**RELIABLE SENSING TECHNOLOGY**

Dwyer Instruments, Inc. uses state of the art sensing technology to provide accurate and reliable humidity measurements. The sensor is comprised of a capacitive polymer humidity sensing element and a band gap temperature sensing element. The two sensing elements are seamlessly coupled to a 14 bit analog to digital converter. Each sensor is individually calibrated using a chilled mirror hygrometer reference standard.

**KEY ADVANTAGES**

- Excellent long term stability
- Completely recovers from 100% saturation
- No field calibration needed
- Fast response time
- Available with 2% or 3% accuracy

**APPLICATIONS**

- **Series RHP-W** can be used to accurately measure and control the humidity and temperature in office buildings.
- **Model RHP-2DIA** can be used to greatly reduce the time it takes to dry wood in dehumidification rooms.
- **Series WHT** can be used to maintain environmental conditions in poultry and hog barns.
- Outside air and duct mount humidity/temperature transmitters are used to control fresh air intake dampers in air handler economizers.

**HUMIDITY TRANSMITTER OVERVIEW**

We have all your field instrument needs. See our BAS website at: www.dwyer-inst.com/BAS
**Field replaceable sensors**

**NEMA 4X enclosure**

**Surface or suspension mount**

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**Duct Mount Installation**

The Series RHP duct mount transmitters are ideal for monitoring humidity and temperature in supply or return air ducts. For frequent installation or monitoring, an optional dual line LCD display can be added to display both the humidity and temperature inside the duct. The metal mounting bracket has securing bolts wide enough to allow quick installation of the transmitter in the duct, which reduces installation labor. The humidity sensors and filter cells can be replaced easily by removing the field without additional field calibration. The Series RHP series standard with either a current or voltage output for the temperature and can optionally have a different RHP series output for the humidity. Outputs can be factory ordered to be 4 to 20 mA, 0 to 10 VDC, or 0 to 5 VDC. For added flexibility, universal outputs can be ordered to allow the technician to select the output type in the field. Temperature outputs have two holes on each tab to allow the NEMA 3R housing to be suspension mounted for inside of an air handler or on a wall. The Series RHP comes standard with a sintered filter.

**Key Features**

- Field replaceable sensors
- Optional dual line LCD display

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**Wall Mount Installation**

The Series RHW wall mount transmitters are an attractive solution for room or space humidity and temperature monitoring. The rugged design makes the transmitter wall mount housing well suited to air flow across the sensor. Humidity accuracy can be backed out for 200 mA for 4 to 20 mA, or 5 VDC for differential outputs as 3%. The transmitter is offered in explosion-proof and intrinsically-safe versions. The transmitter is available with current or voltage outputs for both temperature and humidity. With the option for a radiation shield, the RHW can be used with an integral or remote LCD display that shows temperature and humidity simultaneously.

**Key Features**

- Rugged design
- Optional integral or remote LCD display

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**Outside Air Installation**

The Series HHT compact humidity transmitters can be used to monitor humidity in outside air applications, surface mount applications or suspension mount applications. The original mounting tabs have two holes on each tab to allow the NEMA 3R housing to be suspension mounted or on an air handler as well. The Series HHT comes standard with a threaded body that makes it easy to install on the duct.

**Key Features**

- NEMA 3R enclosure
- Optional surface mount suspension

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**Remote Probe Installation**

This Series RH-R humidity transmitter is ideal for applications in which space is limited. The compact sensor is protected by a field replaceable filter and can be covered up to 15 feet away from the weatherproof base. The RH-R is available with current or voltage outputs for both humidity and temperature.

**Key Features**

- Up to 15 foot cable
- NEMA 4X enclosure

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**Hazardous Areas Installation**

The Series HHT takes accurate humidity and temperature measurements in the harshest of environments. The transmitter is offered in explosion-proof and intrinsically-safe versions depending on the application’s requirements. Both transmitters have an optional dual line LCD display that shows temperature and humidity simultaneously. The RH-T series is offered with either an intrinsically-safe or explosion-proof housing.

