

AI-Powered

Smart City Ecosystem



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Soil NPK Sensor

ZS-SNPK01

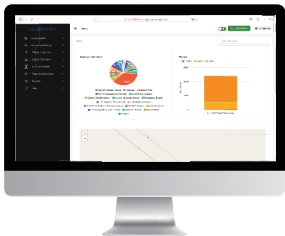
The ZenoSmart LoRaWAN Soil NPK Sensor measures nitrogen, phosphorus, and potassium levels, transmitting data to the LoRaWAN IoT server to enhance agricultural efficiency. Its IP67 waterproof probe is designed for long-term use and can be buried in the soil.



Once the battery and probe are installed, the sensor communicates with the LoRaWAN Gateway. Data can be monitored via the IoT server, and the transmission interval is adjustable. The sensor helps maintain soil quality in agricultural fields, prevents over-fertilization, and enhances crop productivity.

Communication Range	2500m ¹
Sensor Feature	Nitrogen, Phosphorus, and Potassium
Power	3.6V 19000mAh
Frequencies	EU433 – KR920 – US915 / EU868 – AS923 – AU915
Connections	LoRaWAN ¹  ²
Monitoring	Web and Mobile-Based Remote Monitoring
Dimensions	(HxWxD): 154 x 67 x 60 mm

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 manage your agricultural applications via our online management platform at zenosmart.com or through your own servers.

Installation

The Soil NPK sensor connects to the nearest LoRaWAN gateway when powered by battery and sends data to the IoT server. Its operating temperature ranges from -20°C to 60°C.

Usage

The Soil NPK sensor offers IP67 waterproof protection and provides up to 10 years of battery life depending on usage. The LoRaWAN wireless range can reach up to 800 meters, depending on antenna power and geographical conditions.