FLEXIBLE COPPER DUCT AVERAGE TEMPERATURE SENSOR

TSDC Series

The flexible multi-point duct averaging temperature sensor utilizes several precision sensors spaced at equal distances and encapsulated in a 7.94mm (0.315”) OD, soft copper probe, and is available in various lengths. All probes provide excellent heat transfer, fast response and resistance to moisture penetration.

PRODUCT HIGHLIGHTS

* Compact form factor enclosure with soft close lid
* IP 65 Enclosure
* Slotted mounting holes angled for ease of field installation
* Custom branding available

ENGINEERING SPEC’S

* Shall be IP65 (NEMA 4X) with a UL94-V0 rated enclosure
* External mounting tabs must be slotted & tapered away from enclosure to ease field installation
* Enclosure shall be complete with neoprene gasket for duct to enclosure seal
* Probe – Enclosure connection shall be fully potted to eliminate probe condensation and guarantee IP65 (NEMA4X rating)
* Enclosure shall be complete with threaded (1/2 NPT and/or M16) conduit connection
* Cover must be hinged and securely attached in the open position
* Probe must be 7.94mm (0.315”) O.D soft pliable copper tubing with FT-6 plenum rated 22 AWG cable
* Sensing range must be -40 to 60°C (-40 to 140°F)
* Cover must contain security screw as extra protection from opening
* Product shall be CE approved

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| SPECIFICATIONS |  |
| SENSOR TYPES | Thermistor or RTD   * 100 Ω Platinum, IEC 751, 385 Alpha, thin film * 1801 Ω NTC Thermistor, ±0.2°C * 3000 Ω NTC Thermistor, ±0.2°C * 10,000 Ω Type 3, NTC Thermistor, ±0.2°C * 2.252K Ω NTC Thermistor, ±0.2°C * 1000 Ω Platinum, IEC 751, 385 Alpha, thin film * 1000 Ω Nickel, Class B, DIN 43760 * 10,000 Ω Type 3, NTC Thermistor, ±0.2°C c/w 11K shunt resistor * 20,000 Ω NTC Thermistor, ±0.2°C * 10,000 Ω Type 2, NTC Thermistor, ±0.2°C * 10,000 Ω, 25°C, ±1%, B = 3435 ±1% (25/85) |
| SENSOR ACCURACY | **Thermistors:** ±0.2°C (±0.36°F) @ 25°C (77°F)  **Platinum RTD’s:** ±0.3°C (±0.54°F) @ 0°C (32°F)  **Nickel RTD’s:** ±0.4°C (±0.72°F) @ 0°C (32°F) |
| PROBE SENSING RANGE | -40 to 60°C (-40 to 140°F) |
| AMBIENT OPERATING RANGE | -40 to 50°C (-40 to 122°F), 5 to 95 %RH non-condensing |
| WIRE MATERIAL | FT-6 rated plenum cable, 22 AWG |
| PROBE MATERIAL | Soft copper |
| PROBE DIAMETER | 7.94 mm (0.315”) |
| STANDARD LENGTHS | 1800, 3600, 6100, 7300mm  (6’, 12’, 20’, 24’) |
| ENCLOSURE | ABS, UL94-V0, IP65 (NEMA 4X)  **C:** includes terminal block  **E:** same as C, with thread adapter (1/2” NPT to M16), and cable gland fitting |
| TERMINATION | **A:** pigtail, 2 or 3 wire  **C & E:** terminal block, 2 or 3 wire |
| COUNTRY OF ORIGIN | Canada |