

Series 500

Data Acquisition
Instruments

An Alternative to PC Board Data Acquisition

The Series 500 data acquisition instruments are an extension of Keithley's board level data acquisition products. These instrument systems measure accurately such physical phenomena as voltage, temperature and strain. They can also control voltages, currents, and digital circuitry. Key to their measurement performance is the fact that all measurements are made in the instrumentation enclosure, well removed from the PC's noisy environment.

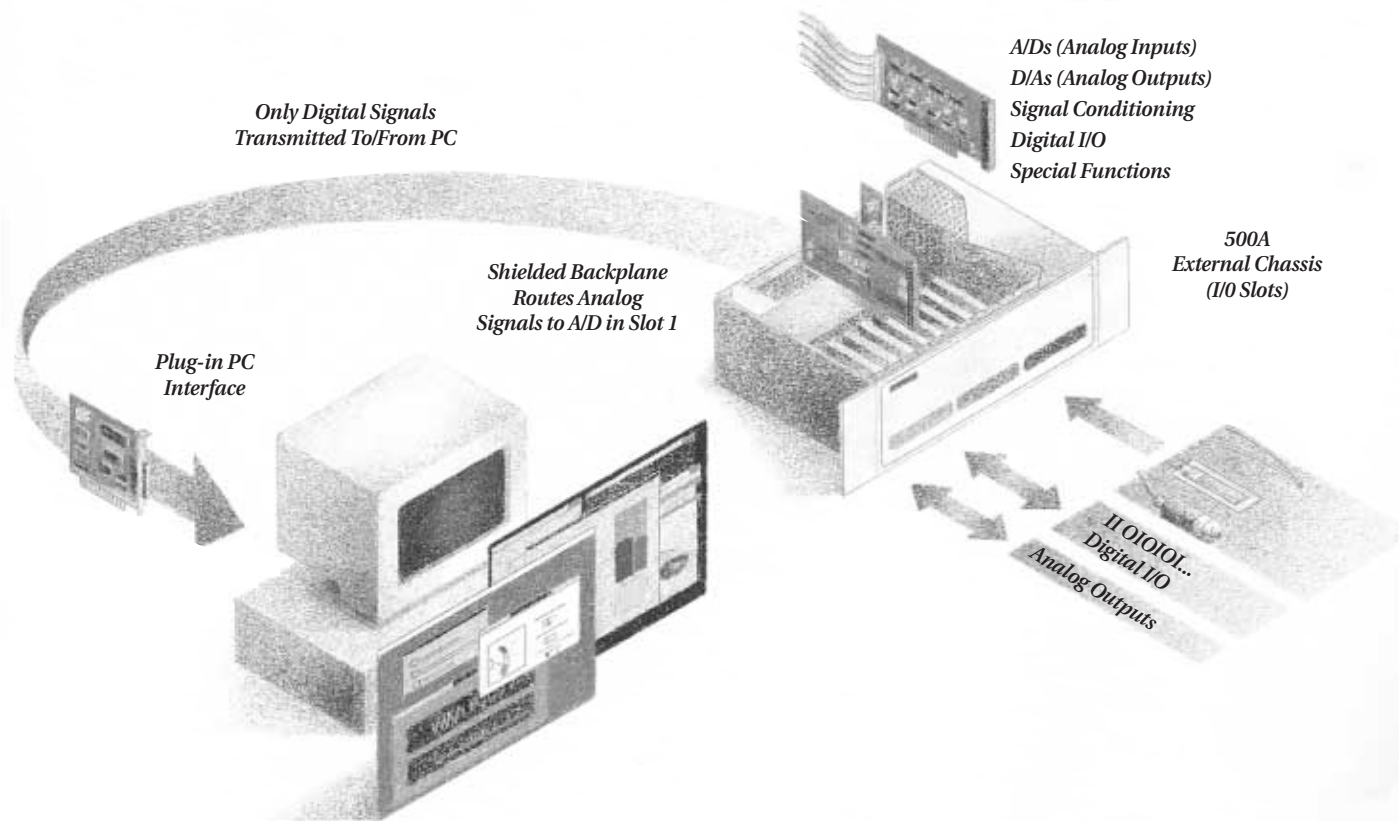
The family consists of single- and multi-module expansion slot chassis that can be connected to a computer through a parallel or standard GPIB interface. A variety of modules can be used to configure the instruments to solve specific application problems or to provide a general purpose solution for benchtop, laboratory, and R&D instrument needs. Several software packages are available providing a range of choices to fit your specific needs.

