Phason Rain Sensor

The Phason Rain Sensor (model PRS) detects rainfall and allows you to automatically close curtains and actuators when it is raining. The advanced optical sensor uses infrared light to detect water hitting its surface. This method of detection is more sensitive and reliable than other methods, is nearly immune to false detection, and is not affected by movement and most environmental conditions.

The Phason Rain Sensor's durable and rugged enclosure is completely sealed, so there are no electronics to corrode, and no openings for debris to collect.

How it works

When the Phason Rain Sensor detects rainfall, it sends a signal to the control. When the control receives the signal, it closes the configured curtains and/or actuators. After **15 minutes** with no detected rainfall, the sensor signals the control to resume normal operation.

Compatible controls

The Phason Rain Sensor is compatible with the NVC-2 **Natural Ventilation Control** and the **PBx Power Blocks** used with OMNI Select. In each application, the sensor connects directly to the control.

- For OMNI Select users, you enable the rainfall sensor in the software, and then select which curtains and/or actuators you want closed when it is raining.
- For NVC-2 users, you enable the rainfall sensor at the control using the buttons.

Features

- Sensitive and reliable optical sensor
  - More reliable than other methods
  - Nearly immune to false detection
  - Not affected by movement and most environmental conditions
- Thirty-foot cable, extendable to 500 feet
- Rugged, sealed enclosure
- Limited warranty (90 days)

Installing the Rain Sensor

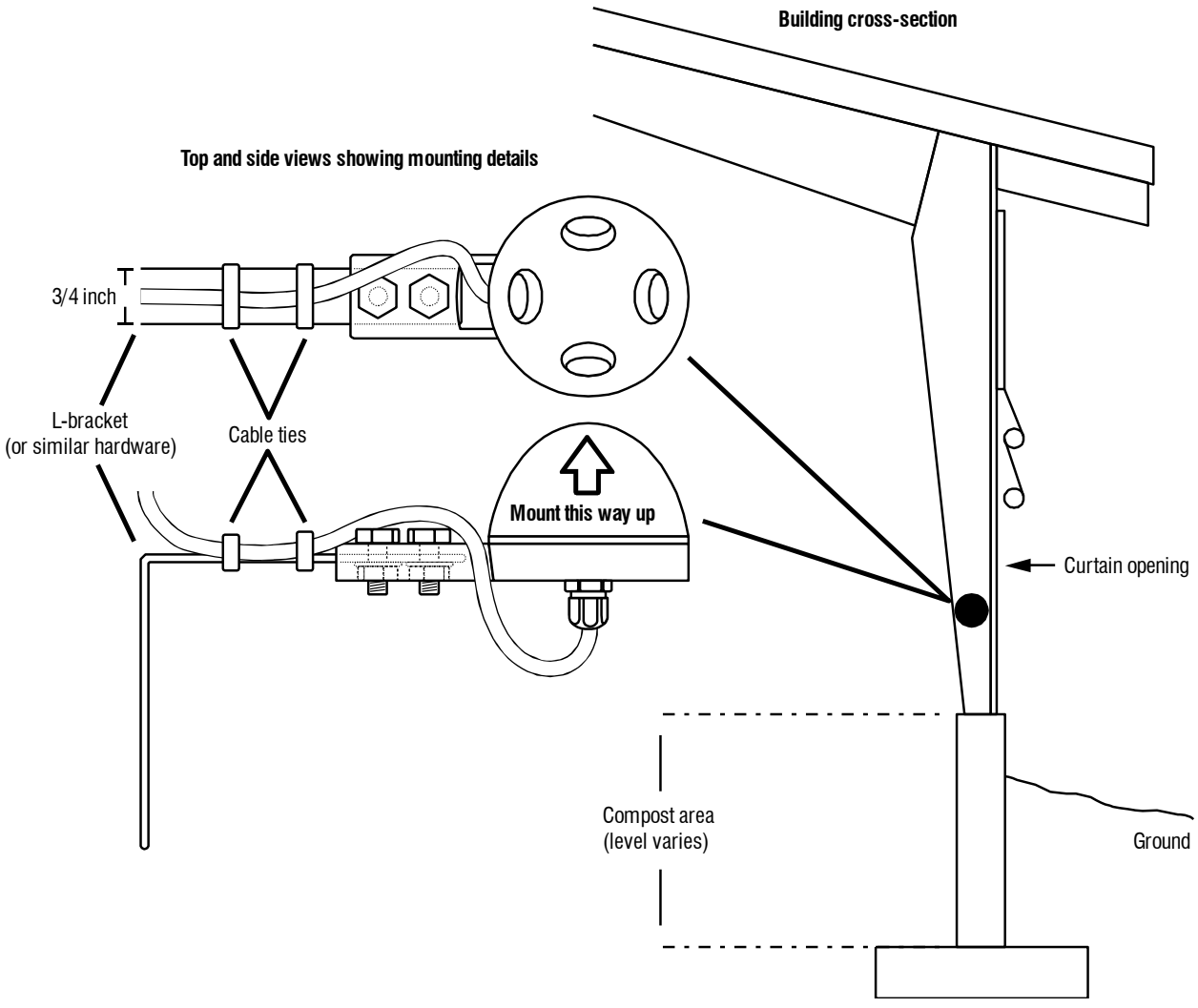
When connecting the Rain Sensor to a PBx Power Block, the sensor requires an external power supply that provides **9 to 30 VDC** or **9 to 26 VAC**. Phason recommends the Regulated Power Supply (model RPS), which provides 13.6 VDC and 24 VAC, or the AC Transformer (model ACT), which provides 24 VAC.

