

# TempTale®4 BIO

Maintain precise control of temperature-sensitive pharmaceuticals and biologics

## TempTale®4 BIO (TT4 BIO) Monitor

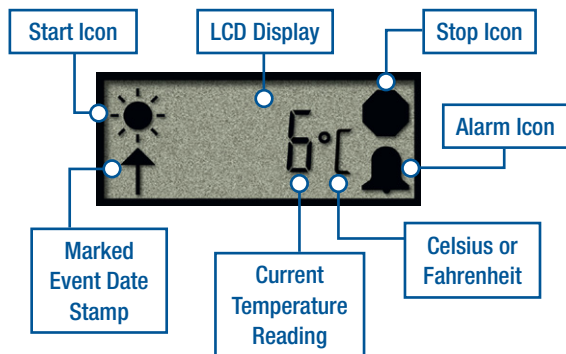


The TempTale®4 BIO (TT4 BIO) is a compact, battery powered ambient electronic temperature monitor designed with a higher degree of accuracy to meet critical pharmaceutical applications for monitoring temperature-sensitive products during storage and transportation. The TT4 BIO helps to assure the quality, safety and efficacy of temperature-sensitive products in storage and transit by accurately monitoring and recording environmental

conditions experienced by pharmaceuticals and biologics throughout the entire cold chain.

**With its enhanced accuracy** (see specifications) the TempTale4 BIO can significantly improve the efficiency and quality of shipment dispositions, thereby reducing operating costs while effectively managing risk with both FDA and internal inspections.

In addition to the strict quality control methods we use in the design, test, production and service of our monitors, a NIST® traceable validation certificate is provided with every TempTale4 BIO monitor we ship.



### Specifications

<b>Temperature Measurement Range</b>	-30°C to 70°C
<b>Temperature Accuracy Range</b>	±1.1°C %from -30°C to -1°C <b>±0.22°C from -1°C to +10°C</b> ±1.1°C from +10°C to +70°C
<b>Temperature Resolution</b>	0.1°F/C over full temperature measurement range
<b>Memory Type</b>	Non-volatile 2K or 16K EEPROM Options
<b>Data Storage Capacity</b>	1,920 or 16,000 data points
<b>Battery Life/Type</b>	1-year run life/3.0v lithium battery
<b>Data Sampling Interval</b>	Programmable from 10 seconds up to a maximum of 2 hours
<b>Water Resistance Casing</b>	NEMA 6 Rating
<b>Start-Up Delay</b>	Minimum 0 seconds up to maximum 194 days
<b>LCD Programmable Options</b>	Display current temperature reading, display temp values in °F or °C, Enable flashing of start, stop and alarm icons
<b>Start Up Options</b>	Manual push button or automatic launch option
<b>Alarm Function</b>	Programmable high and low limits; alarm is triggered when temperature exceeds set limits
<b>Typical Dimensions</b>	3.6" L x 2.0" W x 0.67" H (9.2cm L x 5.1cm W x 1.7cm H)
<b>Weight</b>	1.6 ounces, 45.4 grams (apprx)
<b>Testing</b>	Tested to 3-point NIST® standards
<b>Quality Assurance Certifications</b>	CE; Validation Manual
<b>Software/Computer Interface</b>	TempTale Manager Desktop Software; Interface Plus Reader

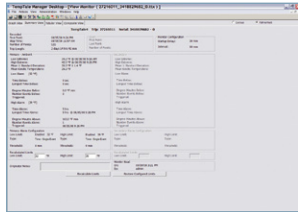
## TempTale Manager® Desktop Software

Desktop Software

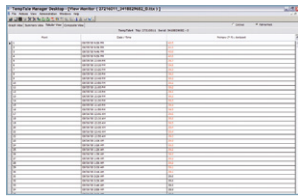
TempTale Manager® Desktop (TTMD) is a multi-lingual, easy-to-use, Windows®-based software application for configuring, downloading, displaying, analyzing, and reporting time-and-temperature data collected from any of Sensitech's TempTale monitors. This versatile software is compatible with Windows® 7 and higher. Our TTMD software's extremely intuitive user interface makes it easy to retrieve, display, and analyze trip data, helping users to make higher quality

shipment disposition decisions and ensure that Standard Operating Procedures (SOPs) are delivering acceptable results. TTMD software's extensive multi-language support includes: US English, UK English, Spanish, Dutch, French, German, Portuguese, Chinese, Japanese, and Russian, and its powerful data export and file transfer options allow users to quickly and easily share data globally.

