

New CPC Humidity Sensor Installation Instructions

Overview

CPC is supplying a new relative humidity (RH) sensor model (*P/N 203-5850*) to replace the sensor previously supplied with its REFLECS and Einstein controls system products (*P/N 203-5850*). The new model is functionally identical to the previous RH sensor model with the same +0-5VDC output signal, but with distinct differences in the way it must be mounted and wired.

Mounting

The dimensions of the sensor are 4½" x 2¾". To mount the sensor, pull the front cover from the rear mounting plate of the sensor. Using the two mounting holes on the mounting plate, screw the plate against a flat surface such as a wall or column. The sensor may also be mounted to a standard electrical wiring box. Make sure the plate is mounted so that the orientation arrow on the left side of the mounting plate points UP (refer to picture on the reverse side of this page).

When used indoors, mount the sensor in a central location within the zone to be measured, away from doors, windows, vents, heaters, and outside walls that could affect temperature readings. The sensor should be at least four feet from the floor, and no higher than necessary to prevent tampering.

Wiring

Cable Type

The cable type used to connect the humidity sensor with the CPC input board is Belden #8771 (shielded, 3-conductor 22AWG).

Wire Connections

Connect the sensor cable from the five-pin connector on the RH sensor's mounting plate to a point on a CPC 16AI input board or equivalent.

1. Connect the RED (power) wire from sensor terminal #5 to one of the +12VDC supply terminals on the 16AI.
2. Connect the BLACK (ground) wire from sensor terminal #3 to the ODD-NUMBERED terminal of the 16AI point to which you want to connect the sensor.
3. Clip the BARE (shield) wire at the sensor end of the cable. On the 16AI end of the cable, connect the BARE wire to the same ODD-NUMBERED terminal you connected the BLACK wire to in **step 2**.
4. Connect the WHITE (signal) wire from sensor terminal #1 to the EVEN-NUMBERED terminal of the 16AI point to which you want to connect the sensor.

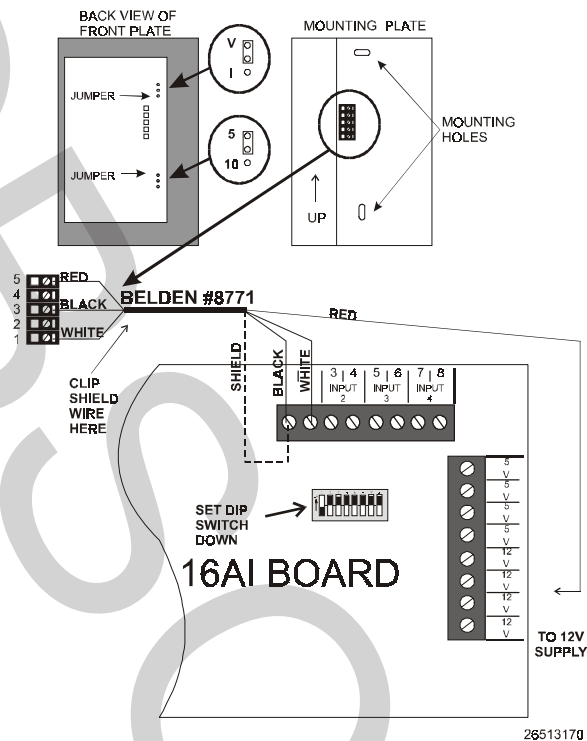


Figure 1 - RH Sensor Wiring and Installation

RH Sensor Jumper Settings

On the back side of the RH sensor's front cover plate, there are two three-pin jumpers on the circuit board. These jumpers determine whether the sensor's output signal will be voltage or current (V - I) and 5VDC or 10VDC (5 - 10). Set both jumpers in the UP position (as shown in diagram) so that the V-I jumper is set to "V" and the 5-10 jumper is set to "5."

Input Board Dip Switch Settings

On the 16AI board, locate the input type dip switch that corresponds to the point the RH sensor is connected to, and set this switch to the DOWN position.

Replacing the RH Sensor Front Cover

After wiring and setting the jumpers on the RH sensor, replace the sensor's front cover, making sure the five pins on the front cover's circuit board plug in to the receptacle on the mounting plate. If installed correctly, the front cover should snap into place.