SINGLE BMS WIRING

If your balanced magnetic switch doesn't require an external power supply and operates passively, you can still incorporate a tamper detection circuit to trigger an alarm or notification when the switch is tampered with. Here's how you can do that:

Materials and Components Needed:**

1. **Closed-loop balanced magnetic switch** (reed switch)
2. **Tamper detection switch or sensor** (e.g., a microswitch)
3. **Alarm or notification device** (e.g., a buzzer, siren, or electronic alert system)
4. **Appropriate wires and cables**
5. **Resistor** (if required for tamper detection)

Wiring Instructions:**

1. **Closed-Loop Magnetic Switch**:

- The closed-loop magnetic switch consists of two wires. One is the common (COM) wire, and the other is the normally closed (NC) wire. When a magnet is near the reed switch, it closes the circuit, connecting the COM and NC wires.

2. **Tamper Detection Switch**:

- The tamper detection switch or sensor, often a microswitch, will have three terminals: common (COM), normally open (NO), and normally closed (NC).

- Connect one of the tamper detection switch's terminals (either NO or NC) to the alarm or notification device.

3. **Connect the COM Terminal**:

- Connect the COM terminal of the tamper detection switch to the common (COM) terminal of the closed-loop magnetic switch.

4. **Connect the Alarm or Notification Device**:

- Connect the other terminal (NO or NC, depending on your preference) of the tamper detection switch to the alarm or notification device.

Operation:

- When the closed-loop magnetic switch is in the closed position (e.g., when a door or window is closed), the circuit remains complete, and the tamper detection switch is also in its normal position.

- If someone tries to tamper with or disable the magnetic switch, it will activate the tamper detection switch.

- The tamper detection switch, when activated, will trigger the alarm or notification device, alerting you to the tampering or intrusion.

In this setup, the tamper detection circuit relies on the magnetic switch being in its default closed state. When the magnetic switch is tampered with or opened, it breaks the circuit, which activates the tamper detection switch, triggering the alarm or notification device. This configuration doesn't require a separate power supply for the magnetic switch since it

operates passively. Again, make sure to test the system to ensure it functions as expected and consult the datasheets and instructions provided with your specific components.