Project

Date

OVERVIEW

The WSXA Family of wall switch occupancy sensors provides simple and cost effective solutions for commercial and residential lighting control applications. All WSXA Family sensors have a stylish low profile appearance, soft-click buttons, and provide small motion detection up to 20 ft (6.10 m), making them perfect for private offices, private restrooms, closets, copy rooms, or any other small enclosed space. Additionally, all WSXA Family sensors have a patent-pending wiring method that enables them to function either with or without a neutral connection. WSXA units come pre-configured for wiring without a neutral, however if connection to neutral is required by code, contractors can convert the unit in seconds.

MULTI-WAY (MWO)

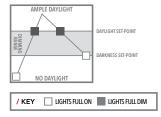
Our new WSXA MWO series allows for multi-location On/Off or 0-10 dimming up to 9 devices (2 device limit when neutral-less wiring used) on a single traveler.

FEATURES

- Single Pole devices can be programmed with Sensor Switch VLP app or traditional push button programming
- WSXA MWO can be used in conjunction with sPODMRA MWO
- Devices can be spaced up to 250 ft with MWO option
- MWO option support up to 9 additional MWO enabled devices (2 neutral-less) on a single traveler
- Compatible w/LEDs, electronic & magnetic ballasts, CFLs, & incandescents
- 100% passive detection, no potential for interference with other building systems
- Small motion detection to up to 20 ft, Large motion detection up to 36ft
- Push-button programmable without removing cover plate adjustable time delays & operating modes
- Dual technology (PDT) utilizes PIR/Microphonics™ detection (patented)
- Device accommodates powering over ground or neutral connection (patent pending)
- Fully meets NEC 2017 Section 404.2C neutral requirements no current leakage to ground when connected to neutral
- Line power and load wires are interchangeable impossible to wire backwards (patented)
- Integrated Photocell (disabled by default) prevents light from turning on if sufficient daylight is
 present
- New aesthetic with vandal resistant lens

ADAPTIVE DAYLIGHT HARVESTING (ADH)

With Sensor Switch's Adaptive Daylight Harvesting (ADH), automatic dimming has never been more reliable - even in a wall switch. It works by establishing two state change set-points; daylight and darkness. The light level in the space will then be automatically maintained by intelligently controlling the dim level of the electric light source. Set-points can be established using the "Set Now" option or programmed using desired light levels as measured in foot candles (fc).



Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.



Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect. *See ordering tree for details



WSXA Series Wall Switch Sensor





WSXA/WSXA MWO On/Off Single Relay

WSXA D/WSXA MWO D On/Off/Dimming Single Relay



WSXA 2P FAN On/Off Dual Relay













ORDERING INFORMATION

WSXA Single Pole Example: WSXA MWO PDT D WH										
Series Option		Detection Mode		eldoLED		Dimming ⁷		Operating Mode ³		
WSXA	Wall Switch Sensor (Occupancy and Daylighting)	[blank]	lank] Passive Infrared (PIR)		ık] none eldoLED Driver	[blank]	On/Off Dimming	[blank]	Automatic on (default) or Vacancy Manual On (default) or Automatic On	
WSXA MWO	WSXA with Multi-way Operation	PDT	Dual Technology	EZ ²	Compatibility	וט ט	Dillillillig	VA ASL ^{3,4}	Vacancy Automatic Start Level 5VDC	

Voltage	Color ⁵	Max Dim Level 6,7	Min Dim Level 6,7	Temp / Humidity	
[blank] 120-277 VAC 347 347 VAC	WH White IV Ivory BK Black GY Gray RD Red	[blank] 10 VDC 9H 9 VDC 8H 8 VDC 7H 7 VDC	[blank] 0 VDC 4V 4 VDC 1V 1 VDC 5V 5 VDC 2V 2 VDC 6V 6 VDC 3V 3 VDC	[blank] Standard LT Low Temp/ High Humidity	

Notes:

- 1 Max Dim Level default set to 9.1VDC. Min Dim Level default set to 1.5VDC.
- 2 EZ only available with D option.
- $3\quad \hbox{Operating Modes re-programmable via push-button except for VA version}.$
- 4 Not available with EZ, Max Dim, or Min Dim Level. Also requires the D option.
- 5 Matching wall plate provided for 120-277 VAC units.
- 6 Only available with D option.
- 7 Minimum order qty of 30 units for Max or Min Dim Level settings. Additional time may be required.

