



Expands Datalogger Control Capacity

For DC devices with higher current loads

Overview

The SDM-CD16S adds capability to a datalogger by controlling DC devices that have a relatively high-powered

load, such as solenoids, solenoid valves, DC motors, stepper motors, lights, horns, heaters, and fans.

Benefits and Features

- ▶ Allows the data logger to automatically turn devices on or off when a threshold (for example, temperature or water depth) has been reached
- ▶ Provides a manual override
- ▶ Includes LEDs for a visual indicator of active outputs
- ▶ Drives up to 100 W of power on each channel

Technical Description

This relay driver provides 16 DC voltage outputs that can be switched on and off manually or under datalogger control. The SDM-CD16S's toggle switch has three positions: MANUAL, OFF and AUTO. In the MANUAL position, outputs are controlled by the position of the individual rocker switches. In the OFF position, all outputs are off. In the AUTO position, the state of the relays is controlled by the SDM commands from the datalogger or by the logic control inputs.

Separate inputs for power-to-outputs (48 Vdc maximum) and power-to-SDM-CD16S logic (7 to 48 Vdc) allow the option of powering the logic from the datalogger's 12 V while switching a higher voltage.

With a voltage range of up to 48 Vdc and a maximum current output per channel of 2 A, the SDM-CD16S can drive up to 100 W of power on each channel.

SDM Operation

The SDM-CD16S is a synchronously addressed datalogger peripheral. Datalogger control ports 1, 2, and 3 are used to address the SDM-CD16S, then clock out the desired state of each of the 8 control ports. Up to 15 SDM-CD16S devices may be addressed, making it possible to control a maximum of 256 ports from the first three datalogger control ports.

Datalogger Connection

The CABLE5CBL-L is recommended for connecting the module to the datalogger. A 1-ft cable length should be sufficient when both datalogger and SDM-CD16S are housed within an ENC12/14 enclosure; a 2-ft length may be required if the datalogger and SDM-CD16S are housed at opposite ends of an ENC16/18 Enclosure. The cable length should be as short as possible. Typically, the maximum cable length is 20 ft. Contact Campbell Scientific if the length needs to be longer.

Specifications

Function	Allows the data logger to control dc devices that have a relatively high-powered load, such as solenoids, solenoid valves, dc motors, stepper motors, lights, horns, heaters, and fans.
Number of Channels	16
Isolation	Optically isolated between the inputs and outputs
Logic Power Voltage	7 to 48 Vdc
Logic Current Drain (@ 12 Vdc)	<ul style="list-style-type: none"> › 2.5 mA per active LED (manual or auto) › 15 mA quiescent
Toggle Switch	› Individual dip switches for manual

	› MANUAL, OFF, AUTO
Supply Voltage for Output	48 V max (dc only)
Operating Voltage	12 Vdc
Maximum Current	<ul style="list-style-type: none"> › 2 A (per channel) › 10 A fused (all channels total)
Fuse	3 AG 10 A
Actuation/Release Times	8 µs/200 µs
Operating Temperature	-40° to +70°C
Maximum Cable Length	6 m (20 ft) total to all SDM devices (Contact Campbell Scientific if longer lengths are necessary.)
Dimensions	24.1 x 12.7 x 6.4 cm (9.5 x 5.0 x 2.5 in.)
Weight	771.1 g (1.7 lb)

For comprehensive details, visit: www.campbellsci.eu/sdm-cd16s 



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