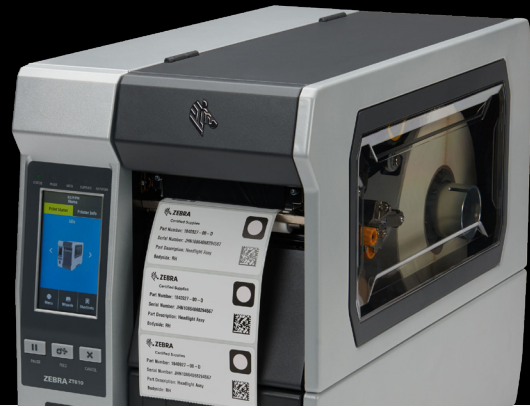


Simple. Continuous. Effective

Monitoring cold chain temperatures for seafood, meat, and poultry across supply chains



Keeping proteins fresh across the supply chain takes precision. From the moment poultry, meat, and seafood leaves the farm or processing facility, temperature consistency is everything. Transit delays, extreme weather, equipment variations, and the sheer complexity of modern supply chains all create pressure points where even small temperature fluctuations can compromise quality. The good news is that advances in technology make it easier to stay ahead of those moments, giving your teams the insight they need to protect product quality.

Ready-to-use and printable temperature indicators

Zebra Technologies offers a portfolio of simple, accurate temperature-monitoring indicators designed to travel with your product and give your teams instant visibility at every stage of the journey. The options include:

- **Fresh-Check® Indicators:** Fresh-Check is a compact, peel and apply, single-use time-temperature indicator. Its reactive material is protected by a proprietary ultraviolet chemistry and film layer. The material changes color irreversibly – faster at higher temperatures and slower at lower temperatures. This makes it easy to see when the specified time and temperature limit for a product has been reached or exceeded. Indicators can be customized to your products' requirements, from several days of refrigeration to several weeks (e.g., 6 days at 40°F / 4°C or 21 days at 46°F / 8°C).
- **ZeOn-Demand Printable Indicators:** With ZeOn Demand, you can add an extra layer of critical environmental information to your shipment labels (alongside barcodes / RFID and asset information). The print-on-demand indicators are compatible with a wide range of media, including direct thermal and thermal transfer paper as well as synthetic labels and tags. The sensors alert you to various environmental conditions, including thaw events (e.g., 10.4°F / -12°C Ascending and 32°F / 0°C Ascending). Sensors are also customizable to your requirements. By combining identification and environmental monitoring in a single label, supply chain workflows are simplified and optimized while equipping your teams to make informed decisions about the meat, seafood, and poultry in their care.

Reduce waste with actionable insight

The cost-efficient solutions give your teams actionable intelligence to take informed and proactive decisions to protect proteins in their care. The ability to provide verifiable data on environmental conditions during transit also builds confidence and trust in brands among customers, and ultimately consumers.

The insight helps you:

- Protect the quality of seafood, meat, and poultry.
- Build trust and confidence in your brand
- Empower front-line workers to make informed and immediate decisions.
- Minimize waste
- Avoid liability issues caused by damage that goes unnoticed
- Improve the bottom line and accelerate ROI

23%

of meat produced is estimated to be wasted - 32% of this occurs in manufacturing and distribution

mdpi.com

35%

of harvested fish and seafood is either lost or wasted along the supply chain

seafoodsustainability.org

20%

of poultry is lost between the farm and fork

wattagnet.com

For more information about how to monitor your fresh proteins and seafood across journeys, please contact us below.

