

RIGID DUCT AVERAGE NETWORK TEMPERATURE SENSOR

TNDR Series

The multi point rigid duct average network temperature sensor incorporates numerous precision sensors at equal distances and encapsulated in a 6 mm (0.236") OD, 304 series stainless steel probe and is available in various lengths. All probes provide excellent heat transfer, fast response and resist moisture penetration. The transmitter provides a BACnet® or Modbus signal for network connection. 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
- 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
- Probe shall be one piece 304 S.S fully potted
- Enclosure shall be complete with neoprene gasket for duct to enclosure seal
- 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

DESCRIPTION	ENGINEERING SPEC
POWER SUPPLY	BACnet®: 24 Vac/dc $\pm 10\%$ (non-isolated half-wave rectified) Modbus: 24 Vac/dc $\pm 20\%$ (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 K Ω NTC thermistor
SENSOR ACCURACY	$\pm 0.2^\circ\text{C}$ ($\pm 0.36^\circ\text{F}$) @ 0 to 70°C (32 to 158°F)
PROBE SENSING RANGE	-40 to 60°C (-40 to 140°F)
RESOLUTION	0.1°C/°F
PROBE MATERIAL	304 series stainless steel
PROBE DIAMETER	6mm (0.236")
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")
PROBE LENGTHS	450mm, 600mm, 900mm (18", 24", 36")
COUNTRY OF ORIGIN	Canada

