24V		12V-24V power supply
		V	0-5V
		A1	4-20mA
		W2	Rs485
Example: 5V-V: Wind direction sensor (transmitter) 5V power supply, 0-5V output			

Application field



Meteorological



Agriculture



Ocean



Environment



Harbor

NBL-W-LBTH/The louver box type temperature, humidity and pressure sensor is a fully digital detection, high-precision sensor. It is integrated with high-precision digital temperature, humidity and air pressure. It can accurately and quickly detect atmospheric temperature, atmospheric humidity and atmospheric pressure. The built-in signal processing unit can Output corresponding signals according to user needs, high-strength structural design can accurately detect in harsh weather environments.

Can be widely used in meteorology, ocean, environment, airports, ports, laboratories, industry and agriculture and transportation and other fields.



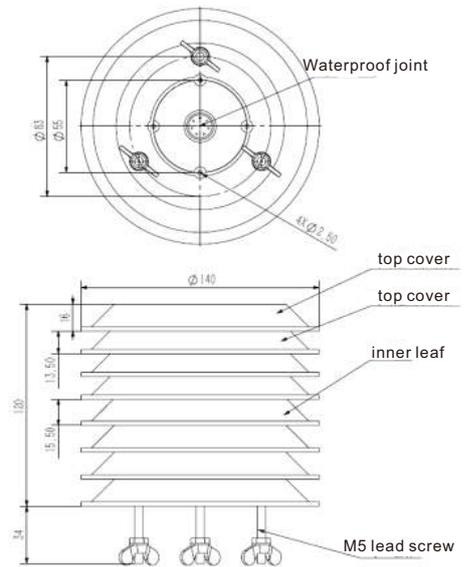
Performance characteristics

- | Stable performance
- | Strong anti-interference ability
- | Rapid detection of atmospheric temperature, humidity and pressure
- | Low power consumption and IP65 protection design

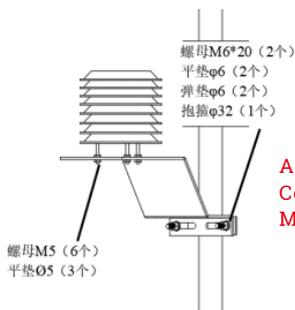
Technical parameter

Options	Temperature	Humidity	Air pressure
Measuring range	-40 ~ 80°C	0 ~ 100%RH	10 ~ 1200hPa
Accuracy	±0.5	±5%RH	±1.5hPa
Resolution	0.1°C	0.1%RH	0.1hPa
Measuring range	DC 12V-24V		
Output signal	Rs485		
Protocol	MODBUS		
Materials	ABS		
Average power consumption	0.3W		
Baud Rate	9600		
Operating temperature	-40-70°C		
Operating humidity	≤100%RH		
Protection class	Ip65		

Product Size



Installation method



As the picture shows
Compatible with stand
Mounted on stand

Specifications and models

Model	Power supply	output method	Description
NBL-W-LBTH			Louver box type temperature and humidity Air pressure sensor
	12V-24V		12V-24V power supply
		W2	Rs485
For example: 12V-W2: Sensor12V power supply, RS485 output			

Application field



Meteorological



Agriculture



Ocean



Environment



Harbor

NBL-W-51MUWS/The 5-in-1 miniature ultrasonic weather station is a fully digital detection, high-precision sensor, which is integrated by ultrasonic principle wind speed and direction sensor, high-precision digital temperature, humidity, and air pressure sensor, which can accurately and quickly detect wind speed, wind direction, atmospheric temperature, Atmospheric humidity and atmospheric pressure, built-in signal processing unit can output corresponding signals according to user needs, high-strength structural design can work reliably in harsh weather environments

Can be widely used in meteorology, ocean, environment, airports, ports, laboratories, industry and agriculture and transportation and other fields.



