



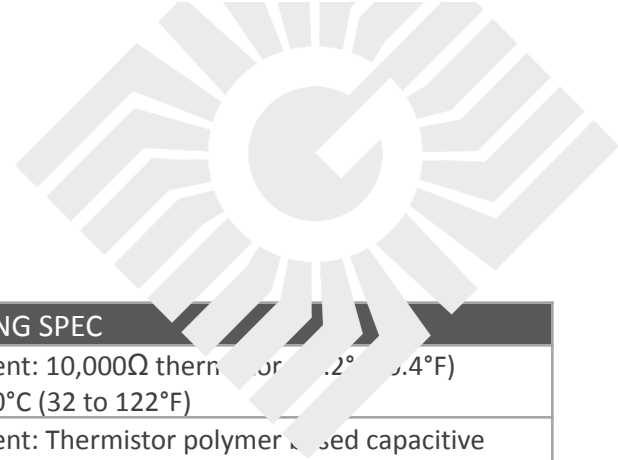
ROOM TEMPERATURE AND HUMIDITY SENSOR

NTRC SERIES

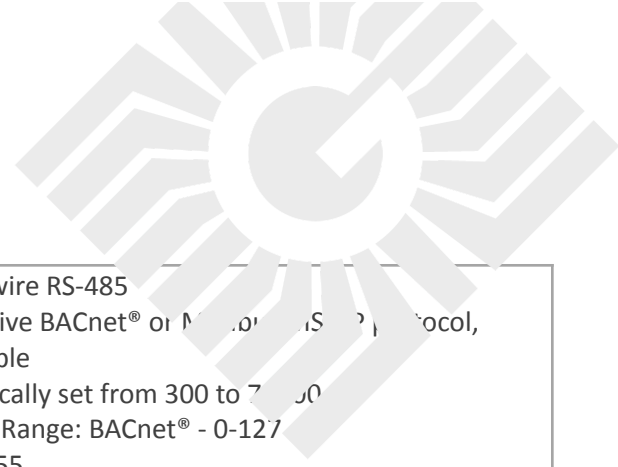
The NTRC series of room temperature and humidity sensors are intended to be wall mounted directly to a single gang electrical box or directly to a wall.

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

DESCRIPTION	ENGINEERING SPEC
TEMPERATURE SENSOR	Sensing Element: 10,000Ω thermistor (±0.2% @ 25°C/77°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 m ² (1000 ft ²) 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	<p>Hardware: 2 wire RS-485</p> <p>Software: Native BACnet® or Modbus® protocol, menu selectable</p> <p>Baud Rate: Locally set from 300 to 76800</p> <p>MAC Address Range: BACnet® - 0-127</p> <p>Modbus - 1-255</p> <p>(Factory default is 2) (63 devices max on one daisy chain)</p>
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	<p>White ABS, IP30 (NEMA 1)</p> <p>84mm W x 119mm H x 29mm D (3.3" x 4.7" x 1.15")</p>
COUNTRY OF ORIGIN	Canada