## LORAWAN SOIL PH SENSOR WITH TEMPERATURE COMPENSATION AND LONG RANGE

The NviroSense NSS620 is a LoRaWAN Soil pH Sensor for IoT of Agriculture. It is designed to measure the soil pH and soil temperature, so as to send to the platform to analyze the soil acid or alkali level. The probe is IP68 waterproof. The NSS620 probe is made of a Solid AgCl reference electrode and Pure metal pH-sensitive electrode. It can detect soil's pH with high accuracy and stable value. The NSS620 probe can be buried in the soil for long time use.

The LoRa wireless technology used in NSS620 allows the device to send data and reach extremely long ranges at low data rates. It provides ultra-long range spread spectrum communication and high interference immunity whilst minimizing current consumption. The NSS620 is powered by an 8500mAh Li-SOCI2 battery, and it is designed for long-term use up to 5 years

- LoRaWAN 1.0.3 Class A
- Ultra-low power consumption
- Monitor soil pH with temperature compensation.
- Monitor soil temperature
- Monitor Battery Level
- Support pH calibration by the end user
- AT Commands to change parameters
- Uplink on periodically
- Downlink to change configure
- IP66 Waterproof Enclosure
- IP68 rate for the Sensor Probe
- 8500mAh Battery for long-term use



# **KEY SPECIFICATIONS**

Category	Feature	Specification
Soil pH Probe	Range	3 ~ 10 pH
	Resolution	0.01 pH
	Accuracy	±2% under (0~50 °C, Accuracy will be poor under 0 due to frozen)
	Temperature Compensation Range	0 ~ 50°C
	IP Protection	IP68
	Length	3.5 meters
Soil Temperature Probe	Range	-40°C∼85°C
	Resolution	0.1°C
	Accuracy	<±0.5°C(-10°C~40°C), <±0.8°C (others)
	IP Protection	IP68
	Length	3.5 meters

# FEATURES AT A GLANCE



### YOUR WIRELESS NETWORK

Develop a fully owned private LoRa network to capture, route and process IoT data for your application at multiple facilities.



### RUGGED DURABILITY WITH A BROAD SENSOR ARRAY

Robust enclosures provide a resilient platform for recording and delivering data from within a range of harsh environments.



#### **COMPREHENSIVE SECURITY AND RELIABILITY**

Robust multi-layer security at each interface to safeguard your network at every level.



# **BROAD CERTIFICATION AND APPROVALS**

CFR 21 (part 11), PPECB, FCC, IC, CE, ASNZS, NCC, and Bluetooth SIG listing.



### THE PLATFORM FOR BUILDING ACTIONABLE IOT INTELLIGENCE

Route sensor data to the cloud with NviroSense's simplified wireless connectivity deployment.



### PERSONAL SUPPORT FOR YOUR IMPLEMENTATION

Support works with NviroSense engineering to help configure and deploy your application.

# **APPLICATION AREAS**

# **NVIROSENSE SUPPORT**



PHARMACEUTICAL WAREHOUSING



**COLD CHAIN MANAGEMENT & FOOD SAFETY** 





IN-FIELD AGRICULTURAL MONITORING

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INDUSTRIAL & MINING APPLICATIONS

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