

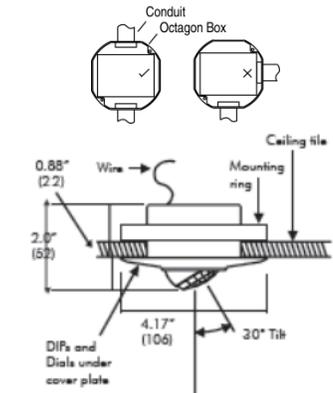
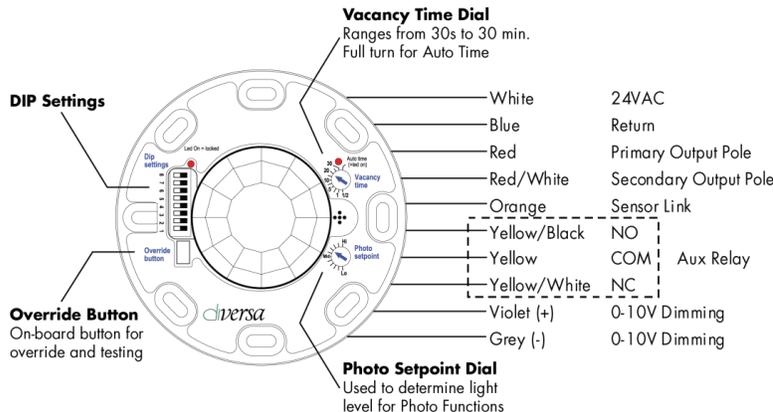
	PART No. WORSDD1-R-N WORSDD2-N-N WORSDD2-R-N WORSDD2-DPR-L WORXDD2-PR-N WORXDD2-DPR-L	FEATURES <ul style="list-style-type: none"> • Standard lens, DualTech, 24V, 1-pole, aux. relay • Standard lens, DualTech, 24V, 2-pole • Standard lens, DualTech, 24V, 2-pole, aux. relay • Standard lens, DualTech, 24V, 2-pole, dimming, photo sensor, aux. relay, low temp • Extended lens, DualTech, 24V, 2-pole, photo sensor, aux. relay • Extended lens, DualTech, 24V, 2-pole, dimming, photo sensor, aux. relay, low temp 	SPECIFICATION Inputs <ul style="list-style-type: none"> • 24Vac \pm25% • 60Hz • Class 2 Low Voltage Source • #18AWG Outputs <ul style="list-style-type: none"> • Diode Pulse: Each output is capable of driving up to four Diode Pulse relays. • 0-10V Dimming: Use to control up to 50 Ballasts. Connections are polarity sensitive. LED drivers can connect up to 25mA • Aux Relay: SPDT Form-C contact rated for 1A at 30VDC Power consumption <ul style="list-style-type: none"> • 9.5 mA Standard • 14.0 mA with Auxiliary Relay Approvals <ul style="list-style-type: none"> • FCC Environment <ul style="list-style-type: none"> • 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) • Low temp and high humidity option (L) products: PCB conformal coated for resistance to damp environments and operation to -40°C/F • Diversa recessed ceiling sensors fit into a 4" octagon box with a depth of 2-1/8" (for shallower boxes use the included mounting ring). For network wiring, connecting conduit on opposite sides of the octagon box.
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Features

- Dual technology (PIR & ADI-Voice) Occupancy/Vacancy sensor
- Highly configurable through on-board switches and Infrared Setting Unit
- 360° coverage with tilting lens for directional sensing
- 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.
- The photo sensor option provides 0-10Vdc dimming ballast/LED* drivers output for Daylight Harvesting (*LED drivers up to 25mA)
- Power Pack relay control through diode pulse technology

Operation

Low voltage sensors are powered by 24VAC from either the WP-PP20-D Power Pack or a 24VAC transformer. 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.

