The ASI/RH-TS Series combine relative humidity transmitters and a temperature sensor in a single package. These units are offered in Room, Duct, and Outside Air configurations.

The Relative Humidity sensor using an Advanced Ceramic Technology design converts a resistance change to a linear output that is selectable for 4 to 20mA, 1 to 5 Vdc, or 1 to 10 Vdc output. The output of the humidity sensor is connected via screw terminals. The signal can be transmitted over long distances on unshielded or shielded twisted-pair wire, as the current signal is not affected by lead wire resistance. For best results use shielded wire with the shield grounded at one end only. Matched diode temperature compensation maintains accuracy over the operating range. Precision production tolerances maintain sensor interchangeability to within +/-3% nominal without recalibration. The ASI/RH Series humidity transmitters provide long-term stability and repeatability in a harsh environment. Despite its accuracy, the bulk polymer sensor and related circuitry is economical. The humidity transducer is powered from a 12 to 36 Vdc or 24 Vac supply voltage. When using a 24 Vac make sure to connect all devices with the proper polarity as described in the installation instruction. Failure to do so may result in damage to the transmitter, or other devices.

The Temperature Sensor is a standard 3 kohm Type 2 Thermistor and is connected to the controller via screw terminals. The Wall Sensor does not support the ASI RS-485 communication jack.

**Product Specifications:**

- **Humidity Sensor Accuracy:** +/-5%, +/-3%, or +/-2% over 20 to 95% RH
- **Sensitivity:** 0.1% RH
- **Repeatability:** 0.5% RH
- **Long Term Stability:** Less than 1%RH drift/yr, typical
- **Sensor Interchangeability:** +/-3% RH nominal
- **RH Output:** +1 to 5 Vdc, +2 to 10 Vdc, 4 to 20mA, 2 wire
- **Temperature Sensor:** 3 kohm @ 25°C (77°F)
- **Dissipation Constant:** 3 mW/C
- **Sensor Operating Range:** 0 to 90% RH, non-condensing
  10 to 160°F (-23 to 71°C)
- **Electronics Operating Range:**
  - Supply Voltage: 18 to 36 VDC/ 24 Vac

### How to Order:

<table>
<thead>
<tr>
<th>Humidity/Temperature</th>
<th>Order Number</th>
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</thead>
<tbody>
<tr>
<td><strong>Room Humidity and Temperature</strong></td>
<td><strong>Outside Air Humidity and Temperature</strong></td>
</tr>
<tr>
<td>RH Accuracy = 2%</td>
<td>RH Accuracy = 1%</td>
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<tr>
<td>RH Accuracy = 3%</td>
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<tr>
<td>RH Accuracy = 5%</td>
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</table>

**Order Number**

- ASI-RH 2-TS-D
- ASI-RH 3-TS-D
- ASI-RH 5-TS-D
- ASI-RH 2-TS-O
- ASI-RH 3-TS-O
- ASI-RH 5-TS-O
Dimensions

**Room RH/Temperature Sensor**

- 2.25" (5.7cm)
- 2.75" (6.9cm)
- 3.24" (9.7cm)
- 4.51" (11.4cm)
- 0.600" (1.5cm)
- 0.920" (2.3cm)
- 0.785" (1.9cm)
- 1.15" (2.9cm)

**Duct RH/Temperature Sensor**

- 0.555" (1.4cm)
- 0.455" (1.1cm)
- 0.18" O.D. REF (0.4cm)
- 0.055" (0.4cm)
- 2.25" (5.7cm)
- 1.07" (2.7cm)
- 0.75" (1.9cm)

**Outside Air RH/Temperature Sensor**

**Outside**

- 4.23" (10.7cm)
- 3.60" (9.1cm)
- 2.68" (6.8cm)
- 1.0" (2.5cm)
- 0.375" (0.9cm)
- 0.32" (0.8cm)
- 0.400" (1.0cm)
- 3.00" (7.6cm)
- 4.675" (11.9cm)
- 3.945" (10.0cm)
- 0.75" (1.9cm)
- 0.86" (2.2cm)
- 1.25" (3.2cm)
- (4) PG11 / 1/2" (1.27cm) NPT Knockouts
- PG11 Watertight fitting: (Cable Dia: 0.12 to 0.28") (0.3 to 0.7cm)