ROOM TEMPERATURE AND HUMIDITY SENSOR

NTRC SERIES

The NTRC series of room temperature and humidity sensors are intended to be wall mounted directly to a single gang electrical box or directly to a wall.

PRODUCT HIGHLIGHTS

• Standard unit has temperature sensor, with optional relative humidity sensor.

• Optional UP/DOWN setpoint control

• Optional local override function

• Optional Form A relay with selectable alarm point.

• Optional fan speed switch

• Optional digital input

• Back lit LCD with user menu

• RS-485 network with either BACnet or Modbus protocol

SPECIFICATIONS

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| DESCRIPTION | ENGINEERING SPEC |
| TEMPERATURE SENSOR | Sensing Element: 10,000Ω thermistor, ±0.2°C (0.4°F)  Range: 0 to 50°C (32 to 122°F) |
| RH SENSOR - OPTIONAL | Sensing Element: Thermistor polymer based capacitive  Accuracy: ±2 %RH  Range: 0 to 100 %RH, non-condensing  Resolution: 1 %RH  Hysteresis: ±3 %RH  Response Time: 15 seconds typical  Stability: ±1.2 %RH typical @ 50 %RH in 5 years |
| SENSOR COVERAGE AREA | 100 m2 (1000 ft2) typical |
| POWER SUPPLY | 20-28 Vac/dc (non-isolated half-wave rectified) |
| CONSUMPTION | 35 mA max @ 24 Vdc |
| PROTECTION CIRCUITRY | Reverse voltage protected and output limited |
| LCD DISPLAY | Resolution: 0.5 or 1°C/°F selectable, 1 %RH  Size: 38.1mm W x 16.5mm H (1.5” x 0.65”), 3 digit  Backlight: Auto-dimming, enable/disable via jumper  Viewed Values: Temperature Only, RH Only or alternating Temperature/RH  (RH requires optional RH signal) |
| OPTIONAL SETPOINT CONTROL | User Interface: Front panel Up/Down buttons available via BACnet® or Modbus  Setpoint Mode: Temperature (°C/°F) or RH, menu selectable  (factory default is Temp & °C)  Adjustable Setpoint Range: 10 to 50°C, 50 to 122°F or 10 to 85 %RH, menu  selectable (factory default is 18 to 24°C)  Minimum Span: 4°C/°F for 10 %RH  Temperature Setpoint Resolution: 0.5° or 1°, menu selectable (factory default is 1°) |
| OPTIONAL OVERRIDE SWITCH | User Interface: Front panel button available via BACnet® or Modbus  Override Status: Via BACnet® or Modbus “OCC” segment lights on LCD |
| OPTIONAL FANSPEED SWITCH | User Interface: Side panel, 5 position available via BACnet® or Modbus  Indication: Off, Auto, Low, Mid, High switch position indication |
| OPTIONAL RELAY | Contact Ratings: Form A contact (N.O.), 2 Amps @ 140 Vac, 2 Amps @ 30 Vdc  Relay Activation: Via BACnet® or Modbus |
| OPTIONAL DIGITAL INPUT | Input Type: Dry-contact only (relay contact), short to COMMON to activate |
| WIRING CONNECTIONS | Screw terminal block (14 to 22 AWG) |
| COMMUNICATION | Hardware: 2 wire RS-485  Software: Native BACnet® or Modbus MS/TP protocol, menu selectable  Baud Rate: Locally set from 300 to 76800  MAC Address Range: BACnet® - 0-127  Modbus - 1-255  (Factory default is 2) (63 devices max on one daisy chain) |
| OPERATING CONDITIONS | 0 to 55°C (32 to 131°F), 0-95 %RH non-condensing |
| STORAGE TEMPERATURE | -20 to 70°C (-4 to 158°F) |
| ENCLOSURE | White ABS, IP30 (NEMA 1)  84mm W x 119mm H x 29mm D (3.3” x 4.7” x 1.15”) |
| COUNTRY OF ORIGIN | Canada |