

NSS545 LORAWAN DISTANCE DETECTION SENSOR

ULTRASONIC LORAWAN DISTANCE SENSOR WITH TEMPERATURE COMPENSATION

The NviroSense NSS545 is a LoRaWAN Distance Detection Sensor for the Internet of Things solution. It is used to measure the distance between the sensor and a flat object. The distance detection sensor is a module that uses ultrasonic sensing technology for distance measurement, and temperature compensation is performed internally to improve the reliability of data.

The NSS545 can be applied to scenarios such as horizontal distance measurement, liquid level measurement, parking management system, object proximity, and presence detection, intelligent trash can management system, robot obstacle avoidance, automatic control, sewer, bottom water level monitoring, etc. It detects the distance between the measured object and the sensor and uploads the value via wireless to LoRaWAN IoT Server..

- LoRaWAN 1.0.3 Class A
- Ultra-low power consumption
- Distance Detection by Ultrasonic Technology
- Flat object range 30mm - 4500mm
- Accuracy: $\pm(1\text{cm}+S*0.3\%)$ (S: Distance)
- Measure Angle: 60°
- Cable Length: 25cm
- Temperature Compensation
- Bands: CN470/EU433/KR920/US915/EU868/AS923/AU915/IN865
- AT Commands to change parameters
- Uplink on periodically
- Downlink to change configure
- IP66 Waterproof Enclosure
- 8500mAh Battery for long-term use



KEY SPECIFICATIONS

Category	Feature	Specification
Storage Temperature	Minimum Value	-25
	Typical Value	25
	Maximum Value	80
	Unit	°C
Storage Humidity	Typical Value	65%
	Maximum Value	90%
	Unit	RH
	Remarks	When the ambient temperature is 0-39 °C, the maximum humidity is 90% (non-condensing);
Operating Temperature	Minimum Value	-15
	Typical Value	25
	Maximum Value	60
	Unit	°C

Working Humidity	Typical Value	65%
	Maximum Value	80%
	Unit	RH
	Remarks	When the ambient temperature is 40-50 °C, the highest humidity is the highest humidity in the natural world at the current temperature (no condensation)

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



PHARMACEUTICAL WAREHOUSING



COLD CHAIN MANAGEMENT & FOOD SAFETY



IN-FIELD AGRICULTURAL MONITORING



INDUSTRIAL & MINING APPLICATIONS

NVIROSENSE SUPPORT



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