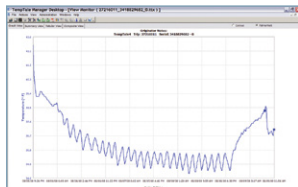
## TempTale Manager Desktop Features Summary



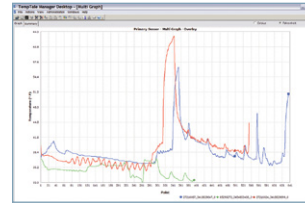
◀ **Summary View** displays statistical temperature and humidity data, such as minimums, maximums, standard deviation, mean kinetic temperature and "time- out-of-range" calculations.



◀ **Tabular View** displays detailed information for each data point including dates, times and temperature and humidity readings.



◀ **Graph View** plots temperature and secondary sensor data over time.



◀ **Multi-Graph View** overlays graphs from up to 50 monitors onto the same graph to quickly highlight relationships between monitor data files.

TempTale Manager Desktop includes powerful tools that allow users superior flexibility when sharing and exporting monitor data:

**Export to PDF** exports your data to portable document format (\*.pdf). Once exported, you can open the file using Adobe® Reader.

**Export to Excel** exports your data to the popular spreadsheet format (\*.xls). Once exported, you can open the file directly from Microsoft Excel.

**Email File** allows you to quickly email attachments of open views of monitor data in \*.pdf and \*.ttx file formats directly from the TTMD application with a single mouse click.

## Quality and Validation Support and Services

Sensitech is committed to product excellence and customer satisfaction. Our facilities are ISO 9001:2008 certified, our products are tested to NIST traceable standards and we have successfully participated in and completed over 50 supplier audits since 2001 with leading pharmaceutical and biotechnology companies.

What does this commitment to quality and process improvement mean to you and your business? Peace of mind and the assurance that you are partnering with an industry leader that meets the highest level of quality standards in the industry.

Sensitech Inc. is focused on delivering supply chain visibility solutions that track, monitor and protect products for global leaders in the food, life sciences, consumer goods, and industrial markets. Our solutions are focused in three key areas: quality and compliance, supply chain security, and logistics performance management. Quality and compliance solutions address temperature-sensitive, complex supply chains focused on delivering the highest quality possible, while our supply chain security solutions help to mitigate risks associated with theft, diversion and chain of custody. Sensitech's logistics performance solutions deliver origin-to-destination, real-time transparency to any in-transit journey. Sensitech Inc. is an ISO 9001:2008 company, headquartered in Beverly, Mass., with more than 35 sales, service and distribution locations around the world. Sensitech is a part of UTC Climate, Controls & Security, a unit of United Technologies Corp., a leading provider to the aerospace and building systems industries worldwide. Visit [www.sensitech.com](http://www.sensitech.com) for additional information. © 2018 Sensitech Inc. All Rights Reserved. Unless otherwise indicated, all trademarks and service marks are the property of Sensitech Inc. NIST is a registered trademark of The National Institute of Standards and Technology Agency of the United States Government. Microsoft, Windows, Windows XP, Windows Vista, and Internet Explorer are registered trademarks of Microsoft Corporation in the United States and other countries.

To meet a wide range of validation requirements, we offer the following validation packages and certification services:

- TempTale®4 BIO Monitor Validation Package
- TempTale® Manager Desktop Software Validation Package
- 3 Point NIST-traceable Certificate of Validation
- Post Validation Services with Certificate
- 1-Year Limited Warranty
- On-site Audits