Hitelecom®

SOIL SENSOR

H Series | Root-zone Soil Monitoring

H200 LoRa | H300 4G | H500 NB



KEY INDICATORS

Soil Moisture	Soil Channels	Wireless	Protection	Sampling
0-100% ±3% reference*	EC / pH / NPK By configuration	4G / NB-IoT / LoRa	IP68 enclosure* By configuration	Customer-defined 4-hour reporting

OVERVIEW

The Hitelecom H Series soil sensor brings moisture, EC, pH and selected NPK readings from defined root-zone points into your monitoring project. Choose the channels, probe arrangement and soil or growing medium for agriculture, irrigation, gardens and urban planting. Soil temperature can be added where confirmed in the selected configuration. Match H200 LoRa, H300 4G or H500 NB-IoT to coverage and the receiving platform. Data collection is customer-defined; data is reported every 4 hours for the planting and maintenance workflow.

FEATURES

CLOUD

Send selected soil readings to Hitelecom Cloud or an agreed customer / private platform.

SOIL CHANNELS

Moisture, EC, pH and NPK options. Select the channel combination for the soil-monitoring objective.

YOUR INTERVAL

Customer-defined data collection. 4-hour reporting for irrigation and maintenance workflows.

CUSTOM PROBES

Specify probe, cable and product form for the soil or growing medium and the required sensing depths.

LOW POWER

Battery-powered field deployment. Estimate runtime for selected channels and the operating profile.

NFC / OTA

Supported local NFC setup and remote firmware updates within the supplied configuration.

* See measurement, protection and battery-reference notes on pages 2-3.

APPLICATIONS


Farmland & irrigation


Greenhouses & nurseries


Orchards


Parks & gardens


Street & roadside planting


Rain gardens


Ancient & veteran trees

Illustrative soil-monitoring environments; select and verify representative root-zone points and the growing medium.

Item		Description
Physical Characteristics	Product models	H200 (LoRa) / H300 (4G) / H500 (NB-IoT)
	Power supply	Battery-powered; power arrangement follows the order.
	Battery life	Published reference: >10 years under specified test conditions. Reporting profile: every 4 hours. Actual runtime depends on channels, sampling, coverage and temperature.
	Probe Assembly	Selected soil channels, probe arrangement and cable options; soil temperature included where confirmed.
	Mounting	Soil probe at the agreed root-zone depth; protect the cable and mount the wireless terminal for coverage. Mounting lugs / pole clamp / slotted mount.
	Product form / dimensions	Probe, cable and terminal form and dimensions follow the ordered configuration.
Connectivity	Wireless variants	H200 LoRa / H300 4G Cat.1 / H500 NB-IoT; regional coverage and radio configuration by order.
	Data protocol	MQTT listed for cellular delivery. LoRa receiver / gateway and onward data route follow the project.
Soil Measurement	Moisture range / accuracy	0-100%; published accuracy ±3%. For non-frozen soil; percentage and reference basis by configuration.
	EC range / accuracy	0-1,000 µS/cm (0-1 mS/cm); published accuracy ±3%. Measurement basis by configuration.
	pH range / resolution	0-14 pH; 0.01 pH resolution. Absolute measurement accuracy follows the selected specification.
	NPK range / accuracy	0-1,999 mg/kg; published accuracy ±2% FS. Confirm the selected nutrient channels and method.
	Data collection interval	Customer-defined; confirm the supported settings for the selected sensing configuration.

Published values are family references for the selected channels. Verify the soil or growing medium, reference tests and calibration basis; the ordered unit need not include every listed channel.

SPECIFICATIONS

Item		Description
Soil Temperature	Optional sensing channel	Included where confirmed in the selected configuration. Measuring range and accuracy follow the supplied specification.
Waterproof Rating	Published protection	IP68 enclosure listed. Confirm protection and deployment of the ordered probe, terminal, cable entries and accessories.
Reliability	Site verification	Agree reference soil tests and checks for the selected channels, soil type and growing medium.
	Installation / maintenance	Maintain verified soil contact; protect probes and cables from field operations and retain inspection records.
Environmental Range	Operating conditions	Follow the supplied probe and terminal limits for temperature, moisture exposure and soil compatibility. Moisture reference is for non-frozen soil.
	Storage conditions	Follow the ordered probe and terminal storage instructions; numeric limits are configuration-specific.
Integration	Data destination	Hitelecom Cloud or an agreed private platform; confirm MQTT endpoint, message format and authentication.
	LoRa integration	Agree radio protocol, regional channel plan, receiver / gateway and the server route.
	Reporting / alerts	Report every 4 hours; sampling is customer-defined. Agree soil thresholds, notifications and the maintenance review workflow.
Certification References CCC / CE / FCC / RoHS	CE platform status	H200 / H300 / H500 CE completed; shared wireless-platform scope.
	Other references	CCC / FCC / RoHS documentation follows the applicable supplied configuration and market requirements.

* Moisture and EC ±3% are published reference values; confirm the accuracy basis and site verification method. 0.01 pH is resolution, not absolute accuracy.

* Battery life is a published >10-year family reference under specified test conditions. Review runtime for the selected channels, customer-defined sampling and 4-hour reporting profile.

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