

Agriculture Sensor

LoRaWAN® Battery-Powered Sensor for Smart Agriculture

The Agriculture Sensor is the ideal solution to streamline and simplify the collection of key soil and environmental metrics for crops, residential and commercial lawns and gardens and golf courses. The device provides a straightforward and easy to deploy solution for soil moisture and temperature, air temperature and humidity, and outdoor light monitoring. Enjoy increased crop yields and decreased operating expenses with the deployment of this versatile device.

The Agriculture Sensor utilizes a ruggedized IP-67 enclosure for use in the most challenging outdoor environmental conditions. An integrated C-Cell LTC battery provides substantial battery life up to 10 years with a battery status indicator for easy reference. The Agriculture and Sensor is seamlessly integrated in TEKTELIC's End-to-End IoT solution.

Multiple variants for diverse mounting options are available including direct soil surface mount or elevated mounting on a post, fence or vine. Soil Moisture probes are sold separately for the elevated mounting variant.



Option 1:
Soil Surface Mount

Technical and Functional System Specifications

General System Parameters

Operational Temperature	-40°C to +65°C
Degree of Protection	IP67
Size	120 x 93 x 58 mm (Sensor)
	0.3m - 1m (Probe)
Battery (up to 10 years)	C Cell LTC

LoRa Parameters

RF Power	Up to 23 dBm (200mW)
RF Sensitivity	-137dBm (SF12, 125kHz)
ISM Band	All Global Bands
Antenna	Internal or Optional External
LoRa Device Class	Class A (B)

Regulatory Compliance

Safety	UL 60950-1 (US/C), IEC 60950-1 (CE)
Environmental	ETSI EN 300 019-2-1, 300 019-2-2
	ETSI EN 300 019-2-3, 300 019-2-4
Regulatory	FCC 15.247 RSS-247
	FCC 15.209 RSS-Gen

Key Features

- » 10 Year Battery Life
- » IP67 Design
- » Internal or Optional External Antenna
- » C Cell LTC Battery
- » Battery Status Indicator
- » All Global ISM Bands
- » Soil Surface or Elevated Mounting Options*

Applications

- » Soil Moisture and Temperature
- » Ambient Humidity and Temperature
- » Mounting Orientation Status
- » Movement or Orientation Change Detection
- » Light Detection and Measurement

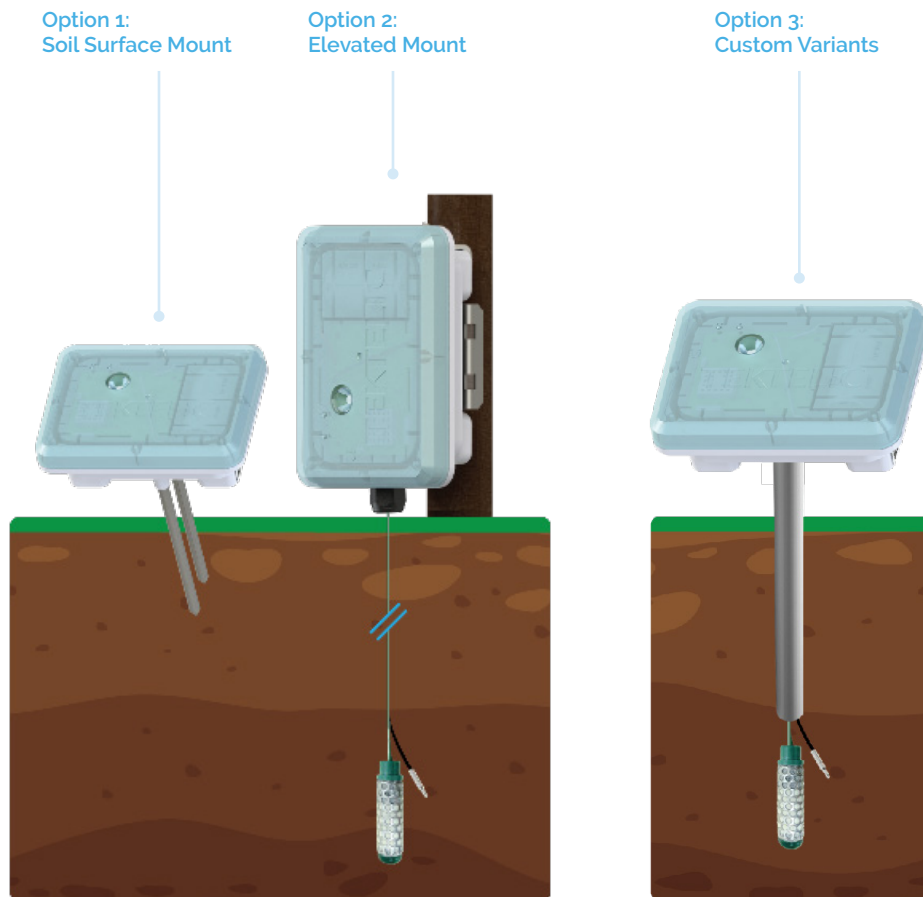
* Soil water tension probes sold separately for Elevated Mounting option

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Product Variants

Option 1:	Soil Surface Mount
Option 2:	Elevated Mount - 3x Kit Options
Kit 1:	Agriculture Sensor Only (no probes included)
Kit 2:	Includes 1x Irrrometer® Watermark Soil Moisture Sensor and 1x Soil Thermistor
Kit 3:	Includes 2x Irrrometer® Watermark Soil Moisture Sensor and 2x Soil Thermistor
Option 3 :	Custom Variants available upon request. Please contact TEKTELIC for details



TEKTELIC Communications is a premier supplier of best-in-class LoRaWAN® IoT Gateways, Sensors, and Custom Applications. These elements combined provide a powerful end-to-end solution that can be easily, quickly, and cost effectively deployed to address the most demanding IoT challenges.

For more information please visit www.tektelic.com