

# Temperature Data Logger Market by Type (USB, Bluetooth, Wireless (Web-based, Cloud-based, IoT-based, Battery-operated)), Configuration (Standalone, Connected), Utility (Single-use, Reusable) and Region - Global Forecast to 2030

<https://marketpublishers.com/r/TDBDA84081ACEN.html>

Date: May 2025

Pages: 159

Price: US\$ 4,950.00 (Single User License)

ID: TDBDA84081ACEN

## Abstracts

The global temperature data logger market is projected to grow from USD 529.0 million in 2025 to USD 701.1 million in 2030 at a CAGR of 5.8% during the forecast period. The temperature data logger market is experiencing tremendous growth due to the growing need for real-time, precise temperature measurement in key industries such as pharmaceuticals, food & beverage, chemicals, and logistics. Strict regulations by organizations such as the FDA, WHO, and EU Good Distribution Practices (GDP) require temperature monitoring of sensitive commodities, particularly vaccines and biologics, with stringent cold chain requirements. This regulatory momentum has contributed to the broad acceptance of temperature data loggers across transportation and storage uses.

“Standalone segment to contribute a significant share to the temperature data logger market.”

Standalone temperature data loggers are necessary for applications where simplicity, portability, and cost-effectiveness are prioritized over real-time monitoring. In environmental monitoring, they track temperature trends in remote locations, including weather stations, agricultural fields, and ecological studies. They are also utilized in building and facility management to monitor HVAC systems, warehouses, and data centers for efficiency and safety. In industrial processes, standalone loggers are employed to track temperature in ovens, kilns, and freezers to ensure quality control. Additionally, they are crucial in research and laboratory settings for monitoring

experiments, sample storage, and clinical trials, as well as in food safety compliance for verifying storage conditions in restaurants and retail outlets. Their battery-operated design, durability, and ease of use make them indispensable for scenarios requiring reliable temperature tracking without real-time connectivity.

“Adoption of temperature data loggers in the food & beverage industry to grow significantly.”

In the food & beverage industry, proper temperature control is crucial in preserving the quality, safety, and freshness of perishable goods such as dairy, meat, seafood, frozen foods, and beverages. Due to increasing consumer awareness regarding food safety and the implementation of strict food safety regulations such as Hazard Analysis Critical Control Point (HACCP) and Food Safety Modernization Act (FSMA), temperature data loggers have become a necessity. They are crucial for monitoring storage and transportation conditions to ensure products are within specified temperature ranges, thus preventing spoilage and contamination. Temperature logging technology has advanced to include Bluetooth and other technologies, improving traceability and real-time monitoring in food supply chains. This has become crucial in dealing with global food waste concerns because proper monitoring can significantly reduce spoilage. Companies such as T&D Corporation and DeltaTrak have developed temperature data loggers specifically for the food & beverage industry, providing solutions for refrigerated transportation and cold storage. Moreover, the trend of online grocery shopping and meal delivery services has increased the demand for temperature-controlled logistics, which in turn is increasing the adoption of data loggers in this sector. The food & beverage industry will remain a key market for temperature data loggers with the increase in global food trade and consumer expectations for high-quality products.

“The US is projected to dominate the temperature data logger market.”

The US is poised to dominate the global temperature data logger market due to strong industrial infrastructure, regulatory enforcement, and technological leadership. One of the primary drivers is the country's stringent regulatory environment, particularly in the pharmaceutical, healthcare, and food sectors. Agencies such as the FDA and CDC impose strict guidelines on temperature-sensitive products, requiring continuous monitoring and documentation, which fuels the widespread adoption of advanced data loggers. Moreover, the US is a global pharmaceutical and biotechnology research and manufacturing hub. With increasing demand for biologics, vaccines, and temperature-sensitive therapies, there is a growing need for reliable temperature tracking across production, storage, and distribution chains. The nation also has a highly developed

cold chain logistics network, boosting demand for data logger solutions. Technological innovation is another critical factor. The US is home to leading data logger manufacturers and IoT developers, continuously integrating wireless, AI, and cloud-based technologies into monitoring systems. These advancements support real-time analytics and remote access, enhancing operational efficiency and compliance. In addition, rising consumer awareness about food and drug safety and the expansion of e-commerce and medical device logistics position the US as a dominant force in the temperature data logger market.

