

Duct Averaging Temperature Sensors

Description

The Duct Averaging Temperature Sensors monitor and transmit changes in duct air temperature to the building control system. Specific devices within the range are compatible with whatever North American manufactured building automation system you may be installing. They provide accurate, reliable indication of duct temperature. The sensor resistance varies proportionally to the actual duct air temperature being measured. They are well-suited for heating and cooling application and monitoring mixed air temperature.

Features

- Variety of sensing elements
- Suitable for a variety of duct applications
- Responsive to temperature change
- Accurate and reliable indication of duct temperature
- Familiar installation requires no special tools



Figure 1. Duct Averaging Temperature Sensor.

Specifications

| | |
|------------------------------|--|
| Temperature Range | Controller dependent |
| Output Signals | Changing resistance |
| Sensing Element Type | NTC Thermistor, Platinum RTD, or Nickel RTD |
| Accuracy | |
| NTC Thermistors, mid-range | ±1.0°F (±0.5°C) |
| Pt RTD and Ni RTD, mid-range | ±0.75°F (±0.4°C) |
| Installation | |
| Wiring | 2-conductor: 18 to 22 AWG twisted pair (per code requirements) |
| Calibration Adjustments | NTC: None required RTD: Adjust for increased temperature offset (a constant) as required, related to added resistance of the field wiring |
| Dimensions | |
| Probe Lengths | 8 ft. (2m), or 16 ft. (6m), or 24 ft. (8m) |
| Mounting | 2 x 4 inch (5 x 10 cm) electrical conduit box |
| Coil Material | Annealed aluminum or copper |
| Housing | Standard NEC approved 2 x 4 inch (5 x 10 cm) utility box with 1/2 inch (13 mm) knockouts |
| Cover Plate | Standard NEC approved 2 x 4 inch (5 x 10 cm) utility box cover |
| Screw Head Type | Standard slotted |

Duct Averaging Temperature Sensor Product Numbers

| Product Number | Description |
|----------------|---|
| QAM2012.250 | Duct Temperature Sensor, 2 x 4 Box Housing, Platinum 1000 Ohm, 385 Alpha, 8-Foot Probe |
| QAM2012.500 | Duct Temperature Sensor, 2 x 4 Box Housing, Platinum 1000 Ohm, 385 Alpha, 16-Foot Probe |
| QAM2012.750 | Duct Temperature Sensor, 2 x 4 Box Housing, Platinum 1000 Ohm, 385 Alpha, 24-Foot Probe |
| QAM2020.500 | Duct Temperature Sensor, 2 x 4 Box Housing, Nickel 1000 Ohm, Siemens, 16-Foot Probe |
| QAM2020.750 | Duct Temperature Sensor, 2 x 4 Box Housing, Nickel 1000 Ohm, Siemens, 24-Foot Probe |
| QAM2021.750 | Duct Temperature Sensor, 2 x 4 Box Housing, Nickel 1000 Ohm, JCI, 24-Foot Probe |
| QAM2030.250 | Duct Temperature Sensor, 2 x 4 Box Housing, NTC 10K Ohm Type II, 8-Foot Probe |
| QAM2030.500 | Duct Temperature Sensor, 2 x 4 Box Housing, NTC 10K Ohm Type II, 16-Foot Probe |
| QAM2030.750 | Duct Temperature Sensor, 2 x 4 Box Housing, NTC 10K Ohm Type II, 24-Foot Probe |
| QAM2032.250 | Duct Temperature Sensor, 2 x 4 Box Housing, NTC 10K Ohm Type III, 8-Foot Probe |
| QAM2032.500 | Duct Temperature Sensor, 2 x 4 Box Housing, NTC 10K Ohm Type III, 16-Foot Probe |
| QAM2032.750 | Duct Temperature Sensor, 2 x 4 Box Housing, NTC 10K Ohm Type III, 24-Foot Probe |

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