Dual Relay Switchpack

Overview
Switchpacks provide 24 VDC operating voltage to all low voltage, Greengate occupancy sensors and daylighting controllers. These switchpacks can be used where two circuits need to be controlled at the same point. A single switchpack can provide power for up to five sensors. Up to ten switchpacks can be connected to one sensor for control of multiple circuits. Isolated contacts may also be used to control HVAC, contactors, motors, etc.

Features
- Replaces separate transformers and relays
- Zero-crossing circuit provides increased durability, especially with today’s high inrush loads
- Capable of switching up to 20 amps
- Suitable for Plenum installations
- Rated for Ballast, Tungsten and Motor Loads
Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Input:</th>
<th>120/277 VAC, 50-60 Hz operation. Contacts are isolated and may be used to control low voltage circuits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electrical</strong></td>
<td><strong>Output:</strong></td>
<td>24 VDC 125mA to operate up to five sensors</td>
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<tr>
<td><strong>Ratings</strong></td>
<td><strong>Control</strong></td>
<td>Connecting the 22 AWG blue and yellow control leads to the red lead will close the relay contacts</td>
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<tr>
<td><strong>Ballast</strong></td>
<td><strong>Compatibility</strong></td>
<td>Compatible with magnetic and electronic ballasts</td>
</tr>
<tr>
<td><strong>NOTE</strong></td>
<td><strong>Operating Environment</strong></td>
<td>Temperature: 32°F - 104°F (0°C - 40°C) Relative humidity: Less than 95%, non-condensing For indoor use only</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td><strong>Motor Load</strong></td>
<td>Medium impact injection molded housing. ABS resin complies with UL 94V-0. Plenum rated for external junction box mounting, with Teflon coated leads</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td><strong>Standards</strong></td>
<td>1 HP 120 VAC; 2 HP 250 VAC 4 3/4” x 2” x 3 1/4” UL, CSA Listed</td>
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</table>

**Description/Operation**

The switchpack has three main components: a transformer and two high current relays. The transformer has a primary line voltage input and a secondary low voltage output. The low voltage output, 24 VDC, provides operating power to connected low voltage Greengate occupancy sensors. When an occupancy sensor detects motion, it electrically closes an internal circuit, pulling up the control signal between the sensor and the switchpack. This signals the switchpack to close its high current relays, turning connected loads on.

**Applications**

The switchpack is designed to work with low voltage Greengate sensors which require switchpacks. It cannot be used with sensors designed for use with any other low voltage relay systems. Consult sensor spec sheets for other sensor/relay combinations.
**Wiring Diagrams**

**SPD20-MV-NO (Line Voltage Switches)**

**AUTOMATIC MODE OPERATION:**
1. WHEN SENSOR ACTIVATES, BOTH LOADS TURN ON.
2. LOADS TURN OFF WHEN SENSOR TIMES OUT.
3. SWITCHES CAN BE USED TO TURN LOADS ON OR OFF.
**RECOMMENDED WIRE:** 18-3 AWG STRANDED WIRE SHIELDED OR NON-SHIELDED

**NOTES**
1. SPD20-MV-NO SWITCHPACK SHOWN.
2. BLUE AND RED WIRE LEADS ARE NON-POLARITY SENSITIVE.

**SPD20-MV-NO (Low Voltage Switching)**

*This configuration is for single sensor application only*

**MANUAL MODE OPERATION**
1. SWITCHES ARE REQUIRED TO TURN CORRESPONDING LOADS ON.
2. LOADS TURN OFF WHEN SENSOR TIMES OUT OR WITH THE SWITCH.

**AUTOMATIC MODE OPERATION:**
1. WHEN SENSOR ACTIVATES, BOTH LOADS TURN ON.
2. SWITCHES CAN BE USED TO TURN LIGHTS ON OR OFF.
3. IF DAYLIGHT SENSOR IS ENABLED AND LIGHT LEVEL IS ABOVE SETPOINT, SWITCHPACK CONNECTED TO YELLOW LEAD WILL NOT TURN LOAD ON.

**RECOMMENDED WIRE:** 18-3 AWG STRANDED WIRE SHIELDED OR NON-SHIELDED
**Mounting**

All connections are made via pigtails with twist-on wire connectors.

**Notes:** Connect either the orange or black supply lead to the power source, depending upon the power requirements. Cap the unused lead.

**Ordering**

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>Ratings</th>
<th>Ballast</th>
<th>Tungsten</th>
<th>Motor (HP)</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPD20-MV-NO</td>
<td>120/277V</td>
<td>20A 120 VAC</td>
<td>15A,</td>
<td>1HP-120 VAC,</td>
<td>24 VDC,</td>
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<tr>
<td></td>
<td>30/60 Hz</td>
<td>20A 277 VAC</td>
<td>120 VAC</td>
<td>2HP-250 VAC</td>
<td>125mA</td>
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