In-depth interviews have been conducted with Chief Executive Officers (CEOs), Directors, and other executives from various key organizations operating in the temperature data logger market.

By Company Type: Tier 1 - 42%, Tier 2 - 37%, and Tier 3 - 21%

By Designation: C-level Executives - 48%, Directors - 33%, and Others - 19%

By Region: North America - 35%, Europe - 18%, Asia Pacific - 40%, and RoW - 7%

The study includes an in-depth competitive analysis of key players in the temperature data logger market, with their company profiles, recent developments, and key market strategies. Players include Onset Computer Corporation (US), HIOKI E.E. Corporation (Japan), Testo SE & Co. KGaA (Germany), ELPRO-BUCHS AG (Switzerland), Dickson (US), Sensitech Inc(US), Vaisala (Finland), Signatrol (UK), Gemini Data Loggers (UK), Ebro Electronics (Germany), CAS Dataloggers (US), KIMO Electronics Pvt (India), DeltaTrak (US), Omega Engineering Inc (US), and GAO TEK & GAO GROUP INC. (US).

## Research Coverage

This research report categorizes the temperature data logger market by type, utility, configuration, industry, and region (North America, Europe, and Asia Pacific). The report scope covers detailed information regarding the major factors, such as drivers, restraints, challenges, and opportunities, influencing the growth of the temperature data logger market. A detailed analysis of the key industry players has provided insights into their business overview, solutions and services, and key strategies, such as contracts, partnerships, agreements, new product and service launches, acquisitions, and other

recent developments associated with the temperature data logger market. This report covers a competitive analysis of upcoming temperature data logger market startups.

### Reasons To Buy This Report

The report will help market leaders and new entrants with information on the closest approximations of the revenue numbers for the temperature data logger market and subsegments. It will also help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. The report also helps stakeholders understand the market pulse and provides information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

Analysis of key drivers (increasing penetration of temperature data loggers in pharmaceutical and medical device industries, stringent monitoring requirements in the food & beverage and cold chain logistics sector, increasing adoption of Industry 4.0, wireless connectivity, and IoT, demand for environmental monitoring applications), restraints (high initial cost involved in advanced data loggers, complexities in deployment and integration), opportunities (incorporation of temperature control systems in food safety management, Supportive government initiatives & funding for IoT projects that require temperature measuring devices), and challenges (stringent performance requirements for advanced applications, data security concerns) influencing the growth of the temperature data logger market

**Product Development/Innovation:** Detailed insights on upcoming technologies, research & development activities, and new product launches in the temperature data logger market

**Market Development:** Comprehensive information about lucrative markets—the report analyses the temperature data logger market across varied regions

**Market Diversification:** Exhaustive information about new products, untapped geographies, recent developments, and investments in the temperature data logger market

**Competitive Assessment:** In-depth assessment of market shares, growth strategies, and service offerings of leading players in the temperature data

logger market, such as Onset Computer Corporation (US), HIOKI E.E. Corporation (Japan), Testo SE & Co. KGaA (Germany), ELPRO-BUCHS AG (Switzerland), and Dickson (US).

## Contents

### 1 INTRODUCTION

- 1.1 STUDY OBJECTIVES
- 1.2 MARKET DEFINITION
- 1.3 STUDY SCOPE
  - 1.3.1 MARKETS COVERED AND REGIONAL SCOPE
  - 1.3.2 YEARS CONSIDERED
  - 1.3.3 INCLUSIONS AND EXCLUSIONS
- 1.4 CURRENCY CONSIDERED
- 1.5 UNIT CONSIDERED
- 1.6 LIMITATIONS
- 1.7 STAKEHOLDERS

### 2 RESEARCH METHODOLOGY

- 2.1 RESEARCH DATA
  - 2.1.1 SECONDARY DATA
    - 2.1.1.1 Key secondary sources
    - 2.1.1.2 Key data from secondary sources
  - 2.1.2 PRIMARY DATA
    - 2.1.2.1 Intended participants in primary interviews
    - 2.1.2.2 Key primary interview participants
    - 2.1.2.3 Breakdown of primaries
    - 2.1.2.4 Key industry insights
    - 2.1.2.5 Key data from primary sources
  - 2.1.3 SECONDARY AND PRIMARY RESEARCH
- 2.2 MARKET SIZE ESTIMATION
  - 2.2.1 BOTTOM-UP APPROACH
    - 2.2.1.1 Bottom-up approach for estimating market size
  - 2.2.2 TOP-DOWN APPROACH
    - 2.2.2.1 Top-down approach for estimating market size
- 2.3 MARKET BREAKDOWN AND DATA TRIANGULATION
- 2.4 RESEARCH ASSUMPTIONS
- 2.5 RESEARCH LIMITATIONS
- 2.6 RISK ASSESSMENT

