Features

- 10 year battery life
- Wide temperature range
- Accepts thermocouple types J, K, T, E, R, S, B, N
- High speed download
- N.I.S.T. traceable
- Real-time operation
- Low cost
- Programmable start time
- Miniature size
- CE compliant

Applications

- Process verification and validation
- Dry ice shipments and storage
- Oven profiling
- HVAC
- Medical/Pharmaceutical
- Museum monitoring
- Environmental studies
- Replace costly strip chart recorders
- Implement HACCP programs

The TC110 is a miniature, battery powered, stand alone, thermocouple based temperature recorder. The TC110 features a real-time clock module that extends the battery life to >10 years and allows for high speed downloads. This is an all-in-one compact, portable, easy to use device that will measure and record up to 16,383 measurements per channel. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. The device can be started and stopped directly from your computer and its small size allows it to fit almost anywhere. The TC110 makes data retrieval quick and easy. Simply plug it into an empty COM or USB port and our user-friendly software does the rest.

Data Recorder Software
displays temperature data in an easy to use graph.

The Windows®-based software package allows the user to effortlessly collect, display and analyze data. A variety of powerful tools allow you to examine, export, and print professional looking data with just a click of the mouse.
TC110 SPECIFICATIONS*

**SOFTWARE FEATURES**

**Multiple Graphs:** Simultaneously analyze data from several units or deployments; easily switch to a single data series

**Graphical Cursor:** One click displays readings by time, value, parameter or sample number

**Data Table:** Instantly access tabular view for detailed dates, times, values, and annotations

**Scaling Options:** Autoscale function fits data to the screen, or allows user to manually enter their own values

**Formatting Options:** Change colors, line styles, plotting options, show or hide channels quickly

**Statistics:** Calculate averages, min, max, standard deviation, and mean kinetic temperature with the touch of a button

**Export Data:** Export data in a variety of common formats, or switch to Excel® with a single click

**Calibration:** Automatically calculate and store calibration parameters

**Logger Configuration:** Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID

**Communications:** Automatically sets up communications port, or lets user select configuration

*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY AND REMEDY LIMITATIONS APPLY.

**ORDERING INFORMATION**

**Internal Channel**
- Temperature Range: -40 to +80°C
- Temperature Resolution: 0.1°C
- Calibrated Accuracy: ±0.5°C (0 to +50°C)

**Remote Channel**
- Thermocouple Types: J, K, T, E, R, S, B, N
- Thermocouple connection: Female subminiature (SMP), fixed screw terminal, or pluggable screw terminal
- Cold Junction Compensation: Automatic, based on internal channel
- Maximum Thermocouple Resistance: 1000Ω, <100Ω recommended

**Thermocouple Type:** Range (°C) Resolution Accuracy

<table>
<thead>
<tr>
<th><strong>J</strong></th>
<th>-210 to +760</th>
<th>0.1°C</th>
<th>±0.5°C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>K</strong></td>
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<td>±0.5°C</td>
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<tr>
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<td>-270 to +400</td>
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**User Replaceable Battery:** 10 years (15 minute reading rate at 25°C)

**Memory:** 16,383 readings per channel; software configurable memory wrap

**Reading Interval:** 1 reading every 2 seconds to 1 every 12 hours

**Calibration Date:** Automatically recorded within device

**Power:** 3.6V lithium battery included

**Operating Environment:** -40 to +80°C, 0 to 95%RH non-condensing

**Dimensions:** 1.7" x 2.3" x 0.8" (44mm x 59mm x 21mm)

**Weight:** 1.3 oz (35 g)

**Approvals:** CE

**Battery Warning:** Fire, explosion, and severe burn hazard. Do not recharge, disassemble, heat above 212°F, incinerate or expose contents to water.

**TC110 SPECIFICATIONS**

**Temperature Range:** -40 to +80°C

**Temperature Resolution:** 0.1°C

**Calibrated Accuracy:** ±0.5°C (0 to +50°C)

**Thermocouple Types:** J, K, T, E, R, S, B, N

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**Accuracy specifications based on 3-meter 24 AWG thermocouple.

**Software:**

- Windows 95/98/ME/NT/2000/XP based software

**Computer Interface:**
- PC serial or USB (interface cable required); 57,600 baud

**Battery:**
- 3.6V lithium battery included

**Weight:**
- 1.3 oz (35 g)

**Approvals:**
- CE

**Specifications are subject to change without notice. Specific warranty and remedy limitations apply.

**ThermoWorks**

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