novaX

IoT Solutions Brochure

Seamless Integration, Endless Possibilities

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About
novaX IoT

novaX offers multi-potential sensing products designed to capture meaningful data and make it accessible across various applications. The company innovatively leverages emerging technologies such as AI, 5G, and IoT to address distinct use cases.

In partnership with a global network of distributors and system integrators, novaX is dedicated to developing open ecosystems and enhancing IoT strategies. Its product offerings include IoT Gateways, IoT Sensors, IoT Controllers, and 4G/5G Industrial Routers and Switches, providing comprehensive device-to-cloud solutions for markets such as smart offices, smart buildings, intelligent traffic management, security solutions, smart cities, and smart agriculture.

Semi-Industrial LoRaWAN Gateway

N8-UG65

Key Features

- High-performance quad-core industrial processor with large memory.
- Integrated SX1302 chip for handling higher traffic with lower power consumption.
- IP65-rated enclosure for partial outdoor applications.
- Supports multiple backhaul options: Ethernet, cellular (4G/3G), and Wi-Fi.
- Built-in network server and API (MQTT/HTTP) for seamless integration.

Product Overview

N8-UG65 is a robust 8-channel indoor LoRaWAN® gateway designed for smart office, smart building, and similar indoor applications. Equipped with the SX1302 LoRa chip and a high-performance quad-core CPU, it supports over 2000 nodes, with a line-of-sight range of up to 15 km and 2 km in urban environments. N8-UG65 offers multiple backhaul options (Ethernet, Wi-Fi, and cellular) and is compatible with mainstream network servers, ensuring easy deployment and efficient management.

Industrial LoRaWAN® Gateway

N8-UG56

Key Features

- Quad-core industrial processor with high memory capacity
- Equipped with the SX1302 chip for higher traffic handling and lower power consumption
- Supports multiple backhaul connections: Ethernet, Wi-Fi, and cellular
- Built-in network server and support for mainstream servers like The Things Stack and ChirpStack
- Compatible with BACnet/IP and Modbus for easy integration into building management systems (BMS)

Product Overview

N8-UG56 is a robust 8-channel indoor LoRaWAN® gateway designed for seamless IoT connectivity. Equipped with the SX1302 chip and a high-performance quad-core CPU, it supports up to 2000 nodes and offers a line of sight range up to 15 km, or 2 km in urbanized environments. With its versatile backhaul options (Ethernet, Wi-Fi, and cellular) and compatibility with mainstream network servers, N8-UG56 is ideal for applications like smart buildings and industries. The device also features a built-in network server and development tools for easy deployment and integration.

9-in-1 IAQ Sensor

| N8-AM319

Key Features

- Integrated with multiple sensors, including temperature, humidity, CO2, light, PM2.5, and PM10.
- Real-time data display on a 4.2-inch E-Ink screen with intuitive comfort level indicators.
- Supports both battery and DC power supply options.
- Equipped with traffic light indicators and buzzer for device status and threshold alarms.
- Stores up to 18,000 historical records locally with retransmission to prevent data loss.

Product Overview

N8-AM319 is a compact indoor ambience monitoring sensor designed for measuring temperature, humidity, CO2 concentration, light, barometric pressure, PM2.5, PM10, and more. The data is displayed in real-time on a 4.2-inch E-Ink screen, providing clear and intuitive insights into indoor environmental comfort. Leveraging LoRaWAN® technology, N8-AM319 ensures reliable data transmission and seamless integration with Milesight IoT Cloud for remote management. It is widely applicable in offices, classrooms, hospitals, and other indoor spaces.

AI Workplace Occupancy Sensor
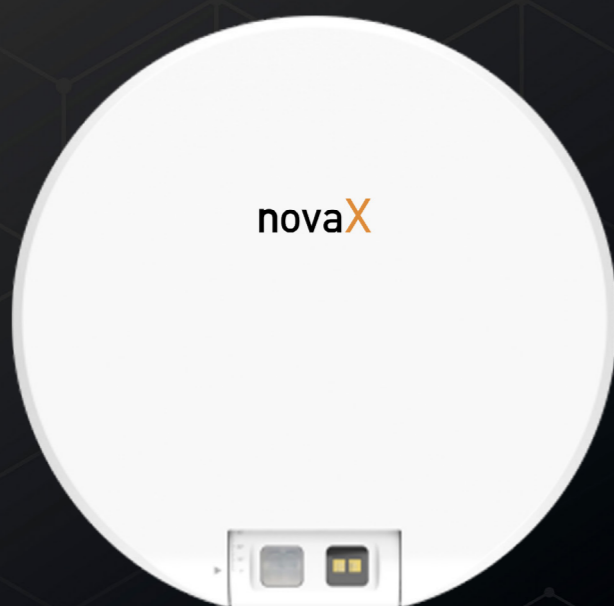
| N8-VS121

