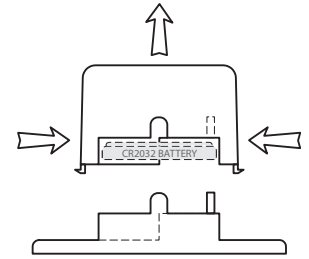




### PinchPower™ Enclosures

Pinch and Pull To Change Battery



## ALTA Commercial Coin Cell Wireless Pulse Counter | Technical Specifications

Supply voltage	2.0–3.8 VDC *		
Current consumption	0.2 $\mu$ A (sleep mode), 0.7 $\mu$ A (RTC sleep), 570 $\mu$ A (MCU idle), 2.5 mA (MCU active), 5.5 mA (radio RX mode), 22.6 mA (radio TX mode)		
Operating temperature range (board circuitry and coin cell)	-7°C to +60°C (20°F to +140°F) **		
Optimal battery temperature range (coin cell)	+10°C to +50°C (+50°F to +122°F)		
Maximum count	4294967296 (32 bit number)		
Input voltage	0 to 15 Volts DC		
Detection wires	High impedance (2-wire), 3 ft length		
Counter operation	Positive and/or negative edge pulses		
Compatibility	Open collector NPN switches (passive) Mechanical switches (passive) 0–15V driven source (active)***		
Max input pulse rate/min pulse width with passive input ****		Max Pulse Rate	Min Pulse Width*****
	No Filter	~ 2 KHz	~ 0.5 ms
	4 Hz Filter	~ 4 Hz	~ 250 ms
	40 Hz Filter	~ 40 Hz	~ 25 ms
Integrated memory	Up to 512 sensor messages		
Wireless range	1,200+ ft non-line-of-sight		
Security	Encrypt-RF® (256-bit key exchange and AES-128 CTR)		
Weight	0.7 ounces		
Certifications	  Industry Canada	900 MHz product; FCC ID: ZTL-G2SC1 and IC: 9794A-G2SC1. 868 and 433 MHz product tested and found to comply with: EN 300 220-2 V3.1.1 (2017-02), EN 300 220-2 V3.1.1 (2017-02) and EN 60950	

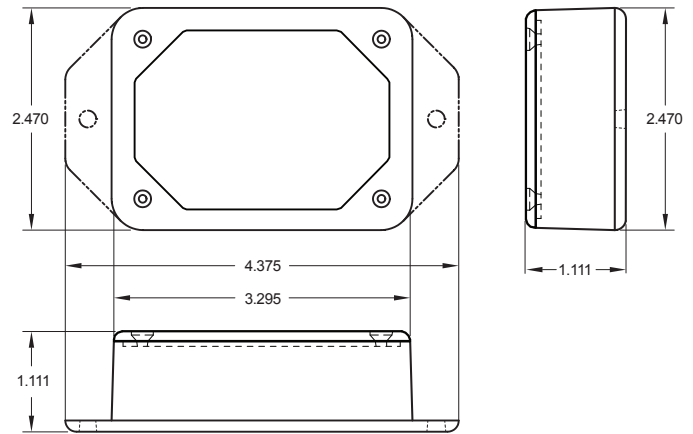
\* Hardware cannot withstand negative voltage. Take care when connecting a power device.

\*\* At temperatures above 100°C, it is possible for the board circuitry to lose programmed memory.



\*\*\* Low Pulse: 0 Volts to 0.2 \* VBatt, High Pulse: 0.8 \* VBatt to 15 Volts.

\*\*\*\* High pulse count rates can impact battery life. AA battery powered sensors are recommended if counting pulses faster than 1x per second.

\*\*\*\*\* Input pulse rate must be less than specified Max Pulse Rate and input pulse width must be greater than specified Min Pulse Width to ensure the input pulse is counted.