### 3 EXECUTIVE SUMMARY

## **4 PREMIUM INSIGHTS**

4.1 ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN TEMPERATURE DATA LOGGER MARKET

4.2 TEMPERATURE DATA LOGGER MARKET, BY TYPE

4.3 TEMPERATURE DATA LOGGER MARKET, BY CONFIGURATION

4.4 TEMPERATURE DATA LOGGER MARKET, BY UTILITY

4.5 TEMPERATURE DATA LOGGER MARKET, BY COUNTRY

## **5 MARKET OVERVIEW**

5.1 INTRODUCTION

5.2 MARKET DYNAMICS

5.2.1 DRIVERS

5.2.1.1 Rising demand from pharmaceuticals & medical devices industries

5.2.1.2 Growing adoption in food & beverages and cold chain logistics sectors

5.2.1.3 Increasing use of Industry 5.0, wireless connectivity, and IoT technologies

5.2.1.4 Surging deployment of temperature data loggers in environmental monitoring applications

5.2.2 RESTRAINTS

5.2.2.1 High deployment and maintenance costs

5.2.2.2 Complexity in deployment and integration

5.2.3 OPPORTUNITIES

5.2.3.1 Stringent food safety regulations with elevating demand for packaged food

5.2.3.2 Increasing government funding toward IoT projects

5.2.4 CHALLENGES

5.2.4.1 Stringent performance requirements for advanced applications

5.2.4.2 Data security concerns

5.3 SUPPLY CHAIN ANALYSIS

5.4 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS

5.5 KEY CONFERENCES AND EVENTS, 2025

## **6 TEMPERATURE DATA LOGGER MARKET, BY TYPE**

6.1 INTRODUCTION

6.2 USB

6.2.1 EASE OF DATA RETRIEVAL VIA USB CONNECTIONS TO BOOST DEMAND

## 6.3 WIRELESS

### 6.3.1 NEED FOR REAL-TIME DATA ACCESS TO FUEL SEGMENTAL GROWTH

## 6.4 BLUETOOTH

### 6.4.1 ABILITY TO OFFER HASSLE-FREE AND REAL-TIME DATA ACCESS TO DRIVE MARKET

## 6.5 OTHER TYPES

# 7 TEMPERATURE DATA LOGGER MARKET, BY UTILITY

## 7.1 INTRODUCTION

## 7.2 SINGLE-USE

### 7.2.1 RISING NEED TO MONITOR TEMPERATURE-SENSITIVE PRODUCTS IN LARGE-SCALE DISTRIBUTION NETWORKS TO ACCELERATE DEMAND

## 7.3 REUSABLE

### 7.3.1 ESCALATED DEMAND FOR CONTINUOUS TEMPERATURE MONITORING IN COLD CHAIN LOGISTICS AND FOOD INDUSTRIES TO FOSTER MARKET GROWTH

