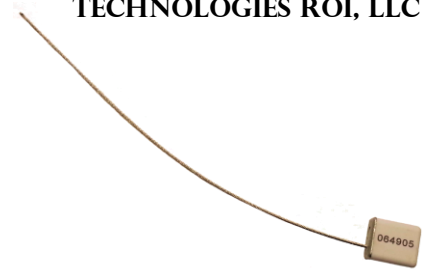




Cinch Tag

TECHNOLOGIES ROI, LLC

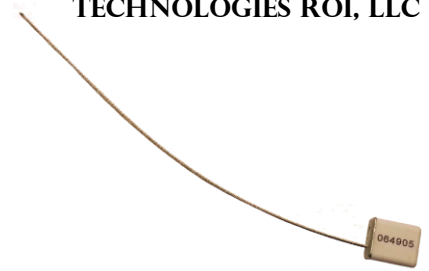


CONTENTS

1	PRODUCT DESCRIPTION	2
1.1	Specifications.....	2
1.2	Dimensions	3
1.3	Read Range.....	4
1.4	Environmental Specifications	4
1.5	Supported Services.....	5
1.6	Possible Applications	5
2	INSTALLATION INSTRUCTIONS	5
3	CONTACTING TROI LLC	5



Cinch Tag



1 PRODUCT DESCRIPTION

The patent-pending **Cinch Tag** RFID tag provides automatic identification and tracking capabilities never-before available in such a unique package designed for rugged or hazardous use-areas.

The cinch tag is designed to be mounted to any metallic surface by simply wrapping the stainless steel wire rope around or through the object, inserting the wire rope into the hole in the tag, through the ratcheting mechanism inside its body, and pulling the wire rope tight.

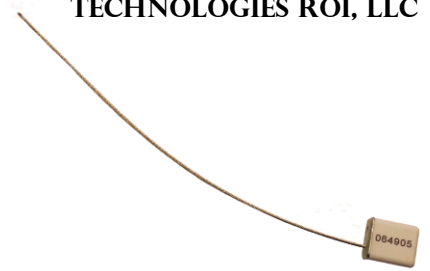
The tag can withstand unprecedented high temperature (consistent temperatures of 180 degrees Centigrade), high pressure and severe environmental conditions.

1.1 SPECIFICATIONS

Device type	Passive RFID tag
Air interface protocol	UHF: EPCGlobal Class1Gen2 / ISO/IEC 18000-6C (-63) HF: EPCGlobal Class1Gen2 / ISO/IEC 18000-6B (-62)
Operational frequency	Standard: UHF 865-869 MHz (EU), 902-928 MHz (US) Optional: HF 13.56 MHz
IC options - UHF	Standard: Alien Higgs 3 (others on request) Optional: EM, Fujitsu, Impinj, NXP (others on request)
EPC memory - UHF	Standard: 128 bit Optional: Up to 240 bit
EPC memory content	Unique 96-bit number encoded
Extended memory - UHF	Standard: 512 bit
TID - UHF	Factory-programmed, non-changeable, unique 64-bit ID.
Size	Overall: 290 mm Tag: 28.6 mm (1.125 inches) x 12.7 mm (0.5 inches) x 25.4 mm (1 inch) Wire rope diameter: 1.5 mm (0.06 inches)
Read range - UHF	Real-world: 1 – 2 meters Lab environment: 7 meters
Tag material	Body: Proprietary high-temperature / high-impact plastic case with steel end-cap and internal ratcheting mechanism. Wire Rope: Stainless Steel
Applicable surfaces	Any metallic material
Product RoHS compliant?	Yes
Standards compliancy	ATEX-compliant



