

SPEC NO.: D33020260701

Specification

TO:STE
Model Name: Sensor
PART NO: ZCQSTRAP
CUSTOMER PART NO.:

Approval sheet:

Approved	Yes
	No.
Customer's comments are welcomed here.	
Please return this copy as a certificate of your approval by Email.	
Approved By Date: _____	

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History Record

Date	Part No.	SPEC No.	Description.	Remarks.
2018-11-17			Initial issue	
				
ISO9001:2000	ISO14001:2004	Approved by Nov-17-2018	Check by NOV-17-2018	Design by NOV-17-2018
Reversions	Total Page	<i>Xu gang dong</i>	<i>Liu jun</i>	<i>Wang hon</i>

1. Overview:

The surface-acoustic wireless passive temperature sensor is a temperature sensor applied on the metal surface. It is a temperature measurement component directly installed on the surface of the object to be measured. The temperature sensor uses the surface-acoustic passive wireless transmission technology. It is responsible for receiving the inquiry radio frequency signal and returning the radio-frequency signal with temperature information to the collector. It is the terminal of the surface-acoustic passive wireless temperature system.

2. Product features:

- ◆ Can directly contact the temperature measurement point, with large temperature measurement range, high accuracy and high temperature resistance
- ◆ Real-time transmission of temperature data for easy monitoring
- ◆ Passive components, safe to use and maintenance-free
- ◆ Can be fixed with nuts or clamps

3. Purpose:

- ◆ Key temperature monitoring points of high-voltage substation and low-voltage distribution facilities in the power grid
- ◆ Machine rooms, production lines, equipment, etc., require temperature monitoring points

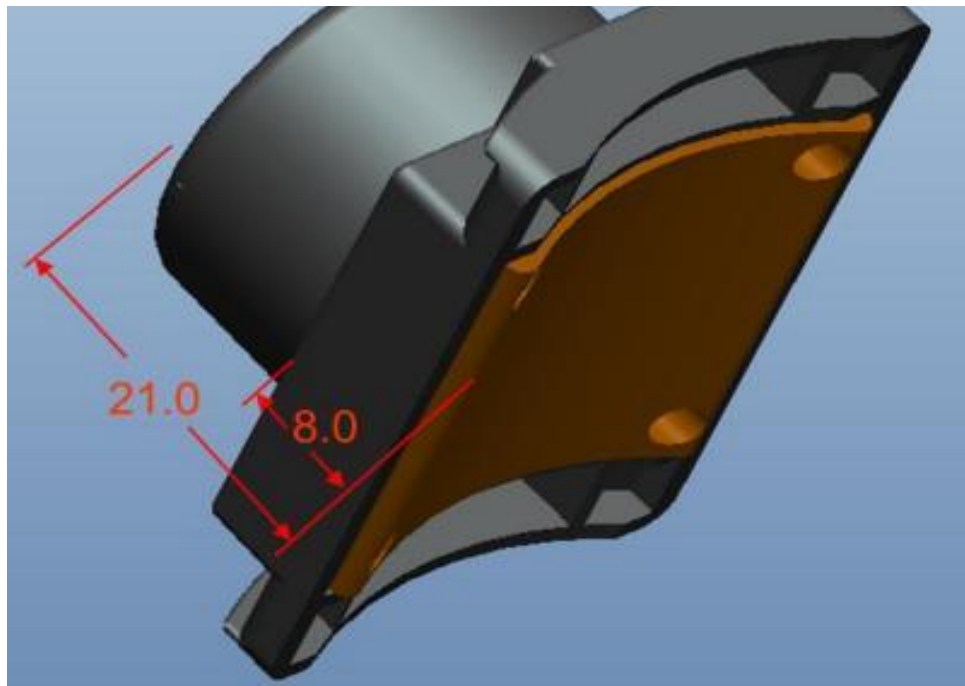
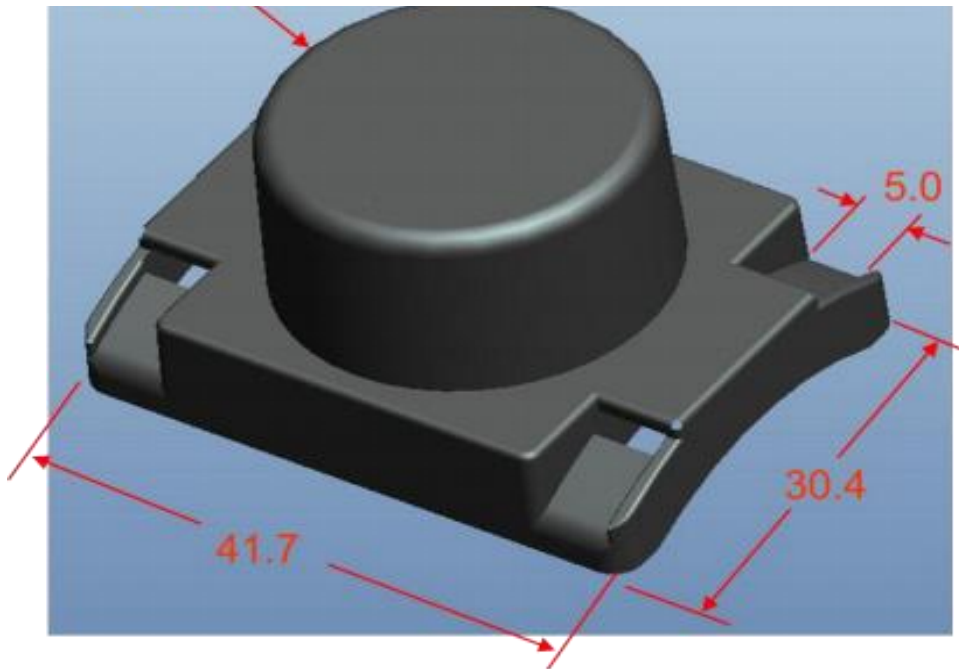
4. Typical applications:

