Mounting

Please follow the manufacturer's instructions included in the box for mounting details.

Connecting IS216 Motion Detector to SIM100

Please follow these instructions to connect the IS216 motion detector to the NMEA 2000® network via a Maretron SIM100 Switch Indicator Module. The wiring diagram appears in Figure 1 on the reverse of this page. The diagram shows a connection to channel #1, but connections to other channels are similar.

1. Connect the IS216 V+ and V- power terminals to a properly fused 9-16VDC power supply.

2. Connect the IS216 NC and C terminals (Normally Closed and Common relay connections) to a free switch channel of the SIM100. The example in Figure 1 shows the detector connected to the SIM100 switch channel 1, terminals "SW1A" and "SW1B".

3. Use a Maretron DSM Series display or the N2KAnalyzer PC software and appropriate gateway to properly configure the SIM100 and associated channel for use with the IS216 motion detector. The channel "Mode:" should be set to "No End of Line Resistor". Set the "Label:" with an appropriate name for easy identification when setting up favorite screens described in the next step (e.g., Bridge Motion Detector).

4. In order to display the status of the motion detector on a DSM Series display, N2KView software or the MConnect, create an "Indicator Status" within a favorite screen. Since the relay contained within the IS216 is normally closed, set the no motion or "On Color" to black or green. Set the motion or "Off Color" to be yellow or red to indicate the detection of motion.

5. In order to create a motion detection Alert on a DSM Series display or within the N2KView software, create an Alert->Indicator->Status->Off Alert. Whenever the IS216 detects motion, the normally closed relay opens and the SIM100 indicates an off condition and the Alert is triggered.

6. Test the connections between the IS216 motion detector and SIM100 using N2KAnalyzer PC software and an appropriate gateway connection (i.e., USB100 or IPG100).

    a. Ensure that 30 seconds have passed after connecting power to the IS216 before testing the connections. Note that for about 30 seconds after applying power to the IS216, it will not detect any motion.
    b. With the SIM100 selected within N2KAnalyzer software, open a transmitted PGN window and expand PGN 127501 to view the appropriate channel where the IS216 is connected. With no motion, the status should read "Yes, On, Enabled, Set, "1"".
    c. Have someone walk in front of the IS216 and the status should read "No, Off, Disabled, Reset, "0"". After a few seconds without motion, the status should read "Yes, On, Enabled, Set, "1"".
    d. Next, turn the power off to the IS216 and the status should read "No, Off, Disabled, Reset, "0"". Reapply power and the status should read "Yes, On, Enabled, Set, "1"".
    e. Finally, disconnect one of the wires between the IS216 and the SIM100 and the status should read "No, Off, Disabled, Reset, "0"". Reconnect the wire and the status should read "Yes, On, Enabled, Set, "1"".

7. Test with a DSM Series displays, N2KView software or the MConnect for proper indication of the motion detector by conducting the same steps described in number 6 above. Remember, if there is motion, removal of power, or a disconnected wire, the displays should indicate "Motion". This is desirable behavior since we obviously want to indicate motion, but we also want to notify someone if the motion detector is not receiving power or the wires have been disconnected.
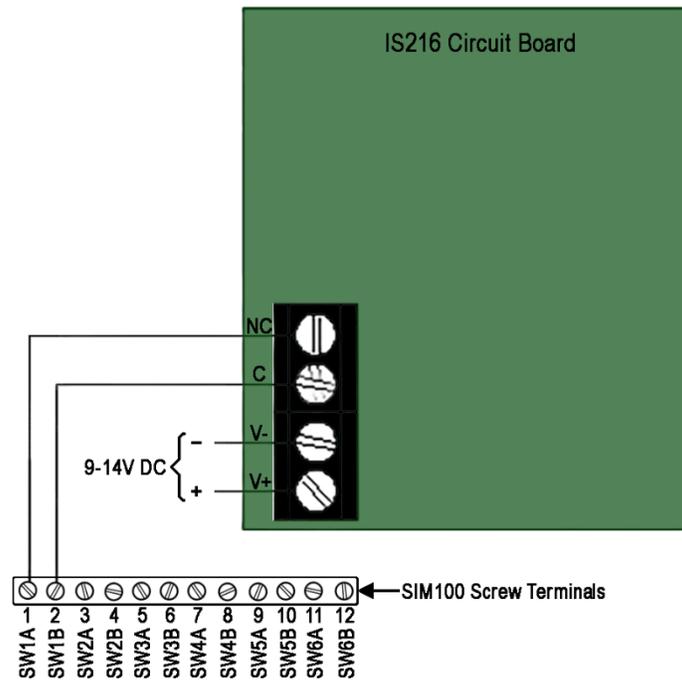
Figure 1 – Wiring Diagram

If you require technical support for Maretron products, you can reach us in any of the following ways:

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