

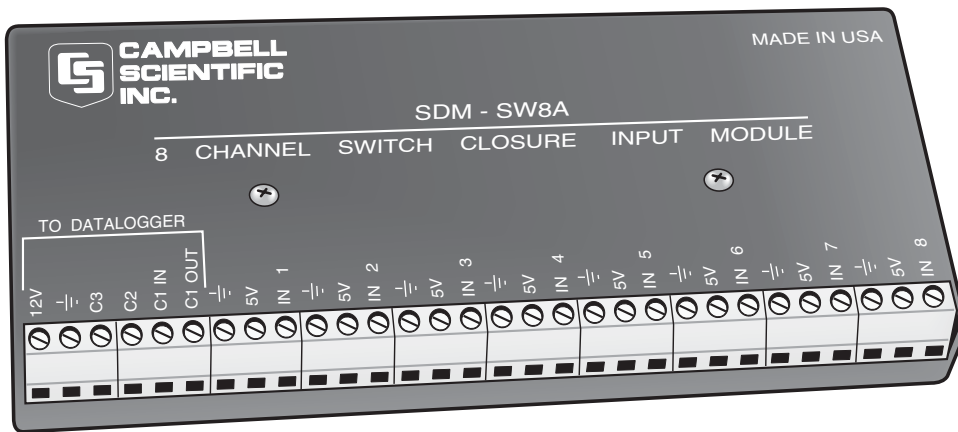
Switch Closure Module

Model SDM-SW8A

The SDM-SW8A is an 8-channel pulse count module. Each channel can be individually configured for single-pole double-throw (SPDT), single-pole single throw (SPST), or voltage pulse measurements. Output options include state, duty cycle, or counts. The SDM-SW8A is well suited for use in energy management studies. We recommend a maximum of four SDM-SW8As be connected to a single datalogger.

SDM Operation

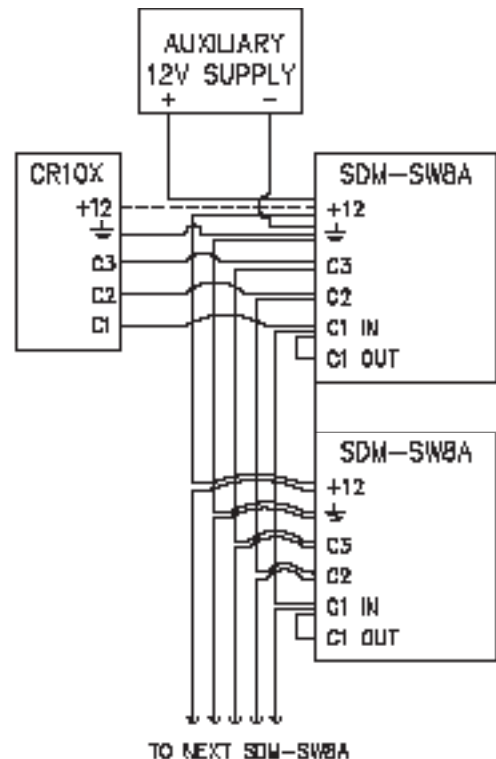
The datalogger enables individual modules through an addressing scheme; multiple SDMs (in any combination) can be connected to one datalogger. After a module is enabled, it operates independently of the datalogger until additional commands are received or results are transmitted.



Power Supply

Due to the 3 mA continuous and 6 mA active current drain, an auxiliary 12 Vdc power supply is recommended for powering the SDM-SW8A in remote, long term applications. Connections between an SDM-SW8A and an auxiliary power supply are shown in the illustration.

For some applications, it may be convenient to use the datalogger power supply. Connection to a datalogger power supply is shown as a dashed line. For long-term applications where ac power is available, or where a solar panel can be used for recharging, the sealed rechargeable power supply available with Campbell Scientific dataloggers could be used. For short term applications only, the alkaline power supply available with Campbell Scientific dataloggers could be used to power the SDM-SW8A.



Specifications

Measurement

Measurement types:	Switch closure (SPDT, SPST) dc voltage pulse
Input voltage threshold:	From below 0.9 to above 4.0 Vdc, ± 20 Vdc max
Maximum input frequency:	100 Hz (50% duty cycle)
Minimum input pulse width:	5 ms high, 5 ms low
Maximum bounce time:	3 ms open without counting
Output options:	State, duty cycle, counts
Max count/port:	65535
Internal sampling frequency:	500 Hz
Watchdog reset:	Yes

Power Requirements

Operating voltage:	12 Vdc nominal (9.6 V to 16 V)
Typical current drain:	3 mA quiescent, 6 mA active (max)

Environmental

Operating temperature range:	-25° to +55°C
Relative humidity:	0 to 90% RH, non-condensing

Physical

Size:	6.2" x 2.7" x 0.9" (15.7 x 6.9 x 2.3 cm)
Weight:	0.5 lbs. (0.23 kg)

Compatible dataloggers

CR10(X), CR800, CR1000, 21X, CR23X, CR3000, CR5000, and CR7
(consult factory if the datalogger was shipped before October 1988)



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