compere®

DISTRIBUTION

INTERCONNECTION

GREEN ENERGY EFFICIENCY

Power Temperature Measurement

Product Selection Guide

KPM910 Series wireless temperature sensor

KPM910A bus type

KPM910B band type

Under normal conditions, the temperature information of the high and low voltage power distribution equipment can directly reflect the operating state of the equipment, such as the dynamic and static contacts of the circuit breaker, the busbar lap joint, the cable head and other parts, which are both critical heating points and traditional temperature measurement difficulties. The KPM910 series wireless temperature sensor is directly mounted on the surface of the measured object, converts the analog temperature data into a digital signal, and transmits it to the smart wireless temperature collector through RF signal to complete the transfer measurement of temperature data.

The sensor is powered by a high-temperature, large-capacity lithium battery, integrating low-power, anti-interference, wireless encryption, and sensing technology. The product structure is made of high thermal stability and high dielectric strength material, which ensures the stability and reliability of working in the electrical environment.

Features

- Fast digital conversion

  The analog signal is quickly digitally converted and the temperature data acquisition is completed in 1ms.

- Low loss wireless transmission method

  The temperature data and ID number measured by the sensor are transmitted in a specific frequency radio wave mode, and the energy consumption is extremely low.

- Highly stable shell material

  KPM910A: Aluminum shell with excellent thermal conductivity

  KPM910B: Thermally stable and flame-retardant silicone material that greatly enhances high pressure tolerance.

- High accuracy

  The measurement accuracy is ≤0.5°C by the measurement algorithm.

- Combination of hardware and software

  The algorithm optimization of the temperature measurement program, combined with the electromagnetic compatibility and protection characteristics of the hardware structure, can adapt to the harsh power distribution application environment.

Product advantages

- The sensor uses a high-energy lithium battery or a passive power-on technology, with a small starting current.
- Unique radio coding mode reduces transmit power and extends sensor usage life.
- Adopting safe and reliable with high-strength flame retardant materials.
- The radio wave has strong penetrating ability, long transmission distance, strong anti-interference, and easy meshing.
- Each sensor has a unique ID number to prevent mutual interference when the sensor wirelessly communicates with the same frequency.

Maintenance-free node

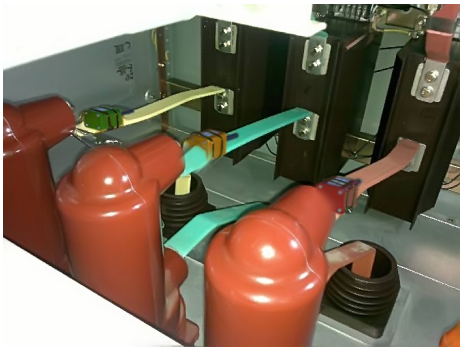
• The KPM910 series smart wireless temperature sensor internally sets a low-power operation mode, which greatly extends the life of the built-in battery and ensures its electrical reliability during the warranty period.

Specifications

Function type	Technical indicators	
	KPM910A	KPM910B
Temperature range	- 40°C~+150°C	
Working power supply	Industrial lithium battery (non-rechargeable)	Self-induced taking power
Measurement accuracy	± 0.5°C	
Temperature measurement method	Direct contact	
Working frequency	433MHz	
Transmit power	≤10mW	
Signal strength	10dbm	
Temperature sampling period	10 seconds (can be customized)	
Wireless transmission cycle	Temperature change is sent immediately; Unchanged temperature is sent every 15 minutes (can be customized).	
Transmission distance	300m (visible)	
Dimensions	32mm×32mm×41mm	377mm×44mm×21mm
Shell material	Aluminum profile	Silicone material
Installation method	Band strapping	

Application scenario

High and low voltage distribution cabinets, transformers, cable tunnels, cable trays, rotating equipment, hospitals, machine rooms, cold chains, refrigeration, etc.



KPM920 Wireless temperature and humidity sensor

KPM920(Indoor)

The normal life and production activities of human beings are closely related to the temperature and humidity content in the surrounding environment, and the measurement accuracy becomes a key point. KPM920 wireless temperature and humidity sensor converts indoor simulated temperature and humidity data into digital signals, and transmits them to the smart wireless temperature and humidity collector through radio frequency signals to complete the temperature and relative humidity data transfer and measurement.

