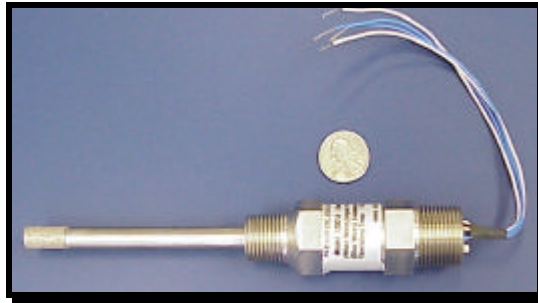


**INDUSTRIAL TEMPERATURE / RELATIVE HUMIDITY / DEW POINT
NETWORK TRANSMITTER**

- Temperature, Relative Humidity and Dew Point Temperature Device
- Electronics are sealed for environmental durability.
- Digitally calibrated for high accuracy
- Stainless steel filter protects sensors
- 1/2 inch NPT process connection.
- 3/4 inch NPT wiring conduit connection.
- Flexible mounting options for HVAC duct applications and process connection.
- Multiple sensors multiplexed on same wires
- Open communication standard using LonWorks® Protocol
- All outputs available using Standard Network Variables (SNVT)
- Stainless steel probe and body for durability

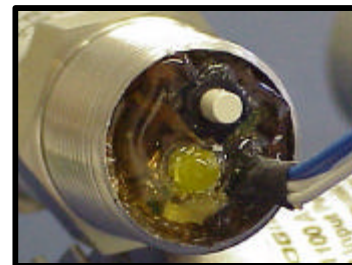
DESCRIPTION

The Model 1200A is a high accuracy temperature and relative humidity transmitter that is completely self contained. It measures temperature and relative humidity and then calculates the dew point temperature. The electronics are sealed for long-term resistance to moisture. The electronics, temperature sensor, and humidity sensor are available characterized and paired to provide high accuracy at a reasonable cost. The sensor and configuration information is communicated to other devices via the LonWorks communication protocol. This allows multiple sensors to be used over a simple four-wire bus installation.

The Model 1200A is a new version of the Model 1200. It has flying wiring leads in place of the terminal block. Functionally, the 1200 and 1200A are identical in operation.

WIRING AND INSTALLATION

The Model 1200A is supplied with four flying leads for maximum flexibility. Two white wires are used to connect power. The two blue wires are used to connect the network communication channel. For convenience the Model 1200A accepts either low voltage AC or DC power. Input power and network wiring is not polarity sensitive and can be reversed. The on-board Service switch and LED allows installation on to the LonWorks network.

**MOUNTING OPTIONS**

The Model 1200A may be mounted in a large variety of ways. In its most basic form the entire probe can be simply fastened into any 1/2 inch NPT port with access to the process being measured. The probe can also be used with an optional mounting flange for duct mounting or through a wall or ceiling. In any application, such as outdoors, where the sensor may be subject to water droplets or severe condensation it must be mounted with the probe tip pointed down.