The Rain Sensor does not require an external power supply when connecting to and NVC-2 Natural Ventilation Control.

Mounting the Rain Sensor

For applications where you want to detect rainfall so that you can automatically close inlets and/or curtains, mount the Rain Sensor similar to the example shown below.

- Fasten the sensor to an L-bracket, or similar hardware, and then mount it to a vertical surface.
- Mount the sensor with the lens (clear area) facing up.



Routing the cable

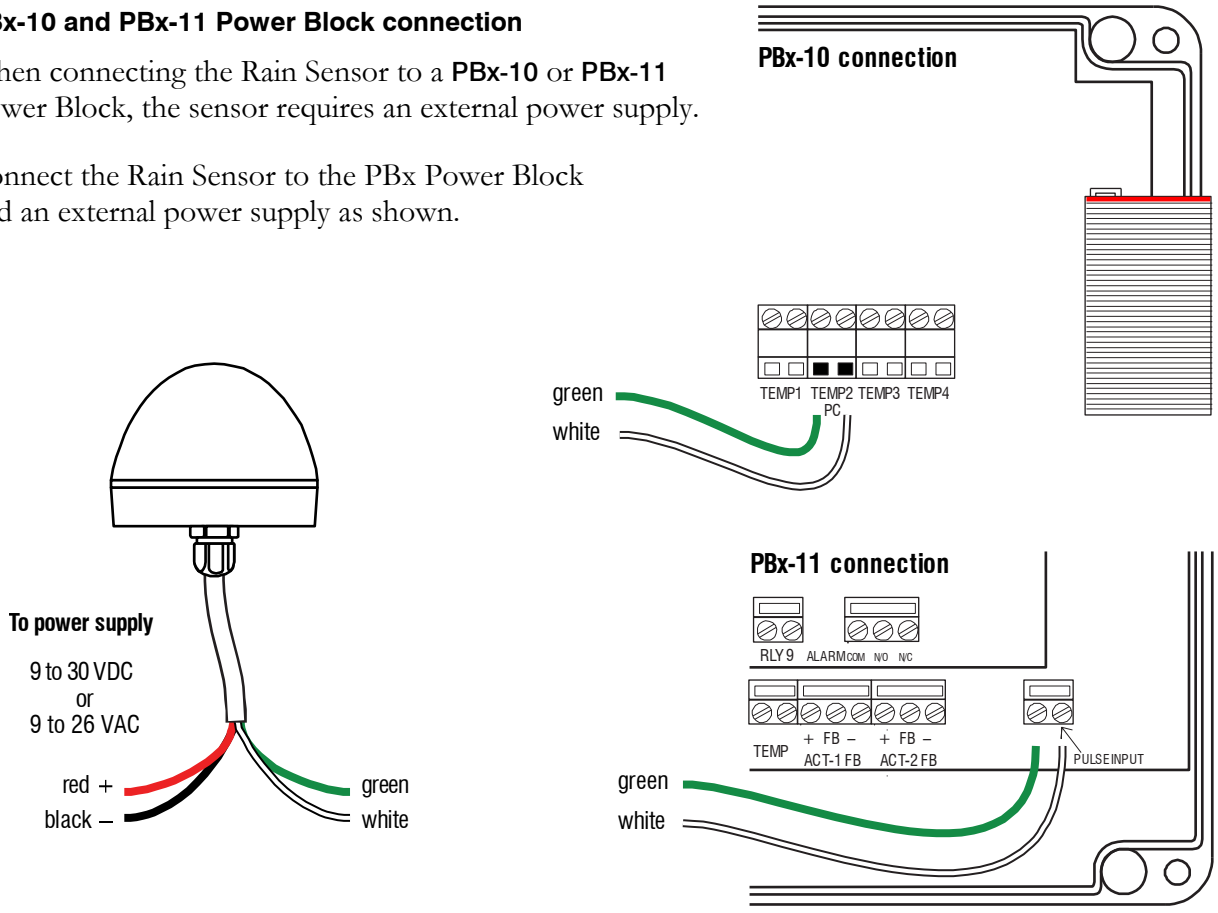
- Do not run the cable in the same conduit as AC power cables.
- Do not run the cable beside AC power cables or near electrical equipment.
- When crossing other cables or power lines, cross them at a 90-degree angle.

