

Pico TC-08

Pico TC-08 USB Thermocouple Data Logger User Manual

Model: TC-08

1. INTRODUCTION

The Pico TC-08 USB Thermocouple Data Logger is a high-resolution, low-cost device designed for precise temperature measurement and data logging. It is capable of measuring a wide range of temperatures using various thermocouple types and can also measure other sensors within a 70 mV range. Its built-in cold junction compensation (CJC) ensures accurate readings across its effective temperature range of -270 to 1820 °C, depending on the thermocouple used.

2. PRODUCT OVERVIEW

The TC-08 is a compact and robust data logger, ideal for various industrial and scientific applications. Key features include:

- **USB Connectivity:** Easy connection to a computer for power and data transfer.
- **8 Thermocouple Inputs:** Capable of measuring and recording data from up to eight thermocouples simultaneously.
- **Wide Temperature Range:** Supports measurements from -270°C to +1820°C (thermocouple dependent).
- **Compatibility:** Works with all popular thermocouple types.
- **PicoLog Software:** Includes PicoLog data logging software for data acquisition, analysis, and export.
- **High Resolution:** Provides precise and reliable temperature data.



An image of the Pico TC-08 USB Thermocouple Data Logger, a compact blue and light blue device with eight numbered input ports for thermocouples and a green indicator light. The model number 'TC-08' is visible on the front.

3. SETUP GUIDE

Follow these steps to set up your TC-08 data logger:

1. **Software Installation:** Install the PicoLog data logging software on your computer. The software typically comes with the device or can be downloaded from the official Pico Technology website. Follow the on-screen instructions for installation.
2. **Connect TC-08:** Connect the TC-08 data logger to your computer using a standard USB cable. The device is USB powered.
3. **Connect Thermocouples:** Insert your miniature size thermocouple connectors into the numbered input ports (1-8) on the TC-08. Ensure a secure connection for accurate readings.
4. **Launch Software:** Open the PicoLog software. The software should automatically detect the connected TC-08 device.
5. **Configure Settings:** Within the PicoLog software, configure your desired logging parameters, such as sample rate, test duration, and alarm thresholds.

4. OPERATING INSTRUCTIONS

Once set up, operating the TC-08 is primarily done through the PicoLog software:

- **Start Logging:** Click the 'Start' or 'Record' button within the PicoLog software to begin data acquisition. The green indicator light on the TC-08 will typically illuminate or flash to indicate active logging.
- **Monitor Data:** Observe real-time temperature readings and graphs within the software interface.
- **Set Alarms:** Utilize the software's alarm features to be notified if temperatures exceed or fall below specified limits.
- **Stop Logging:** Click the 'Stop' button in the software to end the data logging session.
- **Export Data:** Export logged data to various formats, such as CSV or text files, for further analysis in spreadsheet programs like Microsoft Excel.

5. MAINTENANCE

To ensure the longevity and optimal performance of your TC-08 data logger, follow these maintenance guidelines:

- **Cleaning:** Gently wipe the device with a soft, dry cloth. Avoid using abrasive cleaners or solvents.
- **Storage:** Store the device in a cool, dry place away from direct sunlight and extreme temperatures when not in use.
- **Cable Care:** Handle USB and thermocouple cables carefully to prevent damage. Avoid sharp bends or excessive pulling.
- **Software Updates:** Regularly check the Pico Technology website for software updates to ensure you have the latest features and bug fixes.
- **Environmental Protection:** While robust, protect the device from excessive vibrations, dust, and moisture, especially in industrial environments. Consider additional protective measures if operating in harsh conditions.

6. TROUBLESHOOTING

If you encounter issues with your TC-08, consider the following:

- **Device Not Detected:**
 - Ensure the USB cable is securely connected to both the TC-08 and the computer.
 - Try a different USB port on your computer.
 - Restart the PicoLog software and/or your computer.
 - Verify that the necessary USB drivers are installed (usually part of the PicoLog software installation).
- **Inaccurate Readings:**
 - Check that thermocouples are correctly inserted and are of the type selected in the software.
 - Ensure thermocouples are not damaged or kinked.
 - Verify that the cold junction compensation (CJC) is functioning correctly (this is internal to the TC-08).
- **Software Issues:**
 - Ensure your PicoLog software is up to date.
 - Consult the PicoLog software's help documentation or online resources for specific error messages.
- **No Power Indicator:**
 - Confirm the USB connection is providing power. Try connecting to a powered USB hub or a different computer USB port.

7. SPECIFICATIONS

Feature	Specification
Model Number	TC-08
Product Dimensions	12.05 x 7.3 x 2.5 inches
Weight	1.1 Pounds
Temperature Range	-2700C to +18200C (thermocouple dependent)
Number of Inputs	8 Thermocouple Inputs
Input Type	Miniature size thermocouple connector, 70 mV range for other sensors
Compensation	Built-in Cold Junction Compensation (CJC)
Connectivity	USB
Software Included	PicoLog Data Logging Software

8. WARRANTY AND SUPPORT

For information regarding product warranty, technical support, and service, please refer to the official Pico Technology website or contact their customer service directly. Details are typically provided with your purchase documentation or available online.

Manufacturer: PICO TECHNOLOGY

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question