



SDM-CD16ACA

16-Channel AC/DC Relay Controller



RoHS-Compliant Controller

Use multiple modules for up to 256 control ports

Overview

With an SDM-CD16ACA, your Campbell Scientific data logger can automatically activate external ac or dc devices such as motors, pumps, heaters, valves, and fans. This ac/dc relay controller has 16 ports for connecting your ac or dc devices. Each port can be controlled automatically by the data logger's

program or controlled manually with an override toggle switch.

The SDM-CD16ACA is a RoHS-compliant version of the SDM-CD16AC.

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
- ▶ Addresses up to 15 SDM-CD16ACAs, allowing up to 240 ports to be controlled by one data logger
- ▶ Includes LEDs that indicate when a port is active
- ▶ Provides a manual override for each port
- ▶ UL/CUL approved product; RoHS compliant

Detailed Description

The SDM-CD16ACA has a toggle switch that provides three positions: ON and OFF for manual override, and AUTO for data logger control.

- ▶ In the ON position, the common (COM) and normally open (NO) contacts are closed.
- ▶ In the OFF position, the normally open contact is open.

- ▶ In the AUTO position, the state of the relay is controlled by the SDM command issued through the data logger's control ports or SDM terminal.

SDM Operation

The SDM-CD16ACA is a synchronously addressed data logger peripheral. Data logger control ports 1, 2, and 3 are used to address the SDM-CD16ACA, then clock out the desired state of each of the 16 control ports. Up to 15 SDM-CD16ACAs may be addressed, making it possible to control a maximum of 256 ports from the first three data logger control ports.

Specifications

Function	Allows a data logger to automatically activate external ac or dc devices such as motors, pumps, heaters, valves, and fans.
Number of Channels	16
Operating Temperature	-40° to +55°C
Humidity	Non-condensing
Contact Operation	Single pole double throw (break before make)
Contact Material	Gold-clad silver
Wire Range	30 to 14 AWG
Coil Voltage	11 to 18 Vdc
Coil Resistance	360 Ω \pm 10%
Expected Life (contact closures)	Mechanical 10 ⁷
Actuation/Release Time	~4 ms
Toggle Switch	› AUTO for data logger control › ON/OFF manual override
Operating Voltage	12 Vdc nominal (11 to 18 Vdc)

Standards	Underwriters Laboratories (UL) listed product (E162021)
Dimensions	24.6 x 5.1 x 8.6 cm (9.7. x 2.0 x 3.4 in.)
Weight	0.8 kg (1.8 lb)

Individual Contact Ratings

Normally Open Rating	› 1 A (@ 240 Vac, Pilot Duty) › 5 A (@ 240 Vac, Resistive) › 5 A (@ 30 Vdc) › 3 A (@ 120 Vac, Pilot Duty) › 5 A (@ 250 Vac, GP)
Normally Closed Rating	› 1 A (@ 30 Vdc) › 3 A (@ 240 Vac, Resistive) › 2 A (@ 120 Vac, Pilot Duty) › 3 A (@ 125 Vac, GP) › 2 A (@ 277 Vac, GP)

Current Drain @ 12 Vdc

Quiescent	6 mA
Per Active LED	45 mA (switch on or auto active)

For comprehensive details, visit: www.campbellsci.com/sdm-cd16aca 