# 8 TEMPERATURE DATA LOGGER MARKET, BY CONFIGURATION

## 8.1 INTRODUCTION

## 8.2 STANDALONE

### 8.2.1 REQUIREMENT FOR PERIODIC TEMPERATURE RECORDING FOR REMOTE LOCATIONS TO STIMULATE SEGMENTAL GROWTH

## 8.3 CONNECTED

### 8.3.1 ABILITY TO PROVIDE IMMEDIATE ALERTS IN CASE OF TEMPERATURE DEVIATIONS TO BOOST DEMAND

# 9 TEMPERATURE DATA LOGGER MARKET, BY APPLICATION

## 9.1 INTRODUCTION

## 9.2 PHARMACEUTICAL & LIFE SCIENCES

### 9.2.1 NECESSITY TO MAINTAIN ACCURATE TEMPERATURE DURING DRUG MANUFACTURING PROCESSES TO SPIKE DEMAND

#### 9.2.2 DRUG MANUFACTURING

#### 9.2.3 CLINICAL TRIALS & STERILIZATION

#### 9.2.4 VACCINE STORAGE MONITORING

## 9.3 FOOD & BEVERAGE

### 9.3.1 EMPHASIS ON PRESERVING FRESHNESS, TASTE, TEXTURE, AND NUTRITIONAL VALUE OF PERISHABLE PRODUCTS TO BOOST DEMAND

- 9.3.2 PRODUCTION PROCESS MONITORING
- 9.3.3 COMPLIANCE WITH FOOD SAFETY REGULATIONS
- 9.3.4 COLD CHAIN MONITORING
- 9.3.5 REFRIGERATION MONITORING
- 9.4 MEDICAL DEVICES
  - 9.4.1 STRINGENT TEMPERATURE AND HUMIDITY CONTROL STANDARDS FOR CLEANROOMS TO SUPPORT SEGMENTAL GROWTH
  - 9.4.2 INCUBATOR MONITORING
  - 9.4.3 CHAMBER MONITORING
  - 9.4.4 LABORATORY APPLICATIONS
- 9.5 ELECTRONICS & SEMICONDUCTORS
  - 9.5.1 NECESSITY TO MONITOR HIGH-TEMPERATURE ENVIRONMENTS DURING CHIP PRODUCTION TO DRIVE MARKET
  - 9.5.2 SENSITIVE EQUIPMENT STORAGE
  - 9.5.3 MANUFACTURING PROCESS CONTROL
- 9.6 INDUSTRIAL MANUFACTURING
  - 9.6.1 HIGH EMPHASIS ON PREVENTIVE MAINTENANCE TO FACILITATE ADOPTION OF DATA LOGGERS
  - 9.6.2 MACHINE CONDITION MONITORING
  - 9.6.3 QUALITY CONTROL
- 9.7 COLD CHAIN LOGISTICS
  - 9.7.1 NEED TO ENSURE SAFE AND EFFECTIVE TRANSPORTATION AND STORAGE OF TEMPERATURE-SENSITIVE PRODUCTS TO BOOST DEMAND
  - 9.7.2 REAL-TIME MONITORING
  - 9.7.3 TRANSPORTATION & DELIVERY
- 9.8 ENVIRONMENTAL MONITORING
  - 9.8.1 RISING FOCUS ON BUILDING SMART OFFICES AND GREENHOUSES TO FOSTER MARKET GROWTH

## **10 TEMPERATURE DATA LOGGER MARKET, BY REGION**

- 10.1 INTRODUCTION
- 10.2 NORTH AMERICA
  - 10.2.1 NORTH AMERICA: MACROECONOMIC OUTLOOK
  - 10.2.2 US
    - 10.2.2.1 Increasing adoption of data loggers in food & beverage and industrial manufacturing applications to drive market
  - 10.2.3 CANADA
    - 10.2.3.1 Expansion of cold chain logistics to create market growth opportunities

