



## Overview

The SDM-SIO4 is a legacy product and should be purchased only as a replacement or for use with legacy data loggers such as the CR10X. When considering the purchase of an SDM-SIO4, first consider using the [SDM-SIO1](#) instead. Please note that the SDM-SIO4 is not compatible with all data loggers.

Primarily for legacy data loggers, the SDM-SIO4 adds serial I/O capacity and flexibility. It has four serial ports that communicate with serial sensors, display boards, printers, and other serial devices. After being programmed, the SDM-SIO4 communicates with connected devices in parallel with the data logger's own program sequence.

## Benefits and Features

- ▶ Provides four configurable serial RS-232 ports
- ▶ A multitasking operating system allows concurrent transmission and receipt of data on all ports.

## Technical Description

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## Specifications

Communication Rate	Speed at which data is transferred is controlled by the data logger and can vary with the microprocessor activity as well as the length of the SDM cables.	Internal Battery	Retains configuration information only. (Lithium battery has an estimated life of 10 years.)
Typical Transfer Rate	One byte per millisecond	Number of Ports	4 (independently configurable for different serial data formats)
Power Supply	Unregulated 12 V supply, 9 to 18 Vdc	Serial Ports Baud Rate	25 to 115,200 bps
		Port Output	<ul style="list-style-type: none"> <li>▶ 0 to 5 V logic</li> <li>▶ ±5 V for RS-232 (switchable)</li> </ul>

Port Configuration	9-pin D connectors
Data Flow Control	By data logger or SDM-SIO4, if required, using hardware or software protocols
Onboard Diagnostics	Built-in system watchdog resets the processor in the event of a crash caused by transients and a built-in LED gives an indication of SDM-SIO4 status on power-up.
Input Voltage Limits	±25 V
Operating Temperature Range	-25° to +50°C
Dimensions	<ul style="list-style-type: none"> <li>› 22.4 x 8.9 x 3.6 cm (8.8 x 3.5 x 1.4 in.) with mounts</li> <li>› 18.3 x 8.9 x 3.6 cm (7.2 x 3.5 x 1.4 in.)</li> </ul>
Weight	499 g (1.1 lb)

### Current Drain

All Ports Active	40 mA
Quiescent	0.7 mA (quiescent state entered if there is no SDM or port activity for ~30 ms)

### Buffers (each port)

Type	Fill & stop (Once filled, additional data received is lost.)
Receive (Rx)	981 bytes + 16-byte hardware buffer
Transmit (Tx)	981 bytes + 16-byte hardware buffer
Processed Data Storage	891 bytes (suitable for storing 224 4-byte Campbell Scientific floating point values)
Floating Point Buffer	Used only when the data logger outputs floating point data via the SDM. This buffer is 241 bytes —sufficient for 60 floating-point values.

For comprehensive details, visit: [www.campbellsci.eu/sdm-sio4](http://www.campbellsci.eu/sdm-sio4) 



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