

Duct and Outside Air Temperature Sensors

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 NEMA 4 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 page 5-2 for optional 4 to 20 mA temperature transmitters.

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

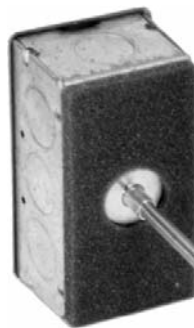
Duct Point Sensor

Enclosure:

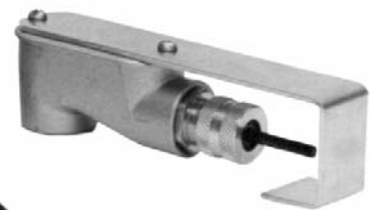
W 2.12" (54 mm)

H 4.00" (102 mm)

D 1.75" (44 mm)



Probe Diameter:
0.25" (6.4 mm)
0.188" (4.8 mm) at tip



Outside Air Sensor

Dimensions:

L 5.6" (142 mm)

H 1.6" (41 mm)

W 1.3" (33 mm)

Specification and order options:

Duct point sensors

S450PD	Model number from table
Y	Number of leads: Y = 2 leads Z = 3 leads (RTD only)
12	Insertion depth in inches: 1 inch = 25.4 mm Standard lengths: 3, 6, 12, 18" Minimum: 3"
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	

Specify and order products at:

www.minco.com/sensors_config

Specifications subject to change