#### 10.2.4 MEXICO

10.2.4.1 Thriving electronics & semiconductor industry to support market growth

#### 10.3 EUROPE

##### 10.3.1 EUROPE: MACROECONOMIC OUTLOOK

##### 10.3.2 UK

10.3.2.1 Elevating demand for high-end electronic products to stimulate market growth

##### 10.3.3 GERMANY

10.3.3.1 Constant technological advancements in automotive sector to foster market growth

##### 10.3.4 FRANCE

10.3.4.1 Booming aerospace industry to contribute to market growth

##### 10.3.5 NORDICS

10.3.5.1 Strong focus on adoption of renewable energy to create market growth opportunities

##### 10.3.6 REST OF EUROPE

#### 10.4 ASIA PACIFIC

##### 10.4.1 ASIA PACIFIC: MACROECONOMIC OUTLOOK

##### 10.4.2 CHINA

10.4.2.1 Rapid industrialization to accelerate market growth

##### 10.4.3 JAPAN

10.4.3.1 Stringent food safety and pharmaceutical regulations to support market growth

##### 10.4.4 INDIA

10.4.4.1 Automotive and consumer electronics industries to contribute to market growth

##### 10.4.5 REST OF ASIA PACIFIC

#### 10.5 ROW

##### 10.5.1 SOUTH AMERICA

10.5.1.1 Presence of large electronics manufacturing plants to propel market

##### 10.5.2 MIDDLE EAST

10.5.2.1 Strong focus on strengthening healthcare supply chain to create opportunities

##### 10.5.2.2 GCC

##### 10.5.2.3 Rest of Middle East

##### 10.5.3 AFRICA

10.5.3.1 Existence of giant pharma companies to support market growth

## 11 COMPETITIVE LANDSCAPE

## 11.1 OVERVIEW

### 11.2 KEY PLAYER STRATEGIES/RIGHT TO WIN, 2023–2025

### 11.3 REVENUE ANALYSIS, 2020–2024

### 11.4 MARKET SHARE ANALYSIS, 2024

## 11.5 COMPETITIVE SCENARIO

### 11.5.1 PRODUCT LAUNCHES

### 11.5.2 OTHER DEVELOPMENTS

## 12 COMPANY PROFILES

### 12.1 KEY PLAYERS

#### 12.1.1 ONSET COMPUTER CORPORATION

##### 12.1.1.1 Business overview

##### 12.1.1.2 Products/Services/Solutions offered

##### 12.1.1.3 MnM view

##### 12.1.1.3.1 Key strengths/Right to win

##### 12.1.1.3.2 Strategic choices

##### 12.1.1.3.3 Weaknesses/Competitive threats

#### 12.1.2 HIOKI E.E. CORPORATION

##### 12.1.2.1 Business overview

##### 12.1.2.2 Products/Services/Solutions offered

##### 12.1.2.3 Recent developments

##### 12.1.2.3.1 Product launches

##### 12.1.2.4 MnM view

##### 12.1.2.4.1 Key strengths/Right to win

##### 12.1.2.4.2 Strategic choices

##### 12.1.2.4.3 Weaknesses/Competitive threats

#### 12.1.3 TESTO SE & CO. KGAA

##### 12.1.3.1 Business overview

##### 12.1.3.2 Products/Services/Solutions offered

##### 12.1.3.3 MnM view

##### 12.1.3.3.1 Key strengths/Right to win

##### 12.1.3.3.2 Strategic choices

##### 12.1.3.3.3 Weaknesses/Competitive threats

#### 12.1.4 ELPRO-BUCHS AG

##### 12.1.4.1 Business overview

##### 12.1.4.2 Products/Services/Solutions offered

##### 12.1.4.3 MnM view

- 12.1.4.3.1 Key strengths/Right to win
- 12.1.4.3.2 Strategic choices
- 12.1.4.3.3 Weaknesses/Competitive threats

#### 12.1.5 DICKSON

- 12.1.5.1 Business overview
- 12.1.5.2 Products/Services/Solutions offered
- 12.1.5.3 MnM view
  - 12.1.5.3.1 Key strengths/Right to win
  - 12.1.5.3.2 Strategic choices
  - 12.1.5.3.3 Weaknesses/Competitive threats

#### 12.1.6 SENSITECH INC.

- 12.1.6.1 Business overview
- 12.1.6.2 Products/Services/Solutions offered

#### 12.1.7 VAISALA

- 12.1.7.1 Business overview
- 12.1.7.2 Products/Services/Solutions offered
- 12.1.7.3 Recent developments
  - 12.1.7.3.1 Product launches
  - 12.1.7.3.2 Other developments

#### 12.1.8 SIGNATROL

- 12.1.8.1 Business overview
- 12.1.8.2 Products/Services/Solutions offered
- 12.1.8.3 Recent developments
  - 12.1.8.3.1 Product launches

#### 12.1.9 GEMINI DATA LOGGERS

- 12.1.9.1 Business overview
- 12.1.9.2 Products/Services/Solutions offered

#### 12.1.10 EBRO ELECTRONIC

- 12.1.10.1 Business overview
- 12.1.10.2 Products/Services/Solutions offered

### 12.2 OTHER PLAYERS

- 12.2.1 CAS DATALOGGERS
- 12.2.2 KIMO ELECTRONIC PVT LTD.
- 12.2.3 DELTATRAK INC.
- 12.2.4 OMEGA ENGINEERING INC.
- 12.2.5 GAO TEK & GAO GROUP INC.

## 13 APPENDIX

13.1 DISCUSSION GUIDE

13.2 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL

13.3 CUSTOMIZATION OPTIONS

13.4 RELATED REPORTS

13.5 AUTHOR DETAILS

## I would like to order

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