The Wattstopper PARTITION-SENSOR uses an infrared transmitter/receiver pair to detect partition opening and closing and, in conjunction with other Architectural Dimming products, coordinates lighting and shade preset functions in areas such as partitioned meeting rooms or ballrooms. When used with the unique partitioning programming features of Design Center and the divide and combine widget on the Equinox touchscreens, the PARTITION-SENSOR allows for automation of partitioned spaces and visual indication of room lighting and shade status.

### FEATURES AND OPERATION OVERVIEW

- Excess gain (sensitivity) controlled by a screwdriver adjustment to prevent tampering
- Fixed optics
- Immune to most indirect ambient light and direct strobes
- Waterproof and enclosed in high impact plastic housing
- High speed (1100 μs Thru-Beam)
- Potted 6’ cable
- Power supply requirements: 10 to 30 VDC **Note**: PARTITION-SENSOR ships with a BZ-50 Power Pack

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Voltage</td>
<td>10- 30 VDC; 5 volt models: 4.5 to 5.5 VDC, polarity protected</td>
</tr>
<tr>
<td>Current Requirements</td>
<td>Sinks up to 100mA</td>
</tr>
<tr>
<td>Response Time</td>
<td>Light State response = 600 usμ (1,100 μs Thru-Beam)</td>
</tr>
<tr>
<td></td>
<td>Dark State response = 600 μs (1,100 μ Thru-Beam)</td>
</tr>
<tr>
<td>LED Light Source</td>
<td>Infrared = 880nm, Pulse-modulated LED</td>
</tr>
<tr>
<td>Excessive Gain Adjustment</td>
<td>Sensitivity controlled by a screwdriver adjustment to prevent tampering</td>
</tr>
<tr>
<td>Range</td>
<td>65’ (20m)</td>
</tr>
<tr>
<td>Hysteresis</td>
<td>Approximately 20% of signal</td>
</tr>
<tr>
<td>Light Immunity</td>
<td>High immunity to most ambient light</td>
</tr>
<tr>
<td>Diagnostic Indicators</td>
<td>Red LED = Output Status, Green LED = Power “ON”</td>
</tr>
<tr>
<td>Ambient Temperature</td>
<td>-40°F to 158°F (-40° to 70°C)</td>
</tr>
<tr>
<td>Rugged Construction</td>
<td>Chemical resistant, high impact polycarbonate house</td>
</tr>
<tr>
<td></td>
<td>Waterproof ratings: NEMA 4X, IP66</td>
</tr>
</tbody>
</table>
**SENSOR ADJUSTMENT PROCEDURES**

**Step 1:** Point the light beam emitted by the light source away from the receiver.

**Step 2:** Turn the light source sensitivity adjustment fully clockwise (CW) to its maximum setting.

**Step 3:** Monitor the output LED indicator on the receiver while moving the light beam emitted from the light source in a scanning motion, first from left to right and then up and down. Use this technique to locate the mounting position that will ensure the best possible beam alignment with the receiver.

**Step 4:** When acceptable beam alignment has been achieved, turn the sensitivity adjustment fully counter clockwise (CCW).

**Step 5:** Turn the sensitivity adjustment clockwise (CW) 1/4 turn past the point the output LED indicator toggles to the opposite state.

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**PARTITION SENSOR WIRING DIAGRAM**

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**PARTITION SENSOR WITH THE DLM SYSTEM**

<table>
<thead>
<tr>
<th>LMIN-104</th>
<th>Control Relay Terminal A</th>
<th>Control Relay Terminal B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+24VDC 5, 6, 7, 8</td>
<td>INPUT 1, 2, 3, 4</td>
</tr>
</tbody>
</table>

**NOTE:** Requires a SPDT (single pole double throw) +24VDC Relay supplied by others (OMRON LY2-DC24 Relay, PTF08A-E Socket)

- When partition is closed, the coil on the relay will be de-energized
- When partition is open, the coil on the relay will be energized
- 24 VDC Coil of relay connects to Red = +24VDC Green Out of Sensor = Common

**NOTE 2:** LMIN must be set so “Operating Mode” is Partition. In this mode, all four inputs are dedicated to Partition detection and LMIN cannot be used with any other inputs.

**NOTE 3:** Wall 1 = Input 1 • Wall 2 = Input 2 • Wall 3 = Input 3 • Wall 4 = Input 4
PARTITION SENSOR WIRING DIAGRAM

JUNCTION BOX

BZ-50 Power Pack
120/277VAC, 50/60Hz, 225mA output
20A ballast or incandescent load
Motor load: 1HP@120/240VAC
Class 2 power supply
UL 2043 Plenum Rated
www.wattstopper.com • 800.879.8585

Power Pack Red
Red
+24VDC
Common Any 3-Wire
24VDC
Sensor Control Output
White Neut.
Blue Black
Red
Hot Black
Switch
88T9
Appliance Control
Lighting Load

CEILING

PARTITION SENSOR WITH THE ARCHITECTURAL DIMMING SYSTEM

<table>
<thead>
<tr>
<th>OUTPUT Green</th>
<th>OUTPUT Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN</td>
<td>Ground</td>
</tr>
<tr>
<td>INPUT 1, 2, 3, 4</td>
<td>Ground</td>
</tr>
<tr>
<td>Green, Blue Wire</td>
<td>Black Wire</td>
</tr>
</tbody>
</table>

When partition is closed, contact is open
When partition is open, contact is closed

RECEIVER

Contact output

LIGHT SOURCE

Mount to flanges on each side of the sliding door or partition

DOOR

NOTE: In Design Center, make sure it is set to normally closed (NC) polarity for the sensor

PARTITION SENSOR WITH THE ARCHITECTURAL DIMMING SYSTEM

CONTACT INPUT STATION

- LVOS
- Keypad Station

When partition is closed, contact is open
When partition is open, contact is closed

WIRING LEGACY

| BLACK WIRE | RED WIRE | GREEN WIRE | WHITE WIRE | BLUE WIRE |

NOTE: In Design Center, make sure it is set to normally closed (NC) polarity for the sensor

Contact output

Align sensors on all three axis
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