

# Sushi Sensor

## Wireless Vibration Sensor XS770A



Sushi Sensor XS770A

The XS770A is a small, battery-powered wireless sensor for measuring vibration and temperature, and is ideal for Industrial Internet of Things (IIoT) applications. This sensor helps visualize the data of equipment maintenance and improve its efficiency.

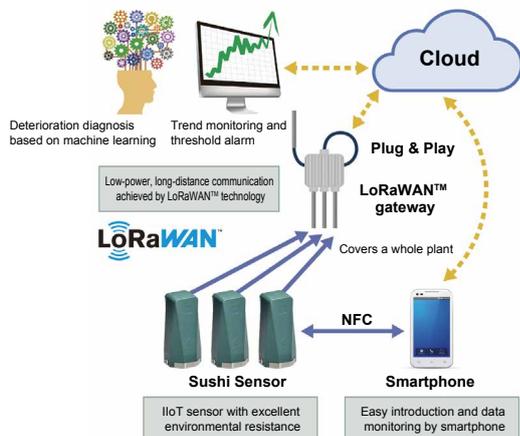
The XS770A can be mounted easily on various equipment and facilities and can quickly start continuously monitoring their vibration and surface temperature. The data are stored in the cloud, and their trend is used to detect any sign of abnormality of target devices and facilities. This sensor quantifies checking tasks that have depended on skilled workers so far and will help convert their tacit knowledge and experience into explicit knowledge. Furthermore, such knowledge and monitoring data can be used as a source of data for machine learning and analysis systems. This process helps optimize equipment maintenance plans.

### MAJOR FEATURES

- **Excellent environmental resistance**  
The XS770A features excellent environmental resistance for prolonged outdoor use.
- **LoRaWAN™ for long-distance communication**  
Since it complies with LoRaWAN™, which is a low-power wide-area (LPWA) network for long-distance communication, the XS770A can be deployed anywhere and cover a vast area.
- **Simple setting via smartphone**  
Via the near-field communication (NFC) function of smartphones, the XS770A can be set easily and its status can be checked.

### EXAMPLE OF SYSTEM CONFIGURATION

Data measured by the XS770A are stored in the cloud via the LoRaWAN™ gateway.



### MAJOR FUNCTIONS

Function	Description
Wireless communication	Transmits measurements and status data to the host system via the LoRaWAN™ gateway.
Measurement	(1) Vibration Measures vibration along the X, Y, and Z axes separately and calculates their combined value. (2) Temperature Monitors the surface temperature of the bottom.

### MAJOR SPECIFICATIONS

Item	Specifications
Ambient temperature (during operation)	-20 to 85°C
Measurement data	Speed, acceleration, surface temperature
Vibration measurement frequency range	10 Hz to 1 kHz
Vibration measurement range	Speed: 0 to 20 m/s Acceleration: 0 to 130 mm/s <sup>2</sup>
Temperature measurement range	-20 to 85°C
Communication	LoRaWAN™ (920 MHz band)
Data update cycle	1 hour (typ.)
Battery life	Four years (data update cycle: 1 hour)* Batteries replaceable
Mount	M6 screw thread or a magnet
Degrees of protection	IP66/67
Explosionproof	Intrinsic safety (in preparation)

\* The battery life depends on the ambient temperature.

### Contact:

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For worldwide locations, please see the back cover.

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\* LoRaWAN is a trademark of Semtech Corporation.

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\* For details of the overseas release of Sushi Sensor, please visit Yokogawa's website.