PRODUCT

# FIELDKIT 400 / 400-M — Datasheet

Mechanical, electrical, environmental and connectivity specifications for the FIELDKIT 400 family.

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| **Document** | Terravek_FIELDKIT_400_Datasheet.pdf |
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*This document is fictional and forms part of a training environment.*

# Terravek FIELDKIT

## The ground half of ground truth.

Every satellite measurement is an inference. FIELDKIT is what turns it into a measurement: a network of in-situ nodes that observe the same thing from the ground, continuously, and feed the calibration chain.

The FIELDKIT 400 is a solar-powered node with swappable sensor cartridges — soil moisture and temperature, tide and pressure, turbidity, air temperature and humidity, and a downwelling radiometer for radiometric validation. The 400-M is the marine variant, rated for permanent immersion on quay walls and channel markers.

Nodes report over NB-IoT or LoRaWAN, fall back to store-and-forward, and are commissioned from the FIELDKIT mobile app by a field technician in about four minutes.

## Capabilities

| Capability | Detail |
|---|---|
| **Swappable cartridges** | Seven sensor cartridge types; change function without changing node. |
| **Long deployment** | 18–36 months unattended on solar, depending on cartridge and latitude. |
| **Store and forward** | Local buffering of up to 90 days if connectivity is lost. |
| **Field commissioning** | QR-code pairing and guided commissioning in the FIELDKIT app. |
| **Calibration traceability** | Each node ships with an individual calibration certificate. |
| **Open telemetry** | Node data available through the ATLAS API alongside satellite products. |

## Editions

| Edition | Description |
|---|---|
| **FIELDKIT 200** | Entry node, two cartridge bays, LoRaWAN only. Legacy — supported to 2028. |
| **FIELDKIT 400** | Four cartridge bays, NB-IoT and LoRaWAN, IP67. |
| **FIELDKIT 400-M** | Marine variant, IP68, permanent immersion rated, anti-fouling housing. |

## Specifications

| Specification | Value |
|---|---|
| Ingress protection | IP67 (400), IP68 to 10 m (400-M) |
| Operating temperature | –30 °C to +65 °C |
| Power | 6 W solar panel, 18 Ah LiFePO■, 18–36 month unattended |
| Connectivity | NB-IoT (LTE Cat-NB2), LoRaWAN 1.0.4 |
| Cartridge bays | 4 (400 / 400-M), 2 (200) |
| Warranty | 3 years, extendable to 5 |
| Assembly | Photonwerk Haus, München |

## Stated limitations

Terravek states product limitations in the brochure rather than in a footnote during procurement. The sales cycle is eleven months and the truth surfaces anyway.

- NB-IoT coverage is the practical constraint in remote deployments; LoRaWAN requires a gateway within roughly 8 km in open terrain.
- The radiometer cartridge requires annual recalibration to retain traceability.
- FIELDKIT 200 is end-of-sale; support ends 31 December 2028.

## How to buy

| | |
|---|---|
| **Sales** | sales@terravek.com · +31 15 251 8400 |
| **Partners** | partners@terravek.com — see terravek.com/partners/ |
| **Documentation** | https://docs.terravek.com/fieldkit/400/ |
| **Support** | support@terravek.com · service levels at terravek.com/services/support.html |
| **Evaluate free** | ATLAS Sandbox tier — atlas.terravek.com, no commercial conversation required |