## TempTale Ultra Probeless Dry Ice Monitor

# Introducing the TempTale<sub>®</sub> Ultra Probeless Dry Ice monitor—a compact USB temperature datalogger that can be placed directly into dry ice environments as low as -95°C.

This new datalogger can be programmed with up to six temperature alarms, including MKT and duration. The integrated USB connector provides fast and easy download of data, and automatically generates a secure PDF report and encrypted data file when connected to a USB port on a PC. These files can be subsequently downloaded, viewed and archived in Sensitech's TempTale Manager® Desktop (TTMD) software or ColdStream® Cold Chain Manager private cloud database application—built to comply with FDA 21 CFR Part 11 and EC Annex 11. Furthermore, the TempTale Ultra Probeless Dry Ice monitor meets IATA's Dangerous Goods Regulations and thus requires no additional shipment labeling.

#### TempTale<sub>®</sub> Ultra Probeless Dry Ice Features

- Monitor temperatures as low as -95°C
- Place directly into dry ice environment in contact with product
- 3-Point NIST traceable calibration certificate accessible in TTMD or ColdStream software
- Large LCD screen provides clear indication of alarm status and trip statistics
- Program up to six alarms, including MKT and Trip Duration
- Flashing LEDs clearly indicate Start/Stop modes and Alarm status inside and outside of dry ice environments
- Download directly to PC via integrated USB connector
- Configurable PDF options such as, time zone, language and PDF/A file format
- Add shipment information prior to shipping to display on PDF report and in software when monitor is downloaded
- · Write-protected flash drive for virus protection

#### TempTale Manager® Desktop Software

TempTale Manager® Desktop (TTMD) is a robust, multi-lingual, Windows-based software application used for configuring, downloading and archiving time and temperature data collected from TempTale temperature monitors. The power of TTMD software lies in its intuitive user interface that allows users to effortlessly analyze trip data in order to make high-quality shipment disposition decisions, and ensure that Standard Operating Procedures (SOPs) are delivering acceptable results.



Sample running display Current temperature reading, no alarm



Sample stopped display Alarmed, total time above high limit



#### ColdStream® Cold Chain Manager Software

ColdStream® Cold Chain Manager (CCM) is a validated, hosted and secure relational database application that is easily accessible via the Internet for query, reporting and analysis of stored data. ColdStream CCM provides centralized storage for time and temperature records in a secure, 21 CFR Part 11 compliant repository. The hosted database application enables robust cold chain data analysis, reporting, and opportunities for process improvement.



### TempTale Ultra Probeless Dry Ice Monitor

Tei	mpTale <sub>®</sub> Ultra Probeless Dry Ice Specifications
Monitoring Recording Options	Single Use, Single Use with User Programmable Overwrite
Measurement Range	-95°C to +30°C (-139°F to +86°F)
Temperature Accuracy Range	$\pm 1.0^{\circ}$ C from -90°C to +30°C ( $\pm 1.8^{\circ}$ F from -130°F to +86°F) $\pm 1.5^{\circ}$ C from -95°C to -90°C ( $\pm 2.7^{\circ}$ F from -130°F)
Temperature Resolution	0.1°C over full temperature measurement range
Data Storage Capacity	16,000 data points (16K)
Operating Life / Battery Type	<ul> <li>30 days of continuous exposure to dry ice temperatures at or below -80°C</li> </ul>
	• 5 days of continuous exposure at -95°C
	Two (2) TL-2450 3.6v coin cell lithium batteries—non-replaceable
Data Sampling Interval	Programmable from 30 seconds up to a maximum of 15 minutes in 30 second increments
Start Up Delay	0 minutes to 24 hours in 30 second increments
Programmable Alarms	<ul> <li>Programmable high and low limits → alarm is triggered when temperature exceeds set limits</li> </ul>
	• Up to six alarms (single temperature limit, temperature range, dual temperature range, MKT, duration)
Alarm Delay Time Thresholds	Single event (continuous), cumulative
LCD Indicators	Started, start-up delay, running, stopped
	<ul> <li>Alarm status: OK (♥), Alarmed (X)</li> </ul>
	Trip summary data (average, minimum, maximum)
	Current temperature reading
	Time remaining / time elapsed against alarm thresholds
	Total Time Above High/Low Alarm limits
LED Indicators	Blinking Startup LED
	Blinking Stop LED
	File generation in process
	Printer-ready mode activated for printing of PDF report to USB printer
Start Up Options	Manual push button or automatic launch option
Typical Dimensions	108mm L x 50.2mm W x 15.2mm H
Weight	Approximately 65 g (2.3 oz)
PDF Languages	English, German, French, Spanish, Chinese
PDF File Formats	PDF or PDF/A
IP Rating	IP64 (with silicon cap on)
Time Accuracy	$\pm~5$ minutes per month when exposed to temperatures at or above -90°C
Quality Assurance Certifications	<ul> <li>CE, RTCA – D016ØG compliant, RoHS compliant, Response time tested to U.S. Pharmacopeia (USP) &lt;1118&gt; and EN 12830 standards</li> </ul>
	3-point NIST <sub>®</sub> Traceable Certificate of Calibration
	Validation Manual
Data Analysis Software	TempTale <sub>®</sub> Manager Desktop Software 8.3 or higher
	ColdStream <sub>®</sub> Cold Chain Manager Software 1.8B or higher
Minimum System Requirements	Windows PC w/ Windows 7 or higher; Adobe Reader 9.0 or higher
Computer Interface	USB 2.0, A-type plug
Ship Air in Accordance With	IATA Dangerous Goods Regulations

Sensitech has performed all necessary testing and can provide documentation supporting our compliance at your request.

Sensitech Inc. is a global leader in delivering supply chain visibility solutions. Our innovative monitoring products and services help to maintain the quality, integrity and security of our customers' valuable products at every step in their journey, all around the world. For 30 years, leading companies in the food, pharmaceutical, industrial, consumer goods and other industries have relied on Sensitech to help protect their products—and their bottom lines. 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. Adobe is a registered trademark of Adobe Systems Incorporated in the United States and/or other countries. Firefor is a registered trademark of Mospilla Foundation. Chrome, Google Play and Google Maps are trademarks of Google Inc. Android is a trademark of Google Inc. Unless otherwise indicated, all trademarks and service marks are the property of Sensitech Inc. Visit www.sensitech.com for additional information. ©2021 Carrier. All Rights Reserved.

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