Key Features

- Achieves up to 98% recognition rate with advanced AI algorithms.
- Supports regional people counting, occupancy detection, and dwell time analysis for up to 16 mapped regions.
- Provides bi-directional people counting with smart U-turn filtering to eliminate redundant counts.
- Equipped with privacy masks (up to 8 regions) to protect sensitive areas.
- Offers data retransmission to prevent data loss and ensure secure collection.

Product Overview

N8-VS121 is an AI-powered workplace occupancy sensor designed to monitor space utilization and occupancy in modern workspaces. With an advanced AI algorithm, it achieves up to 98% recognition accuracy. N8-VS121 comes in two versions: LoRaWAN® and Ethernet, catering to diverse application needs. The LoRaWAN® version ensures seamless integration with standard LoRaWAN® gateways and supports Wi-Fi for easy configuration. The Ethernet version provides extended functionality with rich industrial interfaces (DI, DO, RS485) and supports data transmission via HTTP/MQTT. Both versions are equipped with privacy masks and data retransmission features to ensure security and reliability.

Bathroom Occupancy Sensor

Radar Fall Detection Sensor

N8-VS330

N8-VS373

Key Features

- Industry-leading detection accuracy of over 99.5% using ToF and PIR technologies.
- Ensures 100% anonymity and GDPR compliance with no personal data collected.
- Adjustable sensor angles (0° to 75°) to support various mounting methods.
- Ultra-low power consumption with a battery life of up to 4 years.
- Reliable performance in low-light or completely dark environments with damp-proof coating for durability.
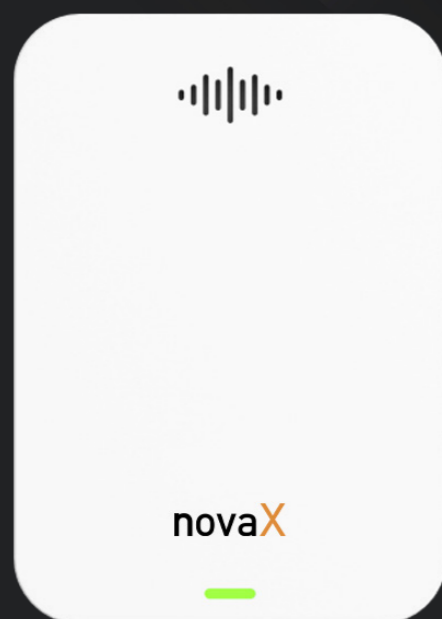
Key Features

- Advanced Millimeter Wave Radar with 24 transmitters and 22 receivers for high precision detection.
- Achieves up to 99% fall detection accuracy with less than 1% false alarm rate.
- Supports in-bed detection and sub-region occupancy monitoring.
- 100% privacy protection with no image capture.
- IP65-rated design for stable operation in diverse conditions.

Product Overview

N8-VS330 is a LoRaWAN® bathroom occupancy sensor designed to provide a cost-effective solution for monitoring the occupancy status of public bathrooms and cubicles in various scenarios. Combining advanced Time-of-Flight (ToF) technology and Passive Infrared (PIR) sensors, N8-VS330 achieves industry-leading accuracy exceeding 99.5%. It ensures 100% anonymity, making it GDPR-compliant, and features ultra-low power consumption. With adjustable sensor angles, N8-VS330 supports multiple mounting methods and can be managed remotely via Milesight IoT Cloud or mobile apps. A damp-proof coating inside ensures reliable performance under diverse environmental conditions.

Product Overview

N8-VS373 is a Radar Fall Detection Sensor with advanced Millimeter Wave Radar technology. It provides non-contact person detection and fall alarms with a detection accuracy rate of up to 99%. N8-VS373 ensures 100% privacy protection by avoiding image capture and supports real-time monitoring for enhanced safety. With seamless integration into LoRaWAN® gateways and the Milesight Development Platform, remote management and timely notifications are enabled. Designed for spaces like living rooms, bathrooms, hospital wards, and care homes, the N8-VS373 is ideal for environments where fall detection is critical. Its IP65-rated design ensures durability in various conditions.

