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Magnetic wireless temperature sensor

KL-DS31YS Manual





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I、Product Overview

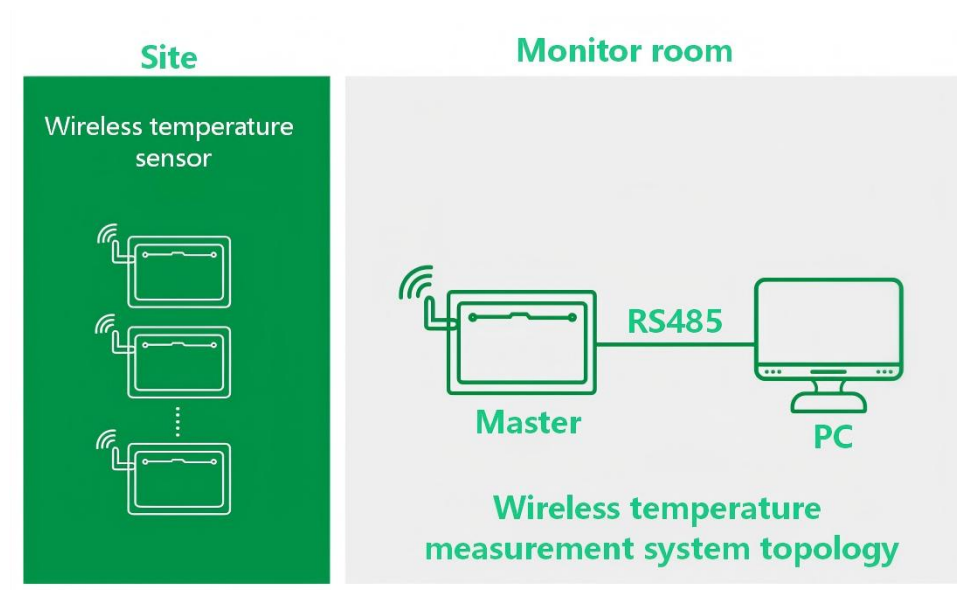
Magnetic wireless temperature sensor is a temperature sensor featuring ultra-low power consumption and high accuracy. It consists of a temperature sensor, signal modulation and amplification device, logic control circuit, wireless communication circuit, lithium battery, and antenna. This sensor uses ultra-low power wireless communication to transmit the collected temperature data to the wireless temperature measurement host via a wireless network.

This temperature sensor features single-channel temperature detection and uses a magnetic mounting method for easy installation. It is primarily used to measure the temperature of the surface or contacts of high-voltage energized objects, such as the operating temperature of industrial production equipment, high-power motors, exposed contacts in high-voltage switchgear, busbar connections, outdoor disconnect switches, and transformers.

II、Wireless temperature measurement system structure

2.1 Wireless Temperature Measurement System Structure

Diagram





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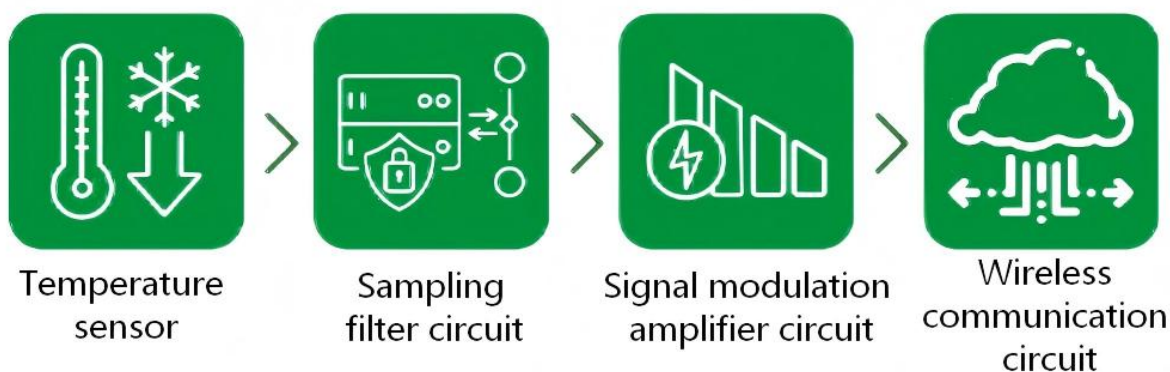
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2.2 Schematic diagram of wireless temperature sensor

Principle and structure of wireless temperature measurement sensor



2.3 Function introduction

Main functions	Function introduction
Temperature detection function	Real-time detection of the current temperature of the measured part
Battery voltage self-test function	Real-time detection of the internal battery voltage value of the sensor
Note: All data detected by the sensors are uploaded to the wireless temperature measurement host via wireless transmission.	

III、Main technical parameters

Temperature measurement range	-40 ~ +200°C
Measurement accuracy	±1°C



Thermistor	PT1000
Temperature Sampling frequency	Default 10 seconds
Communication methods	LORA
Mireless frequency	470-510MHz
Wireless transmission distance	≤800 meters
Battery lifespan	5-8 years
Installation method	Magnetic fixation
General	105mm
External dimensions	85mm*85mm*34mm,
Installation location	Outdoor isolating switches, wall-penetrating cable clamps, transformer inlet and outlet terminals, outdoor flexible copper busbar connections, and other components.

IV、Installation method

Use magnetic fixation

Step 1: Pair the sensor with the temperature measurement host.

Step 2: Pair the sensor with the temperature measurement area.

Step 3: Fix the sensor to the temperature measurement area.



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