



## ColdGuard Pressure Sensor

The ColdGuard Wireless pressure sensor measures pressure from a 5 volt pressure transducer and transmits the pressure measurement to the ColdGuard system. This solution combines a standard pressure transducer interfaced to a wireless radio.

By connecting the ColdGuard wireless pressure sensor to a pressurized gas, liquid or vapor supply line, it can measure the pressure within the line and send data to the ColdGuard Online Sensor Monitoring and Notification System. The data is stored in the online system and can be reviewed and exported as a data sheet or graph. User customization allows you to set notifications and alerts from the system so you can know immediately if pressure is above or below an optimal range.

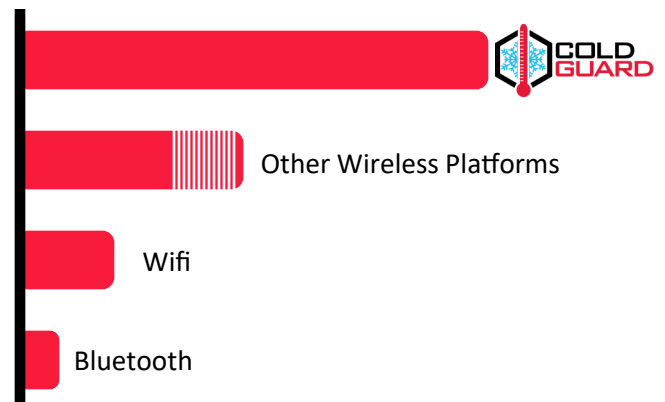
ColdGuard sensors are enclosed in reliable, weather-proof NEMA rated enclosures. Our NEMA rated enclosures are constructed for both indoor or outdoor use and protect the sensor circuitry against the ingress of solid foreign objects like dust as well as the damaging effects of water (rain, sleet, snow,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

Supply Voltage	2.0 - 3.6 VDC *
Current Consumption	0.7 $\mu$ 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
Operating Temperature	-18°C to 79°C (0°F to 175°F)
Thermal Effect on Reading	$\pm$ 0.02% FS/°F. (includes zero and span)
Media	Gas, Liquid or Vapor
Response Time	50 msec
Stability	1.0% FS/year (Typical)
Wire Length	1 Meter shielded cable (between gauge and wireless unit)
Accuracy	0.25% FS; 0.20% RSS; Absolute Ranges: 0.5% FS; 0.35% RSS. (Includes linearity, hysteresis, and repeatability)
Max Voltage Input	5.5 V
Voltage Measurement Range	0—5.2 V ****
Voltage Measurement Resolution	$\sim$ 3 mV
Voltage Measurement Accuracy	$\pm$ 3% FS
Pressure Measurement Accuracy	$\pm$ 3% FS
User Calibrated Pressure Accuracy	$\pm$ 1% FS *****
Process Connection	1/4" NPT-Male Standard
Pressure Transducer	300 PSIG
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	13.3 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-RFSC1 and IC: 9794A-RFSC1
	*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.
	****The sensor is capable of measuring above 5 volts but may not meet the specified accuracy above this value.
	*****For best results first zero the sensor then calibrate at greater than 20% maximum pressure of the transducer.

