

### Description and Application

The THE-1002 is designed 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.

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

The sensor probe is filtered to reduce the possibility of contamination from airborne dust.

The THE-1002 offers three different standard humidity outputs (0–5 VDC, 0–10 VDC, or 4–20 mA), any one of which may be used per application. This reduces the need to stock multiple transmitters to accommodate several output requirements.

The THE-1002 also contains a thermistor for measuring duct temperature. The 10,000 ohm (@ 77° F) thermistor provides precise, stable temperature sensing.

An integral housing has multiple 1/2-inch conduit knockouts for ease of wiring during installation. It operates from 24 VAC supply voltage.

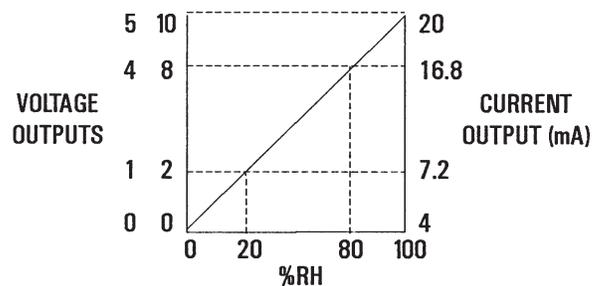


### Features

- ◆ Three humidity output options (0–5 VDC, 0–10 VDC, or 4–20 mA) plus a separate Type II 10,000 ohm thermistor for temperature sensing
- ◆ CMOS chip humidity sensor provides excellent linearity, sensitivity, and reliability
- ◆ Filtered sensor probe
- ◆ Powered by 24 VAC, Class 2, supply voltage

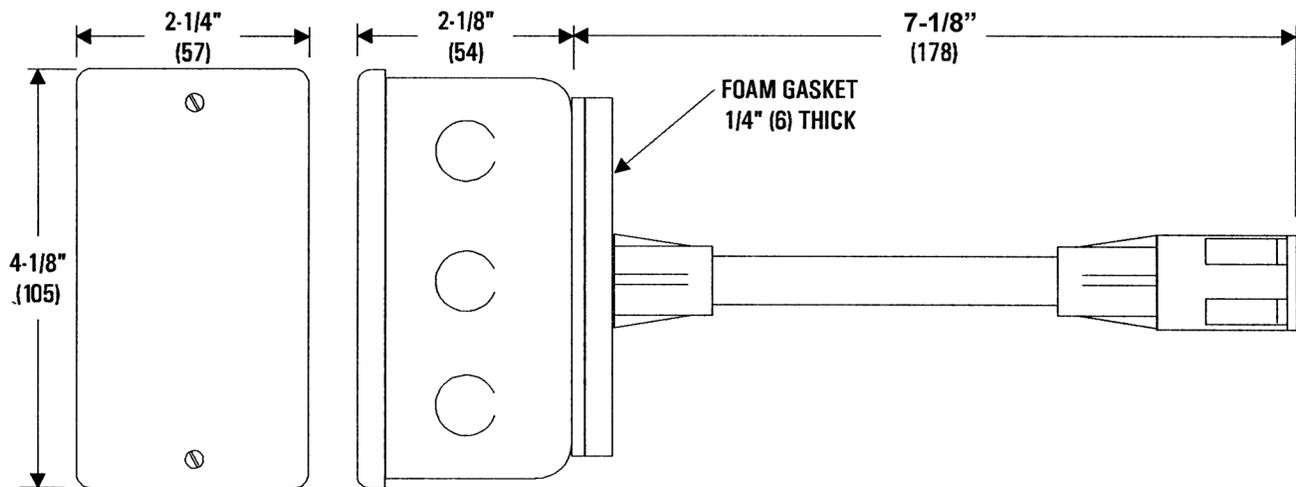
### Accessories

- XEE-6111-040 Single-hub transformer, 40 VA, 24 VAC, Class 2
- XEE-6112-040 Dual-hub transformer, 40 VA, 24 VAC, Class 2



## Details

All dimension are in inches (mm).



## Specifications

<b>Supply Voltage</b>	24 VAC (-15% +20%), Class 2 only	<b>Wire Size</b>	18 to 22 AWG, with a maximum 250-foot length
<b>Supply Power</b>	0.75 VA	<b>Material</b>	Steel housing and ABS UL Flame Class 94V-0 (or better) probe
<b>Humidity Element</b>		<b>Weight</b>	12 oz. (34 kg)
Output Range	0 to 100% RH	<b>Approvals</b>	SASO PCP Registration KSA R-103260
Sensing Accuracy	±2% over the 10 to 90% RH range @ 77° F (25° C)	<b>Temperature Limits</b>	
<b>Output Signal over 0 to 100% RH</b>		Operating	40 to 120° F (4 to 49° C)
	0 to 5 VDC, 0 to 10 VDC, or 4 to 20 mA	Shipping	-40 to 140° F (-40 to 60° C)
<b>Output Capacity</b>		Humidity	0 to 100% relative humidity, non-condensing
0-5 or 0-10 VDC	Capable of driving 1,000 ohms or greater		
4-20 mA	250 ohm min. to 650 ohm max.		
<b>Temperature Sensor</b>			
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		

**KMC Controls, Inc.**  
19476 Industrial Drive  
New Paris, IN 46553  
574.831.5250  
www.kmcccontrols.com  
info@kmcccontrols.com