



TC-08 8-Channel USB Thermocouple Data Acquisition Module

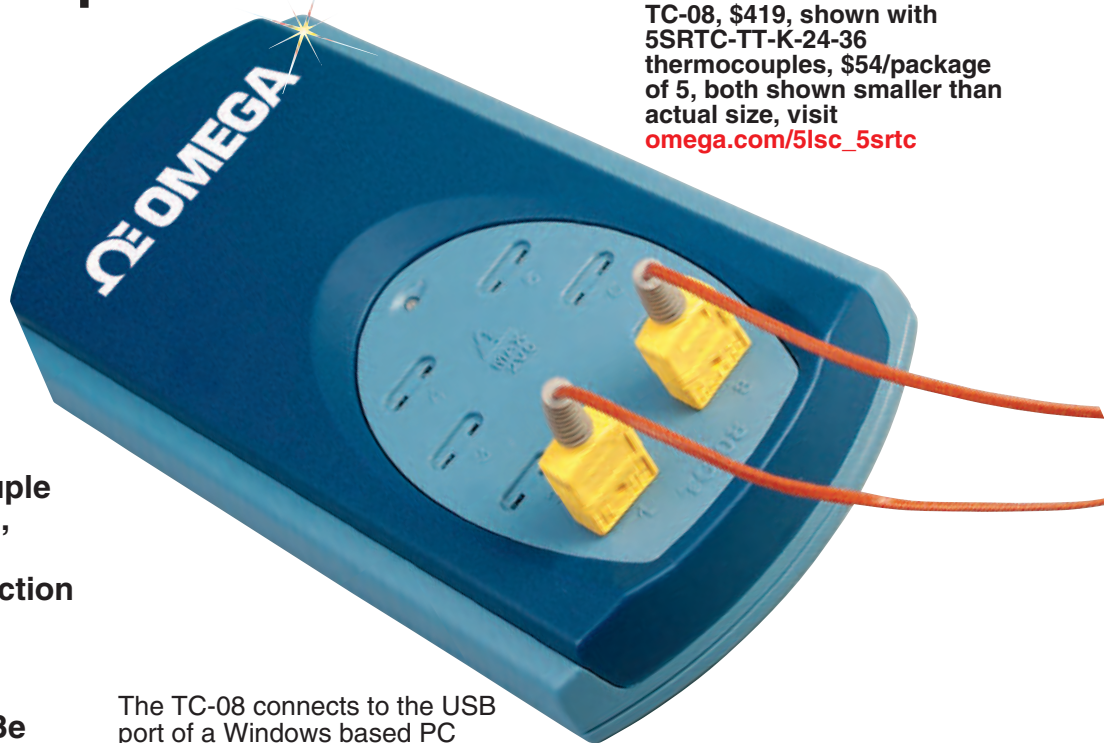
\$419
Basic Unit



- ✓ Measures from -270 to 1820°C (-454 to 3308°F)
- ✓ Accepts Thermocouple Types J, K, T, E, R, S, B and N
- ✓ Automatic Cold Junction Compensation
- ✓ High Accuracy and Resolution
- ✓ Multiple Units Can Be Run On a Single PC
- ✓ 10 Readings Per Second
- ✓ Windows Software Included: TC-08 Recorder and TC-08 Player
- ✓ USB Interface

The TC-08 thermocouple data acquisition module is designed to measure a wide range of temperatures using any thermocouple that terminates in 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 measuring range of -270 to 1820°C (the actual temperature range depends on the thermocouple type being used).

The TC-08 can be used with thermocouple types J, K, T, E, R, S, B and N and outputs can be viewed in degrees F, C or mV. The unit is accurate to 0.2 percent \pm 0.5 degrees C and has a resolution of better than 0.1 degrees C for most thermocouple types.



TC-08, \$419, shown with 5SRTC-TT-K-24-36 thermocouples, \$54/package of 5, both shown smaller than actual size, visit omega.com/5lsc_5srtc

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 acquisition modules 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.

