



TS-AC Transmitter Series

Copper Duct Averaging Temperature Transmitters



Overview

The TS-AC Transmitter Series are copper duct averaging temperature sensors. These devices provide precision temperature sensing of mixed air ducts. This temperature sensor is available with various lengths and various enclosures to fit any application. The duct averaging sensor incorporates numerous sensors inside a copper tube. It acts as a single sensor, averaging any temperature change across the sensors.

Applications

- Used for measuring temperature on supply and return air ducts

Features & Benefits

- Economical
- Ease of Installation
- Wide selection of thermistor curves
- Adaptable to most duct sizes
- Accurate temperature monitoring for increased comfort

Accessories

Calibration Certificate

TS-NIST	Calibration Certificate
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Note: Calibration certificates must be purchased at the time of purchasing the relative sensors.

Rubber Tube Clamps

TS-C00025	Rubber tube clamp for duct averaging temperature sensor 1/4"
TS-C0003125	Rubber tube clamp for duct averaging temperature sensor 5/16"
TS-C000375	Rubber tube clamp for duct averaging temperature sensor 3/8"

Model Selection

	TS-	AC	C04	PS	072	R1
Mounting Style	AC = Duct averaging, flexible copper probe					
Control Signal Output	C04 = Current, 4-20mA V05 = Voltage, 0-5VDC V10 = Voltage, 0-10VDC					
Enclosure	PS = Plastic square enclosure PR = Plastic round enclosure MJ = Metal junction box enclosure MW = Metal weatherproof enclosure					
Probe Length	072 = 72" 144 = 144" 240 = 240" 288 = 288"					
Temperature Range	R1 = 0° - 35°C (32° - 95°F) R2 = 0° - 50°C (32° - 122°F) R3 = 0° - 100°C (32° - 212°F) R4 = -50° - 50°C (-58° - 122°F)					

Product Specifications

Environmental

Operating temperature	-20°C to 60°C; -4°F to 140°F
Storage temperature	-20°C to 60°C; -4°F to 140°F
Ambient humidity	0 to 95% Non-condensing

Enclosure

Material:

<input type="checkbox"/> Plastic square enclosure (PS)	Grey ABS; Type: UL94-5VB IP61 (NEMA 2)
<input type="checkbox"/> Plastic round enclosure (PR)	Grey ABS; Type: UL94-5VB; IP65/NEMA4X
<input type="checkbox"/> Metal junction box enclosure (MJ)	Galvanized Steel Type: IP50 (NEMA1)
<input type="checkbox"/> Metal weatherproof enclosure (MW)	Cast Aluminum Type: IP64 (NEMA3X)

Shipping Weight:

<input type="checkbox"/> Plastic square enclosure (PS)	0.60lbs (0.2727kg)
<input type="checkbox"/> Round ABS w/ gasketed cover(E)	0.60lbs (0.2727kg)
<input type="checkbox"/> Metal Utility Box (M)	1.00lbs (0.4550kg)
<input type="checkbox"/> Metal weatherproof enclosure (MW)	1.20lbs (0.5455kg)

Transmitter/Sensor

Temperature Sensor Type ¹	1000Ω Platinum, IEC 751, 385 Alpha, thin film (RTD)
Temperature Sensor Accuracy	±0.3°C (±0.54°F) @ 0°C (32°F)
Transmitter Accuracy	±0.1% of span, including linearity
Output Signal	4-20mA current loop , 0-5 VDC, or 0-10 VDC

Electrical

4-20 mA Loop Power Supply	15-35 VDC or 22-32 VAC
RFI Rejection	Good RFI rejection of normal frequencies
Protection Circuitry	Reverse voltage protected and output limited
Wire Material	PVC insulated, parallel bonded (Type 2, 100 Plat. Uses FT4)
Maximum Loop Load	>600Ω
Maximum Output (Voltage)	Limited to <5.5 Vdc for 0-5 Vdc, <10.5 for 0-10 vdc
Maximum Current (Voltage)	5 mA nominal
0-5 Vdc Power Supply	10-35 vdc or 10-32 Vac
0-10 Vdc Power Supply	15-35 Vdc or 15-32 Vac
Minimum Current Loop	2 mA nominal (occurs with shorted sensor)
Maximum Current Loop	22.5 mA nominal (occurs with open sensor)

Agency Approvals

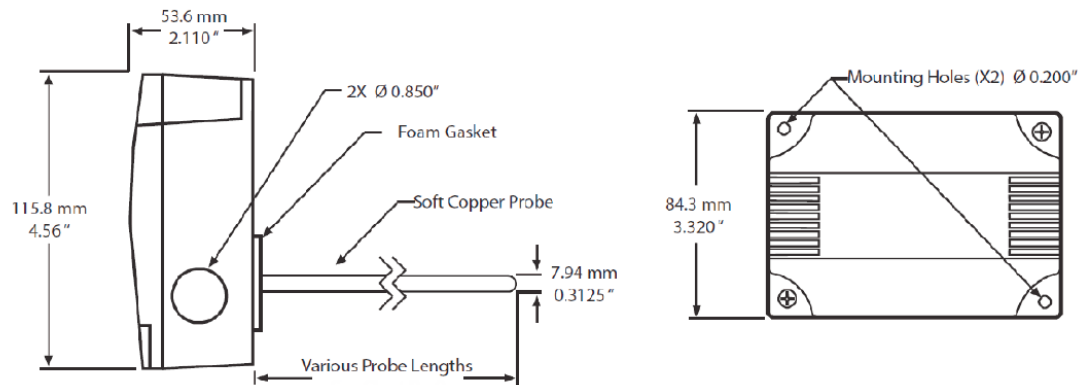
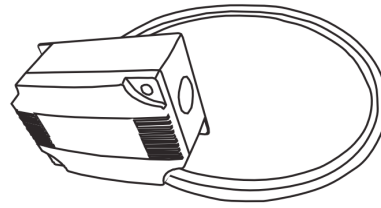
Material ²	UL94-5VB
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1. Temperature sensor type stated is standard. Other temperature sensor types are available.

