CAMPBELL SCIENTIFIC®
WHEN MEASUREMENTS MATTER

CR9000X
Datalogger Base System

Fastest Datalogger

Customizable, ideal for demanding research applications

Overview

The CR9000X is a large, modular multiprocessor system that provides precision measurement capabilities in a rugged, battery-operated package. It consists of a base system and a chassis with slots for up to nine user-selected I/O modules. The CR9000X is our fastest datalogger, with a measurement rate of 100,000 Hz, making it ideal for rapid sampling applications.

For the entire list of available I/O modules for the CR9000X and CR9000XC, visit the Other Accessories section of the Ordering Info page for the CR9000X and the CR9000XC.

Campbell Scientific also offers the CR9000XC, a compact version, that accepts up to five I/O modules. For more information, visit the CR9000XC Product Info page.

Benefits and Features

❯ Up to nine I/O modules can be used to configure a system for your specific application.

❯ Ideal for vehicle testing, structural or seismic monitoring, or other applications that require rapid sampling or a large number of high resolution channels

❯ Throughput of 100,000 measurements per second is ideal for high demand research, such as flux and complex structural monitoring.

❯ Contains an on-board 10baseT/100baseT port allowing direct Ethernet connection; an interface such as the NL100 is not required

❯ CR9052IEPE and CR9052DC modules provide powerful anti-aliasing and real-time FFT capabilities that are unique to the CR9000X-series dataloggers

❯ Integrated PCMCIA slot accepts memory cards up to 2 GB for stand-alone data collecting.

❯ Gas Discharge Tube (GDT) protected inputs

❯ Collects and stores data and controls peripherals as the brain of your system

Detailed Description

The CR9000X's base system includes a CR9032 CPU module, CR9041 A/D module, CR9011 power supply module, and 128- MB SDRAM memory for program and data storage. The CR9000X's internal battery has a 14-Ahr capacity.

For comprehensive details, visit: **www.campbellsci.com.au/cr9000x**

A mix of I/O modules is selected based on the measurements required for the application. Campbell Scientific offers a large variety of modules. Individual I/O modules can be swapped out, allowing the system to be reconfigured if requirements change.

I/O modules whose model numbers end in an E (e.g., CR9051E, CR9055E) and the CR9052DC include an easy connector module. Easy connector modules allow sensor wiring to remain connected while the input module's measurement electronics and the rest of the datalogger system are used elsewhere.

The CR9000X has a choice of enclosure. The environmental enclosure is designed for field applications, where the enclosure will be exposed to the elements. The lab enclosure is for applications where the CR9000X will reside inside a building.

CR9000X versus CR9000

In August 2004, the CR9000X replaced the CR9000. The CR9000 and CR9000X dataloggers differ in their CPU Module; the CR9000 datalogger uses the CR9031 and the CR9000X datalogger uses the CR9032.

The CR9032 CPU module supports a measurement rate of up to 100,000 Hz, provides a 180 MHz clock speed, and adds a built-in RS-232 port, 10baseT/100baseT port, CS I/O port, and PC-card slot. The built-in ports enable communication without using the special interfaces (e.g., PLA100, TL925, NL105) that were required for the retired CR9000 datalogger. The PC-card slot allows the CR9000X to store data on a Type I, Type II, or Type III PCMCIA card, or on a CompactFlash® card if an adapter is used.

A CR9000 may be upgraded to a CR9000X by replacing the CR9031 CPU module with the CR9032 CPU module.

Specifications

-NOTE-	› Additional specifications are listed in the CR9000X(C) Specifications Sheet. › For the CR9000X, the current drain, weights, and specific number of input/output channels depend on the I/O modules chosen.
Operating Temperature Range	› -25° to +50°C (standard) › -40° to +70°C (extended)
Analog Inputs	28 single-ended or 14 differential per CR9050, CR9051E, or CR9055(E) module
Pulse Counters	12 per CR9071 module
Communications Ports	› CS I/O › RS-232 › 10baseT/100baseT
Switched 12 Volt	1 terminal

Digital I/O	› Certain digital ports can be used to count switch closures. › 1 SDM and 8 outputs per CR9060 module or 16 I/Os per CR9071 module
Analog Voltage Accuracy	±(0.07% of reading + 4 A/D counts), -25° to +50°C
ADC	16-bit
Power Requirements	9.6 to 16 Vdc
Communication Protocols	SDM
Warranty	3 years
Dimensions	› 40.1 x 24.9 x 20.3 cm (15.8 x 9.8 x 8 in.) for lab enclosure › 45.7 x 34.9 x 22.9 cm (18 x 13.5 x 9 in.) for field enclosure
Weight	› 13.6 kg (30 lb) with modules in lab enclosure › 19.1 kg (42 lb) with modules in field enclosure

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