**Pico
Technology**

Multi-Channel Data Acquisition (DAQ)

PicoLog 1000 Series

Designed to meet the needs of a wide range of general-purpose voltage, sensor and transducer logging applications, the PicoLog 1000 Multi-Channel DAQ Series feature independent software-configurable scaling and control outputs, an external terminal board for custom front-end circuitry and a choice of 10 or 12-bit input resolution.
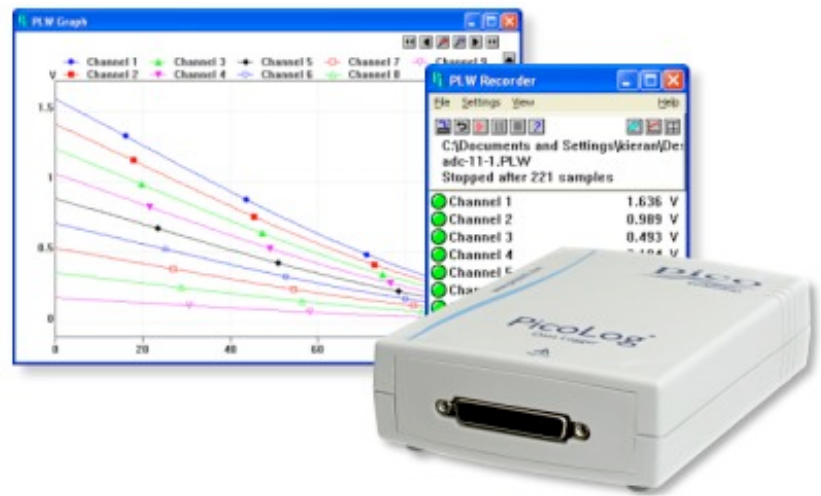
- Up to 16 input channels per data logger
- Up to 4 output channels per data logger
- Use up to 4 data loggers at the same time
- Up to 1 MS/s sample rate
- USB connected and powered
- Data acquisition software and SDK included

A distinguished pedigree

The PicoLog 1000 Series is the result of a distinguished lineage that goes back to the release of our first multi-channel data logger — the ADC-11 — in 1993. The original ADC-11, and its successor the USB ADC-11, proved to be the perfect choice for users wanting a low-cost way to measure and record multiple signals. The PicoLog 1000 Series builds on this success to give you the same low-cost data acquisition but with greater power and performance. (Because the ADC-11 was so popular we've also added a USB ADC-11 compatibility mode which allows you to use your PicoLog 1000 logger as a direct replacement to the USB ADC-11.)

## An expandable multi-channel data acquisition system

The budget model PicoLog 1012 has 12 input channels. The powerful PicoLog 1216 has 16. Need more channels? No problem. Using PicoLog you can connect up to 4 Pico data loggers to one PC — giving you a potential 64 channel PicoLog 1000 Series data

Use PicoScope to view all 16 channels

acquisition system, or the ability to use your PicoLog 1000 logger with other devices such as the USB TC-08 thermocouple data logger(http://www.picotech.com/thermocouple.html) .

Fast and accurate

With 10 or 12-bit resolution and multiple sampling modes, a PicoLog 1000 Series logger will meet your data logging needs. The PicoLog 1000 Series has 3 sampling modes: Streaming mode allows channel voltage readings to be logged continuously at up to 100 kS/s, while block mode captures up to the full 1 MS/s sample rate of the logger for a duration limited by the 8000 sample buffer, both these speeds applying to single-channel operation. The PicoLog application provides an extra mode, real-time continuous sampling, which provides averaged, time-accurate readings with automatic measurements at up to 1 kS/s on any number of channels.

(http://images.picotech.com/16ch-picoscope.png)
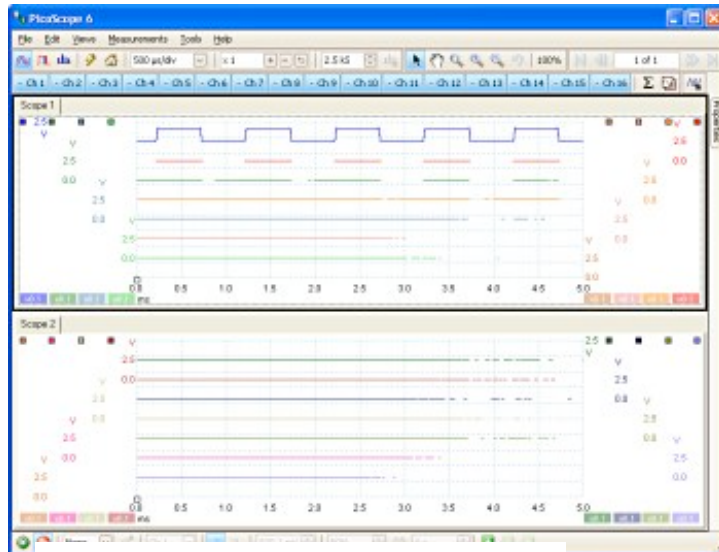
Control alarms and other devices

The PicoScope 1000 Series data loggers include digital outputs — including one with pulse-width modulation control (PicoLog 1216 only). These outputs can be used to control alarms or other devices, additionally these can also be used to power sensors such as thermistors.

