

## DOUBLE BMS IN PARALLEL

Wiring two balanced magnetic switches (BMS) in parallel is a straightforward process. These switches are typically used in security systems or other applications where you want to detect when a door or window is opened or closed. Wiring them in parallel allows both switches to act independently while sharing the same connection points. Here's how you can wire two BMS switches in parallel:

**\*\*Materials you will need:\*\***

1. Two balanced magnetic switches (BMS).
2. Appropriate gauge wire (usually 22 or 24 AWG).
3. Soldering iron and solder (if needed).
4. Wire strippers.
5. Heat shrink tubing (if needed).

**\*\*Steps:\*\*****1. \*\*Identify the Components:\*\***

Make sure you can identify the key components of the BMS, including the reed switch and the magnet. The reed switch is the part that is activated when the magnet is in close proximity.

**2. \*\*Determine Wire Length:\*\***

Measure and cut two lengths of wire, one for each BMS. Make sure the wire is long enough to reach the central point where you will connect them in parallel.

**3. \*\*Prepare the Wires:\*\***

Strip a small amount of insulation from the ends of each wire, exposing the conductor.

**4. \*\*Connect the First BMS:\*\***

For the first BMS, connect one wire to the common (COM) terminal and the other wire to the normally closed (N/C) terminal. You can usually find these labeled on the BMS. You might need to solder the wires in place or use wire connectors if the BMS doesn't have screw terminals.

#### 5. **\*\*Connect the Second BMS:\*\***

For the second BMS, repeat the same process. Connect one wire to the common (COM) terminal and the other wire to the normally closed (N/C) terminal.

#### 6. **\*\*Parallel Connection:\*\***

Now, connect the free ends of the two wires you've attached to the COM terminals of each BMS together. Similarly, connect the free ends of the wires attached to the N/C terminals together. This is the parallel connection. You can use wire connectors or soldering to ensure a secure connection.

#### 7. **\*\*Insulate the Connections:\*\***

To protect your connections and prevent short circuits, you can use heat shrink tubing or electrical tape to insulate the exposed wires and connections.

#### 8. **\*\*Test the Setup:\*\***

Before final installation, test your parallel-wired BMS switches to ensure they work as expected. Open and close the doors or windows to confirm that the switches are triggering properly.

9. **\*\*Mount the BMS:\*\***

Mount the BMS switches on the door or window frame and the corresponding door or window. Make sure they are properly aligned so that the magnet activates the reed switch when the door or window is closed.

10. **\*\*Connect to Alarm or Monitoring System:\*\***

If you are using the BMS switches as part of a security or monitoring system, connect the parallel-wired BMS switches to the appropriate inputs on your alarm panel or monitoring device.

Please note that the specific wiring details may vary slightly depending on the manufacturer and model of your BMS switches, so always consult the manufacturer's documentation for precise instructions. Additionally, ensure that any electrical work is done safely, following local electrical codes and safety guidelines. If you are not comfortable with wiring, consider seeking professional assistance.