Features & Benefits

Temperature logging

Measures and logs the temperature of goods in definable intervals.

Wireless communication

Data can be written onto or read from the sensor over a range of up to 250 m (800 ft.).

UHF operating frequencies

Sensors are available for Australian frequencies.

10,000 Bytes memory

Tag store user and process information as well as temperature data onto the sensor to provide real-time tracking.

2000-sensor simultaneous identification

Large numbers of sensors can be identified virtually simultaneously.

Ramp RFID Temperature Sensor Tags

Overview

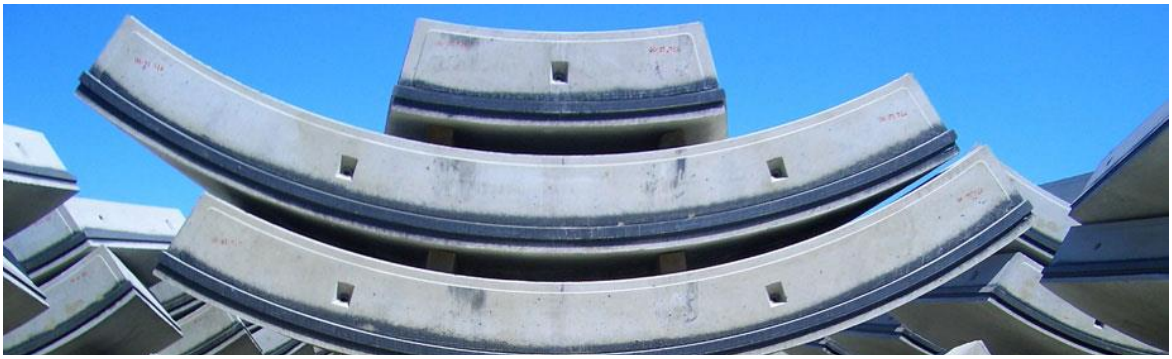
Ramp RFID designs and implements wireless tracking, identification and sensing systems to meet the demanding and often “mission critical” requirements experienced in many industries, including the mining, construction and oil & gas sectors.

Ramp offers tags, readers, and software, integrated to offer a remote monitoring temperature solution to businesses to optimise their processes and operate more efficiently and effectively.

Client Testimonial

“The solution provided by Ramp RFID has placed Fulton Hogan at the leading edge of process control technology and reliability in the precast industry. This unique solution allows us to provide customers with superior products and has helped us achieve the very tight tolerances required to supply tunnel segments to products such as the Adelaide Desalination.”

- Nick Miller, Chief Executive Officer, Fulton Hogan



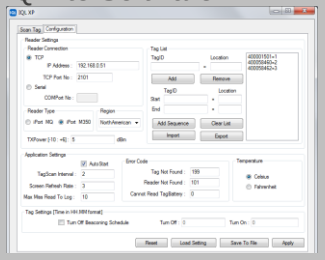
System Components

Temperature Monitoring Tag with external thermo couple

Fixed Reader Enclosure with Antenna

Handheld Reader

iQ Lite Software



Solution Overview

Ramp's RFID Temperature Sensor Tags provide highly accurate, real-time data collection without human intervention.

Built tough to withstand all environments and using advanced UHF radio frequency technology, Ramp's Temperature Sensor Tags was designed to deliver greater visibility and control in temperature monitoring with ability to transmit and receive information at a distance of 30 to 250 meters.

The sensor tag contains an internal temperature monitoring sensor in order to measure and log the temperature of goods in definable intervals. It is also available with external sensors.

Technical Specs

Wireless Communication	
Operation Mode	Bi-directional communication (reading log, blink LED, write/read data)
Read Range	up to 250m (800ft)*
Operating Frequency	Australia 920 MHz
Transmit Power	<1mW

Temperature Sensor	
Number of logging samples	10.000
Logging Interval	user definable in intervals from 1 to 255 min
Measuring Interval	user definable in intervals from 0 seconds to 255 min
Metering Range	-40°C to +85°C (-40°F to +176°F) with integrated sensor -80°C to +100°C (-112°F to +212°F) with external sensor
Resolution	0.1 °C (0.2 °F)
Accuracy	+- 0.5 °C (1 °F) from -20 °C up to +50 °C (68° F up to 122°F) +- 1.0 °C (2 °F) in the remaining temperature range

Data	
Data Retention	> 10 years without power
Write Cycles	100,000 writes
Memory Size	10,000 Bytes user definable
Identification Code	48 bit fixed ID

Electrical	
Power Source	Lithium Battery (non-replaceable)
Battery Monitoring	Yes. Battery life is dependent on beacon rate, but typically 5 years

Environmental Conditions	
Operating Temperature	–40 °C to +85 °C (–40 °F to +185 °F)
Humidity	10% to 95% relative humidity @ 30°C (86°F)
Shock	Multiple drops to concrete from 1m (3ft), 3 times DIN IEC 68-2-27
Vibrations	3G, 20 sine wave cycles, 5 to 150 Hz, DIN IEC 68-2-6 5G, noise 5 to 1.000 Hz, 30 minutes, DIN IEC 68-2-64

Physical	
Dimensions	131 × 28 × 21 mm (5.2 × 1.1× 0.85 inches)
Enclosure	Plastic (Qinnacryl)
Weight	50 g (1.75 ounces)
Enclosure rating	IP 65

**The communication range depends on the antenna type, the antenna cable runs and the environmental conditions.*

Contact RAMP RFID to find out how you can use our RFID Temperature Sensor Tags to fast-track your way to a positive ROI for large scale construction projects.

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