Series 500 data acquisition instruments provide clear advantages over alternative PC-based data acquisition products. The Series 500 provides more than just A/D conversion and channel multiplexing. You can mix and match signal conditioning modules, both isolated and non-isolated, to allow direct connection to all of the popular sensor types. In addition to the standard 12-bit resolution, you can choose the 16-bit resolution AMM2 A/D card for more demanding applications. There is no need for additional screw terminal boxes, as all modules have convenient removable screw terminal connectors which reside neatly within the chassis.

QUESTIONS?

1-800-552-1115 (U.S. only)

Call toll free for technical assistance, product support or ordering information, or visit our website at www.keithley.com.



Series 500

Choose From 3 Chassis Configurations

Three chassis choices provide flexibility in system configuration. The 500A data acquisition instrument is intended for benchtop or rackmounted applications in the lab or on the production floor. This memory-mapped platform consists of a ten-slot mother board, power supply, and interface logic housed in a rugged metal case.

The Model 575 is a compact version of the 500A, ideal for cost-effective small systems. It has the measurement and control functionality of four modules (including A/D) built in, plus one additional expansion slot.

The Model 576, shown below, has the functionality of the 575, with the added capability of operating as a standalone instrument and having a standard GPIB interface. The Model 576 can collect and store data, and even control a process without computer intervention, providing high-speed data logging capability.

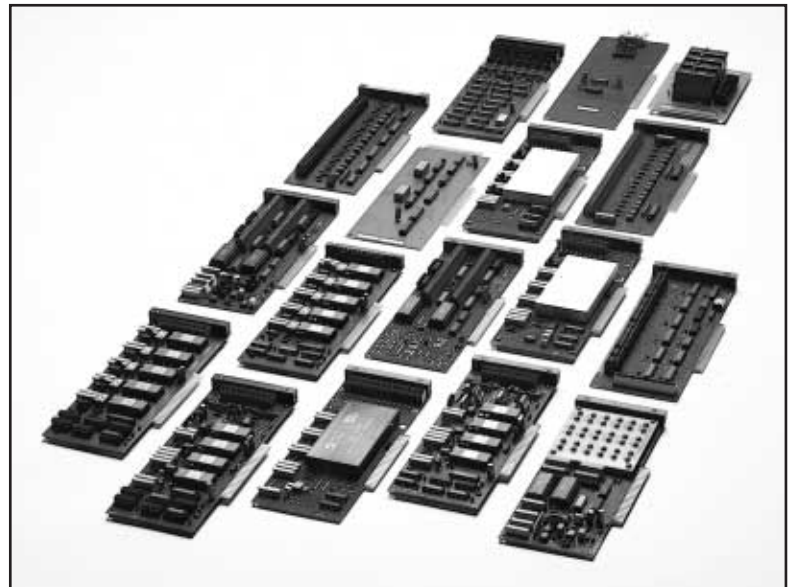


Series 500 Model 500A: 10 Slot Data Acquisition Instrument

Wide Range of I/O Modules

A major advantage of the Series 500 is its available signal conditioning and I/O modules. Modules are available for all of the popular sensor types, eliminating the need for user-designed circuitry. Modules are available for analog inputs, analog outputs, digital I/O, and special functions as summarized in the table below.

TYPE OF INPUT	MODULE	DESCRIPTION
Analog Input	AMM1A	16 channel, 12 bit A/D, 62.5 kHz
	AMM2	16 channel, 16 bit A/D, 50 kHz
	AIM2 & AIM3A	32 channel expansion
	AIM4	4 channel isolated expansion
	AIM6	4 channel RTD input
	AIM7	16 channel thermocouple input
	AIM8	4 channel strain gage input
	AIM9	2 channel AC LVDT/RVDT
	Analog Output	AOM1/5
AOM2/2		2 channels, 16 bit
AOM3		4 channels, 12 bit, 0-20mA out
AOM4		4 channels, 12 bit, high drive current
AOM5		4 channels, 13 bit, >50 kHz
Digital I/O	DIO1A	32 input/output channels, TTL
	DIM1	16 input channels, 500V isolation
	DOM1	16 output channels, 500V isolation
	PCM2 & PCM3	16 channel SSR interface
	PIM1	8 channel frequency measurement
	PIM2	4 channel, 16 bit, pulse/event counter
Special Functions	WAV1	Sine, square, triangle wave
	TRG1	True hardware analog trigger
	PROTO	For custom circuits
	EXTND	Bus extender for troubleshooting



Over 20 Series 500 Signal Conditioning and I/O Module Choices



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