

The **CY06S Wireless Data Logger** is suitable for the measurement of temperature and relative humidity in a variety of sensitive environments. Suitable objects include warehouses, laboratories, incubators, refrigerators, refrigerated freezers and liquid nitrogen tanks with temperatures as low as -196°C.

Product features

- 50000 groups of offline data cache.
- The battery life of the temperature and humidity probe is more than 36 months.
- Standard AAA alkaline/lithium iron batteries are used.
- Its working temperature is -40 ~ 60 °C, and it can be directly placed in the cold storage.
- Rich installation methods: magnetic attraction, wall hanging.
- The probe is hot-swappable.
- Supports signal extenders.



Unique BR-Link ad hoc wireless communication

The so-called ad hoc network technology means that the wireless data logger will automatically search and connect to the gateway or signal amplifier with the best signal nearby without configuration.

Signal extension technology: When the data logger is installed in some places where the gateway signal can not reach, BR-Link's unique signal relay function can build a signal relay bridge between the data logger and the gateway to cover the dead corner of the signal. A gateway or relay equipment will transmit signals up to 100 meters in the room and 2000 meters outdoors without shelter. Wireless communications are encrypted to ensure data integrity and security.

Economical and convenient maintenance

Detachable probe: The digital probe can be separately disassembled for measurement and directly replaced with the measured probe, which can ensure the integrity of the test data. When the probe is aged and deviated, it can be replaced quickly.

Economical and durable battery: The battery adopts the AAA battery commonly used in the market. When the AAA lithium battery is used, the working cycle of the battery can be as long as more than 2 years, and the host can run stably at -40 °C.

Integrity and continuity of data

CY06S wireless data logger is equipped with 50,000 groups of data cache. In case of failure to connect to the gateway, the data will be temporarily stored in the cache, and then transmitted to the server when the network is restored.

After the data is uploaded to the server, the data backup is still kept in the data logger, which can be connected to the computer if necessary.

Automatic time synchronization

CY06S has an automatic time synchronization mechanism to keep time synchronization with the server at all times. The server only needs to be synchronized with the standard time, so that the whole system can be kept synchronized with the standard time from the continuous monitoring system to the acquisition end.

Technical specifications

Wireless transmission

Transport protocol	BR-Link wireless ad hoc network transmission
Wireless output power	≤13db (≤20mW)
Open wireless transmission distances	2000m
Typical indoor transmission distances	100m
Antenna	External (Can be equipped with signal extension antenna or rod antenna)
Frequency band	470Mhz

Data acquisition and storage

Cache size	50,000 sets
Buffer type	NOR Flash (NAND flash)
Continuation order	FIFO/FILO configurable
Sampling rate	1 second to 24 hours
Upload frequency	1 minute to 24 hours

Environmental parameters

Storage temperature range	-40~60°C
Operating Temperature Range (Alkaline)	0~60°C
Operating temperature range (lithium iron battery)	-40~60°C (Standard configuration)
IP protection class	IP54 (with rubber cap)
IP protection grade (external power supply)	IP20 (USB powered)
Operating humidity	0-100% non-condensing

External power supply

Power connector type	USB Type-C
Supply voltage	5V
Supply current	2A
Implementation of standards	GB4943.1-2011 GB/T9254.1-2021 GB17625.1-2012

Other specifications

Battery	Two AAAA alkaline/lithium iron batteries
Power and Data Interface	Type-C
Size	125mm*51.0mm*20.0mm (Antenna not included)
Product implementation standards	GB/T 35145-2017
Sensor interface	3.5mm 4-pole
Output voltage	3.3V ~ 5V
Interface communication mode	RS485, IIC, UART
Typical standby time	36 months
Weight (with 2 AA Li-ion batteries)	183g
External supply voltage	5V
External supply current	2A
Number of sensors supported	1-2
Installation method	Magnetic attraction, wall hanging

Probe support

CY06S-WS-1	Single-way temperature and humidity
CY06S-WS-2	Two-way temperature and humidity
Measuring range of temperature and humidity probe	-40 °C ~ + 85 °C/0 ~ 100% RH Non-condensing
Standard probe accuracy	Temperature: ± 0.5 °C Humidity: ± 5.0% (10% ~ 90%) RH
High precision probe accuracy	Temperature: ± 0.3 °C Humidity: ± 3.0% (10% ~ 90%) RH Other ranges ± 4%
CY06H-DW-1	Single-channel PT100 probe
Measuring range of PT100 temperature probe	Low temperature -200 ~ 100 °C (standard) High temperature -50 ~ 200 °C (optional)
Standard probe accuracy	±0.5°C (-20°C~+50°C) Other ranges ± 1 °C
High precision probe accuracy (After range calibration)	Specified range accuracy ± 0.2 °C