

# Door Sensors

*Use these small magnetic position sensors to determine door position.*

## Know Door Position

Each CM-2 Monitor unit contains a three-port I/O connector capable of determining the position of doors. This connector is referred to as the "C123C" ports.

These ports are supplied with a +5 vdc supply voltage which sense whether the door sensors are open or closed.

The sensors are standard magnetic door sensors used in security applications. Either Normally Open or Normally Closed Sensors can be used. We recommend Normally Closed sensors (door closed, switch closed) so that a alarm can be generated if the connection wire breaks.

## Installation

The sensors are normally mounted with self-tapping screws. Some users report using double-sided tape but we do not recommend this because the tape can dry out and lose adhesion.

The sensors connect to the CM-2 with 24awg solid copper wire. Runs of over 100 feet can be used.

## Alarm Send Delay

There is some delay between a door opening or closing due to two factors: First the polling of the sensors can take up to five seconds, and second, the delay of the e-mail alarm message to travel over the Internet.

## Setting Levels to Alarm

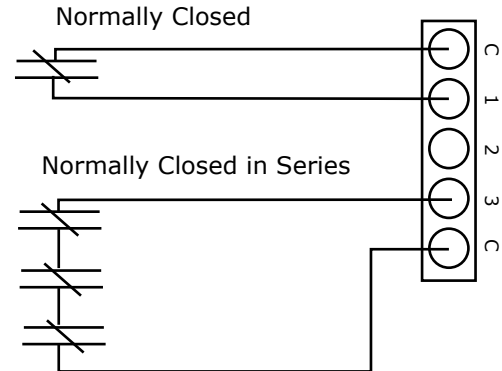
When one of the C123C contacts are shorted (closed) the reported value approaches zero, typically values of 2 or 3 are seen. When the contact opens, the value jumps to 99. Set the alarm to have a least 10 units above and below these values to avoid edge-value triggering.

We recommend testing the door sensors and verifying that the each door sensor sends an alarm and that the e-mail arrives at the proper address.

**Model Number:** MS-1  
Includes 30 of cable  
One sensor set



*The sensors mount in two parts; the switch body (the part with the screw terminals) and the magnet. These should be mounted as close as possible. The range of operation is about an inch. The third part is a plastic screw terminal cover.*



*Connect the sensors to the C123C block. "C" is common (ground). If more than three door sensors are to be used, they can be wired in series (Normally Closed). When one opens, the current ceases and a alarm is sent. If Normally Open sensors are used they should be wired in parallel.*