Zebra Electronic Sensors Solution

Powerful insights to drive cold chain confidence

The exponential increase in temperature sensitive items and shipments, combined with an increase in regulation and consumer awareness, has made efficient and effective temperature monitoring throughout the supply chain more important than ever.

Zebra Electronic ZS300 Sensors, together with the ZB200 Bridge, APIs, Developer Tools and Zebra Savanna™ cloud data platform, give you a higher level of continuous visibility into temperature and location data within the supply chain. This connected, reliable solution enables you to identify and analyze temperature excursions and act upon them in near real time to maximize productivity, reduce waste, and ensure quality and compliance.

Quality and Regulatory Compliance
The combined operation of the ZS300 Sensor, the ZB200 Bridge and the Android Sensor Discovery App, provides accurate temperature and location data continuously in near real time and enables the creation of reports to help maintain quality and compliance.

Purpose-Driven Innovation
Empower your frontline, operations, quality and regulatory workers with higher visibility of temperature exposure and its location so that they can take immediate action.

Reliable Data Integrability with Trusted Security
The solution enterprise-level data platform is designed with a security layer that ensures secure connections to block unauthorized access, prevent data manipulation and provide encrypted data transmissions to help you defend against security breaches.

Robust Solution Ecosystem

Accurate Information for Confident Decision Making
Powered by Zebra Savanna centralized cloud platform, the solution gives you access to dependable data throughout the entire supply chain, whether in your control or not, with accurate and timely notifications of temperature compromised shipments so you can take proactive action.

Enviromentally Friendly Solution
The reusable sensors, sold in multipacks using minimized biodegradable packaging, support your sustainability goals. Zebra's unique no-cost sensor recycling program makes environmental responsibility simple and easy. Request a pick-up and used sensors are collected and broken down for recycling. Less than 1% of the product reaches a landfill. Recycling provided by SIMS Lifecycle Services.

Zebra ZS300 Sensor

Easy to Configure and Versatile to Use
You can easily integrate and configure each ZS300 Sensor including start time and method, reading intervals and temperature alarm limits to meet individual product requirements without the need to purchase and stock multiple variations of pre-configured devices.

Durable and Fast
The ZS300 is tough and high performing. Use the sensor one time or many during the life of the battery (approximately 12 months) with the confidence that it will respond the same the first or 50th time. An IP67 rating enables reliable operations in your most challenging applications. The high-performance Bluetooth Low Energy v5.2 delivers high speed data transmission.

Reliable Data Integrability with Trusted Security
The ZS300 enterprise-level data platform is designed with a security layer to ensure data integrity and authenticity. Your data interactions are protected by user-defined passwords and encrypted data transport. "For your use only" tenant ensures data is yours alone to access.

Zebra ZB200 Bridge

Real-Time Alarms
When the sensor detects a temperature outside the configured range, the Zebra Cloud platform sends an alarm, via the optional EventView subscription service.

Bluetooth® Connectivity
The high-performance Bluetooth Low Energy allows the ZB200 Bridge to automatically upload data from multiple ZS300 Sensors within range—approximately 100 ft (30.5 m) reading through packages, containers and vehicles, without manual intervention, across various applications.

Easy to Install and Set Up
The ZB200 Bridge comes with a convenient wall mounting bracket and a single button operation. LEDs provide convenient feedback on power and network connection. A standard DHCP connection makes it plug-and-play. By using the ZBSetup Mobile App, the network configuration can easily be changed to a Static IP or Wi-Fi.

Developer Tools

Customizable Software Solution
Zebra's cloud-enabled developer tools for electronic sensors enable custom app development and APIs to easily integrate within your existing systems of record. This gives you higher visibility into temperature and location data across your entire supply chain in near real time.

Reliable Data Integrability with Trusted Security
Use sensor management APIs to configure sensor settings, including temperature range, data logging start method, sample intervals and memory management settings.

