



ColdGuard Humidity Sensor

The ColdGuard Wireless Humidity Sensor allows you to accurately monitor the relative humidity of the air within a room or enclosure.

The ColdGuard Wireless Humidity Sensor measures the relative humidity at the device. The sensor returns RH and temperature values to the ColdGuard Online Sensor Monitoring and Notification System. The system calculates dew point from the data and stores all three data points in the online system where the data can be reviewed and exported as a data sheet or graph. Notifications can be set up through the online system to alert the user when defined thresholds have been met or exceeded.

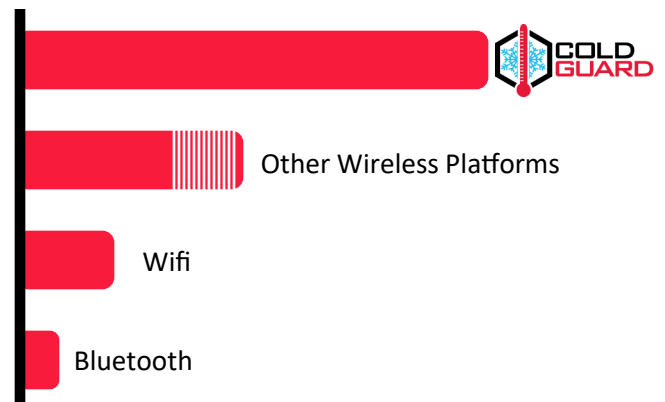
ColdGuard sensors are enclosed in reliable, weather-proof NEMA rated enclosures. Our NEMA rated enclosures are constructed for both indoor or outdoor use and protect the sensor circuitry against the ingress of solid foreign objects like dust as well as the damaging effects of water (rain, sleet, snow, splashing water, and hose directed water).



- Wireless range of 1,000+ feet through 12-14 walls *
- Frequency Hopping Spread Spectrum (FHSS)
- Improved interference immunity
- Encrypt-RF™ Security (Diffie-Hellman Key Exchange+ AES-128 CBC for sensor data messages)
- 16,000 sensor message memory
- Over the air updates (future proof)
- Plug & Sense, no hassle set-up
- No PC required for operation
- Local status LEDs with transmission and online status indicators
- On-line heart-beat control
- Power outage notification

*Actual range may vary depending on environment.

Wireless Range Comparison





ColdGuard Humidity Sensor Specifications

Supply Voltage	2.0 - 3.8 VDC (3.0 - 3.8 VDC Using Power Supply) *
Current Consumption	0.7 μ A (sleep mode) 2 mA (radio idle/off mode) 2 mA (measurement mode) 25 mA (radio RX mode) 35 mA (radio TX mode)
Operating Temperature Range (Board Circuitry and Battery)	-40°C to +85°C (-40°F to +185°F) **
Included Battery	Max Temperature Range: -40° to +85°C (-40° to +185°F) Capacity: 1800 mAh
Accuracy	\pm 3% under normal conditions (10% - 90% RH)
RH Operating Range	0—100% RH
RH Response Time	8 sec (tau 63%)
Integrated Memory	Up to 512 sensor messages
Wireless Range	1,000+ ft. non-line-of-sight ***
Security	Encrypt-RF tm (256-bit key exchange and AES-128 CTR)
Weight	4.7 Ounces
Enclosure Rating	NEMA 1, 2, 4, 4x, 12 and 13 rated, sealed and weather proof
UL Rating	UL Listed to UL508-4x specifications (File E194432)
Certifications	900 MHz Product: FCC ID: ZTL-G2SC1 and IC: 9794A-G2SC1
	*Hardware cannot withstand negative voltage. Please take care when connecting a power device.
	**At temperatures above 100°C, it is possible for the board circuitry to lose programmed memory.
	***Actual range may vary depending on environment.

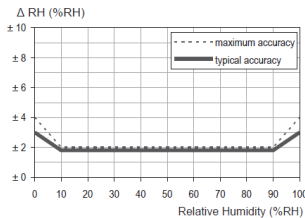


Figure 1. Typical and maximal tolerance at 25°C.

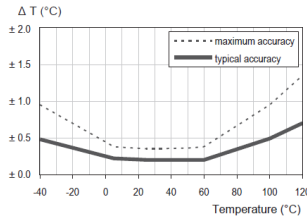


Figure 2. Maximal tolerance for temperature sensor in °C.

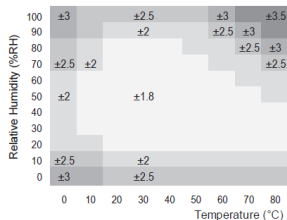


Figure 3. Typical accuracy of relative humidity measurements given in %RH for temperatures between 0 – 80°C.

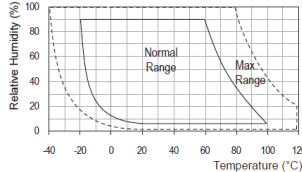


Figure 4. Operating Conditions

