seeed studio

INDUSTRIAL PRODUCT DATASHEET

SenseCAP S2104 - LoRaWAN® Soil Moisture and Temperature Sensor

The SenseCAP S2104 LoRaWAN® Soil Moisture and Temperature Sensor offers worldwide LoRaWAN® connectivity, long battery life, and harsh-environment durability, managed via SenseCAP Portal and APP.

SKU	UPDATED	PRICE
114992870	2026-11-05 04:36:40	$135.50(Excl. VAT)



Overview



The SenseCAP S2104 is a LoRaWAN® Soil Moisture and Temperature Sensor compatible with worldwide LoRaWAN® networks (863MHz~928MHz), featuring long-range transmission (2km urban/10km line of sight) and up to 10 years battery life from a replaceable ER34615 Li-SOCl2 battery. It is designed for harsh environments with an IP66-rated enclosure and operating temperature range of -40℃ to 85℃, and supports simple no-code configuration via the SenseCAP Mate APP, with management through SenseCAP Portal and the SenseCAP APP for data visualization and remote device management.

Key Features

01 **Compatible with Worldwide LoRaWAN® Networks**

Compatible with different types of LoRaWAN® gateways to enable fast connection with LoRaWAN® networks (support the universal frequency plan from 863MHz ~928MHz).

02 **Long Range & Battery powered**

Ultra-wide-transmission range of 2km in urban scenes and 10km in line of sight scenes. Powered by easily replaceable standard Li-SOCl2 battery (type: ER34615) with Max.10 years of battery life.

03 **Designed to Use in Harsh Environments**

-40℃ ~ 85℃ operating temperature and IP66-rated enclosure, suitable for outdoor use, high UV exposure, heavy rain, dusty conditions, etc.

04 **Simple Configuration**

SenseCAP provides a no-code experience that enables users to finish configuration with 4 steps through SenseCAP Mate APP.

05 **High-performance Guarantee**

06 **High-Low Temperature Test - determine performance under adverse temperature conditions.**

07 **Conformance Test - whether the collected values of multiple devices are consistent**

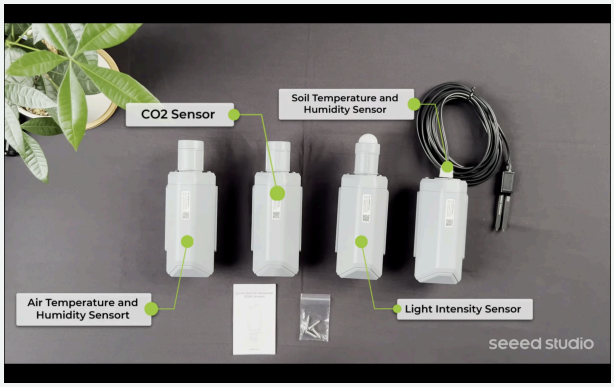
08 **Waterproof Test**

09 **Freezing Test**

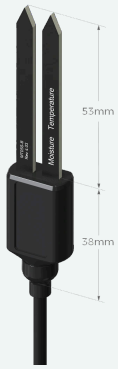
10 **Long-Range Communication Test - whether the device loses packets under long-distance transmission**

11 **R&D and Production Test - to test the pass rate of multiple devices under factory conditions**

Product Gallery







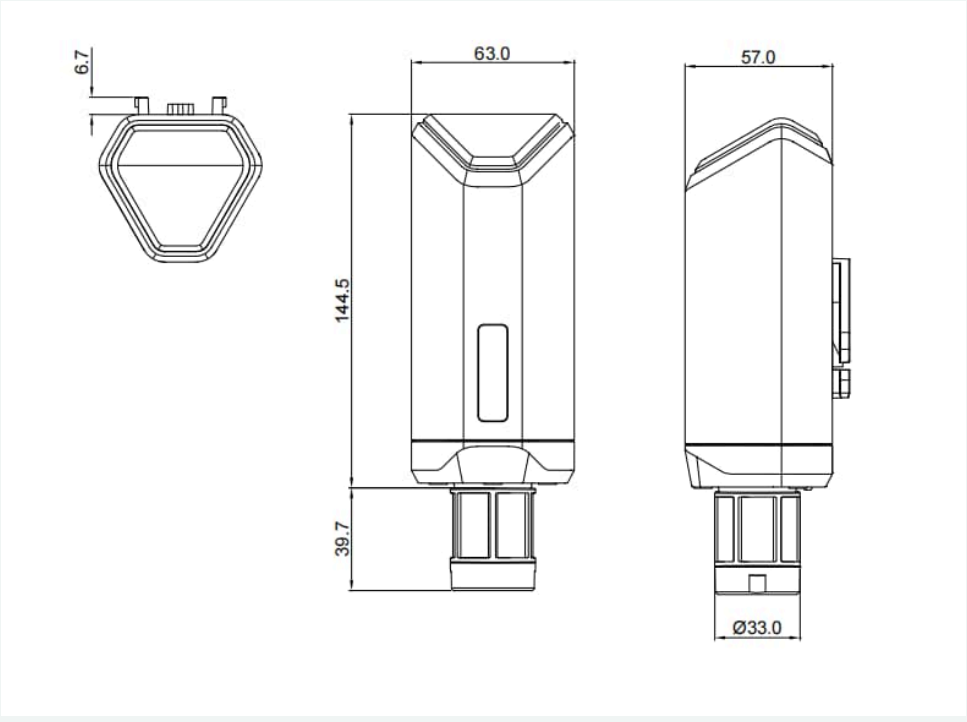






Hardware Overview





Applications

- **SenseCAP Portal, for Device, Data, and Access Key Management:** SenseCAP Portal, for Device, Data, and Access Key Management - Seeed Studio IIoT Solutions is a web service to enable users to manage SenseCAP devices and view data through the web.Bind and manage all devices in one account
- **Includes Dashboard, Device Management, Data Management, and Access Key Management**
- **Provides MQTT and HTTP API to users for further development**
- **SenseCAP APP in iOS and Android Versions:** SenseCAP APP in iOS and Android Versions - Seeed Studio IIoT Solutions is a powerful APP for data visualization and remote device management.Save time - provides a scan-and-play experience to enable users to complete the whole configuration in 4 steps
- **Works for people with less or no technical background:** to get started with sensor data easily
- **Acquire and view data on clean user interfaces**
- **Set time intervals:** improve the battery efficiency
- **Set threshold values:** focus on the data you need to take action for - coming soon
- **Send alarms:** if data is out of the safe range - coming soon

Resource Links

- https://www.seeedstudio.com/SenseCAP-S2104-LoRaWAN-Soil-Temperature-and-Moisture-Sensor-p-5357.html
- SenseCAP S210X LoRaWAN Sensor Catalogue
- S210X Sensors User Guide
- S210X CE_FCC Certification Report
- Connect S210X Sensors to Azure IoT Central User Guide
- Battery Life Prediction Table
- SenseCAP S210X Decoder

Seeed Technology Co.,Ltd.
9F, Building G3, International E City,
Zhongshanyuan Road, Nanshan, Shenzhen, China

Tel: +86 0755-80695676
Web: www.seeed.cc
Shop: www.seeedstudio.com