Data APIs
Using data APIs, you can retrieve data from the Zebra Savanna™ platform during and at the end of the product journey.

Sensor Discovery App (ZSFinder)
Use the Android-based sensor discovery app (ZSFinder) to discover ZS300 Sensors via Bluetooth Low Energy. It includes published methods to transfer data from the sensor to your or Zebra's cloud.

Specifications

Markets and Applications

Manufacturing - Food and Pharmaceuticals
- Processing
- Packaging
- Storage

Transportation and Logistic - Food and Pharmaceuticals
- Cold chain logistics
- Distribution
- Perishables

ZS300 Sensor Standard Features

Application	Shipment monitoring, monitoring for rooms, refrigerators, freezers
Type	Bluetooth-enabled temperature datalogger with internal sensor for cloud connectivity
Use	Single or multiple use

Sensors Specifications

Monitoring Temperature Range	-40°C to +85°C (-40°F to 185°F)
Accuracy	+/- 0.3°C
Resolution	0.01°C
Transmition Range	Approximately 100 ft (30.5 m) line-of-sight

Physical Characteristics

Dimensions	3.43 in L x 1.5 in W x 0.42 in H (87.2 mm L x 38.1 mm W x 10.55 mm H)
Weight	0.8 oz (22.7 g)
Case Material	Polycarbonate
Ip Rating	IP67
Mounting	Adhesive strip, or optional magnet
Traceability	Unique Serial Number (2D barcode, human readable)
Battery Type	3V Lithium, non-replaceable (CR2450N)
Battery Life	12-month operating life (assuming 1 minute interval at -20C and 12-month shelf life)

Datalogging Specifications

LED Indicator	Alarm status and communication
Alarms	Programmable high and low limits, with optional delay
Data Logging Start-up	Immediate, delayed with programmable threshold/time, and Start on Button Press
Data Logging Intervals	Programmable, 15 seconds to 240 minutes
Data Logging Stop	Programmable, memory full, or overwrite oldest values
Bluetooth®	Bluetooth Low Energy v5.2
Mobile OS Compatibility	Compatible with Android™ OS v8.1 and higher

Options and Accesories

ISO17025 Traceable Calibrations available

Magnet Mounting Kit (Pack of 10)

ZB200 Bluetooth Bridge

Compliance

CE, FCC, RoHS
RTCA DO-160G, DGR PI970 Section II
21 CFR Part 11 (details available upon request)
EN12830 (details available upon request)
Calibration certificate (ILAC/ISO 17025 traceable) per SN

ZB200 Bridge Standard Features

Application	Automatic upload of data from ZS300 sensors within Bluetooth range

Physical Characteristics

Dimensions	6.3 in L x 3.9 in W x 1.4 in H (160 mm L x 100 mm W x 36 mm H)
Weight	6.1 oz (172.4 g)
Case Material	Polycarbonate
Ip Rating	IP50
Mounting	Mounting Bracket (mounting hardware not included)
LED Indicators	Various Connectivity Status and Power indication
Traceability	Unique Serial Number and MAC ID

Connectivity Specifications

Bluetooth®	Bluetooth Low Energy v4.1
Transmission Range	Approximately 100 ft (30.5 m) line-of-sight
Wi-Fi™	Dual Band 802.11ac
Ethernet	10/100

Power Supply

External Power Supply	110-240V AC, USB Power Supply cable (power adapter ordered separately)
Max Output Current	2.5 Amps

Compliance

CE, FCC, RoHS

Developer Tools Standard Features - ZS300/ZB200

APIs	REST calls for sensor management and data retrieval
Alarm	Delivered via webhooks
ZSFinder (for ZS Sensors)	Android Interface Definition Language (AIDL)

GeneralData
Smarter Technology. Exceptional Results.

844-643-1129

talktous@general-data.com

https://www.general-data.com/

4354 Ferguson Dr., Cincinnati, Ohio, 45245, United States

ZEBRA