Cinch Tag

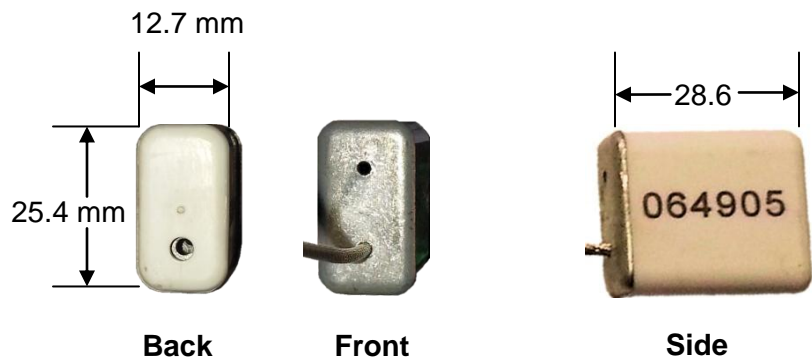
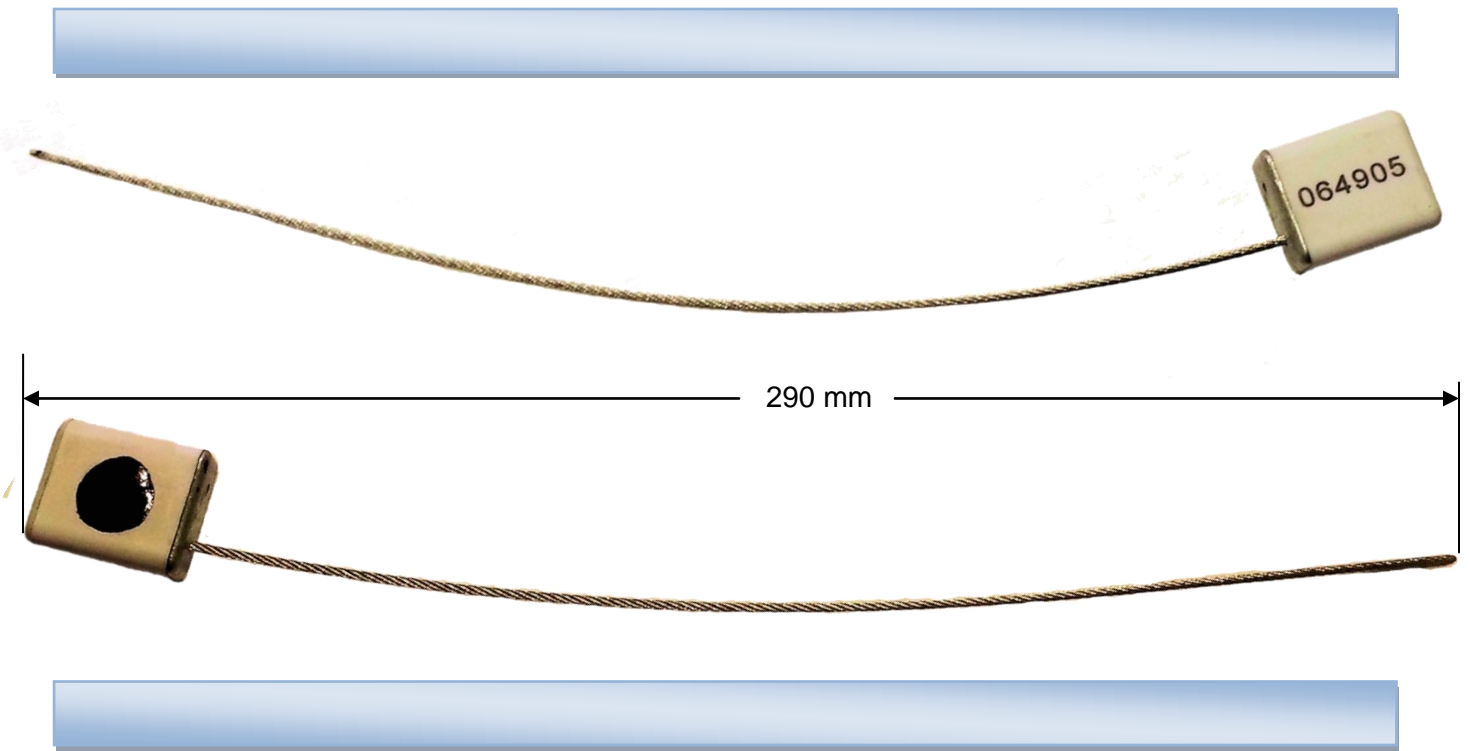


1.2 DIMENSIONS

Overall Length = 290mm

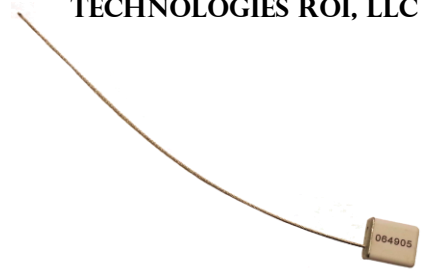
Tag Body = 28.6mm x 12.7mm x 25.4mm

Wire Rope Diameter = 1.5mm





Cinch Tag



1.3 READ RANGE

	UHF max read-range on metal with 4W ERP
Cinch Tag (915 MHz)	660.4 cm / 260 inches (6.63 m / 21.75 feet)

The read range listed above was obtained from a lab test environment. Actual test results may be different. Testing in actual use environments is strongly recommended.

1.4 ENVIRONMENTAL SPECIFICATIONS

Operating temperature	-50°C (-50°F) to +180°C* (356°F)
Temperature Cycling Test	-25°C to +85°C continuous for 7 days
IP classification	IP69K
Weather resistance	Excellent, including UV-resistance and sea water immersion
Chemical resistance	No physical or performance changes in: <ul style="list-style-type: none"> - Salt water - NaOH (depending on concentration) - Sulfuric acid (depending on concentration) - Motor oil (tested in 168 hour exposure) Generally good against: <ul style="list-style-type: none"> - Most solvents - Most acids and bases

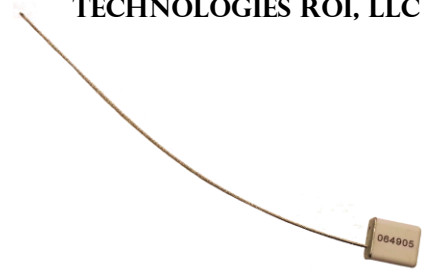
* **NOTE:** The RFID tag will not be functional if it is left at the maximum indicated temperatures such that the internal soak temperature exceeds +80 deg C. The RFID tag itself will (resume) function between -50 deg C and +80 deg C.

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1.5 SUPPORTED SERVICES

- Tag pre-encoding
- Laser marking

For further details, please contact **TROI LLC**.

1.6 POSSIBLE APPLICATIONS

Metal surfaces	Metal returnable containers, metal canisters, metal pallets, metal pipes, high value metal items, aerospace applications, military applications, etc.
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2 INSTALLATION INSTRUCTIONS

Wrap the stainless steel wire rope around or through the object; push the wire rope into the hole on the tag until it pushes out the other side of the tag; pull the wire rope until the tag is secure - and you're done!

3 CONTACTING TROI LLC

For additional information and technical support contact:

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ADVISORY

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