1. Cable temperature measurement at the overlap between 400V low-voltage cabinet busbar and cables.



2. Temperature measurement at the contact arm of the 10KV high-voltage switch cabinet and mobile circuit breaker.



5. Dimensions:

6. Product performance:

ZCQ strapped sensor technical specifications

No.	Name content	Technical parameters
1	Power supply method	completely passive, no power supply required
2	Working method	The copper substrate is in direct contact with the temperature measurement point, thermal conduction, and passive wireless signal transmission.
3	Working environment Ambient temperature	-50℃~150℃ (the sensor will not be damaged within this temperature range)
4	Temperature measurement range	-20℃~125℃ (temperature measurement accuracy is guaranteed within this temperature range)
5	Frequency range	426 MHZ~442 MHZ (example)
6	Communication distance	30mm~2000mm
7	Temperature measurement resolution	0.1℃
8	Measurement accuracy	±2℃
9	Installation location	On arc surfaces such as contact arms and cables of the mobile circuit breaker
10	Overall dimensions	41.7×30.4×21mm
11	Number of frequency points	48 (each type is divided into four frequency bands A, B, C, and D, 12 in each frequency band)
12	Service life	More than 10 years (non-mechanical damage, etc.)
13	Installation method	Use insulating ties to bind to arc surfaces such as the contact arms and cables of the mobile circuit breaker
14	weight	21g

7. Installation suggestions:

7.1 Accessories No accessories.

7.2 Installation instructions

Use insulating ties to secure the product.

7.3 Installation precautions

- 1) The installation surface should be as smooth as possible to allow the product to fully contact the object to be measured in order to obtain more accurate temperature data.
- 2) During the installation process, try to place the sensor directly opposite the collector flat antenna.

8. Things to note:

8.1 The product is an electronically sensitive component, so be careful to prevent static electricity when picking it up.

8.2 This product is suitable for temperature measurement of metal surfaces and non-metallic objects (such as liquids and human bodies). Please consult the manufacturer for other products.

8.3 Complex application environments, especially metal environments, affect signal transmission and thus sensor performance. If you have any questions, please consult the manufacturer.

8.4 Please try to keep the radio frequency coaxial line of the collector flat antenna less than 5 meters to avoid too much path loss and affecting the sensor reading distance. If using an RF extension cable longer than 5 meters, please consult the manufacturer.

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