

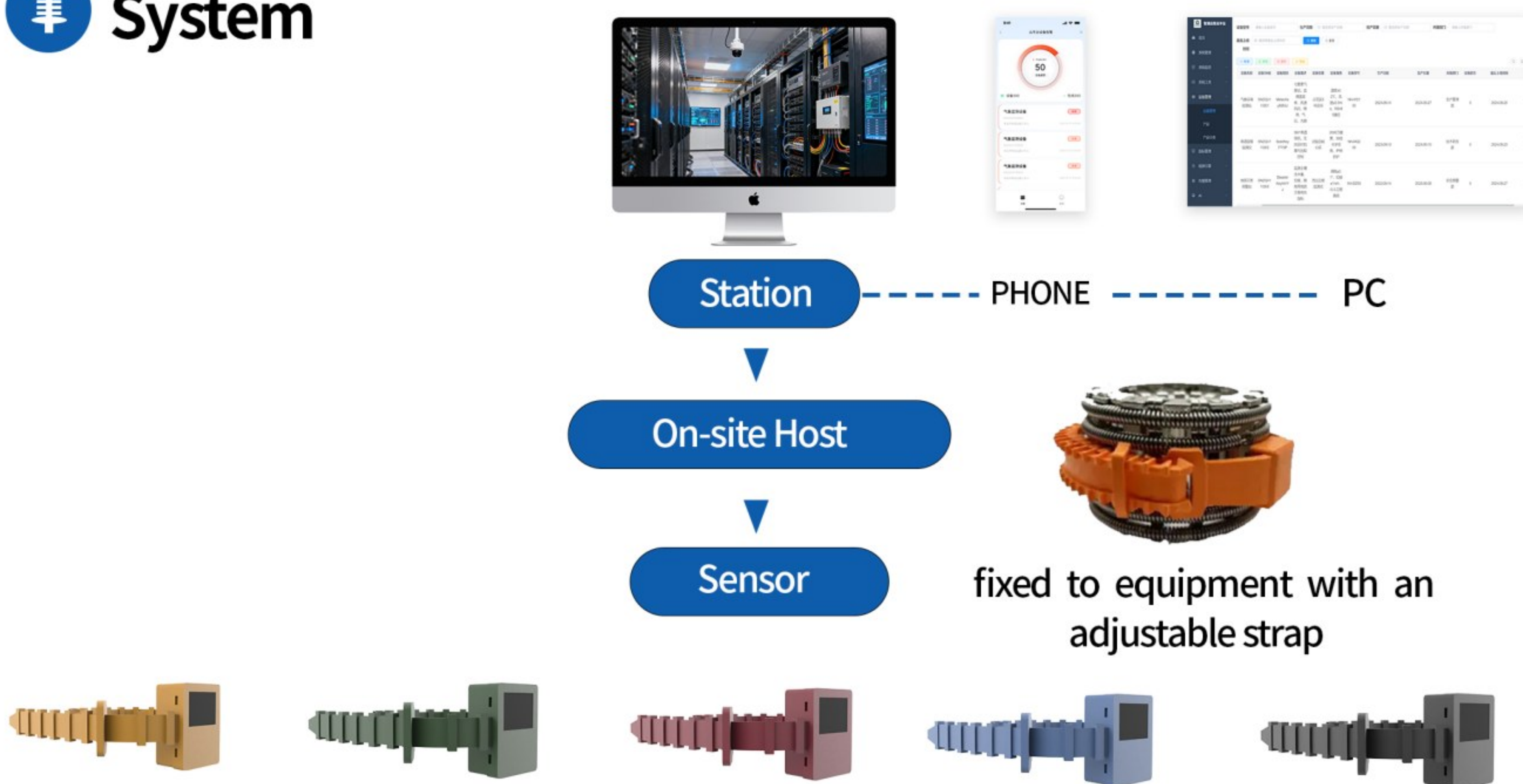
AN ACTIVE STRAP TEMPERATURE SENSOR

Introduction

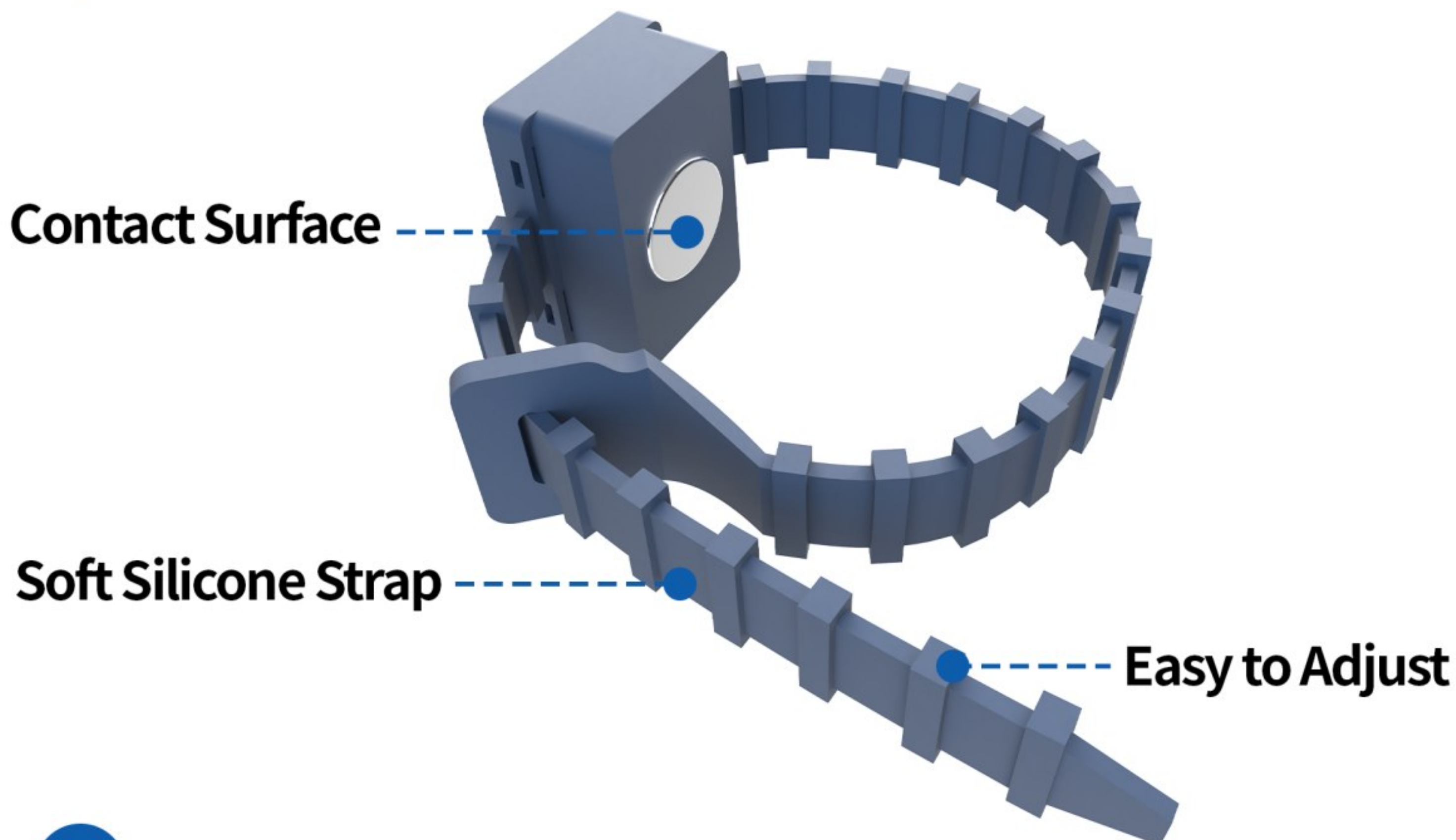
This product is designed to measure the surface or contact temperature of high-voltage live objects, such as the operating temperature of bare contacts, busbar connections, outdoor disconnectors and transformers inside high-voltage switchgear cabinets.

The wireless temperature sensor consists of a temperature sensing element, signal modulation & amplification unit, logic control circuit and wireless modulation interface. The sensor transmits the collected temperature signals to the wireless temperature monitoring host via wireless network.

System



Structure



Operating Principle

Temperature Acquisition: The sensor has a built-in thermosensitive element. The circuit converts resistance changes into electrical signals, and precise temperature data is obtained after chip processing.

Wireless Transmission: The collected temperature data is encoded by the internal wireless module (e.g. LoRa, Bluetooth) and transmitted to the host via radio frequency signals.

Data Display: The sensor is equipped with a built-in display screen to show real-time current temperature; historical data can also be viewed via the receiving device.

Device Functions

Temperature detection: Real-time detection of the current temperature at the position.

Power supply voltage self-check

Notes

All data detected by the sensor is uploaded to the wireless temperature monitoring host via wireless transmission.



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Measurement Parameters

Technical Parameter	Details
Temperature Measurement Range	-40 ~ +200℃
Measurement Accuracy	±1℃
Temperature Sampling Frequency	10 seconds (default)
Communication Mode	FSK
Wireless Frequency	433MHz
Wireless Transmission Distance	≤300 meters (in open space)
Battery Service Life	5–8 years
Installation Method	Strap-on type
Total Strap Length	385mm
Dimensions	38mm × 35mm × 24mm
Installation Positions	For withdrawable high-voltage switchgear cabinets: busbars, static contacts, cable lap joints, etc.
	For fixed high-voltage switchgear cabinets: busbars, isolating disconnectors, cable lap joints, etc.

