



All-in-One Identify and Monitor Thermal Printable Solution

Meet the Indicator that makes a label tell more



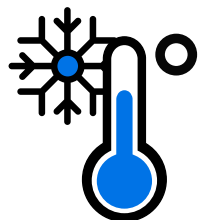
Zebra_ZeOn-Demand-Indicators-CFP-UMD.001



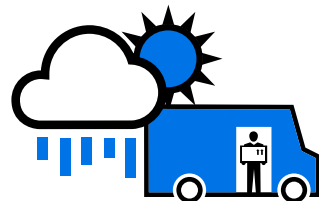
The Various Risks of Environmental Exposure

How unchecked environmental conditions can raise havoc in the supply chain

The need for real-time environmental monitoring throughout the supply chain, from proper processing to delivery, extends beyond products for human consumption. So much hinges on ensuring the optimal range of critical environmental conditions.



MANUFACTURING



TRANSPORTATION



FOOD SUPPLY CHAIN



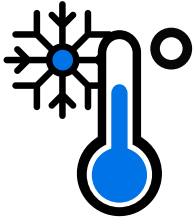
STERILIZATION PROCESSING



The Various Risks of Environmental Exposure

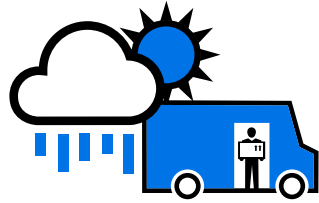
How unchecked environmental conditions can raise havoc in the supply chain

The need for real-time environmental monitoring throughout the supply chain, from proper processing to delivery, extends beyond products for human consumption. So much hinges on ensuring the optimal range of critical environmental conditions.

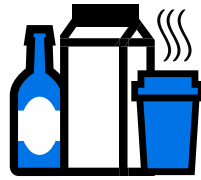


MANUFACTURING

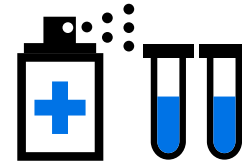
During the production process, many parts are subjected to high heat to assure quality. Headlights require temperature testing to validate functionality, while printed circuit boards and electronic components are highly sensitive to humidity levels.



TRANSPORTATION



FOOD SUPPLY CHAIN



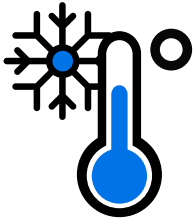
STERILIZATION PROCESSING



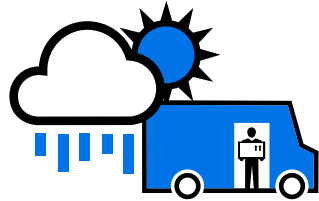
The Various Risks of Environmental Exposure

How unchecked environmental conditions can raise havoc in the supply chain

The need for real-time environmental monitoring throughout the supply chain, from proper processing to delivery, extends beyond products for human consumption. So much hinges on ensuring the optimal range of critical environmental conditions.



MANUFACTURING

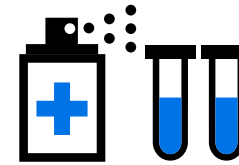


TRANSPORTATION

Products can be affected by condensation, temperature and moisture during transport: Cosmetics, perishables, flowers, works of art and more.



FOOD SUPPLY CHAIN



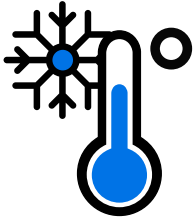
STERILIZATION PROCESSING



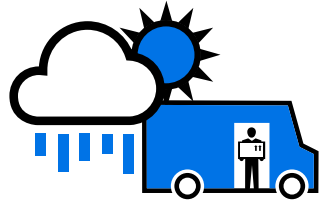
The Various Risks of Environmental Exposure

How unchecked environmental conditions can raise havoc in the supply chain

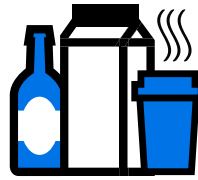
The need for real-time environmental monitoring throughout the supply chain, from proper processing to delivery, extends beyond products for human consumption. So much hinges on ensuring the optimal range of critical environmental conditions.