Connecting the Rain Sensor

PBx-10 and PBx-11 Power Block connection

When connecting the Rain Sensor to a **PBx-10** or **PBx-11** Power Block, the sensor requires an external power supply.

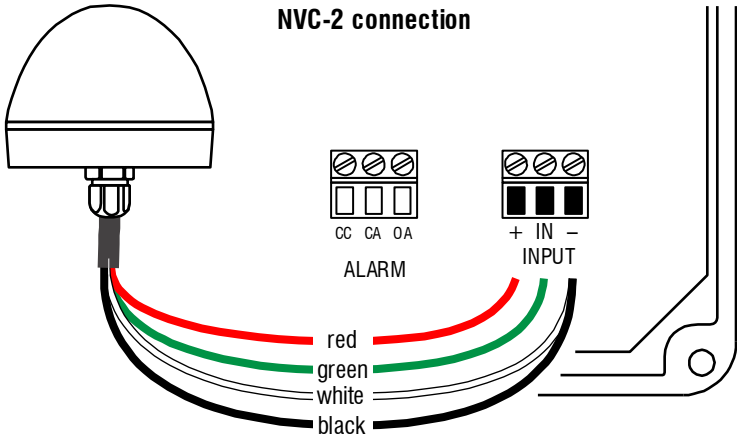
Connect the Rain Sensor to the PBx Power Block and an external power supply as shown.



NVC-2 connection

When connecting the Rain Sensor to the **NVC-2** Natural Ventilation Control, the sensor *does not* require an external power supply; the NVC-2 provides power for the Rain Sensor.

Connect the Rain Sensor to the NVC-2 Natural Ventilation Control as shown.



Configuring the Rain Sensor

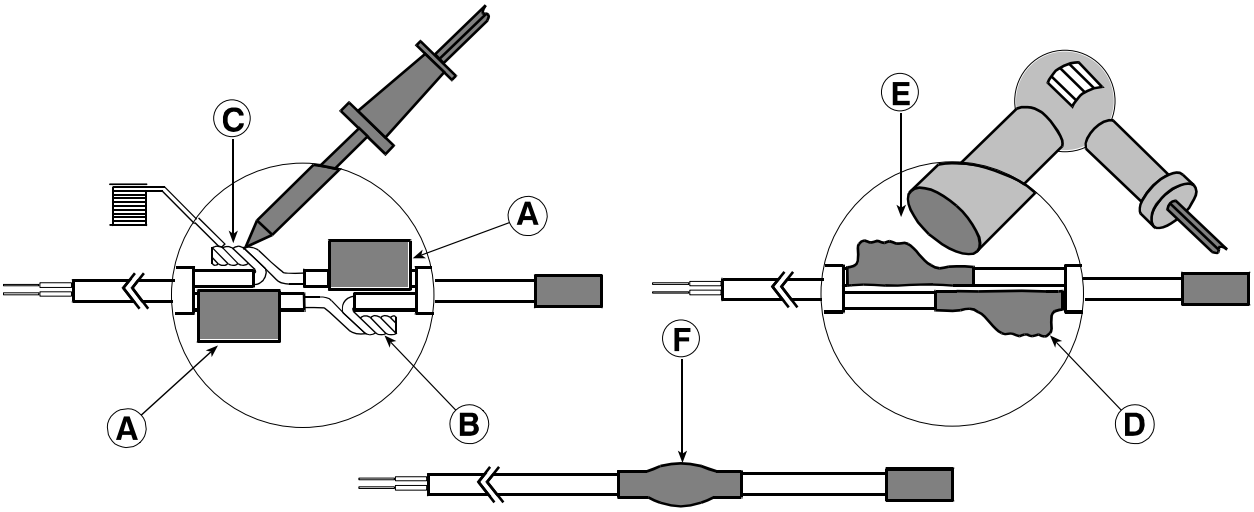
Configuring the Rain Sensor means enabling it and choosing which inlets and/or curtains you want to close when it is raining. You will do this in the **Select Ventilation** software. For instructions, read the applicable sections in the **Select Ventilation user manual**.

Extending sensor cables

You can extend the Rain Sensor cable up to 500 feet. Extension cable is available in 150-foot lengths (model K329029) from Phason.

Follow the guidelines below when extending cables.

- Join the extension cable to the sensor cable as shown below.
- If the sensor does not operate properly with the extended cable, run the cable along a different path or shorten it.



A Slide five pieces of heat shrink tubing over the wires: one for each of the red, green, black, and white wires, and one to go over all of them.

B Strip the ends of the wires and then twist them together.

C Solder the wires together using rosin-core flux solder – DO NOT use acid core solder.

D Slide the heat shrink tubing over the solder joints.

E Shrink the tubing using a heat gun.

F Your connection should look like this.

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