NETWORK REMOTE PROBE STRAP-ON TEMPERATURE TRANSMITTER

TNRP Series

The single point remote probe network temperature sensor incorporates a precision sensor encapsulated in a 6 mm (0.236”) OD, 304 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

* Compact form factor enclosure with soft close cover
* 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
* 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 |  |
| POWER SUPPLY | 24 Vac/dc ±10% (non-isolated half-wave rectified) |
| CONSUMPTION | **BACnet®:** 25 mA max @ 24 Vdc **Modbus:** 10 mA max @ 24 Vdc |
| OUTPUT SIGNAL | MS/TP 2-wire RS-485 (BACnet® or Modbus) |
| OPERATING ENVIRONMENT | -40 to 50°C (-40 to 122°F), 5 to 95 %RH non-condensing |
| PROBE MATERIAL | 304 series stainless steel |
| PROBE DIAMETER | 6 mm (0.236”) |
| WIRE LENGTH | 1.524m (5’) |
| WIRE MATERIAL | PVC insulated, parallel bonded (22 AWG) |
| WIRING CONNECTIONS | Screw terminal block (14 to 22 AWG) |
| ENCLOSURE | **A:** ABS, UL94-V0, IP65 (NEMA 4X)  **E:** Same as A, with thread adapter (1/2” NPT to M16) and cable gland fitting |
| COUNTRY OF ORIGIN | Canada |
| TEMPERATURE | **Sensing Element:** NTC thermistor  **Accuracy:** ±0.2°C (±0.36°F) @ 0 to 70°C (32 to 158°F)  **Probe Sensing Range:** -40 to 100°C (-40 to 212°F) **Resolution:** 0.1°C/°F |
| BACnet® COMMUNICATIONS INTERFACE | **Hardware:** 2 wire RS-485  **Software:** Native BACnet® MS/TP protocol  **Baud Rate:** 9600, 19200, 38400, 57600, 76800, or 115200 (auto-detect)  **Network Address Range:** Locally set to 0-127  **Serial Configuration:** 8N1 |
| MODBUS COMMUNICATIONS INTERFACE | **Hardware:** 2 wire RS-485  **Software:** Native Modbus MS/TP protocol (RTU)  **Baud Rate:** 9600, 19200, 38400, 57600, 76800, or 115200 (auto-detect) **Network Address Range:** Locally set to 1-255 (switch selectable)  **Parity:** None  **Stop Bits:** 1  **Error Checking:** A001 (CRC-16 reverse) |
| INPUT VOLTAGE EFFECT | Negligible over specified operating range |
| PROTECTION CIRCUITRY | Reverse voltage protected and transient protected |