MANUFACTURING

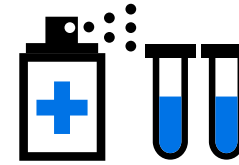


TRANSPORTATION



FOOD SUPPLY CHAIN

Environmental monitoring is essential to maintaining product quality throughout the supply chain



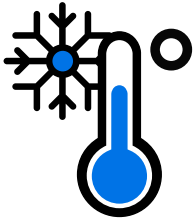
STERILIZATION PROCESSING



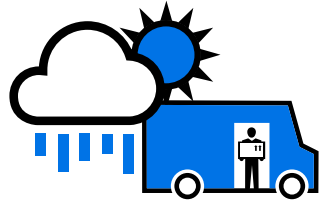
The Various Risks of Environmental Exposure

How unchecked environmental conditions can raise havoc in the supply chain

The need for real-time environmental monitoring throughout the supply chain, from proper processing to delivery, extends beyond products for human consumption. So much hinges on ensuring the optimal range of critical environmental conditions.



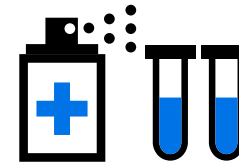
MANUFACTURING



TRANSPORTATION



FOOD SUPPLY CHAIN



STERILIZATION PROCESSING

This is an essential indicator in R&D and Quality Labs at manufacturing, educational and other non-clinical facilities to show that assets and products requiring sterilization have been exposed to a steam sterilization process.



Challenges and Concerns Along the Chain

Industries need to consider many variables and overcome many challenges to get their products from point of origin to destination



Comply

with increasing government regulations on perishable products



Validate

proper processing



Assess

effect caused by unexpected environmental challenges



Minimize

product waste



Lower

cost of reshipping products



Avoid

liability issues caused by damage that goes unnoticed



Maintain

customer confidence



Improve

bottom line and accelerate ROI

Introducing ZeOn-demand Printable Indicators

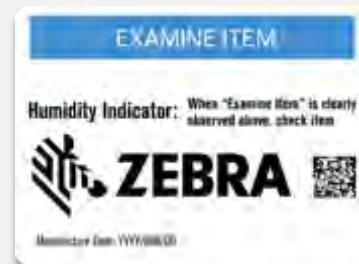
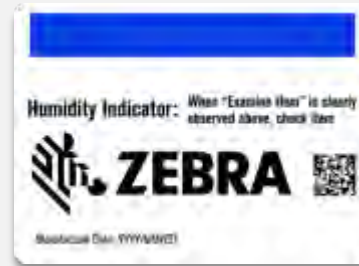
Environmental Exposure Revealed with a Simple Visual

An all-in-one solution that delivers more insights into sensitive assets, their quality processes and their workflows

Temperature



Humidity/Moisture



Sterilization



Printable Environmental Sensors

The single solution that does it all

Permanent High Humidity/Moisture Sensor



*Environmental Sensing
Ink on Zebra Thermal
Transfer Media*

*Media Customization using
Zebra Printer*

*Media Sensing
High Humidity/Water
Exposure*

Permanent High Temperature/Irreversible Sensor



*Environmental Sensing
Ink on Zebra Thermal
Transfer Media*

*Media Customization using
Zebra Printer*

*Media Sensing High
Temperature Exposure*

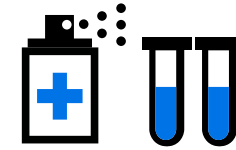
Sensor Functionality in Action

These short animations offer a preview of the new capabilities Zebra has developed

Temperature



Sterilization



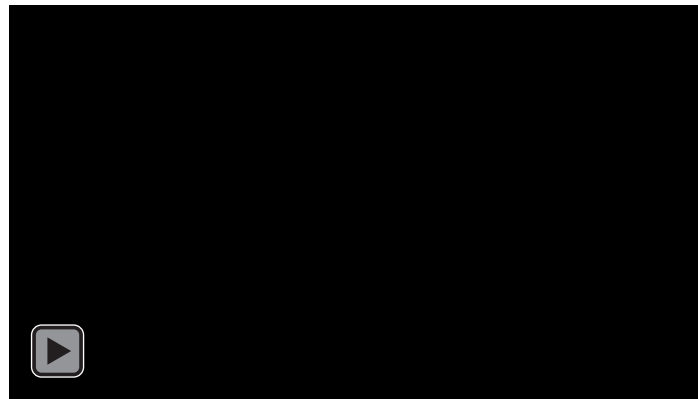
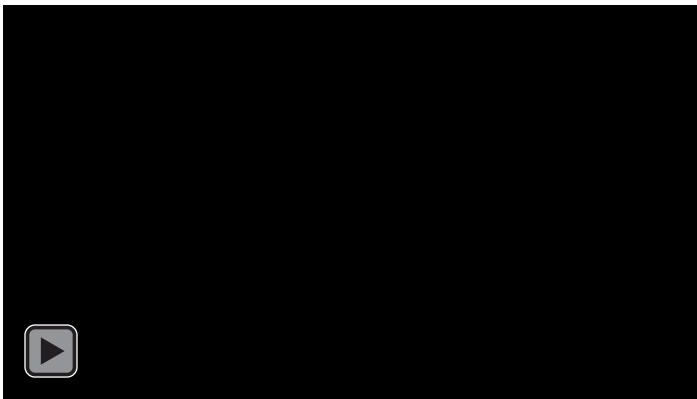
Sensor Functionality in Action

These short prototype sample videos offer a preview of the new capabilities Zebra has developed

Temperature



Humidity/Moisture



How to Customize a Solution

Potential combinations of printable indicators



Pre-test printable indicator in the target application to ensure solution meets all intended requirements.