## ALTA Commercial AA Wireless Pulse Counter | Technical Specifications

Supply voltage	2.0–3.8 VDC (3.0–3.8 VDC using power supply) *		
Current consumption	0.2 $\mu$ A (sleep mode), 0.7 $\mu$ A (RTC sleep), 570 $\mu$ A (MCU idle), 2.5 mA (MCU active), 5.5 mA (radio RX mode), 22.6 mA (radio TX mode)		
Operating temperature range (board circuitry and batteries)	-18°C to 55°C (0°F to 130°F) using alkaline -40°C to 85°C (-40°F to 185°F) using lithium **		
Optimal battery temperature range (AA)	+10°C to +50°C (+50°F to +122°F)		
Maximum count	4294967296 (32 bit number)		
Input voltage	0 to 15 Volts DC		
Detection wires	High impedance (2-wire), 3 ft length		
Counter operation	Positive and/or negative edge pulses		
Compatibility	Open collector NPN switches (passive) Mechanical switches (passive) 0–15V driven source (active)***		
Max input pulse rate/min pulse width with passive input ****		Max Pulse Rate	Min Pulse Width*****
	No Filter	~ 2 KHz	~ 0.5 ms
	4 Hz Filter	~ 4 Hz	~ 250 ms
	40 Hz Filter	~ 40 Hz	~ 25 ms
Integrated memory	Up to 512 sensor messages		
Wireless range	1,200+ ft non-line-of-sight		
Security	Encrypt-RF® (256-bit key exchange and AES-128 CTR)		
Weight	0.7 ounces		
Certifications	  Industry Canada	900 MHz product; FCC ID: ZTL-G2SC1 and IC: 9794A-G2SC1. 868 and 433 MHz product tested and found to comply with: EN 300 220-2 V3.1.1 (2017-02), EN 300 220-2 V3.1.1 (2017-02) and EN 60950	

\* Hardware cannot withstand negative voltage. Take care when connecting a power device.

\*\* At temperatures above 100°C, it is possible for the board circuitry to lose programmed memory.

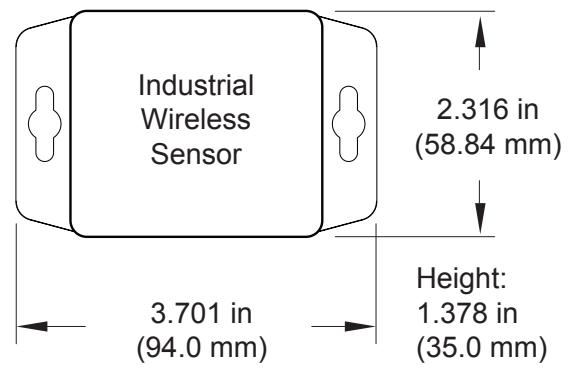
\*\*\* Low Pulse: 0 Volts to 0.2 \* VBatt, High Pulse: 0.8 \* VBatt to 15 Volts.

\*\*\*\* High pulse count rates can impact battery life. AA battery powered sensors are recommended if counting pulses faster than 1x per second.



\*\*\*\*\* Input pulse rate must be less than specified Max Pulse Rate and input pulse width must be greater than specified Min Pulse Width to ensure the input pulse is counted.

## Power Options

The standard version of this sensor is powered by two replaceable 1.5 V AA sized batteries (included with purchase). This sensor is also available with a line power option. The line powered version of this sensor has a barrel power connector allowing it to be powered by a standard 3.0–3.6 V power supply. The line powered version also uses two standard 1.5 V AA batteries as backup for uninterrupted operation in the event of line power outage. Power options must be selected at time of purchase, as the internal hardware of the sensor must be changed to support the selected power requirements.