WSXA 21	WSXA 2P Example: WSXA 2P FAN WH								
Series Option		Detectio	n Mode	Poles		Fan²		Operating Mode ³	
WSXA	Wall Switch Sensor (Occupancy and Daylighting)	[blank] PDT	Passive Infrared(PIR) Passive Dual Technology	2P ¹	2 Poles	[blank] FAN	No Fan Fan Operation	[blank] 2SA 2VA	Pole 1 auto-on Pole 2 Manual On Both poles Manual On (default) Both poles vacancy (only)

Voltage	Run Time ⁴	Color ⁵	Temp/Humidity
[blank] 120-277 VAC 347 347 VAC	[blank] Pole 1 Lights Pole 2 Fan ASHRT Pole 1 Lights Pole 2 Fan, Minimum Fan Run Time per Ashrae 62.2	WH White AL Lt. Almond IV Ivory RD Red GY Gray BK Black	[blank] Standard LT Low Temp/ High Humidity

Notes:

- 1 2P does not have VLP functionality.
- 2 If Fan Operation is selected Operating Mode must be blank.
- 3 Operating Modes re-programmable via push-button except for VA version.
- 4 Only available if 2P FAN is selected.
- 5 Matching wall plate provided for 120-277VAC Units.

SSW										Example:	SSW 1GNG OCC WH
Series		Numbe	r of Gangs	Mount		Colo	r				
SSW	Sealed Screwless Wall-Plate	1GNG	Single Gang	[blank] OCC	Standard Wall Switch Occ. Wall Switch	WH IV	White Ivory	RD	Red		

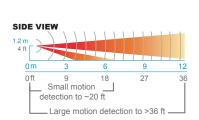
WALLP							
Series		Color				Multi	i-Pack Size
WALLP1 WALLP2	Screwless Wall Plate Single Gang Screwless Wall Plate Dual Gang	WH IV GY	White Ivory Gray	AL BK RD	Light Almond Black Red	M5	(5 Wall Plates)

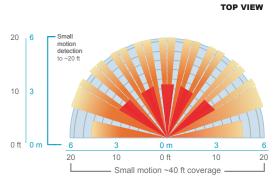
SPECIFICATIONS

Output Ratings 120VAC, 800W, 6.7A - Tungsten, Standard Ballast, Electronic Ballast 277VAC, 1200W, 4.3A - Tungsten, Standard Ballast, Electronic Ballast 347VAC, 1500W, 4.3A - Tungsten, Standard Ballast, Electronic Ballast 120/277/347VAC, 1/4 HP - Motor Relay Type Latching Low Voltage Output Ratings 0-10VDC, Sinks < 50mA Standards/ Ratings Energy Management Equipment, UL916 (E167435) Mechanical Dimensions 2.74"H x 1.68"W x 1.63"D (70mm x 43mm x 41mm) - does not include ground strap Single-Gang Box Connection Type Low-Voltage Leads, Line-Voltage Leads Environmental Warrantied Operating Temperature 32°F to 140°F (0°C to 60°C) Relative Humidity Up to 90%, Non-Condensing Standards/ Ratings RoHS	Electrical	Input Ratings	120-277VAC, 50/60 Hz 347VAC, 50/60 Hz (with 347 option)
Low Voltage Output Ratings Standards/ Ratings Energy Management Equipment, UL916 (E167435) Mechanical Dimensions Single-Gang Box Connection Type Low-Voltage Leads, Line-Voltage Leads Environmental Warrantied Operating Temperature Relative Humidity Up to 90%, Non-Condensing		Output Ratings	277VAC, 1200W, 4.3A - Tungsten, Standard Ballast, Electronic Ballast 347VAC, 1500W, 4.3A - Tungsten, Standard Ballast, Electronic Ballast
Standards/ Ratings Energy Management Equipment, UL916 (E167435) Mechanical Dimensions 2.74"H x 1.68"W x 1.63"D (70mm x 43mm x 41mm) - does not include ground strap Mounting Single-Gang Box Connection Type Low-Voltage Leads, Line-Voltage Leads Environmental Warrantied Operating Temperature 32°F to 140°F (0°C to 60°C) Relative Humidity Up to 90%, Non-Condensing		Relay Type	Latching
Mechanical Dimensions 2.74"H x 1.68"W x 1.63"D (70mm x 43mm x 41mm) - does not include ground strap Mounting Single-Gang Box Connection Type Low-Voltage Leads, Line-Voltage Leads Environmental Warrantied Operating Temperature 32°F to 140°F (0°C to 60°C) Relative Humidity Up to 90%, Non-Condensing		Low Voltage Output Ratings	0-10VDC, Sinks <50mA
Mounting Single-Gang Box Connection Type Low-Voltage Leads, Line-Voltage Leads Environmental Warrantied Operating Temperature Relative Humidity Up to 90%, Non-Condensing		Standards/ Ratings	Energy Management Equipment, UL916 (E167435)
Connection Type Low-Voltage Leads, Line-Voltage Leads Environmental Warrantied Operating Temperature 32°F to 140°F (0°C to 60°C) Relative Humidity Up to 90%, Non-Condensing	Mechanical	Dimensions	2.74"H x 1.68"W x 1.63"D (70mm x 43mm x 41mm) - does not include ground strap
Environmental Warrantied Operating Temperature 32°F to 140°F (0°C to 60°C) Relative Humidity Up to 90%, Non-Condensing		Mounting	Single-Gang Box
Relative Humidity Up to 90%, Non-Condensing		Connection Type	Low-Voltage Leads, Line-Voltage Leads
	Environmental	Warrantied Operating Temperature	32°F to 140°F (0°C to 60°C)
Standards/ Ratings RoHS		Relative Humidity	Up to 90%, Non-Condensing
		Standards/ Ratings	RoHS