Bathroom Odor Detector

| N8-GS301

Key Features

- High-accuracy electrochemical sensors with a lifespan exceeding three years for NH3 and H2S detection.
- Built-in temperature and humidity sensors for comprehensive environmental awareness.
- Wireless power supply using replaceable batteries, reducing installation costs.
- Equipped with LED indicators and a buzzer for local threshold alarms.
- Supports Milesight D2D protocol for ultra-low latency control without gateways.

Product Overview

N8-GS301 is a 4-in-1 LoRaWAN® bathroom odor detector designed to monitor ammonia (NH3) and hydrogen sulfide (H2S) concentrations, as well as temperature and humidity. Utilizing high-accuracy electrochemical sensors with a lifespan of over three years, the N8-GS301 ensures precise detection and timely alarms via LED indicators and a buzzer when gas concentrations exceed preset thresholds. Its built-in battery enables wireless power supply, reducing installation costs. Integrated with LoRaWAN® gateways and IoT Cloud solutions, the N8-GS301 supports remote monitoring and control, making it an essential part of smart bathroom solutions. Additionally, the N8-GS301 is equipped with Milesight D2D protocol for ultra-low latency control without gateways.

Smart Button

| N8-WS101

Key Features

- Supports multiple press actions for device control, scene triggers, and emergency alarms.
- Compact design with easy installation and portability.
- Built-in LED indicator and buzzer for press actions, network status, and low battery alerts.
- Ultra-wide wireless transmission range of up to 15 km in open areas.
- NFC configuration and LoRa D2D protocol for ultra-low latency control without gateways.

Product Overview

N8-WS101 is a LoRaWAN®-based smart button designed for wireless controls, scene triggers, and emergency alarms. It supports multiple press actions, which can be customized to control devices or trigger specific actions such as sending SOS alarms. Compact and battery-powered, the N8-WS101 is easy to install and portable. With built-in LED indicators and a buzzer, it provides real-time feedback for press actions, network status, and low battery warnings. Integrating seamlessly with LoRaWAN® gateways and IoT Cloud solutions, the N8-WS101 enables remote control of devices via web or mobile apps. It is ideal for applications in smart homes, offices, hotels, and schools.

PIR & Light Sensor
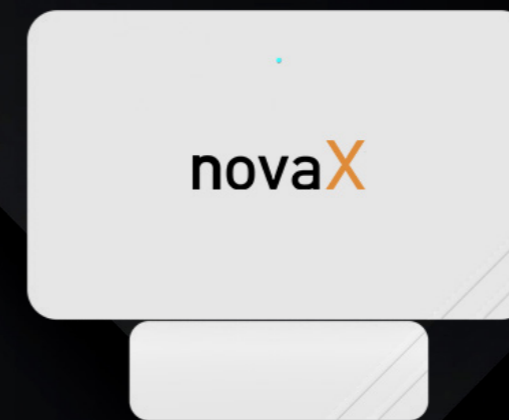
N8-WS202

Key Features

- Motion and occupancy detection using passive infrared technology with a detection range of up to 8 meters.
- Built-in light sensor for linking PIR results to trigger scenes based on custom thresholds.
- Ultra-wide wireless transmission range of up to 15 km line of sight.
- Compact size with NFC configuration for easy installation and operation.
- Compatible with LoRaWAN® gateways and IoT Cloud solutions for remote monitoring and control.

Product Overview

N8-WS201 is a wireless fill-level monitoring sensor designed for small containers, especially tissue boxes. Utilizing advanced Time-of-Flight (ToF) technology, it offers high-accuracy detection within a range of 1 to 55 cm. The N8-WS201 features ultra-low power consumption with a standby mode, ensuring long battery life. Its compact design, NFC configuration, and damp-proof coating make it adaptable to various environments, including bathrooms and humid conditions. Compatible with LoRaWAN® gateways and IoT Cloud solutions, the N8-WS201 allows users to monitor fill levels in real-time and manage containers effectively from anywhere.

Magnetic Contact Switch

N8-WS301

Key Features

- Compact and wireless design, suitable for various doors/windows of different materials.
- Ultra-wide-distance transmission up to 15 km line of sight.
- Built-in tamper detection and LED indicators for network, open/close, tamper, and low battery status.
- Equipped with NFC for one-touch configuration and supports Milesight LoRa D2D protocol for ultra-low latency control without a gateway.
- Long battery life of over 5 years with a replaceable 1200 mAh battery.

