



E-Control Systems, Inc.

IntelliSensor™ - Temperature and Contact Closure (Door Status)

# IntelliSensor™ for Temperature & Door

TempNTC-10, TempNTC-11, TempNTC-20, TempNTC-22, TempNTC-40



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 temperature and door status 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 ( $\Delta T$ ). 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

- Temperature and contact closure (door status) readings
- Multiple input combinations available in single package (1 to 4 input modules)
- 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

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

### Sensor Specifications

<b>Temperature Accuracy</b>	+/- 1°C
<b>Temperature Resolution</b>	0.1°C
<b>Contact Closure Switching</b>	1/10 second
<b>Detection Time</b>	
<b>Sensor Terminal Connection</b>	12-26 AWG (Wire Size)



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