It's all you need

Your PicoLog 1000 Series multi-channel data acquisition (DAQ) device includes all you need to start measuring and recording. A full suite of software is included in the price and consists of PicoLog data logging package, the PicoScope oscilloscope package — which provides measurement capabilities while allowing you to view all 16 channels at once — and an SDK for using the PicoLog 1000 within your own software, or third party software such as LabVIEW. Additionally, an optional terminal board with screw terminals lets you easily and quickly connect your sensors to the logger.

Easy to use. Low cost. The PicoLog 1000 Series is what you need

With great performance and versatility, up to 16 inputs and 4 outputs per unit, a low per-channel cost and easy to use to features, the PicoLog 1000 Series is the multi-channel data acquisition device that you need.
Buy your PicoLog 1000 logger online or from your local Pico distributor(http://www.picotech.com/distribl.html) .

Specifications

Inputs		
Variant	**PicoLog 1012**	**PicoLog 1216**
Maximum sampling rate Continuous streaming Real-time continuous	100 kS/s single-channel 1 kS/s or greater	

Block mode[#1]	1 MS/s single-channel	
Buffer memory	8000 samples, shared by all channels	
Analog inputs	12[#2]	16[#2]
Analog bandwidth (-3 dB)	DC to 70 kHz	
Input type	Single-ended, unipolar	
Input voltage range	0 to +2.5 V	
Linearity (at 25 °C)	1 LSB	
Resolution	10 bits	12 bits
Accuracy	1%	0.5%
Overload protection	±30 V to ground	
Input coupling	DC	
Input impedance	1 MΩ	

Outputs		
Digital output (D0...D3)	2	4[#2]
Digital outputs (PWM) period duty cycle	None	1 100 µs to 1800 µs Adjustable from 0% to 100% in 1% steps
Digital outputs (all) logic low voltage logic high voltage current limit	100 mV (typical) 3.3 V 1 kΩ resistors in series with outputs	
Power output for sensors	2.5 V @ 10 mA, current-limited	

PC Requirements	
Minimum	**Processor**: Pentium II processor, or equivalent **Memory**: 64 MB (XP) / 512 MB (Vista) minimum **Operating system**: Microsoft Windows XP SP2 (32-bit), or Vista (32 or 64-bit) **Ports**: USB 2.0 compliant port
Recommended	**Processor**: 2 GHz Pentium IV processor, or equivalent **Memory**: 256 MB (XP) / 1 GB (Vista) **Operating system**: Microsoft Windows XP SP2 or later (32-bit), or Vista (32 or 64-bit) **Ports**: USB 2.0 compliant port

Environmental	
For quoted accuracy	20 °C to 50 °C
General operation	0 °C to 70 °C

Relative humidity	5% to 80% RH

Physical Dimensions	
Dimensions	45 mm x 100 mm x 140 mm (1.77" x 3.94" x 5.51")
Weight	<200 g (7.05 oz)

Software	
PicoLog for Windows	PicoLog data acqusition software can collect up to 1 million samples. Features include: **Multiple views** - view data as a graph, spreadsheet or text **Parameter scaling** - convert raw data into standard engineering units **Math functions** - use mathematical equations to calculate additional parameters **Alarm limits** - program an alert if a parameter goes out of a specified range **IP networking** - transfer measurements via a LAN or over the Internet Full details on PicoLog(http://www.picotech.com/data-logging-software.html)
PicoScope 6 for Windows	PicoScope 6 is your complete test and measurement lab in one application. Features include: **Capture modes** - oscilloscope, spectrum and persistence modes **Channel maths** - calculate the sum, dfference, product, inverse or create your own custom function using standard arithmetic, exponential and trigonometric functions **Automated measurements** **Scope mode**: AC RMS, cycle time, DC average, duty cycle, falling rate, fall time, frequency, high pulse width, low pulse width, maximum, minimum, peak-to-peak, rise time and rising rate **Spectrum mode**: frequency at peak, amplitude at peak, total power, total harmonic distortion (THD), total harmonic distortion plus noise (THD+N), spurious-free dynamic range (SFDR), signal+noise+distortion to signal+noise ratio (SINAD), signal to noise ratio (SNR) and intermodulation distortion (IMD) **Export data formats** - Comma separated values (CSV), tab delimited (TXT), windows bitmap (BMP), graphics interchange format (GIF), portable network graphics (PNG), MATLAB 4 format (MAT) Full details on PicoScope 6(http://www.picotech.com/picoscope-oscilloscope-software.html)
Software development kit	A growing collection of drivers and example code for various programming languages including C/C++/C#, Visual Basic and LabVIEW.

Language support	
Software PicoLog PicoScope 6	Full support for English, French and German. Full support for English, German and Spanish; menus only for

	French, Italian, Dutch, Hungarian and Simplified Chinese

General	
Additional hardware (supplied)	USB 2.0 cable, user manuals, software CD-ROM
PC interface	USB 2.0 - cable supplied
I/O connector	25-way D female
Power requirements	Powered from USB port
Ground fault current protection	0.9 A thermal self-resetting fuse
Compliance	CE (EMC) class A emissions and immunity FCC emissions RoHS compliant
Total Satisfaction Guarantee	In the event that this product does not fully meet your requirements you can return it for an exchange or refund. To claim, the product must be returned in good condition within 14 days.
Warranty	2 years
Lead time	10 working days

[#1] Block mode is supported by PicoScope and the PicoLog 1000 Series API, but not by PicoLog.

[#2] Except in USB ADC-11 compatibility mode

* US Dollar and Euro prices are approximate.

Need to know a specification not listed here? - just ask(http://www.picotech.com/ask-pico.html?PicoLog%201000)