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# Active three-channel wireless temperature sensor KL-DS33YA Manual





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## **I、Product Overview**

The KL-DS33YA active wireless temperature sensor is a three-channel high-precision temperature sensor featuring wireless transmission and ultra-low power consumption. It consists of three temperature sensors, a signal modulation and amplification device, a logic control circuit, a wireless communication circuit, a lithium battery, and an antenna. The sensor uses ultra-low power wireless communication to transmit the collected three temperature data channels to the wireless temperature measurement host via a wireless network.

This temperature sensor is equipped with three temperature sensor probes, enabling it to simultaneously detect the temperature of three objects. It uses a strap-on mounting method, allowing direct contact with the object being measured for easy and secure installation.

This temperature sensor is primarily used and deployed in low-voltage switchgear environments, and can simultaneously collect the temperature of three objects being measured. Its cost advantage is particularly significant in scenarios involving large-scale deployment of electrical node temperature monitoring.



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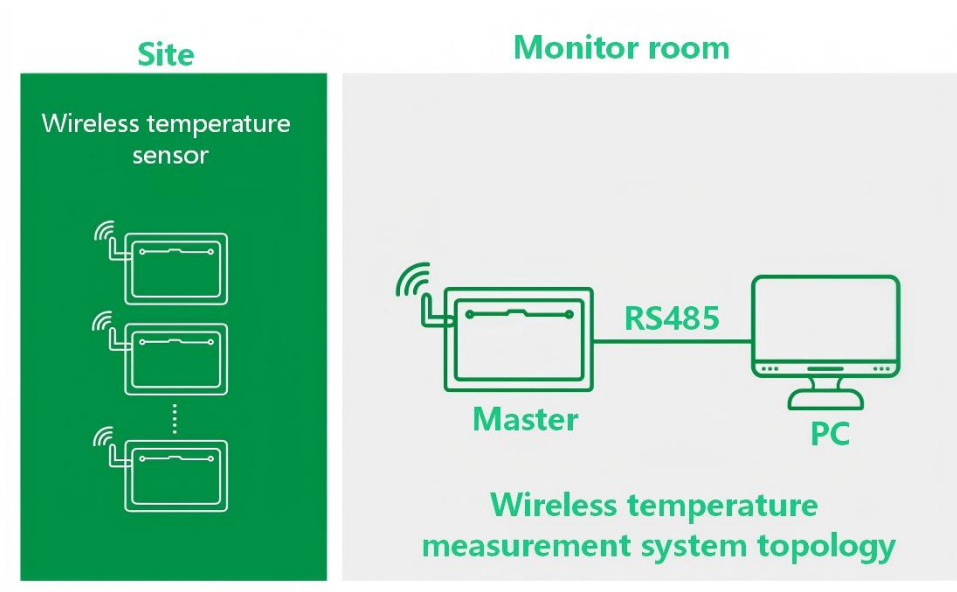
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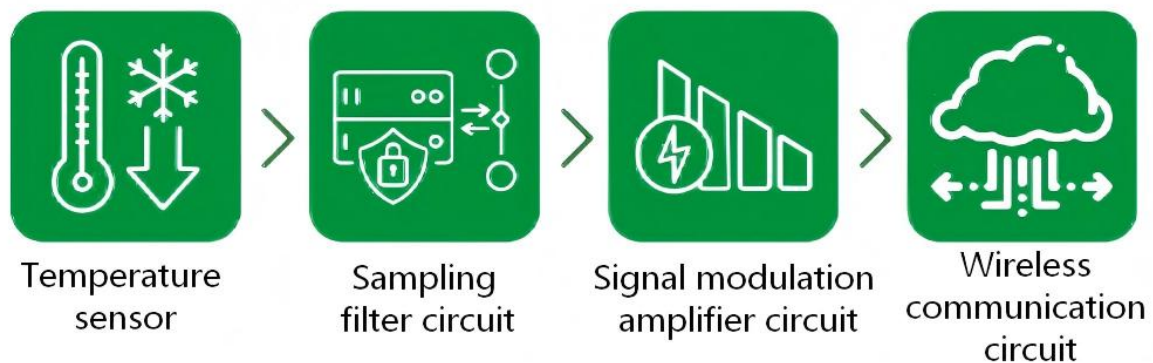
## II、Wireless temperature measurement system structure

