Campbell SCIENTIFIC

CR9000XC

Measurement and Control Datalogger

Fast and Modular

Smaller version of CR9000X

Overview

The CR9000XC, a compact version of the CR9000X, holds up to five user-selectable I/O modules. It is a modular, multiprocessor system that provides precision measurement capabilities in a rugged, battery-operated package. It consists of an environmental enclosure, a base system, and a chassis containing slots for the I/O modules.

The CR9000X series is our fastest data logger series, with a measurement rate of 100,000 Hz and a clock speed of 180 MHz, making it ideal for rapid sampling applications.

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

Campbell Scientific also offers the CR9000X, a larger version, that accepts up to nine I/O modules. For more information, visit the CR9000X Product Info page.

Benefits and Features

- Up to five 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 CR9000XC's base system includes a CR9032 CPU module, CR9041 A/D module, CR9011 power supply module, and 128-

Mbytes SDRAM memory for program and data storage. The CR9000XC's internal battery has a 7-Ahr capacity.

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 data logger system are used elsewhere.

The CR9000XC includes a non-corrosive, sealed, aluminum enclosure that provides protection from water, dust, and most environmental pollutants.

CR9000XC versus CR9000C

In August 2004, the CR9000XC replaced the CR9000C. The CR9000C and CR9000XC dataloggers differ in their CPU Module; the CR9000C datalogger uses the CR9031 and the CR9000XC 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 CR9000C datalogger. The PC-card slot allows the CR9000XC to store data on a Type I, Type II, or Type III PCMCIA card, or on a CompactFlash® card if an adapter is used.

An existing CR9000C datalogger may be upgraded to a CR9000XC by replacing the CR9031 CPU module with the CR9032 CPU module.

Specifications

-NOTE-	❱ *For the CR9000XC, the current drain, weights, and specific number of input/output channels depend on the I/O modules chosen.* ❱ *Additional specifications are listed in the CR9000X(C) Specifications Sheet.*
Operating Temperature Range	❱ -25° to +50°C (standard) ❱ -40° to +70°C (extended) ❱ *Non-condensing environment*
Analog Inputs	28 single-ended or 14 differential per CR9050, CR9051E, or CR9055(E) module
Pulse Counters	12 per CR9071 module
Communications Ports	❱ RS-232 ❱ CS I/O ❱ 10baseT/100baseT
Switched 12 Volt	1
Digital I/O	❱ 1 SDM and 8 outputs per CR9060 module or 16 I/Os per CR9071 module ❱ Certain digital ports can be used to count switch closures.
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	25.4 x 27.9 x 22.9 cm (10 x 11 x 9 in.)
Weight	12.3 kg (27 lb) with modules

For comprehensive details, visit: www.campbellsci.com/cr9000xc

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