



ColdGuard Thermocouple Sensor

The ColdGuard Wireless Thermocouple Sensor is available with a K-type connector to support various thermocouple types and ranges.

The ColdGuard Wireless Thermocouple is available with a K-Type connector (for supporting various thermocouple types and ranges) to measure high temperature applications. It is programmed to sleep for a user-given time interval (heartbeat) and then wakeup, send power to the thermocouple and wait for it to stabilize, and convert the analog data, mathematically compute the temperature and transmit the data to the gateway. To stay within the abilities of the processor, the temperature is computed off a data table provided by the manufacturer.

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).

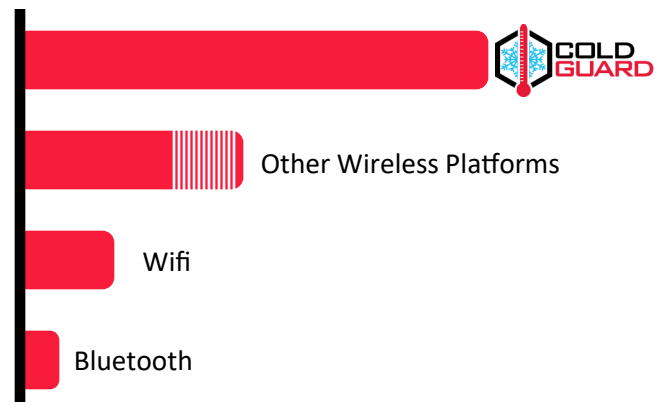


- Wireless range of

- 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 Thermocouple Sensor Specifications

Supply Voltage	2.0 - 3.6 VDC *
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 3.0°F(1.1°C) or \pm 0.4% rdg above 212°F(100°C); \pm 3.6°F(2.2°C) or 2% of rdg between -58 to 211°F (-50 to 99°C); \pm 7.2°F(4°C) or \pm 4% of rdg between -60 to -238 (-51 to -150°C)
Probe Temperature Range	-250 to 900°F (-150 to 482°C)
Probe Insulation type	Fiberglass
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.