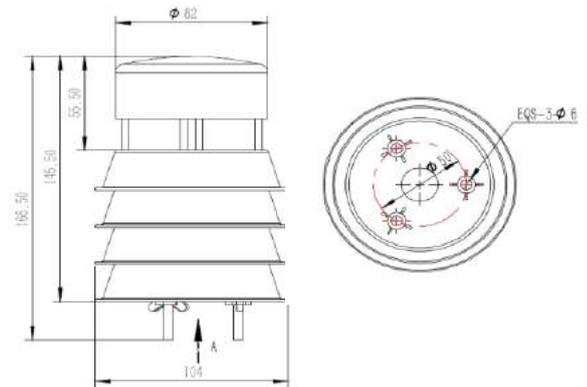
Performance characteristics

- | Stable performance
- | Anti-static protection
- | Lightning protection measures
- | Low power consumption and IP65 protection design

Technical parameter

Supply voltage	DC12V	
Signal output	Rs485	
Communication protocol	DC5V-24V	
Signal output	Standard MODBUS protocol	
Baud rate: 9600 Average power consumption: 0.3W		
Operating temperature	-40-80°C	
Working humidity	0-95%RH	
Standard cable length: 2.5m, material: ABS, protection grade: IP65		
Wind speed	Measuring range	0-40m/s
	Measurement accuracy	±0.5+2%FS
	Resolution	0.01m/s
Wind direction	Measuring range	0-360°
	Measurement accuracy	±3°
	Resolution	1°
Temperature	Measuring range	-50-100°C
	Measurement accuracy	±0.5°C
	Resolution	0.1°C
Humidity	Measuring range	0-100%RH
	Measurement accuracy	±5%RH
	Resolution	0.1%RH

Product Size



Installation method



Installation method: 32 hoop and 76 hoop optional (according to the site bracket to choose)

Z-shaped bracket

Instructions for use

The sensor can be installed in any required direction, the meteorological instrument measures the wind speed and direction on different wind surfaces, and the detector should point the pointing point to the north before fixed installation.

Application field



Meteorological



Agriculture



Ocean



Environment



Harbor

NBL-W-HPRS/The high-precision radiation sensor adopts the principle of thermoelectric induction and is used in conjunction with various radiation recorders or radiation ammeters to accurately measure the sun's TBQ total radiation, reflected radiation, scattered radiation, infrared radiation, visible light, ultraviolet radiation, long-wave radiation, etc.

It can be widely used in solar energy utilization, meteorology, agriculture, aging of building materials and air pollution to measure solar radiation energy.



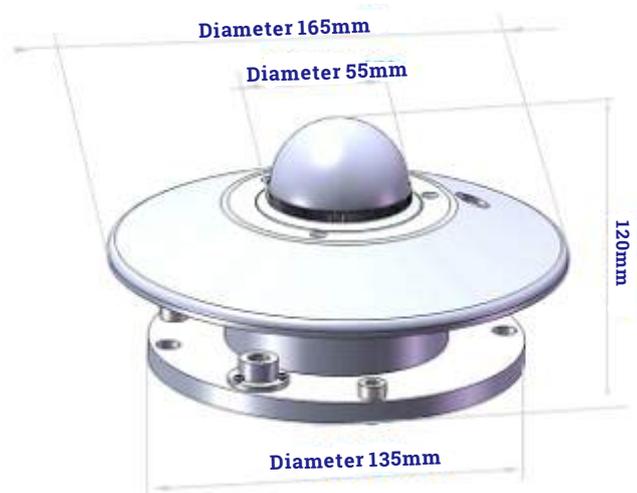
Performance characteristics

- | Stable performance
- | Anti-static and lightning protection measures
- | Unique structure design
- | Low power consumption and IP65 protection design

