

Temperature and Humidity Data Loggers

TMS Europe Ltd supplies the complete range of Pico Technologies easy-to-use PC-based temperature and humidity data logging products. Designed to replace costly chart recorders and complicated "plug in" data acquisition boards, these devices simply plug into a port on your desktop or laptop PC and do not require a power supply.

- Easy to install and use
- No power supply required
- Supplied with data logging software
- Low cost data acquisition systems
- Multiple data loggers (in any mix) can be used on a single PC



	Temperature	Humidity	Voltage	Sensors
HumidiProbe	yes	yes	no	integrated sensors
PT-104	yes	no	yes	PT100 / PT1000 sensors
TC-08	yes	no	yes	thermocouples
TH-03	yes	no	no	precision resistive sensors

The TC-08 thermocouple data logger offers industry-leading performance and a cost-effective solution 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.

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.

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 M Ω
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
Price	£211.65

The TH-03 temperature data logger provides high accuracy temperature data logging at a low cost

- 3 channel temperature data logger
- High accuracy at a low cost
- Connects to computer serial port
- No power supply required
- Supplied with [PicoLog data acquisition software](#)
- Works with EnviroMon sensors (temperature, light, door switch)



The TH-03 allows up to 3 channels of temperature to be recorded onto your PC. It uses precision resistive sensors to give an accuracy that was previously only obtainable using expensive platinum PT100 sensors.

The TH-03 temperature data logger is very easy to use — just plug the TH-03 into the serial port on your computer, connect up to three sensors and you are ready to start collecting data.

For temperature data logging the easy-to-use, Windows based, [PicoLog data acquisition software](#) is supplied — allowing you to collect and store data with the minimum amount of effort.

Along with precision temperature sensors, the TH-03 may also be used with the [EL029 door switch sensor](#) to record the position of a door — making the TH-03 a versatile logger that, along with temperature data logging, is also suited for use in home automation and environmental monitoring.

Resolution	0.003 $^\circ\text{C}$
Number of channels	3
Conversion time	2 seconds for calibration +1 second per active channel
Range	-30 $^\circ\text{C}$ to +70 $^\circ\text{C}$ (using standard sensor)
Accuracy	$\pm 0.3\text{ }^\circ\text{C}$
Dimensions	125 x 60 x 30 mm (4.9 x 2.4 x 1.2 in)
Output connector	D9 to serial port — cable supplied
Supplied software	PicoLog data acquisition software for Windows XP/Vista. Drivers and examples for C, Pascal, Delphi, Visual Basic, Agilent VEE and LabVIEW. A macro is also provided to collect data directly into an Excel spreadsheet.
Price	£114.75

The PT-104 is a four channel temperature measuring data logger.

It offers the ultimate in resolution (0.001 °C) and accuracy (0.01 °C) when used with PT100 sensors. It can also be used to measure resistance and voltage.

- Measures temperature, resistance and voltage
- High resolution and accuracy
- No power supply required
- For use with PT100 and PT1000 sensors

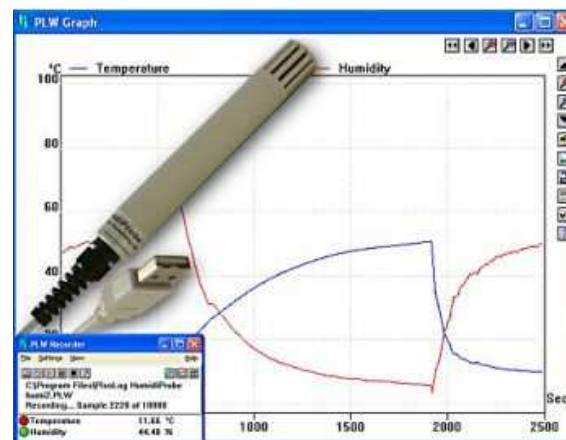


PT-104 Specifications

	Temperature	Resistance	Voltage
Sensor	PT100*, PT1000	N/A	N/A
Range	-200 to 800 °C	0 to 375 Ω* 0 to 10 kΩ	0 to 115 mV 0 to 2.5 V*
Linearity	10 ppm	10 ppm	10 ppm
Accuracy @25 °C	0.01 °C*	20 ppm*	0.2%*
Temperature coefficient	3 ppm/°C	3 ppm/°C	100 ppm/°C
RMS Noise (using filter)	0.01 °C	10 ppm	10 ppm
Resolution	0.001 °C	1 μΩ	0.156 μV
Conversion time per channel	720 mS **	720 mS **	180 mS
Number of inputs	4		
Connectors	4-pin miniDIN		
Input impedance	>> 1 MΩ		
Overvoltage protection	±100 V		
Output	RS232, D9 female		
Environmental	20 to 30 °C for stated accuracy, 0 to 70 °C overall, 20 to 90% RH		
Software	PicoLog data acquisition software for Windows XP/Vista Drivers and examples C, pascal, Delphi, Visual Basic, Agilent VEE and LabVIEW. A macro is also provided to collect data directly into an Excel spreadsheet.		
Price	£399.00		
Quoted accuracy is for options marked *			
** For four wire temperature and resistance measurement			

HumidiProbe is the straightforward and practical way to measure and record humidity and temperature using your PC.

- Records temperature and relative humidity
- Measures 0 to 100% RH (non-condensing)
- Measures 0 to 70 °C
- Small form factor design
- Connects to a PC or laptop via a USB port
- No power supply required



The HumidiProbe is a self-contained humidity and temperature measuring data logger. Simply position the HumidiProbe near the source you want to measure, plug the cable into the USB port on your PC, and you're ready to measure humidity and temperature.

Versatile and expandable

The HumidiProbe's compact, all-in-one design allows it to be used in various locations and in a wide range of applications. Up to 4 HumidiProbes can be connected to one PC allowing you to accurately monitor the temperature and humidity in multiple locations at once, and at a low cost.

Easy to use software

The easy to use [PicoLog data acquisition software](#) is supplied with the HumidiProbe — this powerful, yet flexible, data acquisition software allows you to collect, manipulate, analyse, and display and export data. Software alarms can be configured for both temperature and humidity so as to provide a warning when measurements go out of a specified range. Updates to PicoLog can be downloaded for free from the Pico website.

An accurate and cost effective solution

If you need to measure, and record, temperature and humidity the HumidiProbe provides you with a complete solution that is compact, simple to use, accurate and cost effective.

Specification	Temperature	Humidity
Range	0 to 70 °C	0 to 100% RH
Accuracy	±0.5 °C	±2% RH
Resolution	0.01 °C	0.03% RH
Conversion time	2 sec	
Response time	5 to 30 seconds	4 seconds
PC connection	USB 1.1 (USB 2.0 compatible)	
Power supply	From USB port	
Dimensions	Diameter 22 mm (0.86 in), Length 170 mm (6.69 in) Cable length 4.5 metres (14 ft 9 in)	
Supplied software	PicoLog data acquisition software for Windows. Drivers and examples for C, Delphi, Visual Basic, Agilent VEE and LabVIEW. A macro is also provided to collect data directly into an Excel spreadsheet.	
PC requirements	Processor: Pentium class processor or equivalent Memory: 32 MB minimum Disk space: 10 MB minimum Operating system: Microsoft Windows XP/Vista Ports: USB 1.1 or 2.0 compliant port	
Price	£126.65	