

NSS500 LoRa I/O Controller

SECURE, SCALABLE WIRELESS SENSORS FOR LONG RANGE IOT APPLICATIONS

NviroSense's NSS500 is a **long range LoRa I/O Controller** leveraging the benefits of LoRaWAN, which allows the user to send data and reach extremely long ranges. At its core, the NSS500 utilises NviroSense's field proven and reliable NviroSense hardware, providing LoRaWAN options in 868, 915, and 923 MHz frequencies. Based on the Semtech SX1276/78, it offers a LoRa range up to 15 kilometers with a local 2.4 GHz connectivity option to smartphones and tablets. NSS500 works with NviroSense's NSS5000 series of LoRa/multi- wireless gateways for simple out-of-the-box integration and is compatible with third-party cloud and LoRa network ecosystem partners.

- **Multi-wireless:** LoRaWAN (868/915/923 MHz).
- **Multi-interface:** such as: analog current input, analog voltage input, relay output, digital input and digital output etc.
- **Simple wireless configuration** using mobile application.
- **Harsh Environments:** Robust enclosure to serve many varied installation needs.
- **Integrated out of the box networks:** Default configuration with NviroSense's NSS5000 gateways for simple, out-of-the-box cloud connectivity.



KEY SPECIFICATIONS

Category	Feature	Specification
Chipset	LoRa	Semtech SX1276/78
LoRa	Frequencies	868MHz, 915MHz, 923MHz
Interfaces	Interfaces	3 x Digital Input 3 x Digital Output 2 x Relay Output (5A@250VAC / 30VDC) 2 x 0~20mA Analog Input 2 x 0~30V Analog Input
Antenna	Integrated	Custom NS antenna for 868, 915, or 923MHz
		Ceramic chip antenna for 2.4GHz
Power	Power Source	0 ~ 24V
Software	Web Application	NviroSense for Environmental Monitoring: Onsite, Cloud, Hybrid Multi-site or API Monitoring, Reporting & Control
	Mobile application	Android and iOS - Remote sensor display and config + firmware updates
LED	Status	Multiple LEDs to indicate status
Button	User Input	Program and reset
Physical	Dimensions	135mm x 70mm x 30mm
Warranty	Time-period	One-year

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.



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



COLD CHAIN MANAGEMENT & FOOD SAFETY



IN-FIELD AGRICULTURAL MONITORING



INDUSTRIAL & MINING APPLICATIONS

NVIROSENSE SUPPORT



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NEW: The NviroSense NSS450 Series now offers a range of additional sensor options available via expansion port. For more details, visit the [EUCAstore](#)