

GridNavigator

OCCUPANCY SENSOR

INSTALLATION INSTRUCTIONS

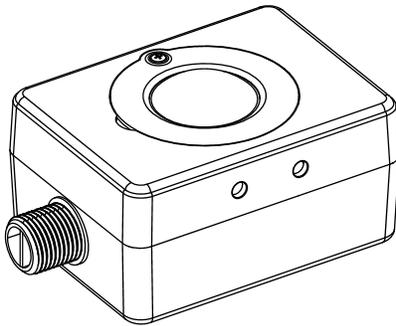
GridNavigator

200 Varick Street, #508

New York, NY 10014

www.GridNavigator.com

Model Number: GN-MS-001



Features

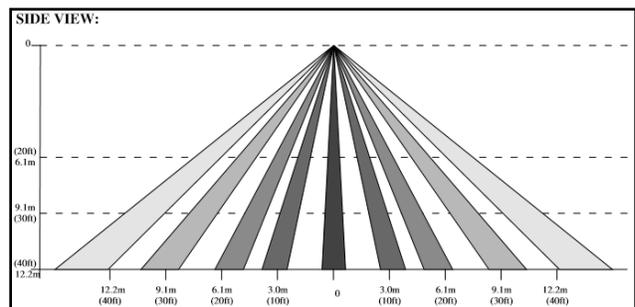
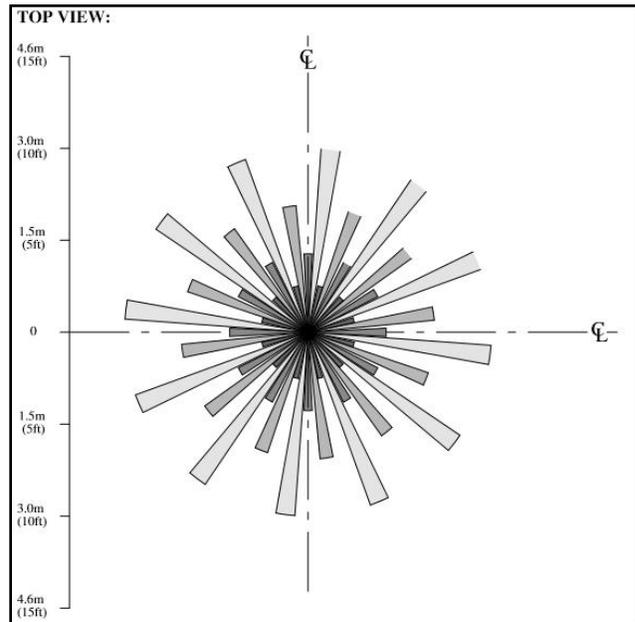
1. Passive Infra-Red occupancy sensor.
2. 0 – 10V dimming output capability.
3. Adjustable unoccupied dimming level from 10% to 100%.
4. Adjustable time delay from 30 seconds to 30 minutes.
5. Compatible with most industrial fixtures.

Description

GridNavigator occupancy sensors are easily-installed and inexpensive add-on modules for industrial light fixtures, enabling them to minimize their power consumption in sporadically-occupied areas of commercial buildings. This is accomplished by the use of a relay that can switch off the fixture's power supply, or a 0 – 10V dimming signal that can control a compatible LED light fixture to reduce its light output. Both the desired light level and the motion timeout can be controlled by adjusting two potentiometers through the sensor's casing.

Specifications

General	
Input voltage	120 VAC – 277 VAC
Load current	3A Max
Dimensions	4.5 x 3.3 x 2.2
Weight	TBD
Wiring	3x 16 AWG Mains Voltage 2x 16 AWG Low Voltage (dimming control)



Installation

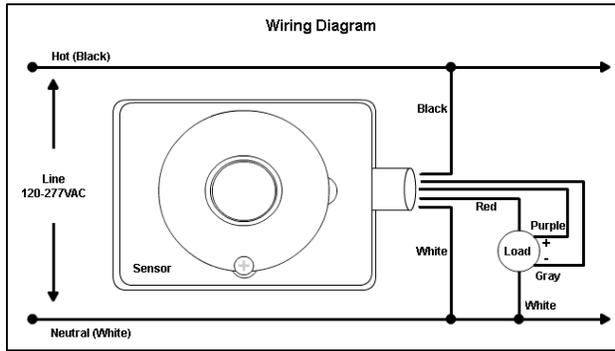
WARNING: This product must be installed by a qualified electrical professional in a manner consistent with local electrical safety codes. Ensure that electrical supply is isolated prior to commencing installation or maintenance work. This product does not contain any user-serviceable components; damaged or defective devices must be returned to GridNavigator or an authorized reseller for repair or replacement.

NOTICE: Passive infra-red sensors such as the GridNavigator occupancy sensor can occasionally sense false motion signals from hot and cold air currents whose temperature differs significantly from the temperature of the surrounding air. For

maximum reliability, please ensure that the occupancy sensor is installed at least six feet away from HVAC vents, radiators, or any other major source of heating or cooling.

