



E-Control Systems, Inc.

IntelliSensor™ for Humidity & Temperature

Humidity-11, Humidity-22



Model TempNTC-22 (above)
2 Temperature 2 Door Version

Product Description

The IntelliSensor™ is a cost effective, wireless monitoring system using the Zigbee® standard for communicating humidity, temperature, and dewpoint information, among other features. Combining the key components of the IntelliSense™ network (IntelliSensor™, IntelliGate™, IntelliMesh™, and FusionLive™) allows easy creation of a centrally managed monitoring application.

The IntelliSensor™ transmits sensor data based on time or a change in the value of a sensor reading (ΔT). These parameters are adjustable to allow realistic acquisition of different types of sensor data.

The inputs to the IntelliSensor™ are user selectable allowing you to configure the IntelliSensor™ to your specific application. Applications include, but are not limited to:

- Food Service (HACCP Compliance / NAFEM Data Protocol)
- Medical / Pharmaceutical (FDA 21 CFR Part 11 Compliance)
- Refrigeration (HVAC, Heating, Cooling)
- Industrial

Features

- Humidity, Temperature, and dewpoint readings
- Multiple input combinations available in single package (1 or 2 Humidity/Temperature Combination)
- Completely wireless (No need for power or data cables)
- 2.4 GHz operating frequency for worldwide deployment
- High power radio to 50 mW (+17 dBm)
- Supports Zigbee® Wireless Standard
- Supports meshed networking for increased reliability and range
- Outdoor range up to 1 mile (1.6 km)
- Completely integrated solution with IntelliGate™, IntelliMesh™, and FusionLive™ Software
- Can be configured and managed remotely using the IntelliGate™ gateway
- Battery lasts up to 10 years
- No hardware configuration needed (Sensors automatically join network)
- Firmware can be updated wirelessly (over-the-air)
- User configurable transmission interval (over-the-air)
- Conformal coated board for moisture rich operating environments
- Optional NEMA enclosure for harsher environments

General Specification

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|------------------------------|--|
| Radio | 802.15.4 Complaint, 2.4 GHz DSSS (Direct Sequence Spread Spectrum) |
| Output Power | 50 mW (+17 dBm) |
| Message Transmission | 70 mSec |
| Antennae | Wired Whip |
| Range | Up to 1 mile (1.6 km) Outdoor Up to 400 ft (120 m) Indoor |
| Battery Life | Up to 10 years (depending on transmission interval) |
| Battery Type | AA 3.6V Lithium Thionyl Chloride (two per IntelliSensor) |
| Operating Temperature | -40°C to 85°C |
| Operating Humidity | 0 to 100%, non-condensing |
| Dimensions | 3.290" x 2.420" x 1.000" 84mm x 61.5mm x 25.4mm |
| Mounting | 2 screws or double-sided tape |

Sensor Specifications

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|-----------------------------------|--------------------------|
| Humidity Measurement Range | 0-100% RH |
| Humidity Accuracy | +/- 1.8% RH (20..80% RH) |
| Humidity Resolution | 0.05% RH |
| Temperature Accuracy | +/- 0.3°C (at 25°C) |
| Temperature Resolution | 0.01°C |
| Sensor Terminal Connection | 12-26 AWG (Wire Size) |



HACCP



9420 Lurline Avenue • Unit B • Chatsworth, CA 91311 • (818) 885-5228 • fax (818) 885-5218
www.eControlSystems.com e-mail: sales@eControlSystems.com