Technical | WOR Series | Dialog Ceiling Occupancy Sensor

PART No.

Standard Range
WORSDG1-P-N

Extended Range
WORXDG1-P-N

FEATURES

- The Dialog occupancy sensors use PIR and ADI-Voice technologies to determine the presence of people and perform the control actions when occupancy (or vacancy) is detected
- The WOR Series of sensors are designed to mount recessed on a ceilings giving a 360° coverage pattern
- The Dialog edition of this sensor gives the capability of operating and controlling directly on the Dialog bus

SPECIFICATION

Communication
- Dialog Data signal is the only connection required

Output
- Action on:
  - Occupancy/Unoccupancy
  - Switch
  - Photo Reading

Approvals
- FCC

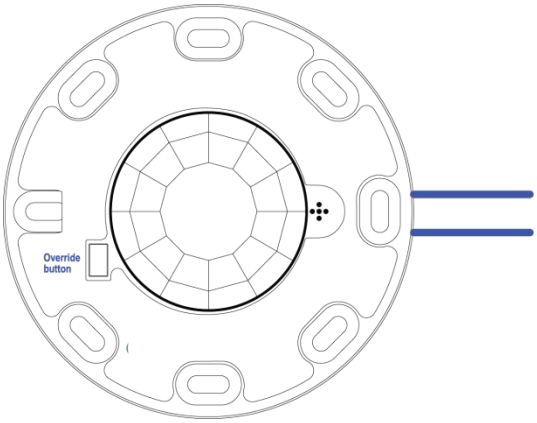
Environment
- Indoors, stationary, non-vibrating, non-corrosive atmosphere and non-condensing humidity
- Ambient Operating Temperature: 14°F to 140°F (-10°C to 60°C)
- Storage Temperature: -14°F to 140°F (-25°C to 60°C)

Features

- Recessed ceiling mounted occupancy sensor provides 360° coverage using an adjustable swivel head to maximize the sensor area.
- The dual-tech sensor utilizes ADI-Voice Technology, which has advanced digital signal processing for accurate detection of human speech.
- A Self-Adapting mode can be set to use both Passive Infrared (PIR) & Accurate Detection Intelligence (ADI) Voice technologies to automatically track occupancy tendencies for continuous maximizing of energy savings.
- Smart Sensing allows for an immediate return to occupied mode in the event of a false off being triggered.
- Programmed by the IR Setting Unit for added convenience, especially during commissioning.

Operation

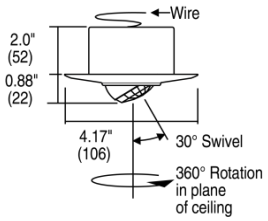
Low voltage sensors are powered by the Dialog Bus. When in operation, the sensor will detect initial motion using PIR; once motion is detected the internal contact will close. The ADI-Voice is then activated to work alongside the PIR to detect occupancy.



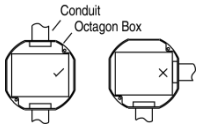
Dialog Data Signal
Sensor connects directly to the Dialog data signal. No other connections required.

DIMENSIONS & MOUNTING

- Unit attaches to mounting ring with screws or it can be mounted into an octagon box.



- The WOR sensor will fit an octagon box. It is very important that conduits be attached at opposite ends of the box.



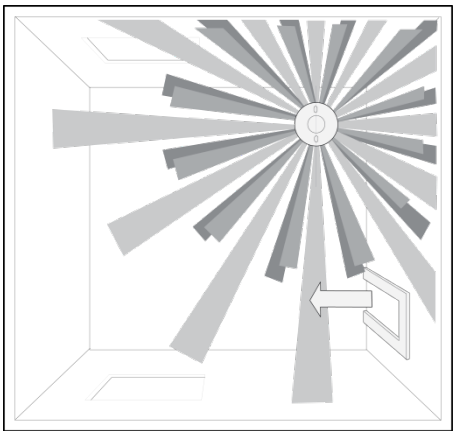
- Use a 2-1/8" or more, deep box. If the box is less, use the spacer ring.

Preliminary data subject to change without notice

INSTALLATION

Installing in Smaller Room (Standard Lens)

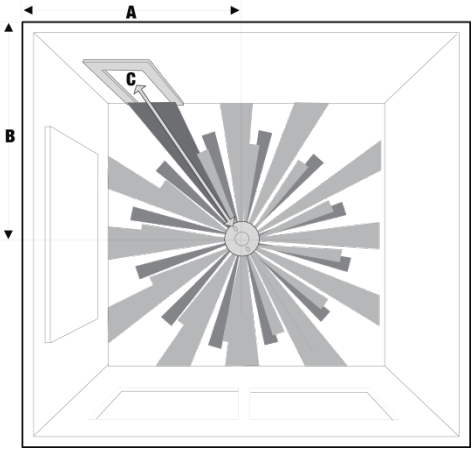
- Locate the sensor near the entrance door wall to prevent it from viewing out into the hallway.
- The lens can rotate, allowing the sensor to be pointed toward the area in front of the entrance door.
- Positioning the sensor in this manner ensures that an occupant moves across the longest detection beam upon entrance, utilizing the sensor's maximum PIR range.