### 2.1 Wireless Temperature Measurement System Structure Diagram



### 2.2 Schematic diagram of wireless temperature sensor

Principle and structure of wireless temperature measurement sensor





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## 2.3 Function Introduction

| Main functions                                                      | Function Introduction                               |
|---------------------------------------------------------------------|-----------------------------------------------------|
| Temperature                                                         | Real-time detection of the current temperature of   |
| Battery voltage                                                     | Real-time detection of the internal battery voltage |
| Note: All data detected by the sensors are uploaded to the wireless |                                                     |

## III、Main technical parameters

| Parameter                                  | Specification                                |
|--------------------------------------------|----------------------------------------------|
| Measurement range                          | -40 ~ +200°C                                 |
| Measurement accuracy                       | ±1°C                                         |
| Number of temperature acquisition channels | 3                                            |
| Sampling transmission frequency            | Default 10s                                  |
| RF modulation mode                         | GFSK                                         |
| Wireless frequency                         | 433MHz                                       |
| Wireless transmission distance             | ≤300 meters (visible distance in open areas) |
| working power supply                       | Battery lifespan: 5-8 years                  |
| Installation method                        | Bundled                                      |
| Size                                       | 31mm*22mm*11mm (Module body)                 |



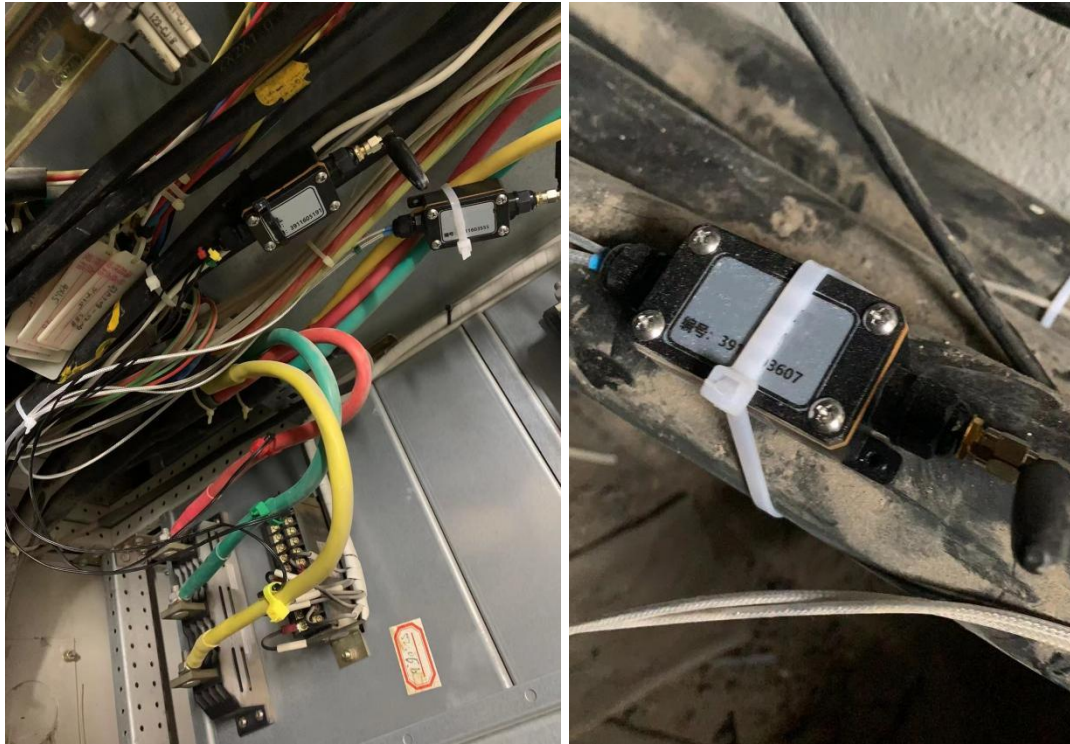
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## IV、 On-site case studies



## V、 Contact Us



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\*This information product images and technical data is for reference only, if subject to update without prior notice, the specific content of the right to interpret ASY Electronics (Jiaxing) Co., Ltd.