Applications Across Many Industries

Printable indicators can be easily integrated into preexisting workflows

Unnoticed fluctuations in environmental conditions of individual products during processing and transport could translate into big, expensive problems.



Manufacturing

High-heat processing; temperature and humidity monitoring of parts and components



Food Supply Chain

Environmental monitoring is essential to maintaining product quality throughout the supply chain



Transportation and Logistics (T&L)

Temperature and humidity control transporting products from any sector



Sterilization Processing

Indicates the product has been exposed to a steam sterilization process

ZeOn-demand Printable Indicators

Gain visibility into product environmental exposure, combined with the accuracy and traceability of print on demand



Empower frontline workers

Give personnel clear visual clues when verifying asset conditions so they can take immediate action when needed



Streamline workflows

Printable indicators enable you to gain more insight without adding steps to your processes



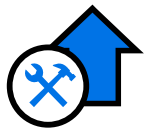
Lower your costs

This all-in-one solution eliminates the need for separate inventories of environmental indicators and thermal labels



Reduce waste

Effectively monitor the environmental parameters of all types of products that can be adversely affected by temperature or humidity excursions



Improve quality and accuracy

Avoid parsing hard-to-read handwritten labels and maintain more accurate records with these printable indicators

Why Trust Zebra

Unparalleled industry experience



years of track and trace innovation
and one of the largest thermal
converters in the world

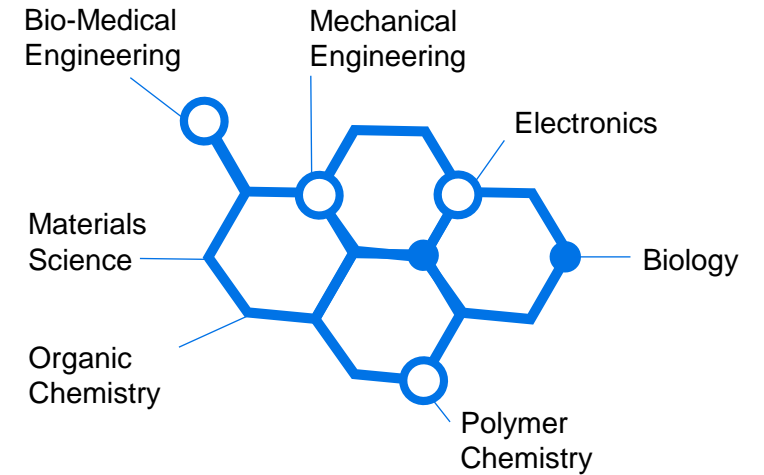
30+
years of
expertise

- Developing and manufacturing print supplies
- Providing cold chain monitoring of perishable life science and food products



ZEBRA

An outstanding Supplies & Sensors
R&D Team with unmatched scale
and expertise in:



ISO9001
Certification



Design

Design & manufacture:

- IoT devices and interfaces
- Cables
- Modify products
- Mechanical design and assemble

Support

Through our extensive professional services in

- Engineering
- Software
- Deployment
- Support

Source

- Data capture & ICT products and from our many agencies
- Systems Integration
- Solutions Architecture
- Systems Engineering

Full Stack Solution Provider

Encompassing

- Data Carriers (barcode, RFID, sensors)
- Edge devices and gateways
- Own and manage PCI-DSS compliant Data Center
- Middleware and Cloud Application Broker
- Software: cloud, mobile and embedded applications
- Design, deploy and managed services



Enhance Supply Chain Visibility with Zebra & UMD

Asset Identification and Environmental
Insights in One Single Solution

Unique Micro Design Pty Ltd

200 Wellington Rd, Clayton, VIC 3168, Australia

Sales@umd.com.au

+61 (0) 3-9582-7000

ZEBRA and the stylized Zebra head are trademarks of Zebra Technologies Corp., registered in many jurisdictions worldwide. All other trademarks are the property of their respective owners. ©2022 Zebra Technologies Corp. and/or its affiliates.