

## TROI™ Stainless Steel Tie-Wrap Tag

### **CONTENTS**

1	PR(	ODUCT 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	INS	TALLATION INSTRUCTIONS	. 5
3	COI	NTACTING TROI LLC	. 5



### TROI<sup>™</sup> Stainless Steel Tie-Wrap Tag

### 1 PRODUCT DESCRIPTION

The patented (US Patent # 7,928,922) **TROI FT-1007SS Stainless Steel/Teflon Tie-Wrap** RFID tag provides automatic identification and tracking capabilities never-before available in such a unique package designed for rugged or hazardous use-areas.

The Polyvinylidene fluoride (Teflon™-like) -molded-over-Grade-304-stainless-steel tie-wrap tag is designed to be mounted to any surface by securing the tie-wrap around any pipe or (round) metal object using an easy to install, low profile, self-locking ball bearing head. The smooth rounded edges ensure safe, efficient handling. It can withstand unprecedented high temperature (consistent temperatures of over 400 degrees F), high pressure and severe environmental conditions.

### 1.1 SPECIFICATIONS

Device type	Passive RFID tag
Air interface protocol	UHF: EPCGlobal Class1Gen2 / ISO/IEC 18000-6C
Operational frequency	Standard: UHF Global inc. (865-869 MHz (EU), 902-928 MHz (US))
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
<b>EPC</b> memory content	Unique 96-bit number encoded
Extended memory - UHF	Standard: 512 bit
TID - UHF	Factory-programmed, non-changeable, unique 64-bit ID.
Read range - UHF	Real-world: 7 meters
Size	Standard tie length: 360 mm Contact us for additional lengths
Tag material	HKX KYNAR® Polyvinylidene fluoride over 304-grade stainless steel
Tensile strength	150 psi minimum
Applicable surfaces	Any material
Product RoHS compliant?	Yes
Standards compliancy	ATEX-compliant
US Patent Number	7,928,922

Balance of page left blank



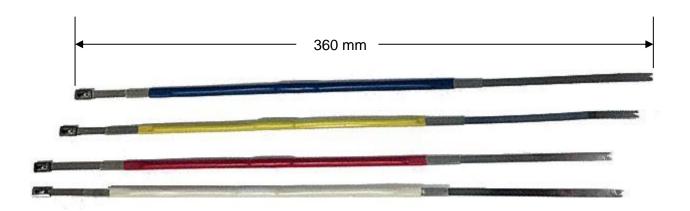
### TROI™ Stainless Steel Tie-Wrap Tag

### 1.2 DIMENSIONS

Standard Tie Length = 360 mm (14 inches)

Other lengths and tie materials available - contact us.

### **SIDE VIEW**



Balance of page left blank



### **TROI™ Stainless Steel Tie-Wrap Tag**

### 1.3 READ RANGE

	UHF max read-range on metal with 4W EIRP
<b>FT-1007</b> Global inc (915 MHz FCC and 868 MHz ETSI)	7 meters / 23 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	-80°C (-112°F) to +200°C (392°F)*	
Temperature Cycling Test	200°C - 30 days continuous	
IP classification	IP69K	
Weather resistance	Excellent, including UV-resistance and sea water immersion	
Chemical resistance	Flame retardant and non-toxic No physical or performance changes in: - Salt water - NaOH (depending on concentration) - Sulfuric acid (depending on concentration) - Motor oil (tested in 168 hour exposure)  Generally good against: - Most solvents - Most acids and bases	

<sup>\*</sup> **NOTE**: The RFID tag will not be functional if the tag 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.

Balance of page left blank

#### 1.5 SUPPORTED SERVICES

Tag pre-encoding

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

### 1.6 POSSIBLE APPLICATIONS

Returnable containers, canisters, pallets, pipes, high value items, aerospace applications,
military applications, etc.

### 2 INSTALLATION INSTRUCTIONS

Wrap the tie-wrap around the surface, insert the end into the head and firmly pull the tie-wrap to secure the tag – done!

### 3 CONTACTING TROILLC

For additional information and technical support contact:

#### **TROI LLC**

311 Drury Lane Mauldin SC 29662 PH: 864-228-9096 pat@troirfid.com

www.troirfid.com

#### **ADVISORY**

Although any information, recommendations, or advice contained herein is given in good faith, **TROI LLC** makes no warranty or guarantee, express or implied, (i) that the results described herein will be obtained under end-use conditions, or (ii) as to the effectiveness or safety of any design incorporating its products, materials, services, recommendations or advice. Except as provided in **TROI LLC** standard conditions of sale, **TROI LLC** and its representatives shall in no event be responsible for any loss resulting from any use of its materials, products or services described herein.