



Increases Available CAO Ports

Provides high resolution and high accuracy

Overview

The SDM-AO4A module increases the number of continuous analog outputs available to a datalogger. These outputs are

used for proportional control or driving strip charts.

Benefits and Features

- › Increases the number of CAO ports available to the data logger
- › Supports both ± 5 V and 0 to 10 V modes, allowing the module to be used in more applications
- › Includes a choice of synchronous and sequential operation

Technical Description

The SDM-AO4A is designed to output four continuous voltages at levels set by a Campbell Scientific data logger. The data logger enables individual modules through an addressing scheme; multiple SDMs (in any combination) can be connected to one data logger. After a module is enabled,

it operates independently of the data logger until additional commands are received or results are transmitted.

The SDM-AO4A can be operated in ± 5 V mode or 10 V mode. In each of these modes, the SDM-AO4A can operate synchronously or sequentially. In synchronous mode, all channels are set at the same time.

Specifications

Function	Increases the number of continuous analog output (CAO) ports available to a data logger. CAOs are used for proportional control or driving strip charts.	Resolution	167 μ V
Number of Channels	4	Operating Voltage	12 Vdc nominal (9.6 to 16 Vdc)
Operating Temperature	-40° to +60°C	Maximum Output Current	› 50 mA (per channel) › 100 mA (total)
Voltage Range	± 5 V or 0 to 10 V	Overcurrent Shutdown Point	130 mA \pm 15 mA
		Dimensions	13.46 x 8.51 x 2.41 cm (5.3 x 3.35 x 0.95 in.)

Weight 175 g (6.2 oz)

Accuracy with 20 kΩ Load (maximum)

25°C $\pm(0.05\% \text{ of } |V_{\text{out}}(\text{V})| + 500\mu\text{V})$

-40° to +60°C $\pm(0.1\% \text{ of } |V_{\text{out}}(\text{V})| + 500\mu\text{V})$

Additional Full-Scale Error with 50 mA Load

±5 V Mode -1.3 mV (typical)

0 to 10 V Mode -1.5 mV (typical)

Typical Current Drain (±5 V Mode)

No load, $V_{\text{out}}=0$, $V_{\text{supply}}=12\text{V}$ 11 mA

No load, $V_{\text{out}}=\text{fullscale}$, $V_{\text{supply}}=12\text{V}$ 13 mA

With load, $V_{\text{supply}}=12\text{V}$ 13 mA + load

Power Down Mode, $V_{\text{supply}}=12\text{V}$ 1.1 mA

Typical Current Drain (0 to 10 V Mode)

No load, $V_{\text{out}}=0$, $V_{\text{supply}}=12\text{V}$ 21 mA

No load, $V_{\text{out}}=\text{fullscale}$, $V_{\text{supply}}=12\text{V}$ 28 mA

With load, $V_{\text{supply}}=12\text{V}$ 28 mA + (2.4)(load)

Power Down Mode, $V_{\text{supply}}=12\text{V}$ 1.1 mA

For comprehensive details, visit: www.campbellsci.eu/sdm-ao4a 



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