**Key Features**

- Intrinsically-safe or explosion-proof
- Optional dual line LCD display
### Field replaceable sensors
- Optional dual line LCD display

### NEMA 4X enclosure
- Up to 16 foot cable
- NEMA 4X enclosure

### Humidity Transmitter Overview Brochure

- **Model**
  - RHP-2D2B
  - RHP-2D1E
  - RHP-2D2E
  - RHP-2D2F
- **Accuracy**
  - 3%
- **Humidity Output**
  - 4 to 20 mA
- **Temperature Output**
  - Pt100 RTD
- **Model**
  - RHP-2W10
  - RHP-2W1E
- **Accuracy**
  - 2%
- **Humidity Output**
  - 4 to 20 mA
- **Temperature Output**
  - 0 to 10 VDC

- **Model**
  - RHP-3D1E
  - RHP-3D1F
  - RHP-3D2F
  - RHP-3D10
  - RHP-3D20
- **Accuracy**
  - 3%
- **Humidity Output**
  - 4 to 20 mA
- **Temperature Output**
  - Pt100 RTD

### Key Features
- Field replaceable sensors
- Optional dual line LCD display
- NEMA 4X enclosure
- Up to 16 foot cable

The Series RHP dual mount transmitters are ideal for monitoring humidity and temperature in supply or return air ducts. For applications requiring more ventilation measurements, optional dual line LCD display can be ordered to display both the temperature and humidity inside the duct. The metal mounting bracket has mounting holes wide enough to allow quick installation of the transmitter to the duct, which reduces installation labor time. The humidity sensors and filter caps can be replaced easily in the field without additional field calibration. The Series RHP comes standard with either a current or voltage output for the humidity and can optionally have a thermometer RTD current or voltage output for the temperature.

### Duct Mount Installation

The Series RHP dual mount transmitters can be used for monitoring humidity and temperature in supply or return air ducts. For applications requiring more ventilation measurements, optional dual line LCD display can be ordered to display both the temperature and humidity inside the duct. The metal mounting bracket has mounting holes wide enough to allow quick installation of the transmitter to the duct, which reduces installation labor time. The humidity sensors and filter caps can be replaced easily in the field without additional field calibration. The Series RHP comes standard with either a current or voltage output for the humidity and can optionally have a thermometer RTD current or voltage output for the temperature.

### Wall Mount Installation

The Series RHP-W wall mount transmitters are an attractive solution for rooms or space where humidity and temperature monitoring is critical. The Series RHP-W can be used for monitoring humidity and temperature in rooms or spaces where the sensor may be exposed to direct sunlight or reflected heat from other equipment or the building. The Series RHP-W can be ordered with an integral or remote LCD display that shows temperature and humidity simultaneously.

### Outside Air Installation

The Series RH-H outside air transmitters are ideal for measuring humidity and temperature outside of air handlers or commercial buildings. The RH-H is available with the integrated circuit board and wiring connections from the external. The field configurable optional display has independent logic from the sensor that allows for setting various displays, including direct sunlight or reflected heat from other equipment or the building. The Series RH-H comes standard with either a current or voltage output for the humidity and can optionally have a thermometer RTD current or voltage output for the temperature.

### Remote Probe Installation

The Series RH-R humidity transmitter is ideal for applications in which space is limited. The compact sensor is protected by a field replaceable filter and can be installed up to 15 ft away from the transducer. The RH-R is available with current or voltage outputs for both humidity and temperature.

### Wall Mount Installation

The Series RH-W wall mount transmitters are an attractive solution for rooms or space where humidity and temperature monitoring is critical. The Series RH-W can be used for monitoring humidity and temperature in rooms or spaces where the sensor may be exposed to direct sunlight or reflected heat from other equipment or the building. The Series RH-W can be ordered with an integral or remote LCD display that shows temperature and humidity simultaneously.

