

## Part # CM-000137 M-Tag Data Loggers

Used as spot verification tools and for mapping and thermal studies, Mesa's M-Tag data loggers are the ideal solution for several industries and situations. With a variety of options and configurations, these units pack a large amount of capabilities into a small, affordable form factor.

Intended for use in transit monitoring of articles stored in packaging incorporating dry ice cooling, the M-Tag P/N CM-000137 "Probe-less" Temperature Recorder operates, measures and stores up to 8000 temperature readings.



- Records temperature from +40 °C to as low as -80 °C
- 'OK' & 'ALERT' Indicator with high and low customizable alarms
- 8000 reading memory capacity
- Multi-trip Dry Ice Model

### Probe-less low Temperature Recorder

- A real time clock provides date/time stamps for each temperature reading.
- Push-to-start button with optional delay or a specific time & date.
- Comprehensive customization options including alert settings, sample interval and trip duration.
- Complies with industry standards.

Using the M-Tag Interface Cradle and available companion software, M-Tags are easily set-up for recording including delayed start, sampling interval, number of readings and configuration of conditions to activate the 'ALERT' indicator.

M-Tag software also provides facilities for charting, zooming, listing data statistics and allows exporting the data to other applications such as MS Excel once the data has been downloaded.

### Specifications

<b>Recorder Operating Measurement Range</b>	-80 °C ~ +40 °C (-112 °F ~ +104 °F)
<b>Resolution</b>	< than 0.1 °C for -80 °C ~ +0.0 °C < than 0.2 °C for -0.0 °C ~ +20 °C < than 0.5 °C for +20 °C ~ +40 °C (see below)
<b>Accuracy</b>	Better than ±1 °C for -30 °C ~ +20 °C Better than ±1.2 °C for -45 °C ~ -30 °C & +20 °C ~ +40 °C Better than ±1.7 °C for -80 °C ~ -45 °C
<b>Sensor Reaction Time</b>	Typically less than 5 minutes in moving air (1m/s)
<b>Capacity</b>	8000 readings (16K bytes memory)
<b>Sampling Frequency</b>	Adjustable, 1~60 minutes or 1~18 hours

# M-Tag Data Loggers Specification Sheet

<b>Logging Start Options</b>	Push button start or specific date & time.
<b>Recording Indication</b>	Flashing 'OK' indicator / flashing 'ALERT' indicator.
<b>Download Time</b>	Typically with full memory (8000 readings) in less than 5 secs depending on computer or readout device used.
<b>Environmental</b>	IP65 (roughly equivalent to NEMA 4)
<b>Power Source</b>	3.6V low temperature chemistry Lithium battery
<b>Battery Life</b>	Storage life of up to 12 months before 'start'. Rated for up to 1000 hours of exposure to -80°C.
<b>Size</b>	86 mm (H) x 54.5 mm (W) x 8.6 mm (T)
<b>Weight</b>	35 grams
<b>Case Material</b>	Polycarbonate
<b>Other Features</b>	<ul style="list-style-type: none"> <li>• Logging start by push button or specific date/time start</li> <li>• Optional clearing of alert indication by push button (places inspection mark at same time).</li> <li>• Download inspection mark recorded in M-Tag memory every time M-Tag is downloaded.</li> <li>• 'Prestart' fail-safe logging (records temperature data even if not started)</li> <li>• Low Battery indication in software.</li> <li>• Comprehensive Alert indicator configuration.</li> </ul>