CRYOTEMP
ULTRA LOW TEMPERATURE DATA LOGGER

Features
- Ultra low Operating Temperature (-86 °C)
- May be place in 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 stand-alone 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.

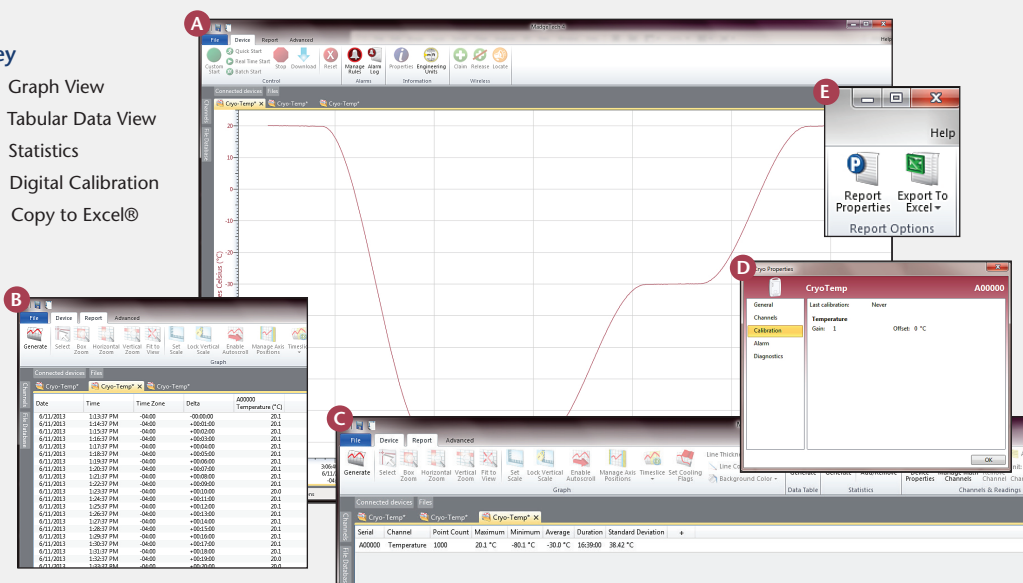The Cryo-Temp provides date and time stamped temperature readings and uses the MadgeTech Data Logging Software. High and low alarm thresholds can be configured in the MadgeTech software to warn users if safe limits are exceeded. The Cryo-Temp is equipped with three LED lights to visually indicate when 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*

Temperature Sensor:	NTC Thermistor
Temperature Range:	-86 °C to +35 °C (-122.80 °F to +95 °F) recommended, may be used up to +55 °C (131 °F)
Temperature Resolution:	0.1 °C (0.18 °F)
Calibrated Accuracy:	±1.0 °C
Reading Rate:	1 reading every 5 seconds up to 1 reading every 30 minutes, selectable in software
Memory:	32,767 readings; software configurable memory wrap
Start Modes:	Software programmable immediate start, delay start up to 30 days in advance or manual start with magnetic switch.
Temperature Alarm:	Software programmable high and low alarm limits, high and low warn limits each set point may be individually enabled or disabled
Alarm Delay:	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.
Status Indicators:	• Green: Blinks to indicate safe conditions during logging • Yellow: Blinks to indicate warn limits have been exceeded • Red: Blinks to indicate alarm criteria (limits/delay) have been exceeded

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).

Password Protection:	An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password.
Calibration:	Digital calibration through software
Calibration Date:	Automatically recorded within device
*Battery Type:	3.6V lithium battery (LTC-7PN), ***Must be sent to MadgeTech for battery replacement.**
Battery Life:	2 years typical @ 25 °C, 1 min. reading intervals 1 year typical @ -80 °C, 1 min. reading intervals
Data Format:	Date and time stamped °C, °F, K, °R
Time Accuracy:	±2 minutes/month max. at 20 °C to 30 °C ±5 minutes/month max at -80 °C
Computer Interface:	USB docking station to PC (IFC300) 38,400 baud
Software:	XP SP3/Vista/Windows 7/Windows 8 (MadgeTech 4 Only)
Operating Environment:	-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
Dimensions:	3.3 in x 2.1 in x 0.4 in (83 mm x 54 mm x 11 mm)
Ingress Protection/IP Rating:	IP64 (splash resistant, not submersible)
Enclosure:	ABS plastic, white, polycarbonate labeling
Weight:	1.4 oz (40 g)
Compliance:	CE, Approved for carriage on Delta® mainline flights
Product Maintenance:	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
Cryo-Temp	Ultra Low Temperature Recorder
IFC300	Software, manual, docking station and USB connection cable
SVP–Secure	Protocols for validating the 21 CFR Part 11 ready, secure logging system
Calibration Certificate	Calibration Certificate available for data logger
Exchange Program	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

MADGETECH
WE BUILD DATA LOGGERS