Technical parameter

Sensitivity	7 ~ 14 μ V / w.m-2
Response time	\leq 35 seconds (99%)
Internal resistance	About 350 Ω
Weight	2.5kg
Spectral range	0.3 ~ 3 μ m
Yearly Stability	\pm 2%
Cosine Response	\leq \pm 7% (when the sun altitude angle is 10°)
Azimuth response error	\leq 5% (when the sun altitude angle is 10°)
Temperature characteristic	2%(-10°C ~ +40°C)
Working ambient temperature	-40°C ~ +50°C
Test Range	0 ~ 2000W/m2
Signal output	0 ~ 20mV
Non-linear	\pm 2%
Power supply	<input type="checkbox"/> DC5V <input type="checkbox"/> DC12V <input type="checkbox"/> 24V
Output format	<input type="checkbox"/> 4~20mA <input type="checkbox"/> 0~2.5V <input type="checkbox"/> 0~5V <input type="checkbox"/> 0~20mV <input type="checkbox"/> RS485

Product Size



Installation method



The sensor should be installed in an open area without any obstacles above the sensing surface

Instructions for use

It is installed in a place where the surrounding area is open and there are no obstacles above the sensing surface. Then, align the pyranometer cable plug to the north, adjust the horizontal position, fix it firmly, and then connect the high-precision pyranometer output cable with the acquisition device to observe. It is best to attach the cables securely to the mount to reduce breaks or intermittent interruptions on windy days

Application field



Climate sounding



Agriculture



Meteorological sounding



Atmosphere



Solar energy utilization

NBL-W-SRS/The core device of the meteorological solar photovoltaic radiation sensor is a high-precision photosensitive element, which has good stability and high precision; at the same time, a quartz glass cover made of precision optical cold processing is installed outside the sensing element, which effectively prevents environmental factors from affecting its performance. Impact

Widely used in meteorology, energy, agriculture, construction and other fields



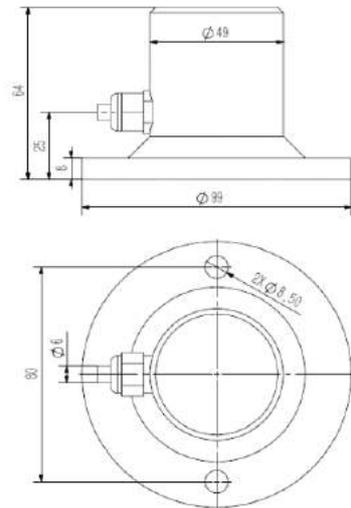
Performance characteristics

- | Stable performance
- | Anti-static and lightning protection measures
- | High precision, down-tilt structure
- | Low power consumption and IP65 protection design

Technical parameter

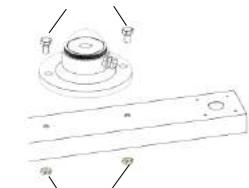
Measuring range	0 ~ 1500W/m ²
Working environment	Temperature -20℃~65℃ , humidity≤100%RH
Power supply	<input type="checkbox"/> DC5V <input type="checkbox"/> DC12V-24V
Output format	<input type="checkbox"/> 4~20mA <input type="checkbox"/> 0~2.5V <input type="checkbox"/> 0~5V <input type="checkbox"/> RS485
Product power consumption	1.8mW
Spectral range	0.3 ~ 3μm
Response time	<5s
Temperature dependent	< ±0.08%℃
Temperature characteristic	2%(-10℃ ~ +40℃)
Cosine Response	< ±10% (when the sun altitude angle is 10°)
Nonlinear	< ±2%
Annual rate of change	< ±2%
Product weight	Sensor 420g with transmitter 760g
Line length	2.5m

Product Size



Installation method

M6*20 Hexagon Screws (2pcs)



M6 nut, φ6 flat washer
φ6 spring washer (2 each)

1. Make sure the mounting bracket is parallel to the ground;
2. As shown in the figure, use M6 screws and nuts to fix the sensor on the mounting bracket through the 2 mounting holes on the sensor;
3. Please avoid disassembling the sensor during the installation process

