

# CRYOTEMP

## ULTRA LOW TEMPERATURE

## DATA LOGGER



### Features

- Ultra-Low Operating Temperature (-86 °C)
- Direct Contact with Dry Ice
- No External Probes or Wiring
- High Accuracy
- Programmable Alarm and Warn Ranges with Alarm Delay
- LED Status Indicators for Instant Alarm Notification
- Magnetic Start
- Optional Password Protection
- Splash Resistant (IP64)
- CE Compliant

### Benefits

- Simple Setup and Installation
- Minimal Long-Term Maintenance
- Long-Term Field Deployment

### Applications

- Dry Ice Shipments
- Plasma and Red Cell Freezers
- Blood Banks/Frozen Tissue Storage
- Monitoring Frozen Vaccines
- Cold Chain Monitoring
- Medical and Pharmaceutical Shipping
- Ultra-Low Temperature Storage



MadgeTech's popular ultra-low temperature data recorder, records temperatures as low as -86 °C. The Cryo-Temp can be used in a broad line of applications such as monitoring blood plasma, vaccines, pharmaceuticals, frozen foods and shipping containers. This standalone device does not require any additional probes. The enclosure is designed with a built in handle for easy attachment and is IP64 splash resistant. It utilizes a USB docking station (sold separately), to communicate with a desktop PC or laptop.

The Cryo-Temp provides date and time stamped temperature readings and uses the MadgeTech Data Logging Software. High and low alarm thresholds

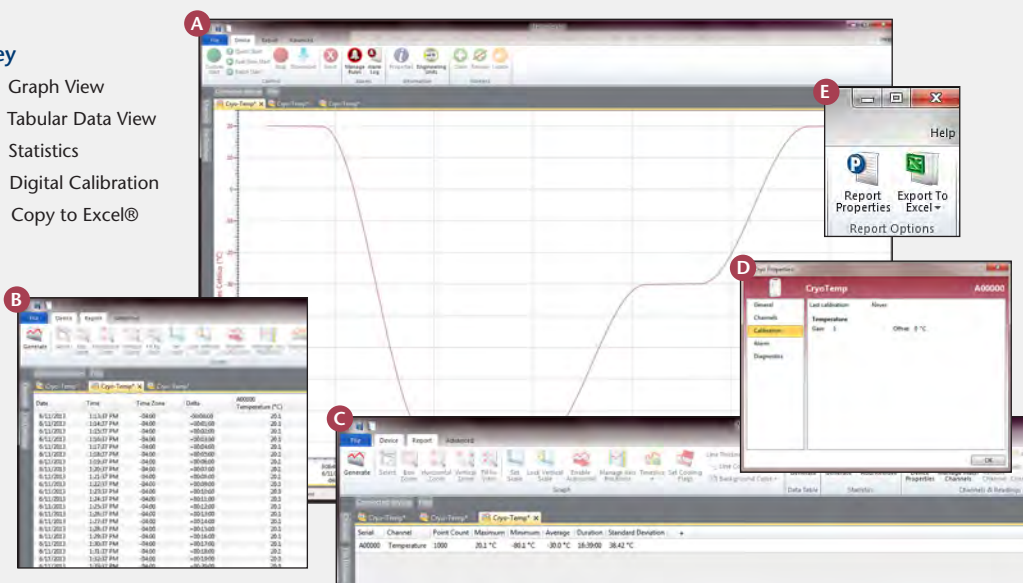
can be configured in the MadgeTech software to warn users if safe limits are exceeded. The Cryo-Temp is equipped with three LED lights to visually indicate when the logger is recording or if temperature thresholds are in danger of being exceeded or have been breached.

The Cryo-Temp is the ideal temperature monitoring solution for any application involving ultra-low temperature recording.

