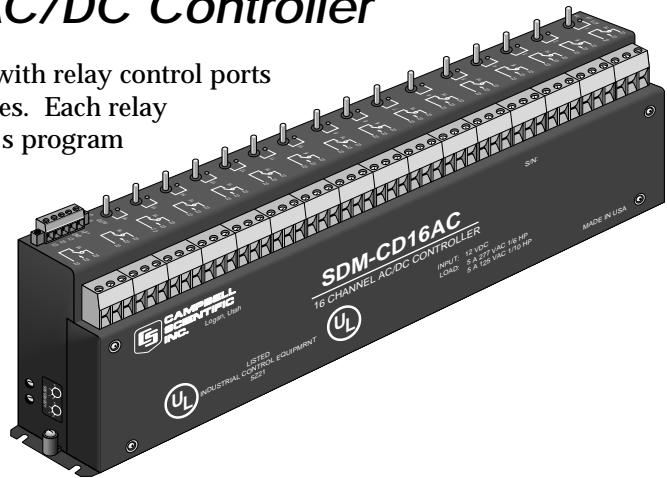


SDM Peripherals

SDM-CD16AC 16-Channel AC/DC Controller

The SDM-CD16AC is a synchronous device equipped with relay control ports that control power to each of 16 external ac or dc devices. Each relay port can be controlled automatically by the datalogger's program or controlled manually with an override toggle switch.

The toggle switch has three positions, "ON" and "OFF" for manual override, and "AUTO" is for datalogger 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 datalogger's control ports or SDM terminal.



SDM Operation

The SDM-CD16AC is a synchronously addressed datalogger peripheral. Datalogger control ports 1, 2, and 3 are used to address the SDM-CD16AC, then clock out the desired state of each of the 16 control ports. Up to 16 SDM-CD16ACs may be addressed, making it possible to control a maximum of 256 ports from the first three datalogger control ports.

Power Considerations

The SDM-CD16AC power requirements are large compared to most Campbell Scientific products. For most applications, an external power supply is recommended to power the SDM-CD16AC. For some applications it may be convenient to use the datalogger supply to power the SDM-CD16AC. For long-term applications, the sealed rechargeable power supply available with Campbell Scientific dataloggers should be used, allowing the batteries to be float charged. It is not recommended that the datalogger alkaline supply be used to power the SDM-CD16AC for long-term applications.



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Specifications

Compatible dataloggers:	CR10, CR10X, CR23X, 21X, CR7, CR5000; CR5000 requires OS version 1.3 or higher
Contact operation:	Single pole double throw; break before make
Contact material:	Gold-clad silver
Individual contact rating:	5 A @ 30 Vdc, 0.3 A @ 110 Vdc, 5 A (1/10 hp) @ 125 Vac, 5 A (1/6 HP) @ 277 Vac
Coil voltage:	9 to 18 Vdc
Coil resistance:	360 Ohms • ±10%
Expected life (contact closures):	Mechanical 10 ⁷
Actuation/Release time:	Approximately 4 ms
Toggle switch:	ON/OFF manual override; AUTO for datalogger control

Underwriters Laboratories (UL) and Canadian Underwriters Laboratories (CUL) listed product. UL and CUL listing number is 5Z21.

Power

Operating voltage:	12 Vdc nominal (9 to 18 Vdc)
Current drain at 12 Vdc:	6 mA quiescent; 45 mA per active LED (switch on or auto active)

Environmental

Operating temperature:	-40° to 70°C
Humidity:	non-condensing

Physical

Dimensions:	9.7" x 2.0" x 3.4" (24.6 x 5.1 x 8.6 cm)
Weight:	1.8 lbs (0.8 kg)
Maximum cable length:	Consult factory if cable lengths longer than 20 ft (6m) are required

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