TS-AC Sensor Series

Copper Duct Averaging Temperature Sensors



Overview

The TS-AC Series Sensors are duct averaging temperature sensors.These devices provide precision temperature sensing of mixed air ducts. This temperature sensor is available with various lengths (6', 12', 20', and 24') 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. The copper tube is bendable to a radius of 4" and can crisscross a duct or plenum to average out temperature stratification. The enclosures contain pre-formed ½" knockouts for conduit connections. The sensors are conformal coated to protect the sensing elements against moisture migration.

Applications

- Used for measuring temperature on supply and return air ducts
- Incorporated in chillers to monitor temperature gradients

Features & Benefits

- Economical
- Ease of Installation
- Wide selection of thermistor curves
- Proven long stability and performance
- Adaptable to most duct sizes

Accessories

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	PS	072
Mounting Style	AC = Duct averaging, flexible copper probe				
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"				

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:

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

Shipping Weight:

□ Plastic square enclosure (PS)	0.60lbs (0.2727kg)
□ Round ABS w/ gasketed cover(E)	0.60lbs (0.2727kg)
□ Metal Utility Box (M)	1.00lbs (0.4550kg)
□ Metal weatherproof enclosure (MW)	1.20lbs (0.5455kg)

Electrical

Dissipation Factor	2.2mW/K (Thermistor)
Max Power @ 25°C (77°F)	75mW (Thermistor)
Thermal Time Constant	Less than 10s (Thermistor)

Temperature Sensor

Type[1]	10kΩ NTC thermistor, Type 2
Accuracy	±0.2°C; ±0.36°F

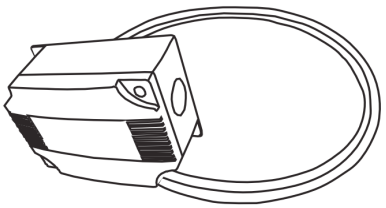
Agency Approvals

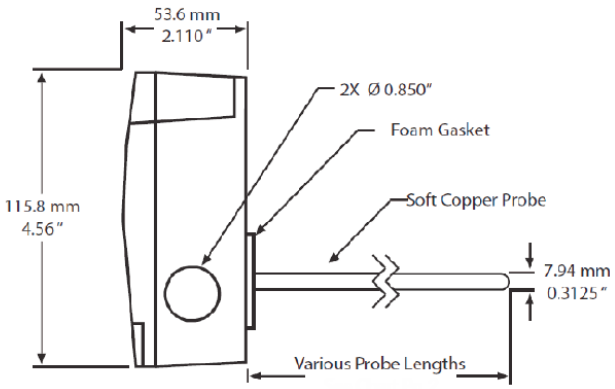
Material[2]	UL94-5VB

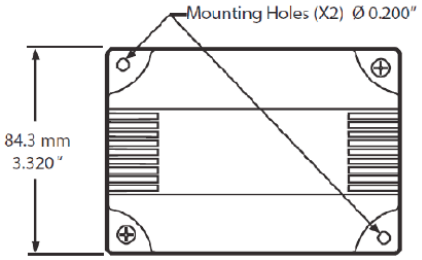
1. Temperature sensor type stated is standard. Other temperature sensor types are available.
2. All materials and manufacturing processes comply with the RoHS directive

Dimensions

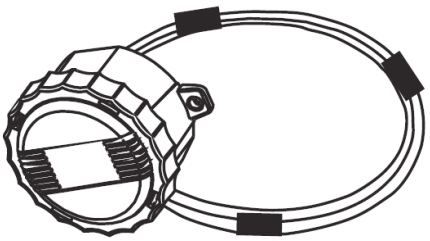
ABS Enclosure

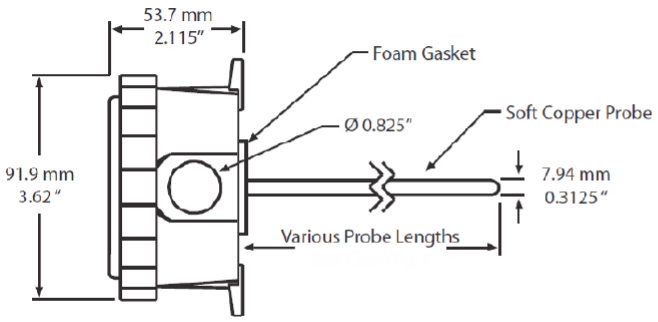


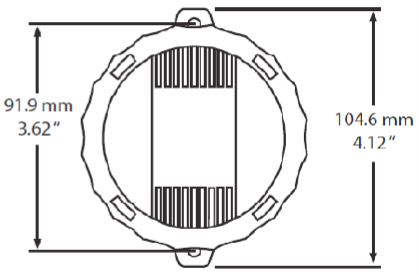




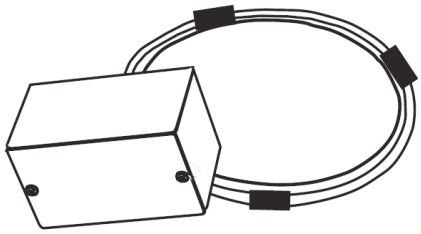
Round ABS Enclosure

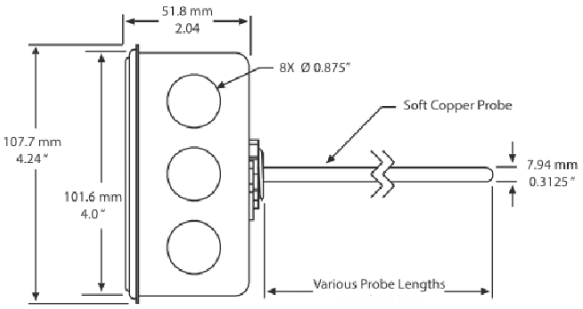


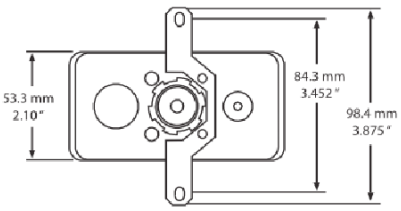




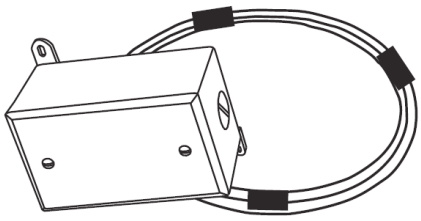
Metal Enclosure

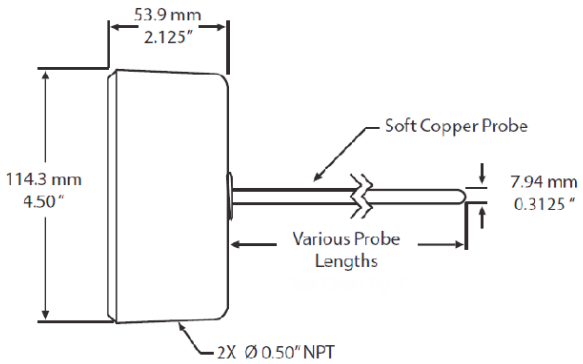


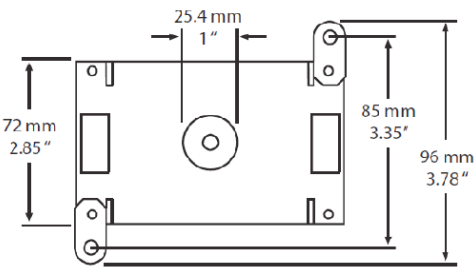




Weatherproof Enclosure







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