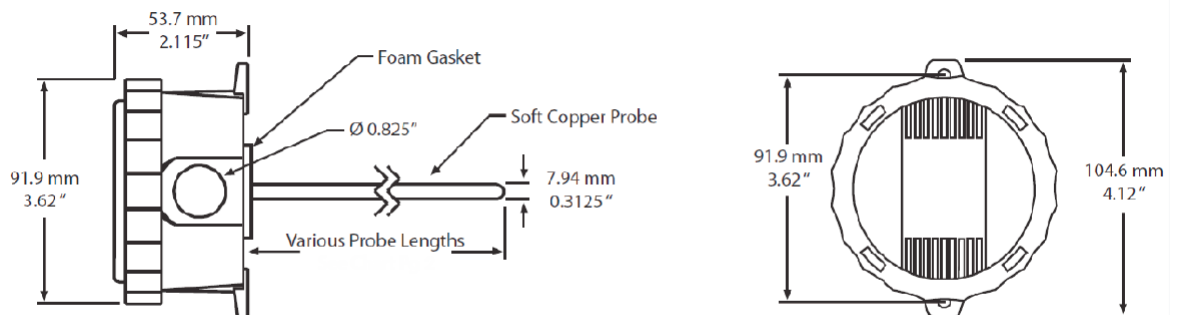
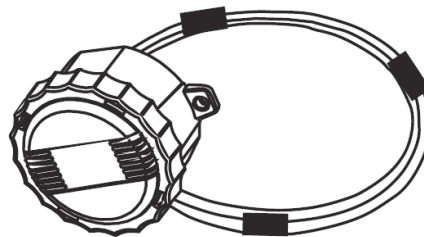
2. All materials and manufacturing processes comply with the RoHS directive

Dimensions

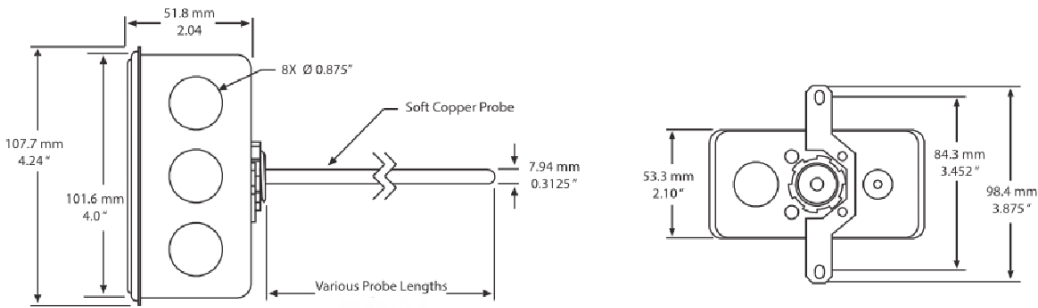
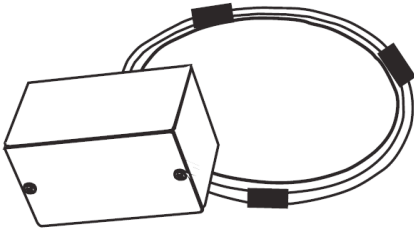
ABS Enclosure



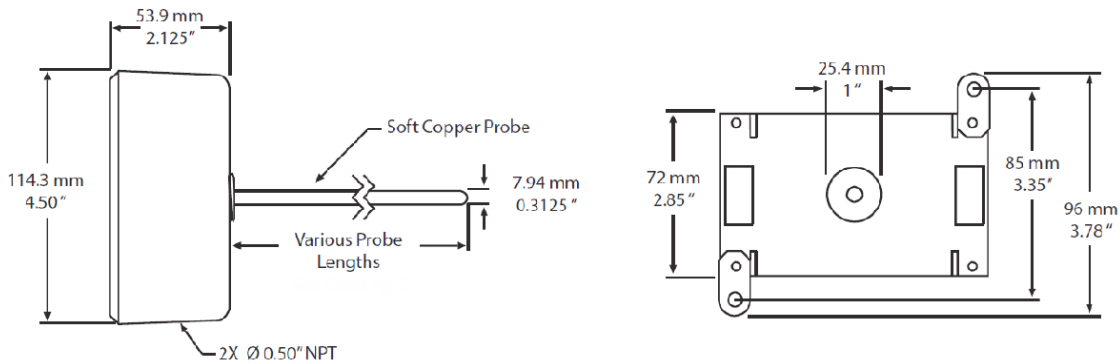
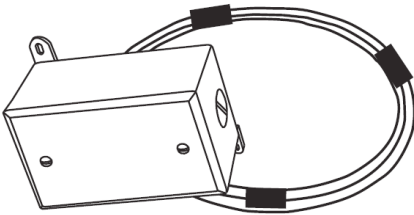
Round ABS Enclosure



Metal Enclosure



Weatherproof Enclosure



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