seeed studio

INDUSTRIAL PRODUCT DATASHEET

SenseCAP S2100 - LoRaWAN® Data Logger/DTU, Supports RS485/Analog/GPIO Interfaces, LoRaWAN Converter

A battery-powered IP66 wireless data logger/ DTU supports RS485/Analog/GPIO sensors, equipped with built-in Bluetooth and APP service for OTA configuration and remote device management.

SKU	UPDATED	PRICE
114992872	2026-11-11 09:58:41	$72.50(Excl. VAT)



Overview



A battery-powered IP66 wireless data logger/ DTU supports RS485/Analog/GPIO sensors, equipped with built-in Bluetooth and APP service for OTA configuration and remote device management.

Key Features

01 **Strong Compatibility with different Sensors**

supports all MODBUS-RTU RS485/Analog(4~20mA/0~10V) / GPIO(level/pulse) sensors.

02 **Compatible with Worldwide LoRaWAN® Networks**

Compatible with LoRaWAN® V1.0.3 protocol and can work with LoRaWAN® gateway (support the universal frequency plan from 863MHz ~928MHz).

03 **Long Range & replaceable Battery powered**

With LoRaWAN® wireless transmission, S2100 supports 19Ah built-in battery and external 12V DC to supply devices, and ultra-wide-transmission range of 2km in urban scenes and 10km in line of sight scenes.

04 **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.

05 **Remote configuration and management**

Seeed provides SenseCAP Mate APP and SenseCAP Portal, allows users to remotely manage data and configure.

06 **High-performance Guarantee**

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

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

09 **Waterproof Test**

10 **Freezing Test**

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

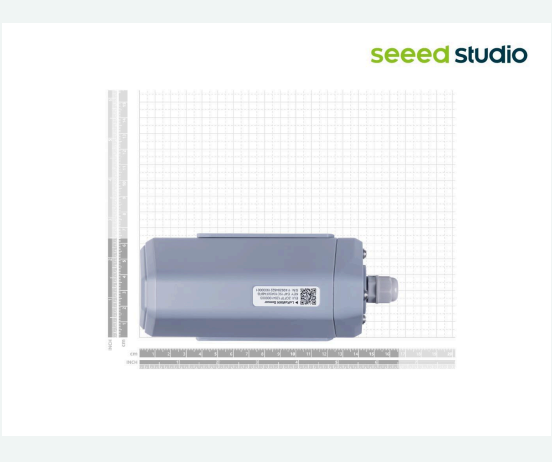
12 **R&D and Production Test - to test the pass rate of multiple devices under factory conditions**

Product Gallery



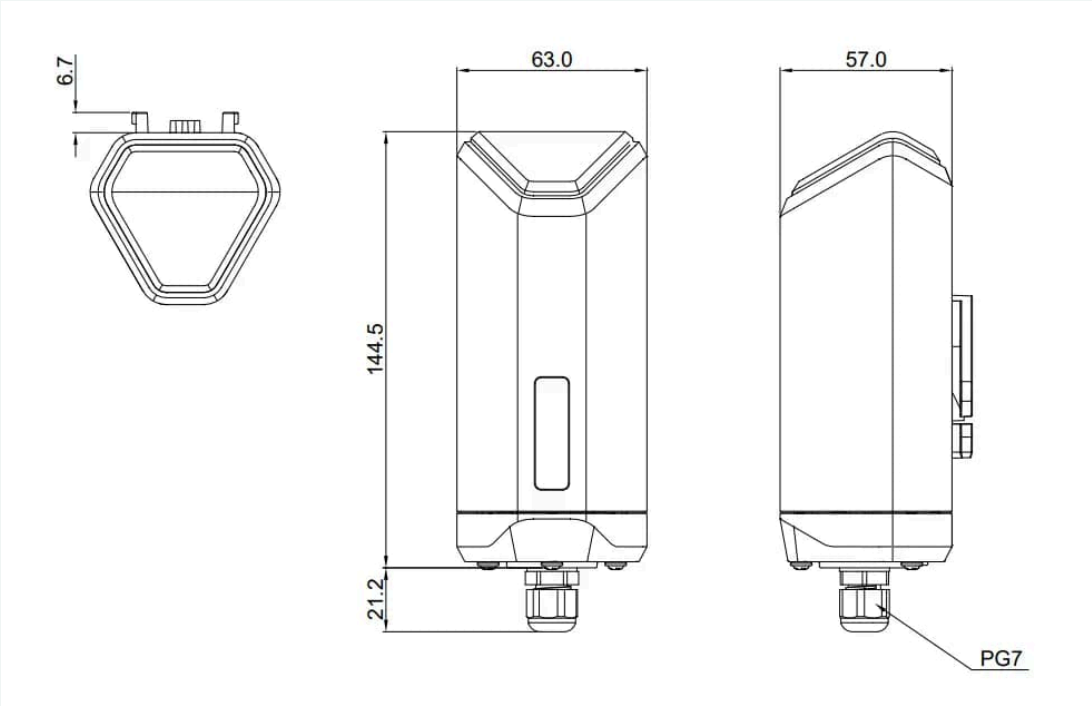






Hardware Overview





Applications

- **Precision Agriculture, Industrial Manufacturing, Smart Building:** SenseCAP S2100 is compatible with LoRaWAN® V1.0.3 protocol and can work with Gateway - LoRaWAN Device - SenseCAP.
- **LoRaWAN® gateways can provide LoRaWAN® network coverage which is required when using such sensors. S210X can be connected to different LoRaWAN® gateways while what Seeed provides offers you a seamless user experience.**
- **Helium Network: Sensors work in areas covered by Helium Network (Check on Helium Explorer). You can check the SenseCAP M1 LoRaWAN Indoor Gateway - US915 - Seeed Studio and SenseCAP M2 Light Hotspot and Software License - Seeed Studio.**
- **LoRaWAN Network: Sensors work in LoRaWAN® networks, like The Things Network, Loriot, Chirpstack, etc. You can check the SenseCAP Gateway - LoRaWAN EU915 - Seeed Studio and the SenseCAP-Multi-Platform-LoRaWAN-Indoor-Gateway-SX1302-US915-p-5472 - Seeed Studio.**
- **We highly recommend that you use our SenseCAP M2 Multi-Platform LoRaWAN Gateway, which is a standard LoRaWAN® gateway that supports connection to different network servers. With its affordable price of $99, its cost-effectiveness becomes a standout advantage, especially when building your private LoRaWAN network.**
- **Seeed provides the SenseCAP Portal platform and SenseCAP Mate APP to help users better manage and check data remotely**
- **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 - 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**

Resource Links

- https://www.seeedstudio.com/SenseCAP-S2100-LoRaWAN-Data-Logger-p-5361.html
- SenseCAP S210X LoRaWAN Sensor Catalogue
- SenseCAP S2100 LoRaWAN Data Logger User Guide
- How to Configure the RS485 Sensor for S2100 Data Logger
- How to Configure the 12V RS485 Sensor for S2100 Data Logger
- How to Configure the Counter & GPIO Sensor for S2100 Data Logger
- How to Configure the Analog Sensor for S2100 Data Logger
- S2100 CE_FCC Report
- Battery Life Prediction Table
- Using Pre-Set template to set up sensor quickly on S2100
- SenseCAP S2100 Decoder

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