AcuityControls™

Sensor Switch™

PP20
PP20 2P
SP20
Power Pack

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 slave 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 most versatile power pack is the PP20, which utilizes a patented relay contact protection and can power up to 14 sensors. Dual-circuit control can be handled by two PP20's, one PP20 2P Series 2-Pole power pack, or a PP20 power pack and a SP20 slave packs.

FEATURES

- Powers Low Voltage Sensors (PP20/PP20 2P only)
- Self-Contained Relay(s) Switch Line Voltage Loads
- Relay Contact Protection
- Plenum Rated

SPECIFICATIONS

Size:	(not including chase nipple)
	PP20 / SP20: 3.00" H x 2.25" W x 1.88" D (7.62 cm x 5.72 cm x 4.78 cm)
	PP20 2P: 4.13"H x 3.00"W x 1.88"D (10.49 cm x 7.62 cm x 4.78 cm)
Weight:	6 oz
Mounting:	1/2" knockout
Color:	Black
Operating Voltage:	120, 240, 277
Relay Current Reqs:	40 mA
Switching Load:	20Amps/ Pole
Output Voltage/Current:	15 VDC, 150 mA (PP20/PP20 2P only)
Motor Load:	1 HP

ROHS Compliant, Title 24 System Component

Warranty

Three-year limited warranty. 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.

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ORDERING INFORMATION

PP20   **Example: PP20 2P LT**

Series		# of Poles		Voltage		Temperature/Humidity	
PP20	Power/ Relay Pack	[blank]	1	[blank]	120/277 VAC	[blank]	Standard
SP20	Secondary Relay Pack	2P	2[1]			LT	Low Temp/High Humidity

Note:
1. Not available for SP20.

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. Class II terminal block on PP20 2P only accepts one conductor,18 AWG stranded or smaller, per terminal. The relays on PP20 2P are isolated allowing for connection of 120 VAC on one relay, and 277 VAC on the other.
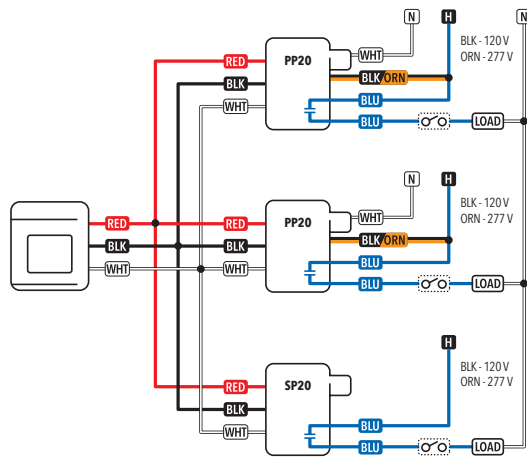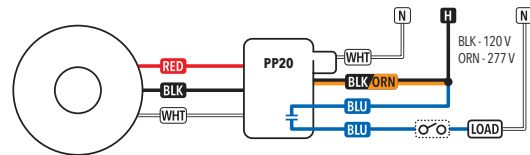
Multiple Sensors Controlling One Circuit
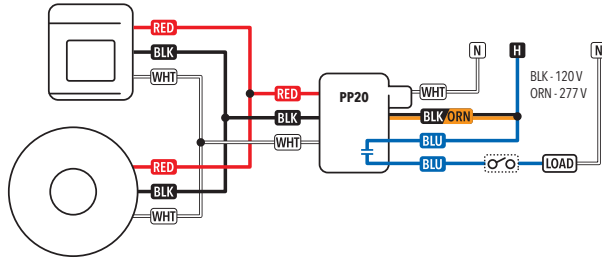
One Sensor Controlling Two Circuits
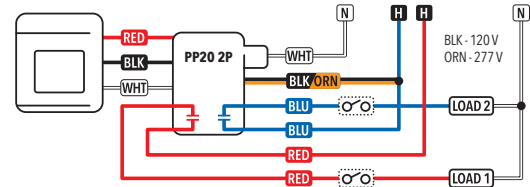
Wiring Multiple Power Packs Together

One Sensor Controlling One Circuit

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 or more sensors can be connected to a single power pack! If multiple power packs are used together, an additional 110 mA is available.

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 2P	7	6
1 PP20 w/SP20	7	6
1 PP20 2P w/SP20	5	5
2 PP20	28	16
2 PP20 2P	14	12