

DUCT AVERAGE FLEXIBLE CABLE NETWORK TEMPERATURE SENSOR

TNDF Series

The flexible, multi-point duct averaging mounted network temperature sensor is available with a selection of platinum RTD sensors and a transmitter that provides a high accuracy signal with excellent long term stability, low hysteresis and fast response. They are available with various scaled ranges. The sensing cable is constructed to provide excellent heat transfer, fast response time and is available in several lengths and quantity of sensing elements. A compact ABS enclosure with a hinged and gasketed cover is provided for ease of installation.

PRODUCT HIGHLIGHTS

* Precision Thermistor sending element
* High accuracy transmitter
* Choice of selected ranges and outputs
* Compact ABS enclosure

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
* Lead wire shall be FT-6 rated plenum cable
* 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
* Sensing range must be -40 to 50°C (-40 to 122°F)
* Cover must contain security screw as extra protection from opening
* Product shall be CE approved

SPECIFICATIONS

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| DESCRIPTION | ENGINEERING SPEC |
| POWER SUPPLY | BACnet®: 24 Vac/dc ±10% (non-isolated half-wave rectified)  Modbus: 24 Vac/dc ±20% (non-isolated half-wave rectified) |
| CONSUMPTION | BACnet®: 25 mA max @ 24 Vdc  Modbus: 10 mA max @ 24 Vdc |
| PROTECTION CIRCUITRY | Reverse voltage protected, transient protected |
| OPERATING ENVIRONMENT | -40 to 50°C (-40 to 122°F), 5 to 95 %RH non-condensing |
| TEMPERATURE SENSOR | 20 KΩ NTC thermistor |
| SENSOR ACCURACY | ±0.2°C (±0.36°F) @ 0 to 70°C (32 to 158°F) |
| PROBE SENSING RANGE | -40 to 60°C (-40 to 140°F) |
| RESOLUTION | 0.1°C/°F |
| WIRE MATERIAL | FT-6 plenum rated cable, 22 AWG |
| BACnet® INTERFACE | MS/TP, 2-wire RS-485 |
| MODBUS INTERFACE | MS/TP (RTU), 2-wire RS-485 |
| BAUD RATE | 9600, 19200, 38400, 57600, 76800 or 115200 (auto-detect) |
| ADDRESS RANGE | BACnet®: 0 to 127 (switch selectable)  Modbus: 1 to 255 (switch selectable) |
| SERIAL CONFIGURATION | 8N1 |
| MODBUS ERROR CHECKING | CRC-16 reverse (A001) |
| WIRING CONNECTION | Screw terminal block (14 to 22 AWG) |
| ENCLOSURE | ABS, UL94-V0, IP65  E style includes thread adapter (1/2” NPT to M16) and cable gland fitting |
| DIMENSIONS | 82.5mm W x 76.2mm H x 52.0mm D (3.25” x 3.0” x 2.05”) |
| STANDARD LENGTHS | 1800mm, 3600mm, 6100mm, 7300mm (6’, 12’, 20’, 24’) |
| COUNTRY OF ORIGIN | Canada |





**Greystone Energy Systems, Inc.**

150 English Dr. Moncton, NB E1E 4G7

+1 506 853 3057

[mail@greystoneenergy.com](mailto:mail@greystoneenergy.com) Page **1** of **1**

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