

SS-001 (-EU) Series



Wireless Smart Sensor with Cloud Connectivity



- **SS-001 Series: Temperature, Humidity, Barometric Pressure, and Light sensor**
- **Free Omega Link Standard Cloud service accessible from any connected device¹**
- **Easy setup with one-button pairing**
- **Wireless communication up to 1.2 km²**
- **AES-256 Encrypted wireless link keeps your data secure**
- **Local data logging up to 10,649 data points³**



Introduction: SS-001

The Omega Link SS-001 Smart Sensor utilizes precision internal sensing elements to accurately measure temperature, humidity, barometric pressure, and/or light, depending on the model. When the rugged model is securely inserted in the protective cover, the device can be used for a wide range of rugged sensing applications. Smart Sensors provide a long-range wireless sub GHz interface that transmits sensor readings to the Omega Link Cloud or OEG. Easily pair to an Omega Link Gateway through a one-button pairing system. The device can be powered by internal batteries or USB power.

Intuitive Configuration

Configure your Omega Link Smart Sensor using our free SYNC configuration software. Configurable features include selective data extraction, measurement and device traceability, local alarms, and adaptive transmission rates to reduce data congestion and extend battery life.

Long Range

The SS-001 utilizes Sub GHz Frequency Hopping Spread Spectrum (FHSS) technology to ensure robust, long range communications. Transmission ranges of up to 1.2 km can be achieved with the standard AA batteries.

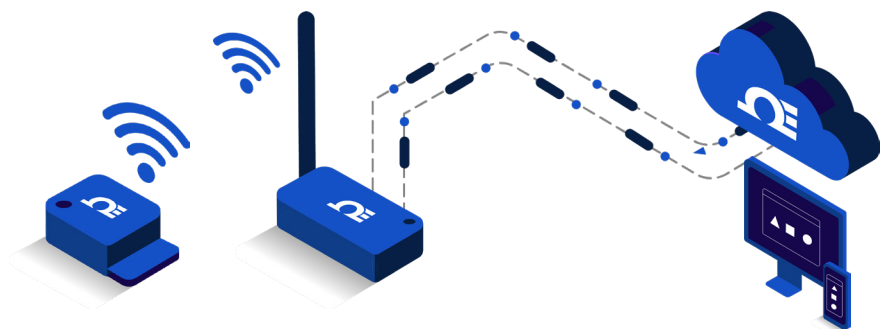
Security and Access Control

Omega Link wireless products are designed with state of the art security features to protect your data with robust AES-256 encryption and advanced PKA-EC521bit (NIST) elliptic-curve cryptography to protect your data. Password protection ensures that access to device data is restricted and only accessible by authorized users. Device Authentication ensures that Omega Link Smart probes connect to validated Omega devices.

One-Button Pairing

The SS-001 is easily paired to the Omega Link Gateway with the press of a button and will automatically show up on your Omega Link Cloud account. The Omega Link Gateway can connect up to 100 Smart Sensors⁴ per unit. Local data logging keeps your data secure in the event of a power or network outage. Reports, History, and E-mail alerts from the Omega Link Cloud keep you informed on the status of all your vital processes.

How Do Omega Link Smart Sensors Work?



Smart Sensor

Sense, store, and process real-time data with superior wireless connectivity to the Gateway.

Gateway

Collect and securely transport data from the sensor layer to the Cloud.

Cloud & Mobile Access

Continuously collects and processes sensor data providing real-time reporting and analytics anytime, anywhere with an Internet Connection.

1. Visit <https://omega.com/en-us/omega-link-cloud> for subscription options. Total number of sensors that can connect to Omega Link Cloud varies with subscription tier.

2. Actual range may vary depending on environment.

3. The number of data points available are on a per sensor basis. Local Data can be downloaded using downloadable SYNC configuration software.

4. 100 sensors are supported at typical update intervals, on the order of 60 minutes, higher data rates or adverse environmental conditions may diminish the number of sensors supported.

Specifications

Wireless Communication

Frequency: 868 MHz

Range: Up to 1.2 km*

*Without obstruction

Power

Alkaline Battery: 2x AA batteries (included)

Lifetime: Up to 1.5 years with frequency of 1 reading per hour

USB Power*: 500mA @ 5V

*Micro USB cable not included

Environmental

Operating Conditions for Base Unit

Battery Powered: -15°C to 55°C, non-condensing

USB Power: -20°C to 65°C, non-condensing

Rating: IP40

Certifications

Safety: EN 62368-1:2014 +A11:2017 (Second Edition)

EMC: EN 301 489-1 V2.2.3 (2019-11)

Radio: EN 300 220-2 V3.1.1 (2017-02)

CE: Radio Equipment Directive 2014/53/EU
EMC Directive 2014/30/EU
ROHS Directive EU 2015/863

UKCA: Radio Equipment Regulations 2017
Electromagnetic Compatibility Regulations 2016
RoHS Regulations 2012

General

Software: Compatible with SYNC configuration software and Omega Link Cloud

Measurement	Range	Accuracy
Temperature	-20°C to 70°C	±0.3°C
Humidity @ 25°C	0% to 80%	±2.5%
	80% to 100%	±3.5%
Barometric Pressure @ 25°C	700 mbar to 1100 mbar	±4 mbar
Barometric Pressure @ Full Range	300 mbar to 1100 mbar	±6 mbar
Light	0-43691 illuminance	Relative level only

Wireless Sub GHz Smart Sensor

Model Number	Description
SS-001-1-EU	Temperature and Humidity Smart Sensor - 868MHz
SS-001-3-EU	Temperature, Humidity, Barometric Pressure, Light Smart Sensor - 868MHz

Omega Link Wireless Gateways

An Omega Link Wireless Gateway is **required** to connect your Smart Sensor to the Omega Link Cloud.

Model Number	Description
GW-001-2-EU	Wireless IIoT Gateway Standard, Ethernet connectivity, connects up to 100 Omega Link Smart Sensors- 868 MHz
GW-001-3-EU	Wireless IIoT Gateway Pro, Ethernet connectivity, power over Ethernet, connects up to 100 Omega Link Smart Sensors, Modbus RTU RS232/RS485 and Modbus TCP, 2x USB ports- 868 MHz

Your Data at a Glance with the Omega Link Cloud

The Omega Link Cloud consolidates and brings your data to you when you need it, wherever you are. The intuitive cloud interface allows you to monitor and store your data, set alarms and alerts, and provides insights on device activity. Visit the OMEGA website for more details.