Typical Enclosed Office

Installing in Larger Room (Extended Lens)

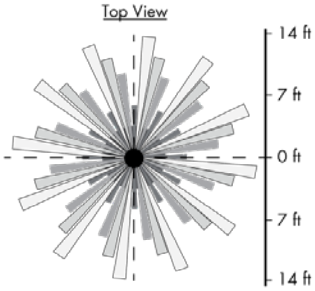
- Place the sensor near the center of the room ceiling. Locate it so the approximate distance of 27ft in and over (A & B) or in dead center of room.
- Tilt the lens to aim the detection zone to the bottom of the door. (C)
- Positioning the sensor in this manner ensures that the beam does not reach outside the room without reducing sensitivity.

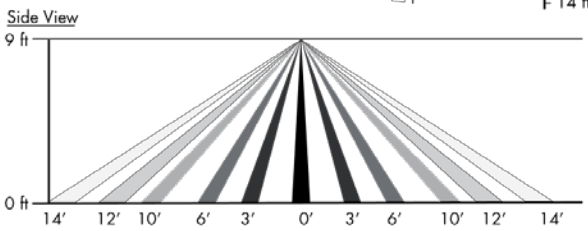


Typical Classroom

Standard Lens (S)

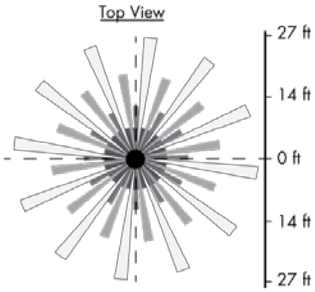
- Optimal usage is to detect small motions such as hand movements
- Designed for a mounting height of 7-15ft
- ADI-Voice can detect around corners that PIR cannot to maintain occupancy

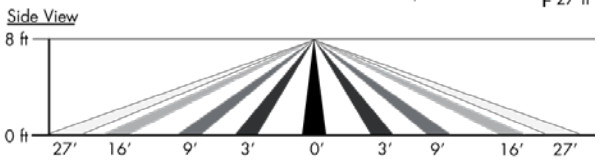




Extended Lens (X)

- Optimal usage is to detect large motions such as walking
- Designed for a mounting height of 7-15ft
- ADI-Voice can detect around corners that PIR cannot to maintain occupancy





Preliminary data subject to change without notice

Wiring Instructions

The WOR Series Low Voltage sensors are equipped with #18 AWG leads. Use appropriate sized wire-nuts to connect the wires to the incoming load terminations.

Sensor Settings

Programming - IR

Programming can be done with the WIR-3110 setting unit. For more details and additional options please see the "IR Setting Unit Manual"

Detection (Dual or PIR Only)

When in operation, the sensor will detect initial motion using Passive Infrared; once motion is detected the ADI-Voice is then is activated to work alongside the PIR to maintain occupancy. The ADI-Voice can be disabled on any dual tech sensors.

Automatic Timeout

By setting the timeout dial to maximum, the sensor will be put into automatic mode which will adjust the time out automatically to maximize energy savings and occupant comfort.

Smart Sensing

When vacancy occurs, sensitivity of the ADI-Voice technology transitions from maximum to zero over an adaptively determined time period, based on occupancy tendencies. During this period, ADI-Voice can turn the lights back on immediately, even with no line-of-sight to the sensor, assuring the best combination of user convenience and energy savings.

Energy consumption due to false triggers is minimized by the automatic walk-through mode. This feature turns the lights off after 3 minutes if no occupancy detection occurs in the first 30 seconds after initial turn on.

Vacancy Mode

The low voltage sensor can be selected as a vacancy (Off only) sensor. This provides additional energy savings by forcing the user to turn the lights on manually. The low voltage sensor has a built-in override input; allowing for the sensor to be operated as a vacancy sensor. For two pole sensors, it provides multi-level control capability.

Photo Sensing (-P)

When enabled, occupancy alone will not trigger the output state to on. If occupancy is detected AND there is a deficiency of natural light, the output is triggered on. An increase in natural light will not force the lights off but as the ambient light level drops the lights will turn on automatically. This feature will also limit the manual switching, ensuring the lights are not turned on if adequate light is present.

Profile

The Dialog sensor exists as three profiles in the system: a Switch, a Photocell, and an Occupancy Sensor. Each profile element can control separate control targets.

Summary of Configuration Options

Each building is unique in its lighting needs. Dialog sensors provide the user with a wide variety of configuration options to ensure each building's individual needs are met.

- Timeout 30 sec - 30 min or self adapting
- Adjustable PIR Sensitivity
- Adjustable Detect Intelligence Voice (ADI-Voice) Sensitivity
- Enable/Disable ADI-Voice
- Enable/Disable LED Indicators
- Enable/Disable Walk Through Mode
- Set parameters for light level setting upon occupancy detection

* Application and Performance Specification Information Subject to Change without Notification

Preliminary data subject to change without notice