Phoenix Controls temperature and humidity sensors provide a stable, secure environment for those facilities that need it the most, such as hospitals, cleanrooms, and laboratory animal facilities. These sensors also simplify room balancing by eliminating the need for a certified person to accompany the balancer during the commissioning process.

- Teflon-insulated wires ensure resistance to moisture, corrosive elements, and abrasion.
- A three-position test and balance (T&B) switch in all room sensors allows for overrides into full heating or cooling modes, as well as for normal operation.
- 3.5 mm communications jack is standard for all room models.

Phoenix Controls PTS300 is a room temperature sensor. The PTS300-OS, PTS300-DOP and PTS300-DOS have both override and setpoint. The PTS300-DOS features a large LCD display, slider setpoint adjustment, and push button override. The PTS300-DOP features a large LCD display, push button setpoint adjustment, and push button override.

The PHS300 room sensor is available as a humidity transmitter only without display.

Phoenix Controls PCS300 is a multiple output transmitter for temperature and humidity with setpoint capability and occupied/unoccupied override switching. The large easy-to-read display is ideal for cross room viewing and membrane push buttons are designed for easy operation and cleaning.

A fully featured unit can have three active channel outputs, override, and a passive sensor output. All ranges are factory set, however each temperature and humidity sensor channel has a local offset adjust for fine tuning. The display can be locally customized to the customer’s preference.
# SENSOR SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Temperature</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Room</td>
<td>Duct</td>
</tr>
<tr>
<td><strong>Signal</strong></td>
<td>10 K, Type 2 thermistor</td>
<td>10 K, Type 2 thermistor</td>
</tr>
<tr>
<td><strong>Supply Voltage</strong></td>
<td>9 to 40 Vdc (LCD only)</td>
<td>Not Used</td>
</tr>
<tr>
<td><strong>Power Consumption</strong></td>
<td>≤ 0.2 VA</td>
<td>≤ 1.1 VA</td>
</tr>
<tr>
<td><strong>Operating Temperature Range</strong></td>
<td>32 to 122°F (0 to 50°C)</td>
<td>-40 to 212°F (-40 to 100°C)</td>
</tr>
<tr>
<td><strong>Temperature Setpoint Range</strong></td>
<td>The PTS300-DOP temperature range is 60 to 80°F (15 to 27°C)</td>
<td></td>
</tr>
<tr>
<td><strong>Environmental Humidity Range</strong></td>
<td>0 to 95% RH (non-condensing)</td>
<td>0 to 100% RH (non-condensing)</td>
</tr>
<tr>
<td><strong>Housing Material</strong></td>
<td>ABS plastic</td>
<td>Steel</td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
<td>±0.32°F (0 to 158°F)</td>
<td>±0.2°C (0 to 70°C)</td>
</tr>
<tr>
<td><strong>Dissipation Constant</strong></td>
<td>3 mW/C</td>
<td></td>
</tr>
<tr>
<td><strong>Stability</strong></td>
<td>&lt; 32°F (0.02°C)/year</td>
<td>&lt; 32°F (0.02°C)/year</td>
</tr>
<tr>
<td><strong>Reference Resistance</strong></td>
<td>10 kΩ @ 77°F (25°C)</td>
<td></td>
</tr>
<tr>
<td><strong>Sensing Element</strong></td>
<td>Thermistor</td>
<td>Thermistor</td>
</tr>
<tr>
<td><strong>Response Time</strong></td>
<td>20 seconds for a 63% step</td>
<td>20 seconds for a 63% step</td>
</tr>
</tbody>
</table>

**Regulatory Compliance**
- RoHS
- Except for series PCS220 and PHS220, and PCS305, 310, and 320 series, all sensors are CE compliant.
- EU Contact Address:
  Honeywell GmbH
  Boeblinger Str. 17
  71101 Schoenaich
  Germany
**ORDERING GUIDE**

**FAMILY**
- PTS = Phoenix temperature sensor
- PHS = Phoenix humidity sensor
- PCS = Phoenix combination (temperature and humidity) sensor

**SENSOR TYPE**
- 220 = 220 RH: 2% 4-20 mA output (not CE compliant)
- 300 = 300 RH: 2% Selectable output
  - 300 Temp: 10 kΩ NTC Type 2
- 305 = 305 RH: 2% 0-5 Vdc output (not CE compliant)
- 310 = 310 RH: 2% 0-10 Vdc output (not CE compliant)
- 320 = 320 RH: 2% 4-20 mA output (not CE compliant)

**SENSOR LOCATION**
- D = Duct
- O = Outside
- P = Room, Phoenix enclosure: white
- Q = Room, Phoenix enclosure: simulated stainless steel
- Z = Room, Stat3 enclosure

**OPTIONAL ADDITIONAL FEATURES** (as required, list alphabetically NOT separated by dashes when multiple)
- N = None
- D = Display
- H = Humidity pushbutton set point
- O = Override
- P = Temperature pushbutton set point
- S = Temperature slider set point

**MANDATORY Display Features for PCS3xx only:**
- 2 = Z Display: ± 2 ºF (± 1 ºC)
- 3 = Z Display: ± 3 ºF (± 3 ºC)
- 7 = Z Display: 55-85 ºF (13-30 ºC)
- 8 = Z Display: 60-80 ºF (15-27 ºC)
- 9 = Z Display: 65-80 ºF (18-27 ºC)

**OPTIONS**
- 1 = 1 Point Cert: Temp or Humidity
- 3 = 3 Point Cert: Temp or Humidity
- 2 = 2 Point Cert: 1 Temp and 1 Humidity
- 6 = 6 Point Cert: 3 Temp and 3 Humidity

*IMPORTANT*: Voltage conversion is required in LON applications whenever sensors include display or humidity. In BACnet applications, sensors can be powered directly from valve controllers.
VOLTAGE CONVERTER

Specifications

Output Voltage
5 to 24 VDC @ 350 mA

Recommended Input Voltage
18 to 28 VAC, 24 VDC

Input Voltage Limits
- Minimum (VAC/VDC): 24.0/31.0 (depending on output voltage)
- Maximum (VAC/VDC): 28.0/35.0
- Input Current @ Min Input Volts (AC/DC): 16.7 VA/325 mA

Environmental Operation Range
- 0 to 95% RH non-condensing
- -40 to 149°F (-40 to 65°C) 350 mA @ any output voltage
- -40 to 158°F (-40 to 70°C) 350 mA @ 5 VDC, 330 mA @ 10 VDC, 280 mA @ 12 VDC, 224 mA @ 15 VDC, 140 mA @ 24 VDC

Environmental Storage Range
-40 to 176°F (-40 to 80°C)

Rectification
Half-Wave Rectified

Grounding:
AC and DC Ground are Common

Wiring
4 wires, 16 to 22 gauge

Regulatory Compliance

- RoHS

Ordering Guide

Phoenix Voltage Converter (PVC) - For non-CE Applications Only

PVC 350 - HW

PRODUCT FAMILY
PVC = Phoenix Voltage Converter

UNIT TYPE
350 = 350 mA maximum load

RECTIFICATION
HW = Half-wave

Dimensions

[Image of the device with dimensions]