The product adopts large-capacity battery power supply mode, integrating low power consumption, anti-interference, wireless encryption and sensing technology. The structural material of the product is made of aluminum profiles with high thermal stability, which ensures the stability and reliability of working in complex environments.

Features

- Fast digital conversion
  Simulate temperature fast digital conversion, complete temperature and humidity data acquisition in 10ms
- Low loss wireless transmission method
  The sensor measures the temperature data and the ID number, which is transmitted in a radio wave mode of a specific frequency, and the energy consumption is extremely low.
- Highly stable shell material
  Aluminum shell for excellent thermal conductivity
- High sensor accuracy
  Even in the case of power supply voltage fluctuations, the measurement accuracy is ensured by the measurement algorithm ≤ 0.5 ° C, and the humidity measurement accuracy is ≤ ± 3% RH.
- Combination of hardware and software
  The algorithm optimization of the temperature measurement program, combined with the electromagnetic compatibility and protection characteristics of the hardware structure, can adapt to the harsh power distribution application environment.

Product advantages

- Powered by a large-capacity battery, the service life is >10 years.
- High measurement resolution, real time data transfer for changing temperature and humidity.
- The radio wave has strong penetrating ability, long transmission distance, strong anti-interference, and easy meshing.
- Unique radio coding mode reduces transmit power and extends sensor life.
- Each sensor has a unique ID number to prevent mutual interference when the sensor wirelessly communicates with the same frequency.

Node maintenance free

- Internally set with a low-power operation mode to ensure power supply reliability during the warranty period.
- When the power drops, open the rear cover to replace the battery, the sensor can be returned to normal use.

Technical Specifications

Function	Technical Index
Temperature range	- 40°C ~ +125°C
Humidity range	0 ~ 99%RH
Working power supply	High temperature battery (3.6V)
Temperature measurement accuracy	± 0.5°C
Humidity measurement accuracy	≤ ±3%RH
Temperature Drift	≤ ±0.5%RH
Working frequency	433MHz
Transmit power	≤10mW
Temperature sampling period	10dbm
Transmission distance	10s (can be customized)
Dimensions (LxWxH)	83mm×61mm×38mm
Transmission distance	2000m(Visual)
Shell material	Aluminum profile

Application scenario

Classrooms, offices, laboratories, libraries, homes, theaters, shopping malls, supermarkets, etc.

KPM930 Smart wireless water immersion sensor

KPM930 Smart wireless water immersion sensor

KPM930 smart wireless water immersion sensor, using the principle of liquid conduction: two-pole probe is insulated by air in normal status; when water contacts the sensor probe, the main control chip accurately determines the state by calculating the change of resistance value, and sends a wireless signal to the collector. When the probe is immersed to a height of about 1 mm, an alarm signal is generated.
The product can realize accurate positioning and leak and issue the alarm immediately, and minimize the damage caused by leakage to the monitored place, such as business suspension and equipment accident. It is compatible with the detection requirements of water, acid and alkali leaks.

Product features

- Special materials are added during the cable manufacturing process, which are resistant to wear, corrosion and signal stability.
- Industrial-grade design standards, strong anti-interference ability, effective transmission distance of up to 300m.
- Built-in battery, low power consumption, service life ≥ 5 years.
- Wireless communication with the host for easy installation/maintenance.
- Suitable for high/low voltage cabinets, transformer rooms, cable tunnels, etc.

Technical Specification

Function type	Technical index
Working voltage	2.5～3.6V
Working power supply	Industrial lithium battery (non-rechargeable)
Immersion height	≥1mm
Measurement type	Contact
Working frequency	433MHz
Transmission power	≤10mW
Signal strength	10dbm
Wireless transmission cycle	Send instantly after liquid level changes
Transmission distance	300m (Visual)
Dimension (LxWxH)	32mm×32mm×41mm(wire length can be customized)
Installation	Band strapping

