

Product model

TSC303005-C32

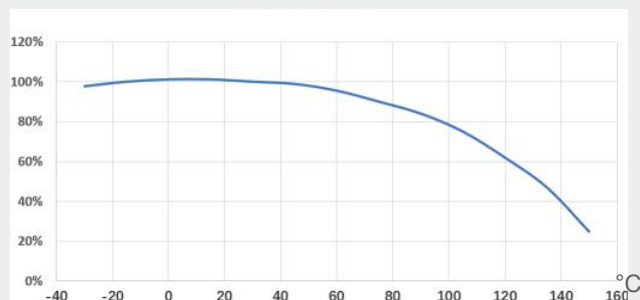
Product introduction

TSC303005-C32 is a temperature sensor specially designed for switchgear busbar and the other complex environments, which has characters, such as wide temperature measurement scope, high precision, long communication distance and small dimension and convenient installation, especially applicable for temperature measurement applications under all kinds of metal environments it is applicable to the power, energy and special process production line, etc.

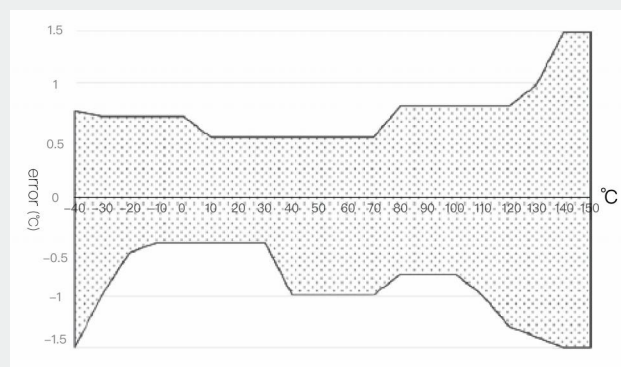


Temperature measurement scope

Communication distance/max communication distance



Normalization sensor read distance and temperature relationship curve



Temperature error curve in range

Key parameters

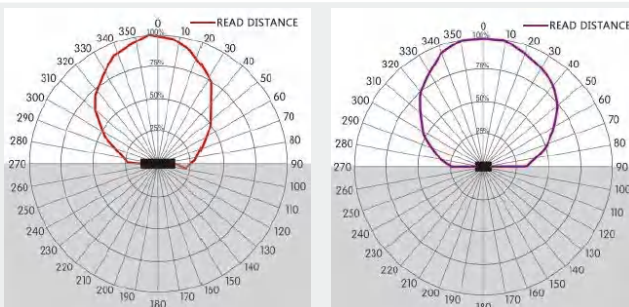
Core performance

Protocol	EPC Global C1G2 v1.2
Frequency	902MHz~928MHz
Communication distance (EIRP=4W)	8.0m
Chip series	LTU3 series
TID memory	128 bits
EPC memory	96 bits
User memory	160 bits (user editable part-128bits, sensor parameter-32bits)
Frequency offset	<2MHz
With endurance	100, 000 cycles

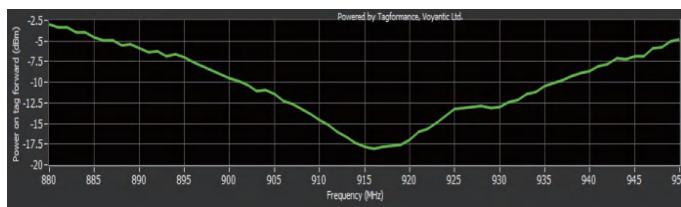
Use environment (Application background)

Working temperature	-40°C~+150°C
Endurance temperature	-40°C~+225°C
IP protection grade	IP55
Fall	1 m 200 times (plastic ground)
Application background	Switchgear busbar
Data retention	>25 years

Radiation Chart



Sensitivity curve



Installation methods and examples

Installation method: Screw or bind and fix it at temperature measuring points such as switchgear busbar.



Key features

- Battery free, safe and reliable;
- Independent IDs, data never interface with each other;
- Stable performance, meeting the temperature measurement requirements of various screw connection points;
- UHF RFID technology is used, which is not affected by the electrical parameters and power load of primary equipment;
- Long temperature measurement range: $-40^{\circ}\text{C}\sim+150^{\circ}\text{C}$;
- Ultra high temperature resistant design ensures no damage at $-40^{\circ}\text{C}\sim+225^{\circ}\text{C}$;
- Contact with the actual hot spot, achieve higher accuracy to $\pm 1^{\circ}\text{C}$;
- Combined with busbar:

Insulation resistance $\geq 2000\text{M}\Omega$

Power frequency withstand voltage: 39kV/5min,
42kV/1min

Partial discharge level: $24\text{kV}\leq 10\text{pC}$

Lightning protection grade: 170kV/50ms

Radiation immunity level: $\geq 10\text{V/m}$

Application

- Power grid online temperature real-time monitoring, including high-voltage transformation and medium and low voltage distribution facilities key points online temperature real-time monitoring;
- High load IT equipments status monitoring, including IDC machine room server heating condition implementation track.

Appearance characters

Color	Black
Size (mm)	75*34*11
U-shaped opening spacing	14mm

