

## Application and Description

The THE-1102 humidity transmitter is designed for use with automation systems in commercial buildings, hospitals, museums, or other facilities requiring accurate measurement of relative humidity and temperature. It transmits separate relative humidity (RH) and temperature signals for use in temperature, humidity, or enthalpy-based control applications.

This transmitter now uses a state-of-the-art silicon CMOS chip sensor. This provides much more durable and reliable performance than the older capacitive polymer sensor. Plus, it responds within seconds to changes in humidity with a very high degree of accuracy.

The THE-1102 also contains a thermistor for measuring room temperature. The 10,000 ohm (@ 77° F) thermistor provides precise, stable temperature sensing.

The durable, low-profile, thermostat-style cover is visually appealing. These transmitters may be surface-mounted on a hollow wall or to a 2 x 4 in. electrical box.

When used with the REE-2002 relay, these transmitters can accept VAC or VDC inputs, and they can supply outputs of 0 to 5 VDC, 0 to 10 VDC, or 4 to 20 mA. This eliminates the need to stock multiple transmitters for accommodating several output requirements. (See the REE-2002 data sheet for further relay details.)

## Accessories

The following accessories are available for the above models.

HMO-6036	Mini-sensor wall plate
REE-2002	Relay module

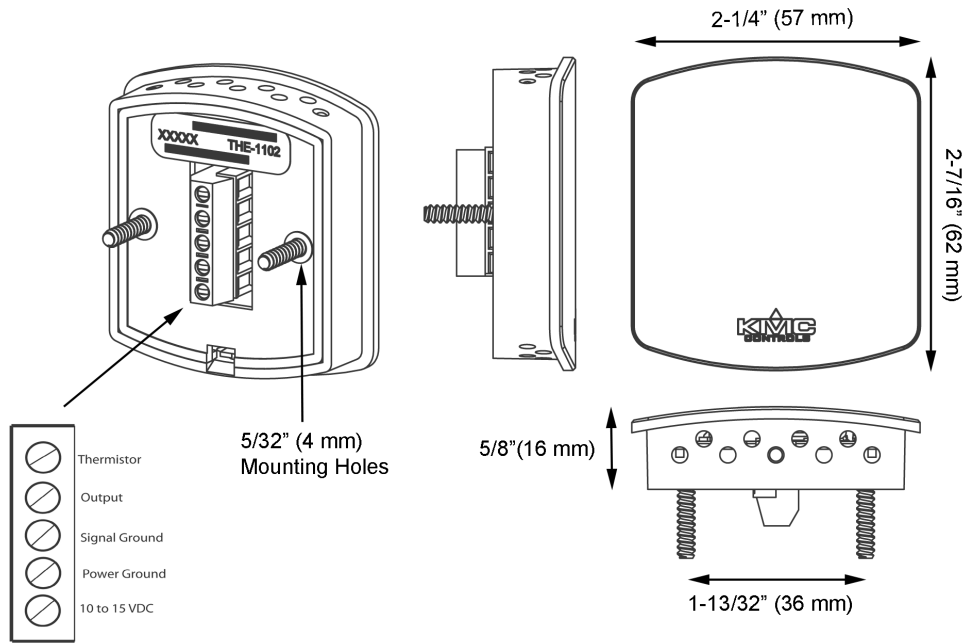


## Features

- ◆ CMOS chip humidity sensor provides excellent linearity, sensitivity, and reliability
- ◆ Accepts VAC or VDC input (when used with REE-2002 relay)
- ◆ Three standard outputs
- ◆ Type II 10,000 ohm thermistor for temperature sensing
- ◆ Light almond (standard) low-profile cover

## Details

All dimension are in inches (mm).



Note: Internal Thermistor, one side common to signal ground

## Specifications

### Supply Voltage

- W/o REE-2002 10 to 15 VDC
- With REE-2002 24 VAC  $-15\%$   $+20\%$   
28 to 40 VDC

### Supply Power

- W/o REE-2002 7.0 mA at 12 VDC
- With REE-2002 0.75 VA at 24 VAC  
9.5 mA at 28 VDC

### Humidity Element

- Output Range 0 to 100% RH
- Sensing Accuracy @ 25° C,  $\pm 2\%$  RH over the  
10% to 90% RH range

### Output Signal over 0 to 100% RH

- W/o REE-2002 0 to 5 VDC
- With REE-2002 0 to 5 VDC, 0 to 10 VDC,  
or 4 to 20 mA

### Output Capacity

- W/o REE-2002 0 to 5 VDC capable of driving  
1,000 ohms or greater
- With REE-2002 0 to 5 VDC or 0 to 10 VDC  
capable of driving 1,000 ohms  
or greater  
4 to 20 mA (24 VAC or 28  
VDC supply) 250 ohm min. to  
650 ohms max.

### Temperature Sensor

- Type Type II thermistor
- Accuracy  $\pm 0.36^\circ$  F ( $\pm 0.20^\circ$  C)
- Resistance 10,000 ohm @ 77° F (25° C)
- NTC 4.37%/° C @ 25° C
- Dissipation 2 mW/° C  
Constant

### Wire Size

18 to 22 AWG with a 250-foot  
length, maximum.

### Material

Light Almond ABS UL Flame  
Class 94 HB

### Weight

1.5 oz. (43 grams)

### Temperature Limits

- Operating 40° to 120° F (4° to 49° C)
- Shipping  $-40^\circ$  to 140° F ( $-40^\circ$  to 60° C)
- Humidity 0 to 100% relative humidity,  
non-condensing

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