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

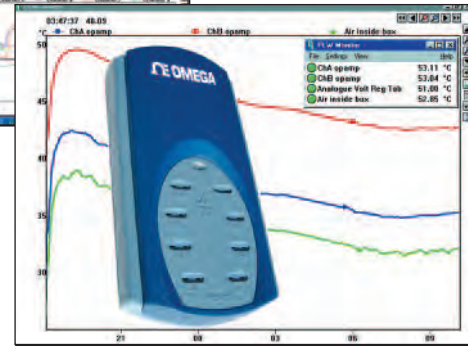
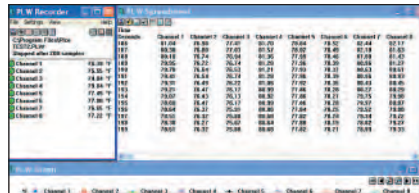
With the TC-08 thermocouple data acquisition module your measurements can be made both fast and accurately. Simply plug the TC-08 into a USB port on your computer, connect your

thermocouples, and you are ready to measure temperatures. With the included TC-08 Recorder software, you can configure multiple (USB) TC-08s, set the sampling interval from 0.1 seconds to several hours and set the maximum number of readings. You can also tell TC-08 Recorder what to do once the thermocouple readings have been taken - either: Stop; Repeat Immediately (start again); Scroll (oldest recordings disappear); or Repeat After Delay (where the delay is set by the user). Mathematical operations can also be performed on the thermocouple outputs: for example to output one temperature relative to another.

Using the TC-08 Recorder software, data can be viewed in a spreadsheet and/or in a graph as it is being recorded. Data collected from previous recordings can also be viewed in the TC-08 Player.



OMEGACARESM extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARESM covers parts, labor and equivalent loaners.



TC-08, \$419, shown with 5SRTC-TT-K-24-36 thermocouples, \$54/package of 5, both shown smaller than actual size

TC-08 Windows software displays data in graphical or tabular format

Resolution

Thermocouple Type	Overall Range	0.1°C Resolution	0.025°C Resolution
B	20 to 1820°C (68 to 3308°F)	150 to 1820°C	600 to 1820
E	-270 to 910°C (-454 to 1670°F)	-270 to 910°C	-260 to 910
J	-210 to 1200 (-346 to 192°F)	-210 to 1200°C	-210 to 1200
K	-270 to 1370 (-454 to 2498°F)	-270 to 1370°C	-250 to 1370
N	-270 to 1300 (-454 to 2372°F)	-260 to 1300°C	-230 to 1300
R	-50 to 1760 (-58 to 3200°F)	-50 to 1760°C	20 to 1760
S	-50 to 1760 (-58 to 3200°F)	-50 to 1760°C	20 to 1760
T	-270 to 400 (-454 to 752°F)	-270 to 400°C	-250 to 400

Specifications

Number of Channels: 8
Conversion Time: 100 ms (thermocouple and cold junction compensation)
Temperature Accuracy: Sum of $\pm 0.2\%$ of reading and $\pm 0.5^\circ\text{C}$
Voltage Accuracy: Sum of $\pm 0.2\%$ of reading and $\pm 10 \mu\text{V}$
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: B, E, J, K, N, R, S, T

Input Connectors: Miniature thermocouple
Output Connector: USB cable supplied
 1.8 m (6')
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)
Included Software: TC-08 Recorder and Player

PC REQUIREMENTS

Processor: Pentium class processor or equivalent
Memory: 32 MB minimum
Disk Space: 10 MB minimum
Operating System: 32-bit or 64-bit versions of WIN XP (SP2 or above)/VISTA/WIN 7
Ports: USB 1.1 or USB 2.0 compliant port. Must be connected direct to the port or a powered USB hub

AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model Number)

Model No.	Price	Description
TC-08	\$419	8-channel thermocouple data acquisition module

Comes complete with Windows software, USB cable and operator's manual on CD.

Ordering Example: TC-08 8-channel thermocouple data acquisition module and OCV-1 OMEGACARESM 1 year warranty extends standard 2 year warranty to a total of 3 years (\$41), \$419 + 41 = \$460



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