

OVERVIEW

Power packs are the heart of the low voltage sensor system. A PP20 Series power pack transforms Class I high voltage (120/277 VAC) to Class 2 15 VDC for powering remote sensors. The PP20 and the SP20 Series secondary pack are also capable of switching lighting loads on and off using their internal relays. Class 2 wire leads connect to 18 to 22 AWG low voltage cable running to the sensors, making installation easy and clean. Power packs also have an elongated chase nipple that allows it to be mounted either directly through a ½ inch knockout into a junction box, or inside an adjacent box for meeting specific local code requirements in ceiling plenums.

The PP20 is versatile. It utilizes a patented relay contact protection and can power up to 14 sensors. Dual-circuit control can be handled by two PP20's or a PP20 power pack and a SP20 secondary pack.

For emergency powered loads, please visit our shunt power pack solution:

Line Voltage:

<https://www.acuitybrands.com/products/detail/460876/sensorswitch/pp16-shunt/bypass-relay>

Low Voltage:

<https://www.acuitybrands.com/products/detail/1171701/sensorswitch/pp5lv-shunt/pp5lv-shunt-bypass-relay>

FEATURES

- Powers Low Voltage Sensors (PP20 only)
- Self-Contained Relay(s) Switch Line Voltage Loads
- Relay Contact Protection
- Plenum Rated

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/CustomerResources/Terms_and_conditions.aspx

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



*PP20
SP20
Power Pack*



ORDERING INFORMATION

PP20		Example: PP20 LT		
Series	# of Poles	Voltage	Temperature/Humidity	
PP20 Power/ Relay Pack	[blank] 1	[blank] 120/277 VAC	[blank] Standard	
SP20 Secondary Relay Pack			LT	Low Temp/High Humidity

SPECIFICATIONS

Electrical Specifications

Input Ratings PP20:120/277VAC, 50/60 Hz; SP20 15 VDC

Output Ratings 120/277VAC, 20A - General Use
240VAC, 1 HP - Motor
120VAC, 5A, 600 W - Tungsten
240VAC, 1 HP - Motor
120VAC, 5A, 600 W - Tungsten; SP20: 120/277VAC, 20A - General Use
240VAC, 1 HP - Motor
120VAC, 5A, 600 W - Tungsten

Relay Type Latching/ SP20: Latching

Low Voltage Output Ratings PP20: 15VDC, 20A per pole (150mA total); SP20

Standards/ Ratings Energy Management Equipment, UL916 (E167435); UL916 (E167435); SP20: Energy Management Equipment, UL916 (E167435)

Mechanical

Dimensions 3.00"H x 2.25"W x 1.88"D (76mm x 57mm x 48mm) - not including chase nipple; SP20: 3.00"H x 2.25"W x 1.88"D (76mm x 57mm x 48mm) - not including chase nipple

Mounting 1/2" Knockout (7/8" hole) SP20: 1/2" Knockout (7/8" hole)

Color Black/ SP20: Black

Connection Type Line-Voltage Leads; SP20: Line-Voltage Leads

Environmental

Warrantied Operating Temperature 14°F to 122°F (-10°C to 50°C)
14°F to 113°F (-10°C to 45°C) if enclosed within a junction box
14°F to 113°F (-10°C to 45°C) if enclosed within a junction box / SP20: 14°F to 122°F (-10°C to 50°C)
14°F to 113°F (-10°C to 45°C) if enclosed within a junction box

Relative Humidity Up to 90%, Non-Condensing; SP20: Up to 90%, Non-Condensing

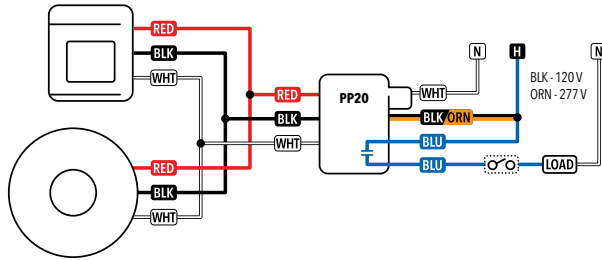
Standards/ Ratings PP20: RoHS, Plenum UL2043; SP20: RoHS, Plenum UL2043

Standards/ Ratings System Component to aid in compliance with Title 24/SP20: System Component to aid in compliance with Title 24

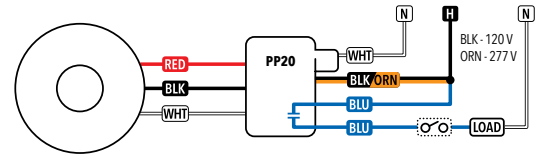
WIRING (DO NOT WIRE HOT)

Note: The Power Pack must be connected to a single phase Hot and Neutral System. For 120 VAC, connect the Black wire to Hot, White wire to Neutral, and Cap off the Orange/Red wire. For 240-277 VAC, connect the Orange to Hot, White to Neutral, and Cap off the Black Wire. **Never connect both the Black and Orange wires!** Low Voltage wire can be 18 to 22 AWG; shielding is not necessary.

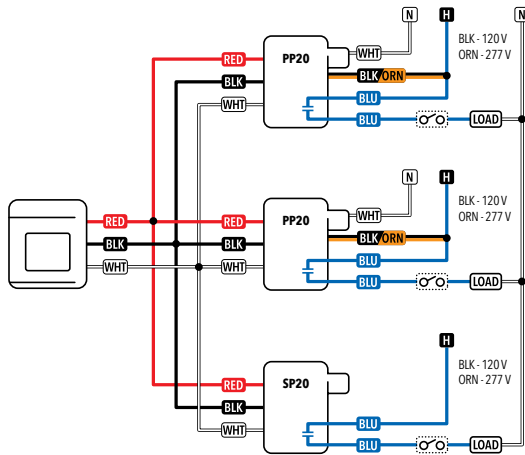
Multiple Sensors Controlling One Circuit



One Sensor Controlling One Circuit



Wiring Multiple Power Packs Together



POWERING CAPACITY

A power pack's transformers can supply up to 150 mA of power. Each relay requires 40 mA during the on state. Low voltage remote sensors typically require 3 mA when detecting occupants, and 0.15 mA when in standby. Therefore, each transformer can handle up to 3 relays (including the relay(s) inside the power pack). For example, one PP20 can power its relay (40 mA) and 110 mA of external devices. Because of the ultra low current design of the sensors, up to 14 sensors can be connected to a single power pack! If multiple power packs are used together, an additional 110 mA is available. Do not exceed more than 5 connected power packs.

Note:

Only three relays may be controlled with one Power Pack. If more than three circuits are required, multiple power packs must be used. The R option adds an isolated low voltage relay to a sensor. Only one sensor with this option is typically needed in a room.

	Sensors	Sensors w/ R option
1 PP20	14	8
1 PP20 w/SP20	7	6
2 PP20	28	16