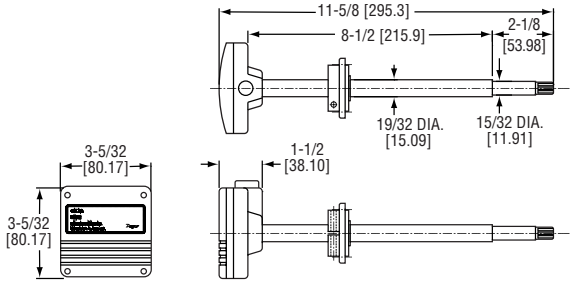
SERIES HT RH/Temperature Transmitter

Specifications – Installation and Operating Instructions

*Duct Mount unit shown.



DESCRIPTION

Monitor and control relative humidity and temperature in building energy management systems with the Series HT Humidity Temperature Transmitter. Designed for demanding HVAC/EMCS applications, the Series HT provides ±3% RH accuracy and ±1% stability per year. Routine calibration is not required with the fully interchangeable sensor. Two-wire connections allow easy installation directly into air ducts or within a controlled area.

INSTALLATION

Mounting

The duct mount models must be mounted as described below:

1. Drill four 1/8″ (3.2 mm) diameter holes for the mounting screws in the locations shown in Figure 1.
2. Cut a 0.866″ (22 mm) diameter hole in the duct for the sensor in the location shown in Figure 1.
3. Attach the duct mounting bracket to the duct with the four screws provided.
4. Slide the sensor/transmitter assembly through the center hole in the mounting bracket and secure into place by tightening the screw located on the side of the raised square portion of the mounting bracket.
   Reminder: *Remove the yellow sensor protection cap before installing the sensor into your duct.*

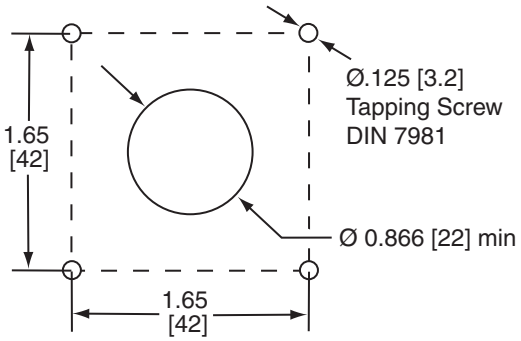


FIGURE 1: Drilling Dimensions for Duct Mount Units

PHYSICAL DATA

Relative Humidity Range: 10 to 90% RH.

Temperature Range: Duct mount: -40 to 140˚F (-40 to 60˚C), wall mount: 23 to 131˚F (-5 to 55˚C).

Accuracy: ±3% RH @ 25˚C; ±0.3˚C @ 25˚C.

Stability: ±2% RH over 2 years.

RH Temperature Dependence: <±1.5% RH from 14 to 140˚ (-10 to 60˚C).

Temperature Dependence: 0.01˚C/˚C.

Temperature Sensor: Pt 1000Ω RTD.

Response Time: 15 seconds.

Output Signal: 4 to 20 mA.

Supply Voltage: 10 to 28 VDC.

Current Consumption: 4 mA minimum.

Operating Humidity Range: Duct mount: 0 to 100%, wall mount: 0 to 90%.

Operating Temperature Range: Duct mount: 14 to 140˚F (-10 to 60˚C), wall mount: 23 to 131˚F (-5 to 55˚C).

Storage Temperature Range: -40 to 140˚F (-40 to 60˚C).

Conduit Connection: 1/2″ NPT.

Mounting Connection: 3/4″ NPT.

Housing Material: ABS plastic.

Enclosure: Duct mount only/IP65.

Weight: 0.6 lb (0.3 kg).

SERIES HT RH/TEMPERATURE TRANSMITTERS

Model Number	Description
HT00*	Humidity Transmitter, wall mount
HT01	Humidity Transmitter, duct mount
HT10*	Humidity/Temp Transmitter, wall mount
HT11	Humidity/Temp Transmitter, duct mount

*Wall mount not shown

Accessories

No. HT5, Replacement Humidity Sensor
No. HT6, Replacement Pt1000Ω RTD

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Electrical Connections
The Series HT RH/Humidity Transmitter is a true 2-wire, 4-20 mA current output device. Electrical connections are made to screw terminals located beneath the light gray front casing. For duct mount units, remove the 4 screws located on the front face of the housing. For wall mount units, gently unsnap the light gray front casing from the back portion of the housing.

Wire the humidity transmitters models HT00 and HT01 as shown in Figure 2.

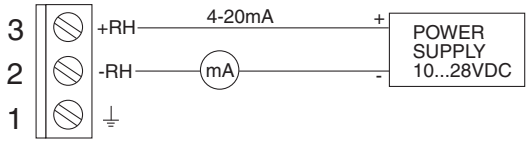

Figure 2: Wiring Diagram for HT00 & HT01

Wire the humidity and temperature transmitters models HT01 and HT11 as shown in Figure 3.

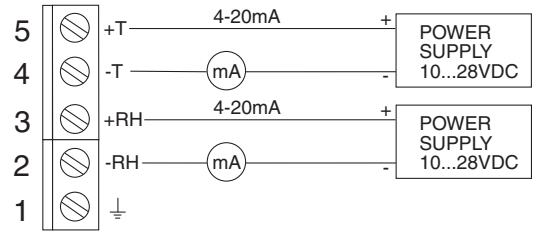

Figure 3: Wiring Diagram for HT10 & HT11

Installing the Cable Seal (Duct mount units only)
Included with the duct mount models HT01 and HT11 is a rubber cable seal. This seal helps provide a dust and water tight housing and ensures environmental protection per IP65. Install the cable seal as described below:

1. Press the rubber seal into the conduit hole located on the side of the housing.
2. Pierce the center of the seal with a cable or a screwdriver.
3. Pull the cable through the hole in the center of the seal. Designed for cable diameters 7...10 mm.

REPLACEMENT SENSORS
Series HT Temperature/Humidity Transmitters incorporate fully interchangeable humidity and temperature sensors. These transmitters do not require recalibration when the sensor is changed.

In duct mount models, the sensors are located beneath the filter membrane in the tip of the duct probe. Simply unscrew the filter membrane and remove the sensor.

In wall mount models, the sensors are located on the circuit board. Gently unsnap the light gray front casing from the back portion of the housing and replace the sensor.

MAINTENANCE/REPAIR
No routine maintenance is required on the Series HT RH/Temperature Transmitter. These units are not field repairable and should be returned to the factory if service is required. After first obtaining a Returned Goods Authorization (RGA) number, send the unit, freight prepaid to the following address. Please include a clear description of the problem plus any application information available.

Dwyer Instruments, INC.
Attn: Repair Department
102 Indiana Highway 212
Michigan City, IN 46360

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