### Remote Probe Installation

The Series RH-R humidity transmitter is ideal for applications in which space is limited. The compact sensor is protected by a field replaceable filter and can be installed up to 15 ft away from the transducer. The RH-R is available with current or voltage outputs for both humidity and temperature.
**DUCT MOUNT INSTALLATION**

The Series RHP duct mount transmitters can be used for monitoring humidity and temperature in supply or return air ducts. For remote mounting in environments, an optional dual line LCD display can be archived to display both the temperatures and humidity inside the duct. The metal housing feature less encasing ducts wide enough to other quick installations of the transmitter in the duct, which reduces installation labor costs. The humidity sensors and filter caps can be replaced easily without field work without additional field calibration. The Series RHP transmitters standard with either a current or voltage output for the humidity and can optionally have a differential RTD sensor on outdoor installation. Key features:

- Field replaceable sensors
- Optional dual line LCD display
- Filter replaceable sensors
- Optional dual line LCD

**OUTSIDE AIR INSTALLATION**

The Series RHP model humidity transmitters are ideal for monitoring humidity and temperature outside of air handling or commercial buildings. The NEXIS™ AS enables the remote installation of the transmitter and mounting the sensor directly on the duct work. The transmitter is offered in explosion-proof and intrinsically-safe versions for radiation shield option. For improved accuracy, the designer wall mount housing is designed with 16 feet of the unit. Key features:

- Field replaceable sensors
- Optional dual line LCD display
- Filter replaceable sensors
- Optional dual line LCD

**WALL MOUNT INSTALLATION**

The Series RHP-W wall mount transmitters are an attractive solution for remote or space humidity and temperature monitoring. For improved accuracy, the designer wall mount housing is well suited for spaces or flow fans. Key features:

- Field replaceable sensors
- Optional dual line LCD display

**HAZARDOUS AREAS INSTALLATION**

The Series NHT transmitters are equipped to monitor humidity and temperature in hazardous areas. The transmitter is equipped with an intrinsically safe display. Key features:

- Field replaceable sensors
- Optional dual line LCD display

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**REMOTE PROBE INSTALLATION**

The Series RHP compact humidity transmitter is ideal for applications in which spans are limited. The compact sensor is protected by a field replaceable filter and can be mounted up to 16 feet away from the humidity probe. The RHP-R can be used with either a current or voltage output for both humidity and temperature.

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**KEY FEATURES**

- Field replaceable sensors
- Optional dual line LCD display
- Filter replaceable sensors
- Optional dual line LCD

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**OUTSIDE AIR INSTALLATION**

- Field replaceable sensors
- Optional dual line LCD display
- Filter replaceable sensors
- Optional dual line LCD

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**WALL MOUNT INSTALLATION**

- Field replaceable sensors
- Optional dual line LCD display

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**HAZARDOUS AREAS INSTALLATION**

- Field replaceable sensors
- Optional dual line LCD display
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**KEY ADVANTAGES**
- Excellent long term stability
- Completely recovery from 100% saturation
- No field calibration needed
- Fast response time
- Available with 2% or 3% accuracy

**APPLICATIONS**
- Series RHP-W can be used to accurately measure and control the humidity and temperature in office buildings.
- Model RHP-2DIA can be used to greatly reduce the time it takes to dry wood in dehumidification rooms.
- Series WHT can be used to maintain environmental conditions in poultry and hog barns.
- Outside air and duct mount humidity/temperature transmitters are used to control fresh air intake dampers in air handler economizers.

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Dwyer Instruments, Inc. uses state of the art sensing technology to provide accurate and reliable humidity measurements. The sensor is comprised of a capacitive polymer humidity sensing element and a band gap temperature sensing element. The two sensing elements are seamlessly coupled to a 14 bit analog to digital converter. Each sensor is individually calibrated using a chilled mirror hygrometer reference standard.

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- Excellent long term stability
- Completely recovers from 100% saturation
- No field calibration needed
- Fast response time
- Available with 2% or 3% accuracy

**APPLICATIONS**

- **Series RHP-W** can be used to accurately measure and control the humidity and temperature in office buildings.
- **Model RHP-2D1A** can be used to greatly reduce the time it takes to dry wood in dehumidification rooms.
- **Series WHT** Weather-Proof Humidity/Temperature Transmitter
  - **Model WHT-322** can be used to maintain environmental conditions in poultry and hog barns.
  - Outside air and duct mount humidity/temperature transmitters are used to control fresh air intake dampers in air handler economizers.

**HUMIDITY TRANSMITTER OVERVIEW**

- We have all your field instrument needs.
- See our BAS website at: [www.dwyer-inst.com/BAS](http://www.dwyer-inst.com/BAS)

- **Humidity Sensor**
  - Excellent long term stability
  - Completely recovers from 100% saturation
  - No field calibration needed
  - Fast response time
  - Available with 2% or 3% accuracy