COVERAGE PATTERNS

- Small motion (e.g. hand movements) detection up to 20 ft (6.10 m), ~625 ft2
- Large motion (e.g. walking) detection greater than 36 ft (10.97 m), ~2025 ft2
- Wall-to-wall PIR coverage
- Units with -PDT (Passive Dual Technology) option (also called Microphonics) provide overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is utilized to prevent non-occupant noises from keeping the lights on.
- Tested to NEMA WD 7-2011





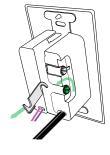
CONVERSION FROM GROUND ONLY (NO NEUTRAL) TO NEUTRAL WIRING

This product is pre-configured for wiring without a neutral; however, if connection to neutral is required by code, the unit easily converts in seconds.

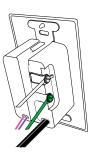
Step 1: Remove Yellow Label



Step 2: Loosen Screws and Remove Metal Link

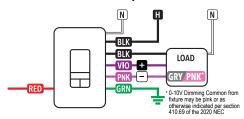


Step 3: Connect Neutral to Silver Screw and Ground to Green Screw

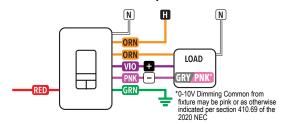


CONVERTIBLE NEUTRAL

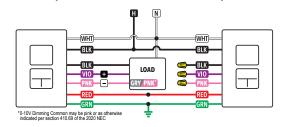
SINGLE RELAY, 120-277 VAC



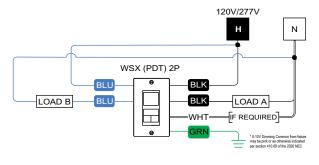
SINGLE RELAY, 347 VAC



SINGLE RELAY, MULTI-WAY CONFIGURATION, 120-277 VAC



2 POLE CONFIGURATION



Notes:

All load controls act in unison

without D option

being used

Black wires can be used interchangeably

Cap off violet and pink wires if dimming

functionality is not being used

come from same source

Violet and pink wires are not present on devices

Red Wire is not present on devices without MWO

Cap off red wire if Multi-Way functionality is not

For ground Multi-Way Configurations ground must

For neutral conversion Multi-Way Configurations

power must come from the same panel

120-277 VAC WIRING

WIRE COLOR KEY

BLK Line Input

BLK Line Output

VIO Low Voltage Dim Output (0-10 VDC)

PNK Low Voltage Common

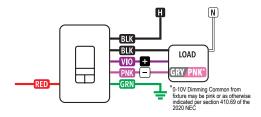
RED Low Voltage Communication Wire

347 VAC WIRING (-347 Option)

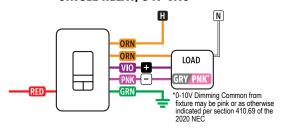
Orange (ORN) wires replace black (BLK) wires

GROUND ONLY

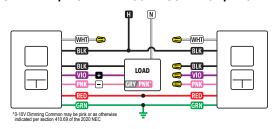
SINGLE RELAY, 120-277 VAC



SINGLE RELAY, 347 VAC



SINGLE RELAY, MULTI-WAY CONFIGURATION, 120-277 VAC



- Per NEC requirements, the 0-10V violet and pink wires must be installed as Class One.
- SPODMRA MWO paired with WSXA MWO will act accordingly with WSXA occupancy settings
- The 0-10V control wires must not exceed 250 ft (76 m) in length and must be sized at no less than
- The Low Voltage Communication BUS must not exceed 250 ft (76 m) in length and must be sized at no less than 20 AWG
- Dimming wires from individual MWO devices should only connect with fixture/driver dimming wires and never to another MWO device

WSX Family (IS-WSXA-003)

^{***}Some Pink wires may come as Gray