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AI-Powered

Smart City Ecosystem

Leaf Moisture Sensor

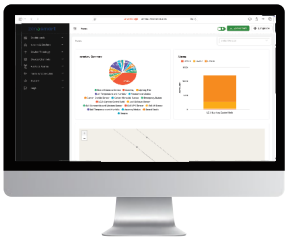
ZS-SPH01

The Zenosmart LoRaWAN Leaf Moisture Sensor measures leaf moisture and temperature, providing data to platforms for irrigation, humidification, dew, and frost analysis. Its IP67 waterproof probe uses the FDR method to measure leaf moisture and is designed in the shape of a leaf

After inserting the battery and positioning the probe, data is transmitted to a LoRaWAN Gateway. The data can be monitored from an IoT server. The data transmission frequency is adjustable, but as the frequency increases, the battery life decreases. Monitoring can be done over large areas at a low cost using an LTE or Wi-Fi LoRaWAN Gateway. The sensor accurately detects the water needs of plants, preventing both over-watering and water deficiency, and also reduces stress levels by enabling the early detection of diseases and pests.

Communication Range	2500m [1]
Sensor Features	Leaf Humidity and Temperature
Power	3.6V 19000mAh
Frequencies	EU433 - KR920 - US915 /EU868 - AS923 - AU915
Connections	LoRaWAN | Bluetooth [2]
Monitoring	Web-Based Remote Monitoring
Dimensions	(H×W×D): 154 × 67 × 60

1. The range may vary depending on the gateway antenna gain and geographic conditions.
2. Bluetooth is offered as an optional feature based on preference.



You can also run your agricultural applications via our internet management platform at zenosmart.com or on your own servers.

Installation

When the battery is installed, the Leaf Moisture Sensor connects to the nearest LoRaWAN gateway and sends data to the IoT server. Operating temperature ranges from -20°C to 60°C.

Usage

The Leaf Moisture Sensor offers IP67 waterproof protection and a battery life of up to 10 years depending on usage. LoRaWAN wireless range can reach up to 800 meters, depending on antenna strength and geographic location.