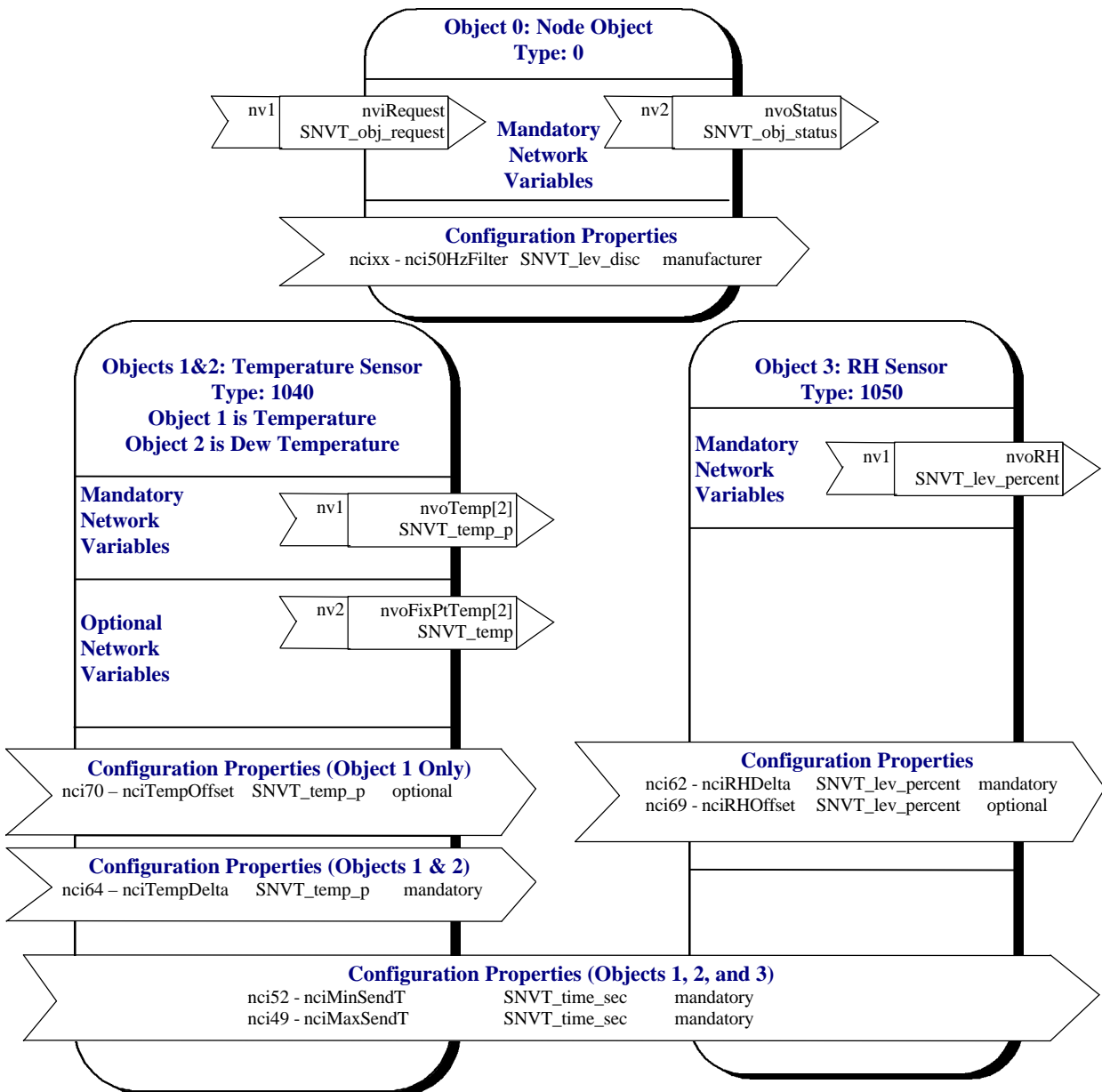
MODEL 1200A

APPLICATION AREAS

- Grouped Sensor Inputs for Wiring Reduction
- Indoor Air Quality Control
- Distributed HVAC Monitoring and Control
- High Tech Manufacturing Environments
- Integration with other LonWorks HVAC Products

NETWORK OBJECTS

The Model 1200A contains four LonMark objects: one Node Object, two Temperature Sensor Objects type 1040, and one Relative Humidity Sensor Object type 1050. The first temperature object is the measured temperature and the second is the calculate dew point temperature. Note, the output data is available in multiple formats for convenience.



GENERAL SPECIFICATION

Temperature

Sensing Element	1000 Ohm platinum RTD
Class B Accuracy	+/- 0.5C + 0.005*T C
Class A Accuracy	+/- 0.25C + 0.002*T C
Calibrated Accuracy	+/- 0.05C @ -40 to 85 C
Sensor Stability	Better than 0.1 °F per 5 years in air environment

Relative Humidity

Sensing Element	Honeywell HIH-3605
Accuracy	+/- 2% RH, 5-95% RH, (Optional +/- 1%) 0-50C +/-3% RH -20 to 80C
Time Constant	50 seconds in slowly moving air @ 25C
Repeatability	+/- 0.5% RH
Maintenance	No routine maintenance required
Sensor Stability	+/-1% RH typical at 50% RH in 5 years

Operating Environment

Electronics	-40 to 85C, 0-95% RH non-condensing
Sensors	-40 to 85C
Operating Pressure	Ambient for electronics. Ambient +/- 20 inches of water for probe.

Electronics

CPU	3120 Neuron
Network Transceiver	FTT-10
Environmental Protection	Electronics PCB sealed
Input Power	10 to 30 VDC or 12 to 26 VAC
Input Power Protection	Input power is fused and transient voltage protected. (Fuses do not need to be replaced)
Current Consumption	30-40 mA Typical with service LED on 20-30 mA Typical without service LED on
Network Transceiver Type	Echelon FTT-10A transceiver at 78 kbps. DC blocking capacitors for LPT10 network.
Input Power and Network Wiring	Flying leads, white for power and blue for network. Input power and network wiring is polarity insensitive.

Dimension and Materials

Wiring Connection	3/4 inch Male NPT
Process Connection	1/2 inch Male NPT
Probe Material	316 Stainless Steel, 3/8 inch diameter
Probe Body	304 Stainless Steel 1.125 inch Hex, Installed length = 3.25 inch



MODEL 1200A

ORDERING INFORMATION

1200A	Model 1200A Temperature / Relative Humidity / Dew Point Network Transmitter
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Code	Network Transceiver Option
-0	TP/FTT-10A

Code	Mounting Options
-0	Basic Unit
-1	1/2 inch NPT Flange
-2	3/4 inch Wiring Junction Box
-3	1/2 inch NPT Flange and 3/4 inch Wiring Junction Box

Code	Probe Length
-04	4 inch Probe
-08	8 inch Probe
-12	12 inch Probe
-XX	Custom length in inches (4 inch minimum to 72 inch maximum) Special Order Factory Quoted

Code	Temperature Calibration Options
-0	Class B RTD
-1	Class A RTD
-2	RTD calibrated to electronics
-3	RTD calibrated to electronics with NIST certificate

Code	RH Calibration Options
-0	Standard RH Accuracy
-1	+/- 1% RH Accuracy

1200A	-0	-0	-04	-0	-0	Model 1200A with FTT-10A transceiver, Class B RTD, no mounting flange or junction box, and 4 inch probe.
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Optional Products

When the Model 1100 is used outdoors in exposed locations **NeuroLogic Research Corp.** recommends using the Model 40 Rain and Sun Guard.

The Model 40 is a PVC rain and sun guard designed for use with the Model 1100 Industrial Temperature Network Transmitter and the Model 1200 Industrial Temperature / Relative Humidity / Dew Point Network Transmitter. The guard is designed to keep rain off the end of the probe and prevent wetting of the humidity sensor within the model 1200. The guard will also keep direct sunlight from shining on the sensors of the probes. The rain guard is available in five-inch lengths to support a four-inch probe.

MODEL 1200A

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