## MADGETECH DATA LOGGER SOFTWARE

### Key

- A** Graph View
- B** Tabular Data View
- C** Statistics
- D** Digital Calibration
- E** Copy to Excel®



### Software Features:

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Data table view
- Automatic report generation
- Summary view
- Multilingual

## CRYO-TEMP SPECIFICATIONS\*

<b>Temperature Sensor:</b>	NTC Thermistor
<b>Temperature Range:</b>	-86 °C to +35 °C (-122.80 °F to +95 °F) recommended, may be used up to +55 °C (131 °F)
<b>Temperature Resolution:</b>	0.1 °C (0.18 °F)
<b>Calibrated Accuracy:</b>	±1.0 °C
<b>Reading Rate:</b>	1 reading every 5 seconds up to 1 reading every 30 minutes, selectable in software
<b>Memory:</b>	32,767 readings; software configurable memory wrap
<b>Start Modes:</b>	Software programmable immediate start, delay start up to 30 days in advance or manual start with magnetic switch.
<b>Temperature Alarm:</b>	Software programmable high and low alarm limits, high and low warn limits each set point may be individually enabled or disabled
<b>Alarm Delay:</b>	Software programmable time delay for warn/alarm limits. Logger will not indicate out of range status until the temperature has been out of range for a set period of time.
<b>Status Indicators:</b>	<ul style="list-style-type: none"> <li>Green: Blinks to indicate safe conditions during logging</li> <li>Yellow: Blinks to indicate warn limits have been exceeded</li> <li>Red: Blinks to indicate alarm criteria (limits/delay) have been exceeded</li> </ul>

**BATTERY WARNING:** FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CHARGE, FORCE OVER DISCHARGE, CRUSH, PENETRATE, OR INCINERATE. BATTERY MAY LEAK OR EXPLODE IF HEATED ABOVE 100 °C (212 °F).

<b>Password Protection:</b>	An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password.
<b>Calibration:</b>	Digital calibration through software
<b>Calibration Date:</b>	Automatically recorded within device
<b>Battery Type:</b>	3.6V lithium battery (LTC-7PN)
<b>Battery Life:</b>	2 years typical @ 25 °C, 1 min. reading intervals 1 year typical @ -80 °C, 1 min. reading intervals
<b>Data Format:</b>	Date and time stamped °C, °F, K, °R
<b>Time Accuracy:</b>	±2 minutes/month max. at 20 °C to 30 °C ±5 minutes/month max at -80 °C
<b>Computer Interface:</b>	USB docking station to PC (IFC300) 38,400 baud
<b>Software:</b>	XP SP3/Vista/Windows 7/Windows 8 (MadgeTech 4 Only)
<b>Operating Environment:</b>	-86 °C to +35 °C (-122.80 °F to +95 °F) may be used up to +55 °C (131 °F); 0 %RH to 100 %RH
<b>Dimensions:</b>	3.3 in x 2.1 in x 0.4 in (83 mm x 54 mm x 11 mm)
<b>Ingress Protection/IP Rating:</b>	IP64 (splash resistant, not submersible)
<b>Enclosure:</b>	ABS plastic, white, polycarbonate labeling
<b>Weight:</b>	1.4 oz (40 g)
<b>Compliance:</b>	CE, Approved for carriage on Delta® mainline flights
<b>Product Maintenance:</b>	The Cryo-Temp exchange program provides the user with a new replacement device at a reduced cost when battery is depleted or device is in need of factory calibration. Call for details.

## ORDERING INFORMATION

MODEL	DESCRIPTION
<b>Cryo-Temp</b>	Ultra Low Temperature Recorder
<b>IFC300</b>	Software, manual, docking station and USB connection cable
<b>SVP-Secure</b>	Protocols for validating the 21 CFR Part 11 ready, secure logging system
<b>Calibration Certificate</b>	Calibration Certificate available for data logger
<b>Exchange Program</b>	When product battery is depleted or device requires factory calibration, the product can be exchanged for a new Cryo-Temp Data Logger at a reduced cost. Call for details.

ASK ABOUT  
OUR OTHER  
DATA  
LOGGERS

Temperature  
Humidity  
Pressure  
pH  
Level  
Shock  
LCD Display  
Pulse/Event/State  
Current  
Voltage  
Wireless  
Intrinsically Safe  
Spectral Vibration  
Motion