



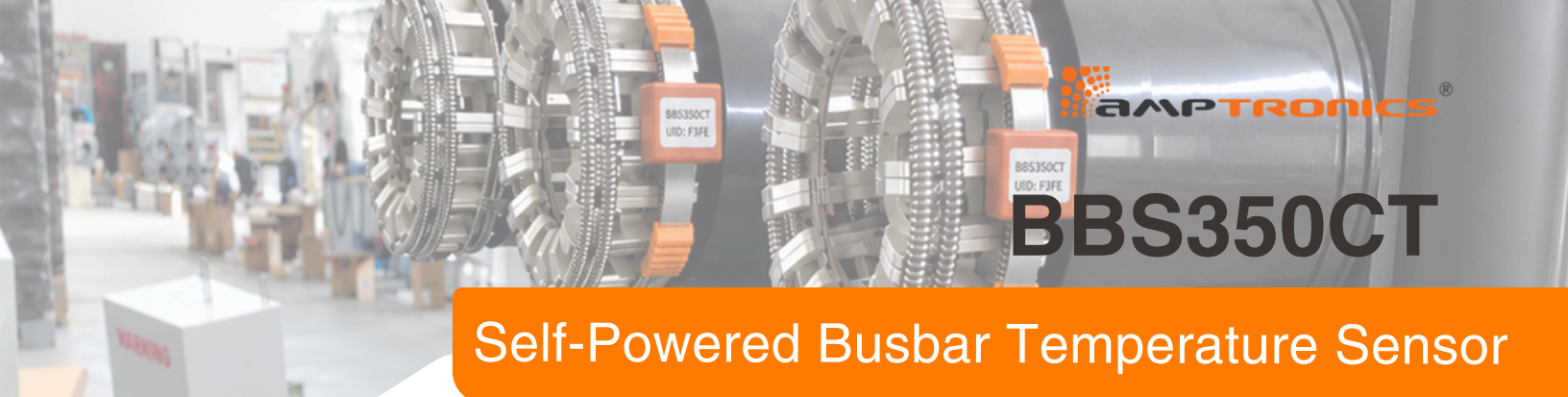
"Connected
to What
Matters."



WIRELESS BUSBAR TEMPERATURE SENSOR **SENSOR FOR BUSBAR & SWITCHGEAR**

BBS350CT

www.amptronics.com



Self-Powered Busbar Temperature Sensor

Overview

BBS350CT Wireless Temperature Sensor

The **BBS350CT** wireless temperature sensor is a state-of-the-art device designed to monitor critical temperature points on both metal and insulating surfaces of current-carrying components. Its advanced engineering allows it to accurately measure temperatures ranging from **up to 150°C**, making it suitable for a wide variety of industrial and electrical applications. This robust temperature sensor is specifically designed to ensure precise and reliable readings, even in demanding environments, providing critical data for maintaining system safety and performance.



The self-powered temperature sensor is a cost-effective solution for monitoring critical temperature points on both metal and insulating surfaces of electrical components. This sensor harvests energy from the magnetic field generated around the busbar (min current flow required is >4 Amps), eliminating the need for external power sources. It operates efficiently within a temperature range of up to 150°C, providing precise temperature readings with dependable data transmission. The sensor delivers reliable temperature measurement across a wide operating range and wirelessly transmits measurement data to compatible **BBC969-485RC / BBC969-27C controllers**.

The sensor features a **compact and rugged PA68 enclosure** designed for reliable operation in demanding industrial environments, including switchgears, electrical panels, manufacturing facilities. Its wireless, maintenance-efficient design supports rapid deployment while minimizing installation complexity and lifecycle maintenance requirements. Sensor data is encrypted using symmetric **AES-128 encryption**.

The BBS350-CT is suitable for **continuous condition monitoring, early detection of abnormal temperature rise, preventive maintenance, and thermal monitoring of critical electrical connections**.

Features



24/7 Hotspot Detection



Range - 10mts



Wireless Communication
AES-128 encryption



CT-powered
>4A starting current



-45°C to 150°C



Retrofit Installation

Technical Data

General

Description	Value
Model Number	BBS350CT
Product Type	Sensor & RF Transmitter
Sensor Type	Digital Temperature Sensor (Internal Calibrated)
Mounting	Strapable on flat clean surface of the busbar, breakers, cables
Installation Location	Electrical Panels, Switchgear, MCC Panels, Control Panels
Installation Voltage Range	0.4 kV (LV) up to 66 kV (HV)
Enclosure	Enclosure: PA66 , Strap: Metal
Power supply	Induction CT-powered ,starting current $\geq 4A$
Service life	10 Years

Communication

Description	Value
Wireless	Wireless Communication
Communication Range	10 meters (Panel Installation), 50meters Line of site
Frequency	865-926MHz
Transmission Frequency	1min default (Temperature Sense at 20Sec, Event Record)
Antenna	Inbuilt
Supported Controllers / Gateway	BBC969-485RC, BBC969-27C, AMP-IoTG
Packet Delivery Performance	$\geq 99\%$ under nominal network conditions. The system shall provide gateway based time synchronization.
Remote Parameter Configuration	Updating of operational parameters via gateway communication
Data encryption	AES-128 encryption

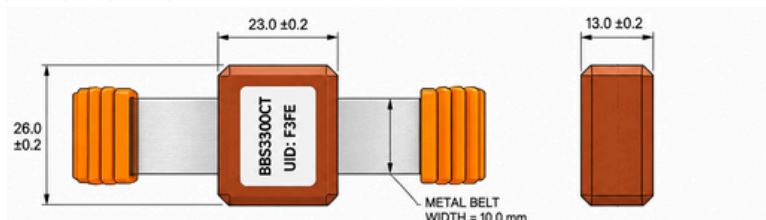
Measured values

Description	Value
Temperature Range	-40°C to 150°C
Temperature Accuracy	$\pm 0.5^{\circ}C$ (0-85°C), $\pm 0.75^{\circ}C$ (above 85°C)
RSSI	-dBm

Mechanical

Description	Value
Dimensions (L×W×H)	26 x 23 x 13mm, (300mm Metal Strap length)
Weight	15gms (without accessories)

Dimensions



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