



HS-101

HF Shackle Tag



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1 PRODUCT DESCRIPTION

The **TROI HS-101 Shackle** RFID tag provides automatic identification and tracking capabilities never-before available in such a unique package designed for rugged or hazardous use-areas.

The plastic tie-wrap tag is designed to be mounted to any metallic surface by just securing the tie-wrap around it. The tag can withstand unprecedented high temperature (consistent temperatures of 85 degrees Centigrade), high pressure and severe environmental conditions.

1.1 SPECIFICATIONS

Device type	Passive RFID tag
Air interface protocol	HF: ISO/IEC 15693-3, ISO/IEC 18000-3
Operational frequency	HF : 13.56 MHz
Memory	1024 bits, organized in 32 blocks of 4 bytes each
Read range	Up to 1.5 meters
Size	L: 195 mm W: (cable tie) 4.6 mm, (RFID) 7.2 mm
Tag material	Cable Tie: Polyamide 6.6 RFID: Epoxy Resin
Flammability	UL94 V2
Applicable surfaces	Any material, including surface mount to metal
Product RoHS compliant?	Yes

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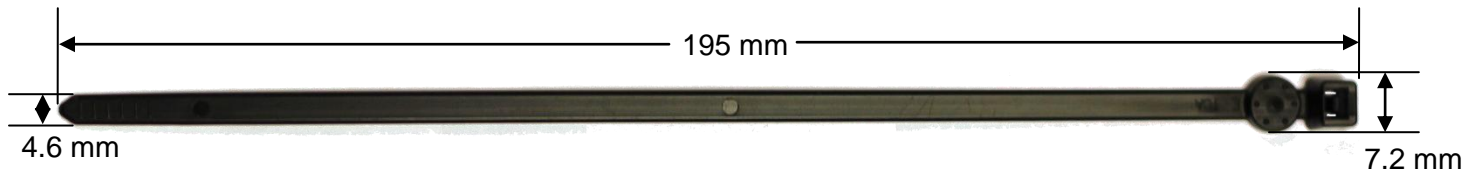
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1.2 DIMENSIONS

Tie wrap: L 195 mm (7.7 inches) x W 4.6 mm (0.18 inches)

RFID Tag: W 7.2 mm (0.28 inches)



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1.3 READ RANGE

	HF max read-range on metal with 4W ERP
HS-101 (13.56 MHz)	~ 1.5 meters

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 to +85°C* (-58°F to 185°F)
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

Any surface

Lifting equipment inspections, chains, hoists, shackles, 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 tail of the tie-wrap into the head of the tie-wrap and firmly pull the tie-wrap to secure the tag to the object – done!

NOTE: Tensioning tools are advised to be used when securing the tag, and are available.

3 MOUNTED PICTURES





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4 CONTACTING TROI LLC

For additional information and technical support contact:

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ADVISORY

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