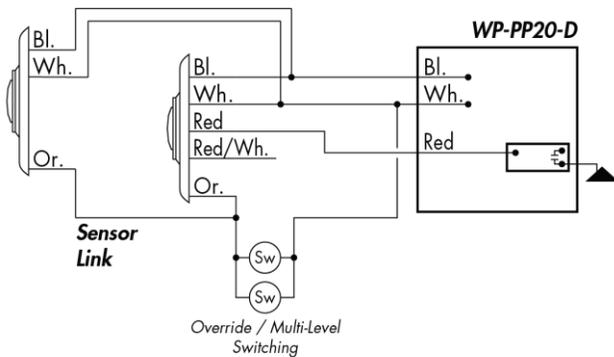


Wiring Instructions

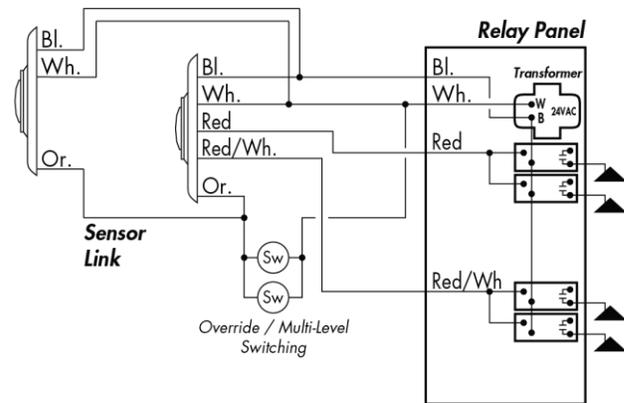
The WOR Series Low Voltage sensors are equipped with #22 AWG leads. Use appropriate sized wire-nuts to connect the wires to the incoming load terminations.

Electrical Connections

Wiring to a Power Pack



Wiring to a Relay Panel



Sensor Settings

Programming - IR / Manual Setting

Programming can be done either with the DIP switches and dials on-board the device or with the WIR-3110 setting unit. For more details and additional options please see the "WIR-3110 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 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 Sensor

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. This feature will also limit the manual switching, ensuring the lights are not turned on if adequate light is present.

Daylight Harvest Dimming (0-10V Output) (-D)

The 0-10V output can operate up to 50 ballasts/25mA of LED Drivers. This output can be used for either a fixed tuned lighting level or in a full range daylight harvesting mode. When set to a fixed dim level, the dial can be used to raise or lower the light level. When set for photo dimming the dial is used to select the maintained light level.

Multi-Level Switching (2-Pole w/o Photo Sensing option)

A switch on the sensor link can be used to either trigger both poles simultaneously or step through a multi-level sequence as described in the manual.

Multi-Level Photo Sensing (2-Pole w/ Photo Option)

Photo sensing on a 2-pole sensor can be configured to either restrict both poles or the secondary pole only; if set to "Secondary Pole Only", the primary pole will trigger based on occupancy, regardless of the photo setting. This feature will also limit the manual switching. Please see the manual for sequences.

Sensor Link

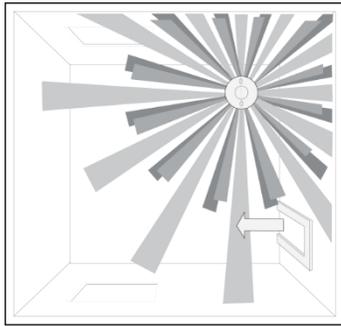
The low voltage sensor is equipped with a connection which facilitates communication between sensors. The sensor link (orange wire) allows multiple sensors to coordinate their signals and act together as a cohesive zone. This connection provides additional control functions as described below.

Diode Pulse: When a diode switch is connected to the sensor link it provides manual control. This can be used to toggle the lights ON/OFF. For two pole sensors, it can provide multi-level sequencing.

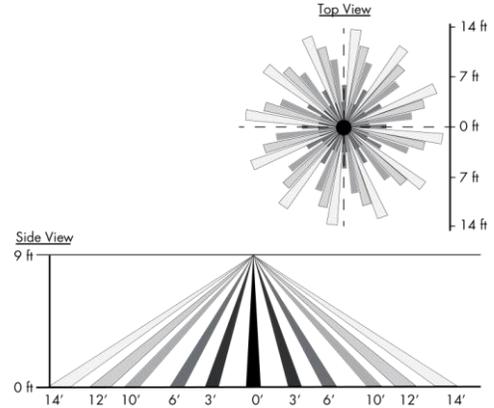
Maintained AC: If a maintained AC signal is applied to the sensor link, the sensors will be in an override mode. By default the sensor will turn the lights ON when disabled by this override. This is settable via the IR setting unit.

Installing in Smaller Room (Standard Lens - S)

- 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. 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

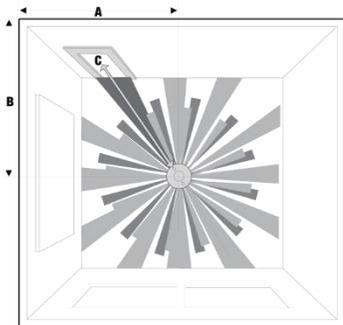


Typical Enclosed Office

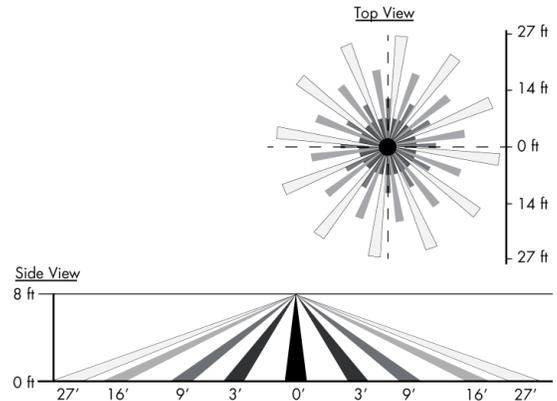


Installing in Larger Room (Extended Lens - X)

