## Technical Data

### Occupancy Sensor Wall Switch DualTech 24Vac

<table>
<thead>
<tr>
<th>PART No.</th>
<th>DESCRIPTION</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOSSDD2-DPR-VW</td>
<td>DualTech, 24Vac, 2-pole, dimming, photo, relay, white</td>
<td>Inputs: 24 VAC ±25%</td>
</tr>
<tr>
<td>WOSSDD2-P-VW</td>
<td>DualTech, 24Vac, 2-pole, photo, white</td>
<td>Class 2 Low Voltage Source</td>
</tr>
</tbody>
</table>

#### Features

- **180° coverage**
- The Dual Technology sensor utilize ADI-Voice Technology, which has advanced digital signal processing for accurate detection of human speech.
- **24Vac model controls Power Pack relay through diode pulse**
- 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.
- Photo sensor and dimming model (DP) provides 0-10Vdc dimming ballast or 25mA sink LED drivers for Daylight Harvesting.
- Can be programmed by on-board switches and dials or a handheld Infrared Setting Unit (WIR-3110) for added convenience during commissioning.

#### Operation

Low voltage sensors are powered by 24Vac from either the WP-PP20-D Power Pack or a 24Vac transformer. The sensor detects initial motion using PIR; once motion is detected the internal contact will close and ADI-Voice is activated to work alongside the PIR to maintain occupancy.

### DIMENSIONS & MOUNTING

- Mount in a standard gang box.

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*faceplate not included*
Wiring Instructions
The WOS Series Low Voltage sensors are equipped #20AWG leads. Use appropriate sized wire-nuts to connect the wires to the incoming load terminations.

Electrical Connections

Sensor Settings
Programming - IR / Manual Setting
Programming done via on-board switches or with WIR-3110 handheld infrared setting unit (sold separately).

Detection (Dual or PIR Only)
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 after the first 30 seconds after initial turn on.

Vacancy Sensor
Vacancy mode (manual ON) can be enable to maximize energy savings. 2-pole sensors, can be configured for sequencing control.

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 25mA sink in LED drivers/Dimming Ballasts. This output can be used for full range daylight harvesting. When set for photo dimming the dial is used to select the maximum 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 by connecting the orange to white wires, the sensors will be in an override mode. By default the sensor will turn the lights ON when disabled by this override (white and red wires). This is settable via the IR setting unit.
Installing in Offices
- Sensor effective in obstructed spaces.
- ADI-Voice re-activation and Smart Sense prevents lights out condition.

Installing in Washrooms
- Sensor effective in partitioned spaces.
- ADI-Voice re-activation and Smart Sense prevents lights out condition.

Standard Lens
- Optimal usage is to detect small motions such as hand movements.
- Designed for a mounting height of up to 4ft.
- ADI-Voice can detect around corners that PIR cannot to maintain occupancy.
INSTALLATION & WIRING DIRECTIONS

Installation

- Installation requires a standard gang box. Install wall switch into the gang box. Align mounting holes and secure in place with screws provided.
- Position wall switch at standard switch height (approx. 4’ from floor).
- There should be no obstructions between the sensor and the room entrance. This ensures that the sensor’s PIR lens will recognize when a person enters the room and the ADI-Voice technology will be activated.

Wiring

The WOS Series Low Voltage sensors are equipped with a #20AWG wiring harness. 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.

<table>
<thead>
<tr>
<th>DIP #</th>
<th>Function</th>
<th>On</th>
<th>Off</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Voice Detection</td>
<td>Disabled</td>
<td>Enabled</td>
<td>OFF</td>
</tr>
<tr>
<td>2</td>
<td>Motion Detection Sensitivity</td>
<td>High</td>
<td>Normal</td>
<td>OFF</td>
</tr>
<tr>
<td>3</td>
<td>Detection LED</td>
<td>Disabled</td>
<td>Enabled</td>
<td>OFF</td>
</tr>
<tr>
<td>4</td>
<td>Auto or Manual ON</td>
<td>Occupancy (Auto-On)</td>
<td>Vacancy (Manual On)</td>
<td>OFF</td>
</tr>
<tr>
<td>5</td>
<td>Photocell Inhibit</td>
<td>Disabled</td>
<td>Enabled</td>
<td>OFF</td>
</tr>
<tr>
<td>6*</td>
<td>Photocell Control</td>
<td>Inhibit Primary Pole Only</td>
<td>Inhibit Both Poles</td>
<td>OFF</td>
</tr>
<tr>
<td>7</td>
<td>Manual Override Button</td>
<td>Disabled</td>
<td>Enabled</td>
<td>OFF</td>
</tr>
<tr>
<td>8</td>
<td>Settings Input</td>
<td>IR Handheld (WIR-3110)</td>
<td>Manual Dips/Dials</td>
<td>ON</td>
</tr>
</tbody>
</table>

*2-Pole models