Specifications and models

Model	Power supply	output method	Description
NBL-W-SRS			Total radiation sensor
	12V-24V		12-24V power supply
		V	0-5V
		V2	0-2.5V
		A1	4-20mA
		W2	Rs485
Example: 12V-24V-A1: total radiation sensor 12V-24V power supply, 4-20mA current signal output			

Application field



Climate sounding



Agriculture



Meteorological sounding



Building



Energy

NBL-W-RS/Rain sensor (Rain Gauge) is suitable for meteorological stations (stations), hydrological stations, agriculture, forestry, national defense and other relevant departments, used for remote measurement of liquid precipitation, precipitation intensity, precipitation start and end time

It can be used for automatic hydrological monitoring and reporting systems and automatic field monitoring and reporting stations for the purposes of flood control, water supply scheduling, power station and reservoir water management, etc.

Performance characteristics

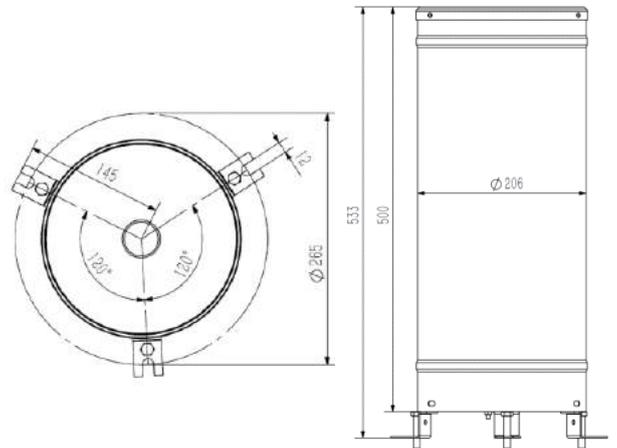
- | Stable performance
- | Anti-static and lightning protection measures
- | Extinction treatment, unique structure design
- | Low power consumption and IP65 protection design



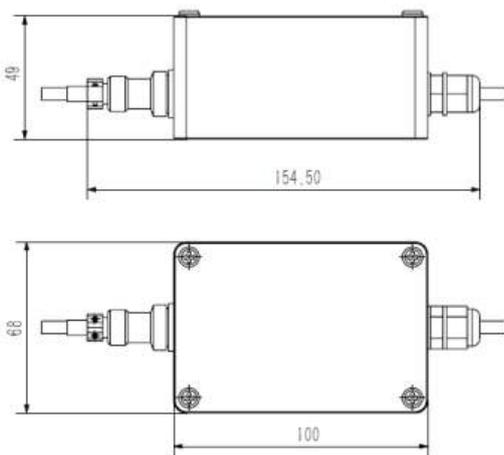
Technical parameter

Water bearing diameter	Φ200 ± 0.6mm, outer edge angle 45 degrees
Measuring range	≤4mm/min (precipitation intensity)
Resolution	0.2mm (6.28ml)
Accuracy	±4% (indoor static test, rain intensity is 2mm/min)
Output signals	Switch contact on-off signal
Operating temperature	0 ~ 50℃
Storage temperature	-40℃ ~ 80℃
Product weight	Bucket weight 1700 g, total weight 3300 g
Power supply method	<input type="checkbox"/> DC5V <input type="checkbox"/> DC12-24V
output method	<input type="checkbox"/> Pulse signal <input type="checkbox"/> 0~2.5V <input type="checkbox"/> 0~5V <input type="checkbox"/> RS485

Product Size



Transmitter size



Specifications and models

Model	Power supply	output method	Description
NBL-W-RS	12V-24V		Rain sensor (transmitter)
		M	Switching signal output
		V	0-2.5V
		V	0-5V
		W2	Rs485
	X	Others	

For example: YL-5V-M: Rain sensor
5V power supply, switch signal output

Application field



Hydrographic Station



Weather station



Flood control



Power Station Reservoir



Agriculture and Forestry

Product application scenarios



**Make agricultural production smarter and more efficient
Help farmers increase production and income**



NiuBoL

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