Electronic Temperature Sensors

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Agenda

1. Challenges

2. Zebra Electronic Temperature Sensors
Temperature Monitoring Sensors

Challenges

Temperature sensors play a critical role in the Cold Chain, but current sensors present specific challenges.

1. **Cost**
   - It costs too much to use in the correct way

2. **Installation**
   - The system is too complicated to use it effectively

3. **Maintenance**
   - It takes too long to get information and it isn't efficient

4. **Compatibility**
   - It does not interface well with our IT network

5. **Compliance**
   - It is difficult to remain compliant
Zebra Electronic Temperature Monitoring Sensors

Hardware and Software
Zebra Differentiators

1. **Bluetooth® Connectivity**
   Enables faster and easier access to data with the ability to read through packages, containers and vehicles for efficient data capture across all application use cases.

2. **Cloud-enabled**
   Delivers automated temperature data uploads to the cloud using mobile devices or gateways, providing flexibility for accessibility, data analysis, management and reporting.

3. **Customizable**
   Allows users to configure sensors with versatile control over settings, start time, reading intervals, temperature requirements and alerts to meet the need of product temperature requirements.
Zebra Bluetooth Wireless Sensors

- Robust Bluetooth® wireless connectivity
- Applicable for wide range of temperature requirements
- Reusable/Disposable Options
- Data accessed via EDGEVue Mobile App or OCEABridge
- Real-time alerts via email
- 24/7 access to data stored on EDGECloud
S-400 Single- or Multi-Use Wireless Sensors

- Non-replaceable battery that last 12 months
- Temperature range for standard storage requirements: -30° to 70°C (-22° to 158°F)
- Configure settings - from start time to reading intervals to alarm limits
- Push button to activate module or check status
- Status indicator light
- Bluetooth SMART technology enables quick access to data points
- Geolocation to identify location
- Easy & secure access to data 24/7
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ZEBRA TECHNOLOGIES
Reusable Wireless Sensors

M-300/M-300-P

- Compact, watertight IP67, replaceable battery
- Monitors extended temperature ranges:
  - Internal Sensor: -40° to 85°C (-40° to 185°F)
  - External Probe: -200° to 200°C (-328° to 392°F)
- Configure settings - from start time to reading intervals to alarm limits

- Status indicator light
- Enables quick access to data points
- Geolocation to identify location
- Easy & secure access to data 24/7
- Available with NIST traceable or ISO 17025 calibration
OCEABridge

Bluetooth Gateway

Automatically uploads data to the cloud from a Zebra temperature sensor within range

Connects to customer network via Ethernet or Wi-Fi

Can be mounted in vehicles or stationary for real-time monitoring

Plug & play with ethernet and configurable via web portal
EDGEVue Mobile App utilizes Bluetooth technology on your mobile device for cost-effective data upload and alerts with visual display of all sensors in range

- Free app available for Android or iOS devices
- Used to configure sensor missions
- Provides visibility of temperature sensors to see current status and any alarms
- Provides mission data, graphs, summaries and alerts
- Uploads data to the cloud for data-sharing capabilities

EDGEVue Web App with a rich and intuitive interface

- Allows user to view and analyze temperature data uploaded from Zebra sensors
- Available anywhere 24/7 for authorized users via internet browser
- Able to run reports for compliance audits or analysis
- Manage user accounts
- 21 CFR Part 11 compliant
Cloud solution services with Bluetooth and Ethernet/Wi-Fi connectivity

Multi-site OCEABridge connection through customer network
- Enables automatic data collection from different sites
- Allows for cost-effective data collection using existing smartphone or tablet
- Stores data securely for easy access for up to 10 years
Thank You!

For more information visit, www.zebra.com/electronic tempsensor

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