Product Overview

N8-WS301 is a compact and wireless magnetic contact switch designed for monitoring the open/close status of doors, windows, or other objects. By placing a minimal magnet on the movable part and the sensor on the fixed part, N8-WS301 detects movement and transmits data via the LoRaWAN® network. With its minimalist design and easy installation, the N8-WS301 is ideal for smart homes, offices, and factories. It features ultra-wide-distance transmission, tamper detection, and long battery life, ensuring reliable real-time monitoring. Compatible with LoRaWAN® gateways and IoT Cloud, it enables users to receive instant alarms and manage devices

Magnetic Contact Switch

| N8-EM300-MCS

Key Features

- High sensitivity for detecting door and window open/close status.
- Integrated temperature and humidity sensors for environmental monitoring.
- Ultra-wide transmission range of up to 10 km (line of sight).
- IP67-rated UV-resistant and waterproof enclosure for harsh environments.
- Built-in 4000 mAh replaceable battery with over 5 years of operation.

Product Overview

N8-EM300-MCS is a compact magnet switch sensor designed for detecting the open/close status of doors, windows, or other objects. It transmits alarms using LoRaWAN® technology and supports ultra-low latency control via the Milesight D2D protocol. The device integrates temperature and humidity sensors, making it ideal for applications such as home automation, office monitoring, and industrial environments. With IP67-rated waterproof protection and a replaceable 4000 mAh battery, the N8-EM300-MCS can operate for over 5 years without replacement. It supports seamless integration with Milesight IoT Cloud for remote management and alarm notifications.

Leak Detection Sensor

| N8-EM300-SLD

Key Features

- Detects the presence of liquids using a small water probe based on the conductive principle.
- Integrated temperature and humidity sensors for environmental monitoring.
- Ultra-wide transmission range of up to 10 km (line of sight).
- IP67-rated UV-resistant and waterproof enclosure for harsh environments.
- Built-in 4000 mAh replaceable battery with over 5 years of operation.

Product Overview

N8-EM300-SLD is a compact spot leakage detection sensor designed to detect the presence of water or other conductive liquids and transmit alarms using LoRaWAN® technology. With ultra-low power consumption, the device operates up to 5 years on a replaceable 4000 mAh battery. It integrates temperature and humidity sensors, making it suitable for applications like pipe leakage monitoring, basement flooding prevention, and pump failure detection. The IP67-rated waterproof enclosure ensures reliable performance in harsh environments, while seamless integration with Milesight IoT Cloud allows for remote management and alarm notifications.

Temperature & Humidity Sensor

N8-EM300-TH

Key Features

- Embedded with a high-precision Sensirion sensor chip for accurate temperature and humidity measurements.
- IP67-rated UV-resistant and waterproof enclosure for harsh environments.
- Built-in 4000 mAh replaceable battery with over 5 years of operation.
- Supports local storage of 3,000 historical records with data retransmission to prevent loss.
- Compatible with LoRaWAN® gateways, IoT Cloud, and supports NFC for easy configuration.

Product Overview

N8-EM300-TH is a compact LoRaWAN® temperature and humidity sensor designed for environmental monitoring. Embedded with a high-precision Sensirion sensor chip, it ensures accurate measurements and reliable performance in various environments. The device features an IP67-rated waterproof and UV-resistant enclosure, making it suitable for both indoor and outdoor applications. With a built-in 4000 mAh replaceable battery, N8-EM300-TH can operate for over 5 years without replacement. It supports local data storage to prevent loss and integrates seamlessly with LoRaWAN® gateways and IoT Cloud for remote management. Ideal for offices, hospitals, factories, greenhouses, and more.

Smart Current Transformer

N8-CT101

Key Features

- Report RMS current and accumulated data with high accuracy and a sampling frequency of up to 3.3 kHz.
- Detachable and non-invasive clamp design ensures safe and easy installation without de-energizing.
- Self-powered via induced current, eliminating the need for batteries or external power.
- Equipped with LED indicators for status and alarm notifications.
- Real-time monitoring with a sampling rate of up to 1 second and support for Firmware Update Over the Air (FUOTA).

Product Overview

N8-CT101 is a LoRaWAN® Smart Current Transformer designed for energy monitoring and consumption analysis. It supports multiple current ranges, allowing flexible energy monitoring with real-time threshold alarms. With a detachable and compact clamp design, N8-CT101 ensures safe and quick installation without de-energizing facilities. Compliant with LoRaWAN® gateways and thde Development Platform, it enables remote monitoring via a user-friendly webpage. N8-CT101 is ideal for smart buildings, machine failure detection, and energy management applications.

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