

# LOW TEMPERATURE AT A GLANCE



**LogTag®**

**TREL30-16**

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The LogTag® TREL30-16 Temperature Recorder measures and stores up to 15,900 temperature readings over a -90°C to +40°C (-130°F to +104°F) measurement range.

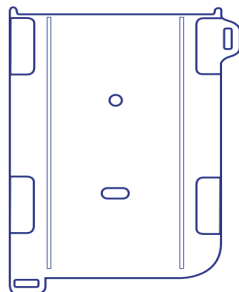
The display is designed to show 'at a glance' if temperature excursions have occurred during the current day and up to the previous 29 days.

Details of any excursions in the preceding 30 days can be checked directly by inspecting the statistics history on the recorder's display or in more detail by downloading the logged data via a standard LogTag Interface cradle to LogTag Analyzer operating software.

## Accessories



*ST10 Ext Probe*  
Not Included



*Wall Mount*  
Not Included



*LTI-HID*  
Not Included



*Buffer assembly*  
Not Included  
(Silica sand recommended for temperatures below -40°C)

# Features

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Built-in audible alarm.



New, easy to read LCD display with 30 day summary in calendar format.



Up to 15,900 recordings - Enough memory for 66 days at 6 minute logging.



Auto-pause function - unplugging the external probe automatically suspends alarm & statistics processing.



Record inspections at the push of a button.



External Probe with high quality gold plated connector.



Comprehensive customization options including alarm settings, sample interval and trip duration.

# Applications

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Vaccine & Pharmaceuticals



Logistics



Transportation



# Specifications

<b>Product Model</b>	TREL30-16 (Replaceable Battery).
<b>External Temperature Sensor Measurement Range</b>	-90°C to +40°C (-130°F to +104°F).
<b>Operating Temperature Range</b>	-30°C to +60°C (-22°F to +140°F).
<b>Storage Temperature Range</b>	-10°C to +40°C (14°F to +104°F).
<b>Rated Temperature Reading Accuracy</b>	Better than $\pm 0.5^{\circ}\text{C}$ for $-20^{\circ}\text{C}$ to $+10^{\circ}\text{C}$ ( $-4^{\circ}\text{F}$ to $50^{\circ}\text{F}$ ). Better than $\pm 0.7^{\circ}\text{C}$ for $-50^{\circ}\text{C}$ to $-20^{\circ}\text{C}$ ( $-58^{\circ}\text{F}$ to $-4^{\circ}\text{F}$ ) and $+10^{\circ}\text{C}$ to $+30^{\circ}\text{C}$ ( $50^{\circ}\text{F}$ to $86^{\circ}\text{F}$ ). Better than $\pm 1^{\circ}\text{C}$ for $-80^{\circ}\text{C}$ to $-50^{\circ}\text{C}$ ( $-112^{\circ}\text{F}$ to $-58^{\circ}\text{F}$ ) and $+30^{\circ}\text{C}$ to $+40^{\circ}\text{C}$ ( $86^{\circ}\text{F}$ to $104^{\circ}\text{F}$ ). Better than $\pm 1.8^{\circ}\text{C}$ for $-90^{\circ}\text{C}$ to $-80^{\circ}\text{C}$ ( $-130^{\circ}\text{F}$ to $-112^{\circ}\text{F}$ ). <i>Actual performance is typically much better than the rated values. Accuracy figures can be improved by recalibration.</i>
<b>Rated Temperature Reading Resolution</b>	0.1°C (0.2°F) for measurements $-80^{\circ}\text{C}$ to $0^{\circ}\text{C}$ ( $-112^{\circ}\text{F}$ to $32^{\circ}\text{F}$ ). 0.2°C (0.4°F) for measurements $0^{\circ}\text{C}$ to $18^{\circ}\text{C}$ ( $32^{\circ}\text{F}$ to $64.4^{\circ}\text{F}$ ) and $-90^{\circ}\text{C}$ to $-80^{\circ}\text{C}$ ( $-130^{\circ}\text{F}$ to $-112^{\circ}\text{F}$ ). 0.3°C (0.5°F) for measurements $18^{\circ}\text{C}$ to $30^{\circ}\text{C}$ ( $64.4^{\circ}\text{F}$ to $86^{\circ}\text{F}$ ). 0.5°C (0.9°F) for measurements $30^{\circ}\text{C}$ to $40^{\circ}\text{C}$ ( $86^{\circ}\text{F}$ to $104^{\circ}\text{F}$ ). <i>LogTag Analyzer® currently displays to one decimal place of °C or °F. The native resolution is what is stored in the LogTag®.</i>
<b>Recording Capacity</b>	15,905 temperature readings. 66 days @ 6min logging. Day summary statistics memory (for display on LCD): up for 30 days of Max/Min/duration and alarm trigger statistics.
<b>Sampling Interval</b>	Configurable from 30 seconds to hourly.
<b>Logging Start Options</b>	Push button start or specific date & time. Optional start delay of up to 18 hours.
<b>Recording Indication</b>	State indicator "REC".
<b>Download Time</b>	Typically less than 10 seconds for full memory (15,905 readings), depending on computer or readout device used.
<b>Environmental</b>	IP61 (when vertically mounted or hung).
<b>Power Source</b>	3V CR2032 (LiMnO <sub>2</sub> ) coin cell battery, user replaceable.
<b>Battery Life</b>	Storage life of 1 year before 'start' (if it is hibernation mode), followed by: 1 year of operation with normal use (6 minute logging, statistics reviewed on the display no more than once daily for no longer than 30 seconds each time, download data monthly). NOTE: Continual activation of the audible alarm will reduce the working life of the battery. When an alarm is triggered, the alarm should be cleared and reset as soon as possible.
<b>Real Time Clock</b>	Built-in real time clock. Rated accuracy $\pm 25\text{ppm}$ @ $25^{\circ}\text{C}$ (equivalent to 2.5 seconds/day). Rated temperature coefficient is $-0.034 \pm 0.006\text{ppm}/^{\circ}\text{C}$ (i.e typically $\pm 0.00294$ seconds/day/ $^{\circ}\text{C}$ ).
<b>Standard External Probe Cable Lengths</b>	Standard: 0.5m (19"). Extended: 3 m (9'10") (recommended maximum).
<b>Remote External Probe Type</b>	PTFE (FDA food contact rated) coaxial.
<b>Size</b>	93mm(H) x 54.5mm(W) x 8.6mm(T).
<b>Weight</b>	41g without External Probe.
<b>Case Material</b>	Polycarbonate.

