GE Lighting Controls

GE Aware™
Ultrasonic Ceiling Low Voltage Occupancy Sensor
CUS

Overview
GE ultrasonic ceiling sensors automatically control lighting and other electrical loads based on the presence (or absence) of people.

US Technology
The sensors produce a low-intensity, inaudible sound that detects changes in acoustic waves caused by motion such as walking into a room, reaching for a telephone or turning a swivel chair. The sensors do not respond to audible sound. When motion is detected, the relay in the connected GE Switchpack is closed and lights are turned on. If no motion occurs within a pre-set period of time, lights are turned off.

This full-line of stylishly-designed ultrasonic occupancy sensors can be used either individually or in combination to provide lighting and HVAC control throughout a building. These ultrasonic sensors provide complete no-gap coverage and the NEMA WD7 Guide robotic method was utilized to verify coverage patterns. Manual override switch turns lights on in case of sensor malfunction.

The advanced ultrasonic technology accurately ignores sources of continuous noise by self-adjusting which creates the first truly “wire to walk away” occupancy sensor. Its wide selection of interface options allows connection to virtually any Building Automation System for additional installation savings. The self-adjusting technology eliminates the need for sensativity adjustments and time delays.

The CUS (-R) offers the most versatile connections available. When connecting the CUS (-R) to a BAS, any of the following may be used: (1) Form C relay output, (2) open collector output, and (3) direct BAS connection. See Power Requirements and Wiring Diagram.

Ordering

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Model</th>
<th>Color</th>
<th>Coverage</th>
<th>Field of View</th>
</tr>
</thead>
<tbody>
<tr>
<td>63275</td>
<td>CUS-05-180</td>
<td>White</td>
<td>Up to 450 sq. ft.</td>
<td>180° (One way)</td>
</tr>
<tr>
<td>63276</td>
<td>CUS-05-180-R</td>
<td>White</td>
<td>Up to 450 sq. ft.</td>
<td>180° (One way)</td>
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<td>63277</td>
<td>CUS-10-180</td>
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<td>500 to 1,000 sq. ft.</td>
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<td>63278</td>
<td>CUS-10-180-R</td>
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<td>63279</td>
<td>CUS-20-360</td>
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<td>1000 to 2,000 sq. ft.</td>
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<td>63280</td>
<td>CUS-20-360-R</td>
<td>White</td>
<td>1000 to 2,000 sq. ft.</td>
<td>360° (Two way)</td>
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</tbody>
</table>

Technology: Ultrasonic (US)

Electrical Ratings:
Input:
- 10-30VDC from GE Switchpack or GE System. Maximum current needed is 25mA per sensor.
Output:
- Open collector output to switch up to ten GE Switchpacks.
- Isolated Form C Relay (-R models)
- Isolated Form C Relay Ratings: 1A 30VDC/VAC

Operating Environment:
- Temperature: 60° F – 80° F (15° C – 26° C)
- Relative Humidity: up to 95% non-condensing
- For indoor use only

Time Delays: Self-Adjusting from 10 min. to 30 min.

Housing:
- Medium impact injection molded housing. ABS resin complies with UL 94V0. Paintable off-white.

Size:
- CUS-05 and CUS-10: 3.25”D x 4.75”W x 1”H (82.6mm x 120.7mm x 25.4mm)
- CUS-20: 3.75”D x 6”W x 1”H (95.25mm x 152.4mm x 25.4mm)

LED Indicators: Amber LED (CUS-05) or Blue LED (CUS-10 and CUS-20) indicate US detection.
Wiring Diagram (consult instruction sheet for other wiring options)

**Coverage**

CUS-05-180
- 15' x 24'
- 14' x 22'
- 17' x 27'
- 29'

CUS-10-180
- 12' x 24'
- 14' x 22'
- 27'

CUS-20-360
- 27' x 34'
- 22' x 30'

**Settings**

<table>
<thead>
<tr>
<th>Position</th>
<th>1 On Mode</th>
<th>2 Lighting Sweep</th>
<th>3 Time Delay</th>
<th>4 Override</th>
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<tbody>
<tr>
<td>1</td>
<td>Manual On</td>
<td>Enabled</td>
<td>30 minutes</td>
<td>Override</td>
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<tr>
<td>2</td>
<td>Auto On</td>
<td>Not Enabled</td>
<td>Self Adjusting</td>
<td>Normal</td>
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</table>

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