

Order code	Manufacturer code	Description
85-7435	PP222	TC-08 8 CHNL TEMP PC DATA LOGGER USB RE

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The enclosed information is believed to be correct, Information may change without notice due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 20/02/2007

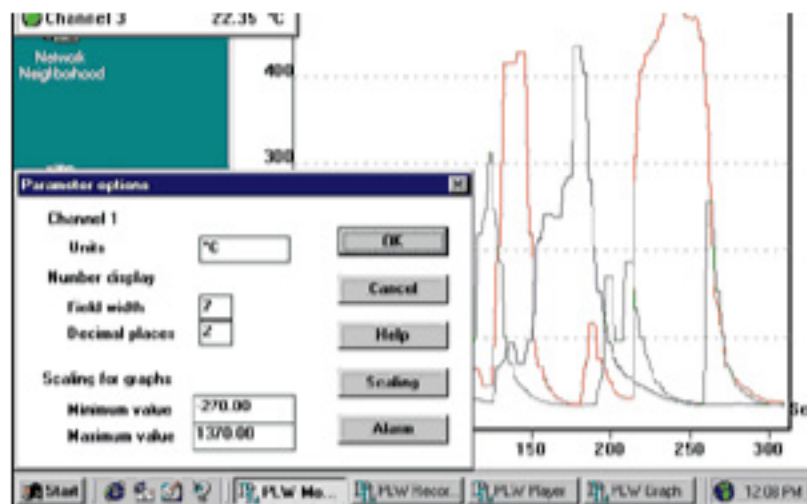
USB TC-08 Thermocouple Data Logger

The TC-08 thermocouple data logger offers industry-leading performance and an inexpensive answer to your temperature measuring needs.

- 8 channel thermocouple data logger
- Measures from -270 to +1820 °C
- Automatic cold junction compensation
- High resolution and accuracy
- Fast sampling rate
- Multiple units can be run on a single PC
- USB interface ([serial version](#) also available)



Wide temperature range



The TC-08 thermocouple data logger is designed to measure a wide range of temperatures using any thermocouple that has a miniature size thermocouple connector. Additionally, the TC-08 can also measure other sensors using a 70 mV range.

Featuring built-in cold junction compensation (CJC), the TC-08 has an effective temperature range of -270 to +1820 °C (The actual temperature range depends on the thermocouple being used.)

All the benefits of USB

The TC-08 connects to the USB port of a Windows based PC and enables the host PC to automatically detect the TC-08 — avoiding the need for any complex setup procedures. The USB connection also allows the TC-08 to be powered directly by the USB bus — eliminating the need for an external power supply and making the TC-08 ideal for measuring temperatures both in the lab and in the field.

The TC-08's USB connectivity allows up to 20 TC-08 USB data loggers to be used simultaneously on one PC — making the TC-08 ideal for use as a large multi-channel temperature acquisition system with a cost per channel significantly lower than other systems of this size.

Fast and accurate temperature data acquisition

With the TC-08 thermocouple data logger your measurements can be made both fast and accurately.

The low conversion time of the TC-08 means up to 10 temperature measurements can be taken every second. Whilst the high (20 bit) resolution ensures that the TC-08 can detect minute changes in temperature.

All you need in one easy-to-use unit

Temperature data acquisition with the TC-08 is very easy — simply plug the TC-08 into a USB port on your computer, connect your [thermocouples](#), and you are ready to measure temperatures.

The easy-to-use [PicoLog data acquisition software](#) is supplied with the TC-08 — allowing you to start measuring and recording temperatures with the minimum amount of effort. The intuitive user interface of PicoLog makes it easy for you to set how frequently you want to take a measurement, and the number of measurements you want to take.

For a limited time, the original [serial TC-08 thermocouple to PC interface](#) is still available for users without a USB compatible PC.

Ruggedized USB TC-08 Thermocouple Data Logger

Ruggedized USB TC-08s have all the performance and features of standard TC-08s, but have been designed to meet the challenges of measuring temperature in harsh environments.



Specifications

USB TC-08 Specifications	
Number of channels	8
Conversion time	100 ms (thermocouple and cold junction compensation)
Temperature accuracy	Sum of $\pm 0.2\%$ of reading and $\pm 0.5\text{ }^{\circ}\text{C}$
Voltage accuracy	Sum of $\pm 0.2\%$ of reading and $\pm 10\text{ }\mu\text{V}$
Overload protection	$\pm 30\text{ V}$
Maximum common mode voltage	$\pm 7.5\text{ V}$
Input impedance	$2\text{ M}\Omega$
Input range (voltage)	$\pm 70\text{ mV}$
Resolution	20 bits
Noise free resolution	16.25 bits
Thermocouple types supported	B, E, J, K, N, R, S, T
Input connectors	Miniature thermocouple
Output connector	USB — cable supplied
PC connection	USB 1.1
Power supply	From USB port
Dimensions	201 x 104 x 34 mm (7.91 x 4.09 x 1.34 in)

Supplied software	PicoLog (data logger) PicoScope (oscilloscope, spectrum analyser, meter) Drivers and examples (C, Delphi and Visual Basic, Labview, Agilent VEE and Excel)
PC requirements	Processor: Pentium class processor or equivalent Memory: 32 MB minimum Disk space: 10 MB minimum Operating system: Microsoft Windows 98SE, ME, 2000 or XP Ports: USB 1.1 or USB 2.0 compliant port. Must be connected direct to the port or a powered USB hub

TC-08 Resolution

Thermocouple type	Overall range °C	0.1°C resolution	0.025°C resolution
B	20 to 1820	150 to 1820	600 to 1820
E	-270 to 910	-270 to 910	-260 to 910
J	-210 to 1200	-210 to 1200	-210 to 1200
K	-270 to 1370	-270 to 1370	-250 to 1370
N	-270 to 1300	-260 to 1300	-230 to 1300
R	-50 to 1760	-50 to 1760	20 to 1760
S	-50 to 1760	-50 to 1760	20 to 1760
T	-270 to 400	-270 to 400	-250 to 400

Applications for the TC-08

The TC-08 thermocouple data logger is used successfully throughout the industrial, scientific, medical and the food industries; listed here are some interesting applications:

Temperature and Humidity Monitoring

TC-08

TH-03

HumidiProbe

PT-104

PT100 sensors

Thermocouples

Data acquisition software

Accessories

Pricing and ordering