

Duct and Outside Air Temperature Sensors

Sense air temperature in ducts and outside

Overview

Sense temperature of air streams in ducts and plenums. Sensors include a junction box with gasket to prevent leakage and vibration noise.

These point-sensing thermometers feature a fast-responding aluminum sensing tip.

Custom options include a weatherproof connection box and an all stainless steel probe.

Outside air sensors are designed to mount on conduit outside your building. They include an elbow type enclosure and sun shield.

See pages 36-44 for optional 4 to 20 mA temperature transmitters and other instruments.

Specifications

Temperature range:

Probe: -45.5 to 135°C (-50 to 275°F).

Gasket: 100°C (212°F) max.

Leadwires:

AWG 22, PTFE insulated,
4" (100 mm) long.

Moisture resistance:

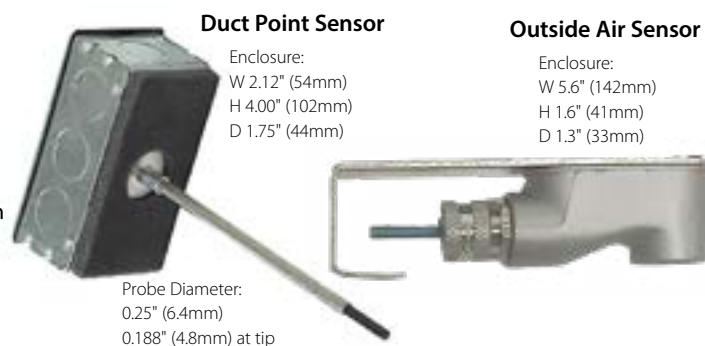
Point sensors meet MIL-STD-202, Method 104, Test Condition B

Special options

- Weatherproof connection box
- All stainless steel probe

Model numbers

Element	TCR	Duct point sensors	Outside air sensors
RTDs			
Platinum 100 Ω +/-0.1% at 0°C	0.00391	S408PB	S414PB
Platinum 100 Ω +/-0.1% at 0°C (Meets EN60751, Class B)	0.00385	S450PD	S454PD
Platinum 1000 Ω +/-0.1% at 0°C	0.00385	S451PF	S455PF
Platinum 1000 Ω +/-0.1% at 0°C	0.00375	S484PW	S486PW
Nickel-iron 1000 Ω +/-0.12% at 70°F	0.00527	S406FB	S412FB
Nickel-iron 2000 Ω +/-0.12% at 70°F	0.00527	S407FC	S413FC
HW 3000 Ω at -30.2°C	0.00262	S100060PX	S100062PX
Thermistors			
	R ₂₅ /R ₁₂₅		
Thermistor 2,252 Ω at +/-1% at 25°C	29.2	TS430TA	TS428TA
Thermistor 10,000 Ω at +/-1% at 25°C	23.5	TS431TB	TS429TB



Duct point sensors

S450PD	Model number from table
Y	Number of leads: Y = 2 leads Z = 3 leads (RTD only)
	Insertion depth in inches: 6,12,18 are standard Minimum: 3"
12	
S450PDY12 = Sample part number	

Outside air sensors

S414PB	Model number from table
Z	Number of leads: Y = 2 leads Z = 3 leads (RTD only)
S414PBZ = Sample part number	

To order with transmitter, add

TT111	Transmitter Models: TT111: Fixed Range (2 leads) TT211: Fixed Range (2 leads) TT321: Fixed Range (3 leads) <i>Other transmitter options available.</i>
A	Temperature Range Code: A = 20F to 120F (-6.7C to 48.9C)
1	Calibration: 1 = Nominal Calibration 2 = Match Calibrated, 0.75% Total System Accuracy 3 = Match Calibrated, 0.5% Total System Accuracy 4 = Match Calibrated, 0.2% or 1°C Total System Accuracy.
TT111A1 = Sample part number addition	