

THE-1002 **Duct-Mounted Humidity Transmitter**

Description and Application



Able to accept VAC or VDC supply voltage, the THE–1002 offers three different standard outputs, 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.

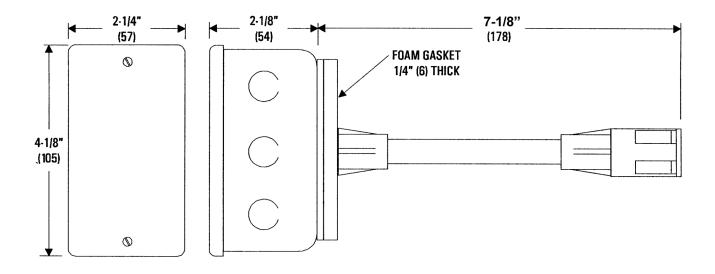
The sensor probe is filtered to reduce the possibility of contamination from airborne dirt and dust.

An integral housing affords multiple 1/2-inch conduit knockouts for ease of wiring during installation.

Features

- ◆ CMOS chip humidity sensor provides excellent linearity, sensitivity, and reliability
- ◆ Type II 10,000 ohm thermistor for temperature sensing
- Transmits separate temperature and humidity signals
- ◆ Accepts 24 VAC or 28 VDC supply voltage
- ◆ Three standard outputs
- ◆ Filtered sensor probe

All dimension are in inches (mm).



Specifications

Supply Voltage 24 VAC –15%, +20%;

28 to 40 VDC

Supply Power 0.75 VA at 24 VAC

12.5 mA at 28 VDC

Humidity Element

• Output Range 0 to 100% RH

• Sensing Accuracy @ 25° C ±2% RH over the

10% to 90% RH range

Output Signal over 0 to 100% RH

0 to 5 VDC, 0 to 10 VDC,

or 4 to 20 mA

Output Capacity

• 0–5 or 0–10 VDC capable of driving 1,000 ohms

or greater

• 4–20 mA (24 **VAC** or 28 **VDC** supply)

250 ohm min. to 650 ohm max.

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 2 mW/° C

Constant

Wire Size 18 to 22 AWG with a 250-foot

length, maximum

Material ABS UL Flame Class 94

Weight 12 oz. (34 kg)

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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