Catalog Number: | Date: | Project:

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

sensorswitch®

PP20
SP20
Power Pack



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.

UL LISTED

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

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SPECIFICATIONS

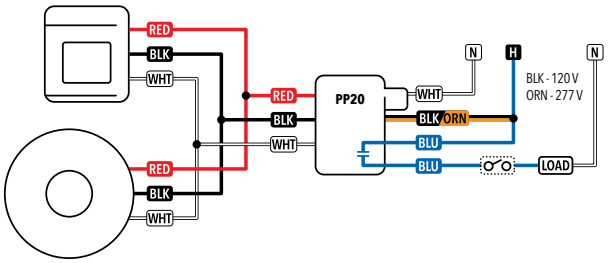
Electrical Specifications	**Input Ratings**	PP20:120/277VAC, 50/60 Hz; SP20 15 VDC
	Output Ratings	120/277VAC, 20A - General Use 240VAC, 1 HP - Motor 120VAC, 5A, 600 W - Tungsten 240VAC, 1 HP - Motor 120VAC, 5A, 600 W - Tungsten; SP20: 120/277VAC, 20A - General Use 240VAC, 1 HP - Motor 120VAC, 5A, 600 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

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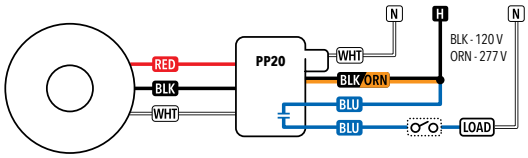
WIRING (DO NOT WIRE HOT)

Note: The Power Pack must be connected to a single phase Hot and Neutral System. For 120 VAC, connect teh 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.

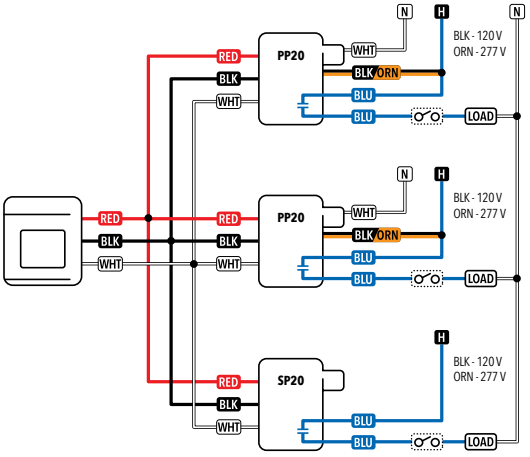
Multiple Sensors Controlling One Circuit



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.

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

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.

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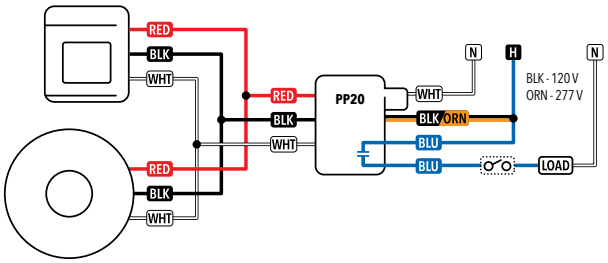
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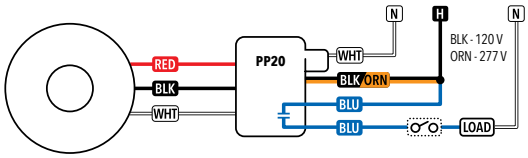
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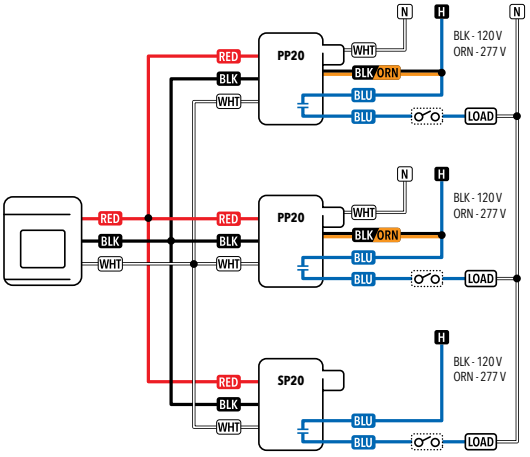
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