## ALTA Industrial Wireless Pulse Counter | Technical Specifications

Supply voltage	2.0–3.8 VDC (3.0–3.8 VDC using power supply) *		
Current consumption	0.2 $\mu$ A (sleep mode), 0.7 $\mu$ A (RTC sleep), 570 $\mu$ A (MCU idle), 2.5 mA (MCU active), 5.5 mA (radio RX mode), 22.6 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	1500 mAh	
Optional solar feature	Solar panel	5VDC/30mA (53mm x 30mm)	
	Charging temperature range	0° to 45°C (32° to 113°F)	
	Max temperature range	-20° to 60°C (-4° to 140°F)	
	Included rechargeable battery	600 mAh/>2000 charge cycles (80% of initial capacity)	
	Solar efficiency	Optimized for high and low-light operation ***	
	Charging efficiency	5% **	
	Luminous sustainability	Minimum of 10,000 LUX **	
Maximum count	4294967296 (32 bit number)		
Input voltage	0 to 15 Volts DC		
Detection wires	High impedance (2-wire), 3 ft length		
Counter operation	Positive and/or negative edge pulses		
Compatibility	Open collector NPN switches (passive), mechanical switches (passive), 0–15V driven source (active) ****		
Max input pulse rate/min pulse width with passive input *****		Max Pulse Rate	Min Pulse Width*****
	No Filter	~ 2 KHz	~ 0.5 ms
	4 Hz Filter	~ 4 Hz	~ 250 ms
	40 Hz Filter	~ 40 Hz	~ 25 ms
Integrated memory	Up to 512 sensor messages		
Wireless range	1,200+ ft non-line-of-sight		
Security	Encrypt-RF® (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	  Industry Canada		
	900 MHz product; FCC ID: ZTL-G2SC1 and IC: 9794A-G2SC1. 868 and 433 MHz product tested and found to comply with: EN 300 220-2 V3.1.1 (2017-02), EN 300 220-2 V3.1.1 (2017-02) and EN 60950		

\* Hardware cannot withstand negative voltage. Take care when connecting a power device.

\*\* Solar feature's energy harvesting circuitry works indoors with low light.

\*\*\* Light present 25% of day yields 125% of operating power to support 10-minute heartbeats.

\*\*\*\* Low Pulse: 0 Volts to 0.2 \* VBatt, High Pulse: 0.8 \* VBatt to 15 Volts.

\*\*\*\*\* High pulse count rates can impact battery life. AA battery powered sensors are recommended if counting pulses faster than 1x per second.

\*\*\*\*\* Input pulse rate must be less than specified Max Pulse Rate and input pulse width must be greater than specified Min Pulse Width to ensure the input pulse is counted.

## Commercial Grade Sensors

Monnit commercial grade sensors are designed for applications in ordinary environments (normal room temperature, humidity and atmospheric pressure). Do not use these sensors under the following conditions as these factors can deteriorate the product characteristics and cause failures and burnout.

- Corrosive gas or deoxidizing gas: chlorine gas, hydrogen sulfide gas, ammonia gas, sulfuric acid gas, nitric oxides gas, etc.
- Volatile or flammable gas
- Dusty conditions
- Low-pressure or high-pressure environments
- Wet or excessively humid locations
- Places with salt water, oils chemical liquids or organic solvents
- Where there are excessively strong vibrations
- Other places where similar hazardous conditions exist

Use these products within the specified temperature range. Higher temperature may cause deterioration of the characteristics or the material quality.

## Industrial Grade Sensors | Type 1, 2, 4, 4X, 12 and 13 NEMA Rated Enclosure

Monnit's Industrial sensors are enclosed in reliable, weatherproof 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).

- Safe from falling dirt
- Protects against wind-blown dust
- Protects against rain, sleet, snow, splashing water, and hose-directed water
- Increased level of corrosion resistance
- Will remain undamaged by ice formation on the enclosure



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For more information about our products or to place an order, please contact [sales@lynxspring.com](mailto:sales@lynxspring.com) or [orders@lynxspring.com](mailto:orders@lynxspring.com).

Visit us on the web at [www.lynxspring.com](http://www.lynxspring.com).