

Application and Description

The THE-1102 can be wall-mounted for use with building 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.

The humidity transmitter uses a silicon CMOS chip sensor (providing much more durable and reliable performance than older capacitive polymer sensors). 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 Type II 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 (with an HMO-6036) to a 2 x 4 in. electrical box.

The THE-1102 (alone) operates from a 10 to 15 VDC power supply and provides a humidity signal of 0 to 5 VDC. When used with the REE-2002 power supply and E-E/I converter module, however, the THE-1102 can be powered by 24 VAC and can supply humidity signal 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 additional details.)

NOTE: For duct-mounted applications, see the [THE-1002 Data Sheet](#).

NOTE: For temperature sensing only, see the [STE-6000 Series Data Sheet](#).



Still ... Made in the U.S.A.

Features

- ◆ CMOS chip humidity sensor provides excellent linearity, sensitivity, and reliability
- ◆ Accepts 10 to 15 VDC power or 25 VAC when used with REE-2002 relay
- ◆ Three standard outputs
- ◆ Type II 10,000 ohm thermistor for temperature sensing
- ◆ Light almond low-profile cover
- ◆ Can be mounted on a 2 x 4 electrical box (using an HMO-6036) or to a hollow wall

Accessories

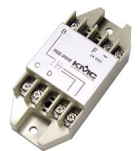
HMO-6036

Wall plate, almond (for mounting to 2 x 4 electrical boxes)

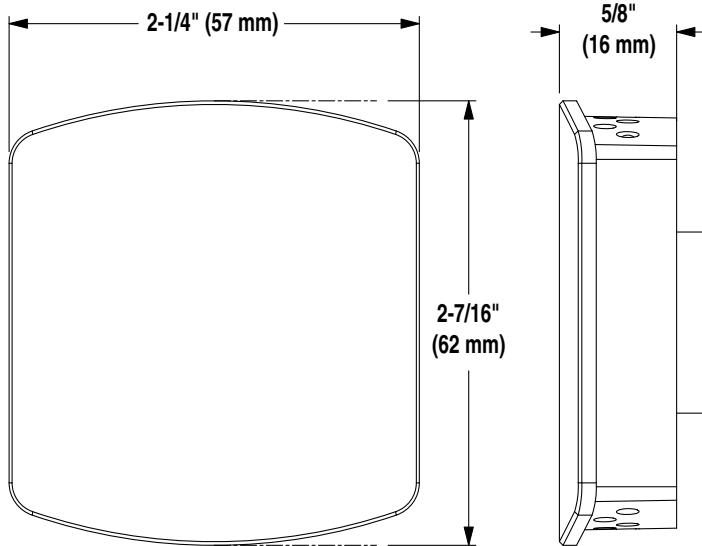


REE-2002

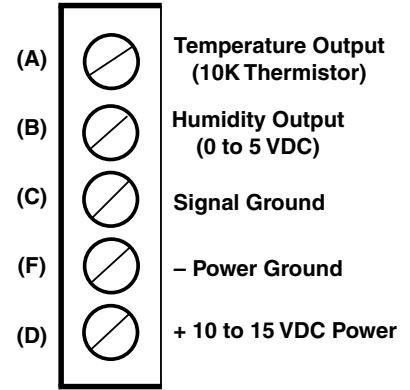
Power supply and E-E/I converter module (for AC power and 0 to 10 VDC or 4 to 20 mA humidity outputs)



Details



NOTE: See the [THE-1102 Installation Guide](#) and the [REE-2002 Data sheet](#) for additional power and humidity output options.



Specifications

Supply Voltage

W/o REE-2002	10 to 15 VDC
With REE-2002	24 VAC (-15% +20%), Class 2 only

Supply Power

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

Humidity Element

Output Range	0 to 100% RH
Sensing Accuracy	±2% over the 10 to 90% RH range @ 77° F (25° C)

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

Temperature Sensor

Type	Type II thermistor
Accuracy	±0.36° F (±0.20° C)
Resistance	10,000 ohm @ 77° F (25° C)
NTC	4.37%/° C @ 25° C
Dissipation Constant	2 mW/° C

Connections

Wire clamp type terminal blocks; 18 to 22 AWG (with a max. 250-foot length)

Material

Base	Black flame-retardant plastic
Cover	Light almond flame-retardant plastic

Weight

1.5 oz. (43 grams)

Approvals

SASO PCP Registration KSA R-103260

Temperature Limits

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

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