



High-Resolution Data Acquisition

>>> ADC-20 and ADC-24



When you need the ultimate in precise and accurate data acquisition, the high-resolution ADC-20 and ADC-24 data loggers are your perfect solution.

- 24-bit resolution
- Accurate to within 0.1%
- Up to 8 true differential inputs
- Up to 16 single-ended inputs
- Fast conversion time
- Digital output for control
- Galvanic isolation from the PC to eliminate noise pickup
- Data acquisition software included



The ultimate in resolution and accuracy

With up to 24-bit resolution the ADC-20 and ADC-24 USB data loggers are able to detect small signal changes. Features such as true differential inputs, galvanic isolation, and software selectable sampling rates, all contribute to a superior noise free resolution, and ensure that your measurements are reliable and are accurate to within 0.1%.

Flexible, multi-channel data acquisition

Both the ADC-20 and ADC-24 feature true differential inputs for excellent noise rejection. To give you a very flexible system each differential input can also be configured as 2 single-ended inputs. With up to 8 differential or 16 single-ended inputs on the ADC-24, this flexibility gives you complete control on what type of inputs you use. For example, you may configure the ADC-24 to use 4 differential and 8 single-ended inputs, or 2 differential and 12 single-

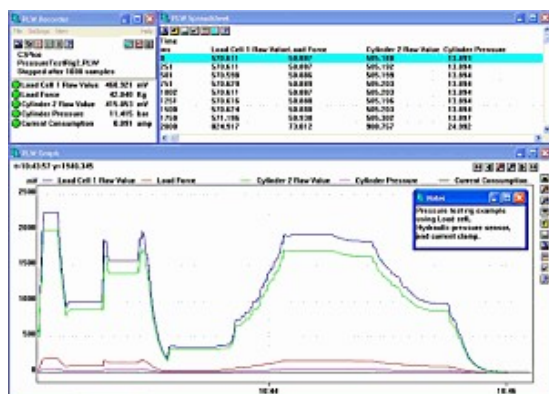
With as many as 7 bipolar voltage ranges, the ADC-20 and ADC-24 are also flexible enough to be used with a wide range of sensors and signal types. Whilst the optional terminal board provides screw terminals to allow you to quickly connect and disconnect different sensors.

Additionally, the ADC-24 has 4 configurable digital input/output channels that can be used to control alarms or other devices. You can configure these I/O channels in any combination. For example, 3 digital inputs could be used with 1 digital output.



No need for power supplies or batteries

The high-resolution ADC-20 and ADC-24 are powered directly by your PC — eliminating the need for batteries or a separate power supply, and making them ideal when you need a portable data logger.



Easy-to-use data acquisition software

All Pico data acquisition products come complete with PicoLog — this powerful, yet flexible, data acquisition software allows you to collect, manipulate, analyse, and display and export data. With PicoLog you can sample up to 1 million readings at selectable sampling rates; and using PicoLog, or our driver with your own software, you can connect up to 4 units to one PC.

Updates to PicoLog are available for free from our website, and you can Download a demo of PicoLog to see just how versatile it is: <http://www.picotech.com/demo.html>



High-Resolution Data Acquisition

>>> ADC-20 and ADC-24



Your high-resolution data acquisition solution

The high-resolution ADC-20 and ADC-24 provide you with a multi-channel, precision data acquisition solution. High resolution, true differential inputs, galvanic isolation, and selectable sampling rates combine to ensure your measurements are always precise and accurate. Configurable inputs, digital inputs and outputs, and programmable voltage ranges give you a truly flexible solution.

When you need the ultimate in high-resolution and accuracy, the versatile ADC-20 and ADC-24 provide you with a portable solution with the performance and flexibility you need.

Specifications	ADC-20	ADC-24
Resolution	20 bits	24 bits
Number of channels [#]	4 differential / 8 single-ended	8 differential / 16 single-ended
Conversion time (per channel)	660 ms, 340 ms, 180 ms, 100 ms, 60 ms	
Voltage ranges	±2500 mV ±1250 mV	±2500 mV ±1250 mV ±625 mV ±312 mV ±156 mV ±78 mV ±39 mV
Accuracy	0.2%	0.1% (±39 mV to 1250 mV range) 0.2% (±2500 mV range)
Noise rejection	120 dB typical at 50/60 Hz	
Input impedance	Differential: 2 MO Single ended: 1 MO	
Overload protection	±30 V	
Digital I/O	none	4 bi-directional (3.3V CMOS)
Reference output	+2.5 V ±2.5 mV @ 2 mA +5 V ±1.0 V @ 2 mA -5 V ±1.5 V @ 2 mA	
Input connector	D25 female	
Environmental	+20 °C to +30 °C for quoted accuracy, 0 °C to +45 °C overall. 5 to 80% RH	
PC connection	USB 1.1 - cable supplied	
Power supply	Powered directly from the PC	
Supplied software	PicoLog (data logger) Drivers and examples (C, Delphi and Visual Basic, Labview, Agilent VEE and Excel)	

[#] The ADC-20 and ADC-24 have 4 and 8 true differential input channels, respectively. For flexibility each of these channels can be configured as either 1 differential channel, or 2 single-ended channels.