1. Ensure that the light fixture's electrical power connection has been isolated.
2. Open the light fixture casing and locate the mounting port for the occupancy sensor.
3. Unscrew the locking ring from the occupancy sensor's wire conduit.
4. Insert the wires and their surrounding wire conduit into the light fixture's occupancy sensor mounting port.
5. Screw the locking ring tightly onto the wire conduit in order to ensure a secure connection between the occupancy sensor and the light fixture casing.
6. Connect the 16 AWG wiring as follows, using appropriate set of wire nuts:
 - o Attach the WHITE wire to both the NEUTRAL wire supplying the light fixture and the light fixture's own neutral wire.
 - o Attach the BLACK wire to the LINE supplying the light fixture.
 - o Attach the RED wire to the LOAD.
 - o Attach the PURPLE and GRAY dimming control wires as follows:
 - If the light fixture has purple and gray wires for 0 – 10V dimming, then connect the purple wire on the light fixture to the purple wire on the occupancy sensor, and the gray wire on the light fixture to the gray wire on the occupancy sensor.
 - Otherwise, if the light fixture does not have purple and gray wires for 0 – 10V dimming, then cap the purple and gray wires on the occupancy sensor with wire nuts, or ensure that they are electrically insulated by some other means. This is to ensure that these two wires do not accidentally short circuit and damage the occupancy sensor.

The occupancy sensor is now installed. You may now close the light sensor casing and restore electrical power.



Settings

The occupancy sensor is controlled by means of two potentiometers: a TIMER DELAY potentiometer and a DIMMING potentiometer. These settings are adjusted as follows:

The TIMER DELAY potentiometer controls how long the light fixture remains illuminated after the last instance of detected motion. This can be set to any time period between 30 seconds and 30 minutes.

The DIMMING potentiometer controls the behavior of the light fixture in its idle state, when no motion has been detected. Its modes of operation are as follows:

- If the dimming level is set to a value of 10% or greater than the relay will remain closed at all times, and the occupancy sensor will dim the light fixture to the selected level whenever the timer delay expires with no motion.
- If the dimming level is set to a value lower than 10% then the relay will be opened in the absence of motion (that is, the light fixture will be powered off) and closed in the presence of motion (the light fixture will be powered on). This setting is primarily intended for use with light fixtures that do not support 0 – 10V dimming, such as fluorescent and incandescent lights.
- If the dimming level is set to 100% then the light fixture will always be powered on and illuminated at full brightness. This allows the occupancy sensor to be temporarily disabled without needing to disconnect it from the light fixture.

In all cases, the occupancy sensor will use the 0 – 10V dimming signal to request 100% brightness whenever any motion is detected.

Troubleshooting

If you are experiencing difficulty with your occupancy sensor then please consult the list of common problems and solutions below:

- **Problem:** Light fixture does not switch on.
 - Review the wiring instructions and wiring diagram. Confirm that the light fixture and occupancy sensor are wired correctly.

Check if the light fixture illuminates when it is connected directly to power and the occupancy sensor is removed; if so, the occupancy sensor may be defective.

- **Problem:** Light fixture is always on.
 - If 0 – 10V dimming is not used, check that the light fixture's line connection is connected to the occupancy sensor's red relay wire
 - Ensure that there are no sources of hot or cold air blowing across the occupancy sensor's field of view; these may cause the occupancy sensor to incorrectly sense motion.
- **Problem:** Light fixture is always dim.
 - Check that the purple and gray 0 – 10V dimming wires are connected to the occupancy sensor and that their polarity is correct

WARRANTY

All products sold by GRIDNAVIGATOR are guaranteed against defects in material and workmanship for a period of one year from the date of shipment. GRIDNAVIGATOR responsibility is limited to repair, replacement, or refund, any of which may be selected by GRIDNAVIGATOR at its sole discretion. GRIDNAVIGATOR reserves the right to substitute functionally equivalent new or serviceable used parts.

This warranty covers only defects arising under normal use and does not include malfunctions or failures resulting from: misuse, neglect, improper application, improper installation, water damage, acts of nature, lightning, or repairs by anyone other than GRIDNAVIGATOR.

Except as set forth herein, GRIDNAVIGATOR makes no warranties, expressed or implied, and GRIDNAVIGATOR disclaims and negates all other warranties, including without limitation, implied warranties of merchantability and fitness for a particular purpose. Some states or jurisdictions do not allow limitations on implied warranties, so these limitations may not apply to you.

Limitation of Liability:

In no event shall GRIDNAVIGATOR be liable for any indirect, special, incidental, or consequential damages. Some states or jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.

Regulatory Compliances

Contains Transmitter Module FCC ID: OA3MRF24J40MC

The enclosed device complies with Part 15 of the FCC Rules and Industry Canada License Exempt RSS Standard(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does not cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment to an outlet on a circuit that is different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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