KPM950 Series smart wireless data collector

KPM950A smart wireless data collector

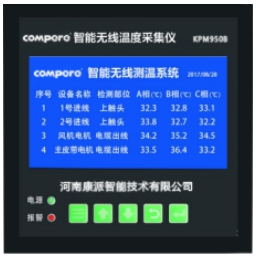
The KPM950 series smart wireless data collector is used for communicating with the sensors in the effective range, receiving the radio wave signals sent by the wireless sensors, and converting the temperature information into a host recognizable level communication signal, and uploading it to the T@Power smart power distribution inspection and monitoring system. Receiving sensitivity and wideband reception feature reduce the transmit power requirement of the wireless sensor, which helps to extend the life of the built-in battery type sensor and enhance the anti-interference performance of the temperature measurement system.

Technical Specifications

Function		Technical Index
Basic function	Data collector	Receive temperature info, sensor operating voltage, ambient temperature / humidity signal uploaded by wireless sensor,
	Parameter setting	All parameters can be set via RS485, data would not be lost due to power loss.
Measurement parameter	Temperature range	-40°C ~ +2000°C
	Accuracy	0.1°C
Wireless parameter	Wireless frequency	433MHz
	Managing sensor numbers	256pcs
	Communication protocol	Modbus-RTU
Working voltage		AC110 ~ 240V
Working temperature		-25°C ~ +80°C
Working humidity		<95%, no condensation
Installation		Fixed type, Rail type

Product advantages

- Multi-point online real-time monitoring.
- Temperature pre-warning and over temperature alarm.
- LCD HMI, data interaction.
- Wireless transmission, easy to install and use.



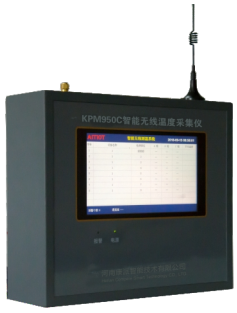
KPM950B smart wireless data collector

Technical Specifications

Function		Technical Index
Basic function	Data collector	Receive temperature info, sensor operating voltage, ambient temperature / humidity signal uploaded by wireless sensor,
	Data display	Display the detection point and indoor temperature and humidit
	Record query	Query the monitoring point temperature value, max/min value,average value; query the alarm number and alarm value of the detection point
	Alarm function	Custom temperature upper and lower limit warning/alarm value; Alarm type: Sound and light alarm, SMS alarm.
	Input function	Wireless input, keyboard input (Chinese / English)
Measurement parameter	Temperature range	-40°C ~ +2000°C
Wireless parameter	Wireless frequency	433MHz
	Managing sensor numbers	256pcs
	Communication protocol	Modbus-RTU
Relay contactor capacity		250VAC/10A
Working voltage		AC110 ~ 240V
Working temperature		-25°C ~ +80°C
Working humidity		≤95%, no condensation
Installation		Fixed type, Rail type

Product advantages

- 7-inch LCD touch screen, wall-mounted installation.
- With temperature rise trend alarm function.
- 2G storage capacity, over 100,000 records can be stored.
- Communication interface: 2 RS485, 1 Ethernet port.
- Two relay outputs, which can be set to trip, alarm, fan start, heat, etc.



KPM950C smart wireless data collector

Technical Specifications

Function		Technical Index
Basic function	Data collector	Receive temperature info, sensor operating voltage, ambient temperature / humidity signal uploaded by wireless sensor
	Data display	Display the detection point and indoor temperature and humidity
	Record query	Query the monitoring point temperature value, max/min value, average value, temperature rise trend alarm; query the alarm number and alarm value of the detection point
	Alarm function	Custom temperature upper and lower limit warning/alarm value, temperature rise trend alarm; Alarm type: Sound and light alarm, SMS alarm
	Input function	Wireless input, keyboard input (Chinese / English)
Measurement parameter	Temperature range	-40°C ~ +2000°C
Wireless parameter	Wireless frequency	433MHz
	Managing sensor numbers	256pcs
	Communication protocol	Modbus-RTU
Relay contactor capacity		250VAC/10A
Working voltage		AC110 ~ 240V
Working temperature		-25°C ~ +80°C
Working humidity		≤95%, no condensation
Installation		Fixed type, wall mounted type
Dimension (LxWxH)		260mmx220mmx80mm

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