- 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.
- 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

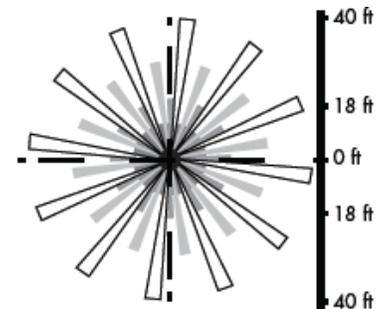
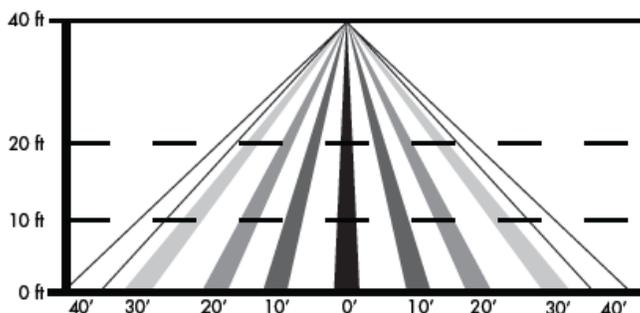


Typical Classroom



Installing in High Ceiling Room (High bay Lens - B)

- For 15 to 40 foot ceilings
- Position sensor based on ceiling height, beam pattern and coverage requirements



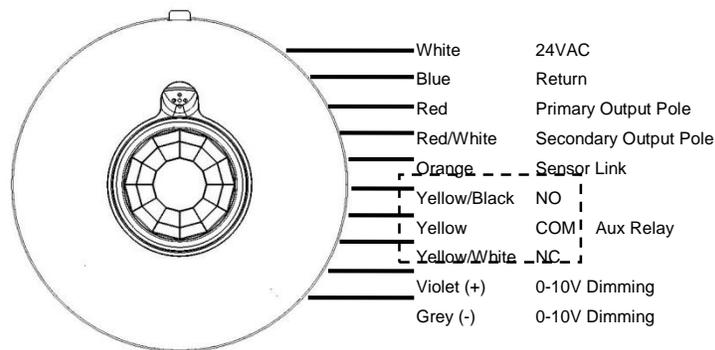
INSTALLATION & WIRING DIRECTIONS

Installation

Mounting of the device requires a 2-1/8" deep or more, octagonal junction box. Install by recessing the device into the octagon box; lining up the mounting holes and securing it using the screws provided. If too shallow, use the spacer ring is provided.

Wiring

The WOR Series Low Voltage sensors are equipped with plug-in harness for easy installation. This harness has #20 AWG leads. Use appropriate sized wire-nuts to connect the wires to the incoming load terminations.



DIP Switches

A bank of eight DIP switches and two rotating controls can be used to manually setup and configure the sensor.

WOR - - - - '-N'-		
DIP	On Position	Off Position (Default)
8	IR Settings	Manual Settings
7	Button Disabled	Button Enabled
6*	Multi-Level (ML)	All ON / OFF
5*	ML: 10> 11> 00	ML: 01 > 11 >00
4	Occupancy Sensor (Auto-On)	Vacancy Sensor Only
3	Detect LED Disabled	Detect LED Enabled
2	PIR High Sensitivity	PIR Normal Sensitivity
1	ADI-Voice Disabled	ADI-Voice Enabled

WOR - - - - '-P'-		
DIP	On Position	Off Position (Default)
8	IR Settings	Manual Settings
7	Button Disabled	Button Enabled
6*	Multi level: 10> 1P> 00	All Photo (P) / OFF
5	Photo Disabled	Photo Enabled
4	Occupancy Sensor (Auto-On)	Vacancy Sensor Only
3	Detect LED Disabled	Detect LED Enabled
2	PIR High Sensitivity	PIR Normal Sensitivity
1	ADI-Voice Disabled	ADI-Voice Enabled

*Available in 2-Pole models (-2) only

WOR - - - - '-PD'-		
DIP	On Position	Off Position (Default)
8	IR Settings	Manual Settings
7	Button Disabled	Button Enabled
6*	Multi level: 10> 1P> 00	All ON / OFF
5*	Fixed Dim / Photo Disabled	Photo Enabled & Dim
4	Occupancy Sensor (Auto-On)	Vacancy Sensor Only
3	Detect LED Disabled	Detect LED Enabled
2	PIR High Sensitivity	PIR Normal Sensitivity
1	ADI-Voice Disabled	ADI-Voice Enabled