

HEAVY DUTY RFID TAG FLEX WIRE TAG



APPLICATIONS

- High Value Metal Applications
- Aerospace Applications
- Military Applications
- Chemical Areas

FEATURES

- Passive RFID UHF Tag
- Up to 7 m Reading Range
- Self extinguishing Polyolefin
- IP69K Protection Class
- ATEX Compliant

RFID OPTIONS

- EPC Global Class1 Gen2; ISO 18000-6C
- ISO 17665
- ISO 11135

PRODUCT DESCRIPTION

The Flex Wire Tag from iDTRONIC provides automatic identification and tracking capabilities in a plastic-covered flexible blue polyolefin. It was designed for embedding into items. It is compliant to the EU directives on explosion protection with ATEX. It covers equipment and protective systems intended for use in explosion-hazard atmospheres.

The Tag consists of Self extinguishing polyolefin and is particularly resistant against most acids, solvents and bases. It was designed for temperatures from - 50 °C up to + 100 °C. Thanks to the IP69K Protection Class it has an excellent resistance against UV and continuous sea water immersion.

The RFID UHF Tag works in UHF Frequencies of EU: 865 – 869 MHz and US: 902 – 928 MHz and has a reading range of up to 7 meters. The supported Standards are EPC Global Class1 Gen2; ISO 18000-6C, ISO 17665 and ISO 11135. It is also US Patented # 7,928,922.

The Flex Wire Tag is designed to be mounted to any surface by wrapping the tag around any object, or embedding to road surfaces of all types, wood, fiberglass, composites, compression, injection and cast molds, and their associated processes material (cloth, canvas, synthetics metal returnable containers, metal canisters, metal pipes or high value metal items).

TECHNICAL DATA

* *READING DISTANCE DEPENDS ON TAG TYPE AND ORIENTATION.*

ELECTRICAL SPECIFICATIONS	
Operating Frequencies	UHF (EU: 865 – 869 MHz US: 902 – 928 MHz)
Interface Protocol	EPC Global Class1Gen2 ISO/IEC 18000-6C
Operating Mode	Passive
Reading Range	Real-world: 7 meters*
IC Types	<u>Standard:</u> Alien Higgs 3™ (128 Bytes) <u>Optional:</u> EM, Fujitsu, Impinj, NXP (Up to 240 Bytes)
Memory Content	Unique 96-bit number encoded
Extended Memory	512 Bytes
TID	Factory-programmed, non-changeable, unique 64-bit ID

ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature	- 50 °C to + 100 °C
Temperature Cycling Test	+ 100 °C continuous, for 30 days, + 200 °C with degradation of the plastic, but not the tag
Protection Class	IP 69K
Weather Resistance	Excellent, incl. UV-resistance and continuous sea water immersion
Chemical Resistance	<u>No physical or performance changes in:</u> - Salt water - NaOH - Sulfuric acid - Motor oil <u>Generally good against:</u> - Most solvents - Most acids and bases

MECHANICAL SPECIFICATIONS	
Dimensions	Length: 179 mm Wire: ø 3.12 mm Tag: ø 4.2 mm
Weight	3 g
Housing Material	Self extinguishing Polyolefin (2.500 psi minimum)
Housing Colour	Blue
Applicable Surfaces	Metal pipes, metal returnable containers, metal canisters, metal pallets, high value metal items, aerospace applications, military applications, concrete, wood, fiberglass, composites, compression or injection molds, etc.
Mounting Option	Wrapping the tag around any object, or embedding it into items

APPLICABLE STANDARDS	
ISO 18000-6C	E.g.: Alien Higgs 2/3/4, Fujitsu Impinj Monza, NXP UCODE, etc.
ISO 17665	Sterilization of Health Care Products – Moist Steam
ISO 11135	Sterilization of Health Care Products – Ethylene Oxide
RoHS 2	2011/65/EU
US Patent Number	7,928,922
ATEX Compliant	

PERSONALIZATION OPTIONS	
<ul style="list-style-type: none"> • Tag Pre-Encoding 	

APPLICATION EXAMPLES

CHEMICAL AREAS



The Flex Wire Tag of iDTRONIC is especially suitable for harsh environments at chemical areas with high temperatures.

The robust housing of the Tag is very resistant to chemicals like salt water, NaOH, sulfuric acid, motor oil and most solvents, acids and bases.

It can be securely embedded into concrete, wood, fiberglass, composites, compression or injection molds, etc.

MILITARY AREAS



The Flex Wire Tag can be used for military purposes within harsh environments under high pressures.

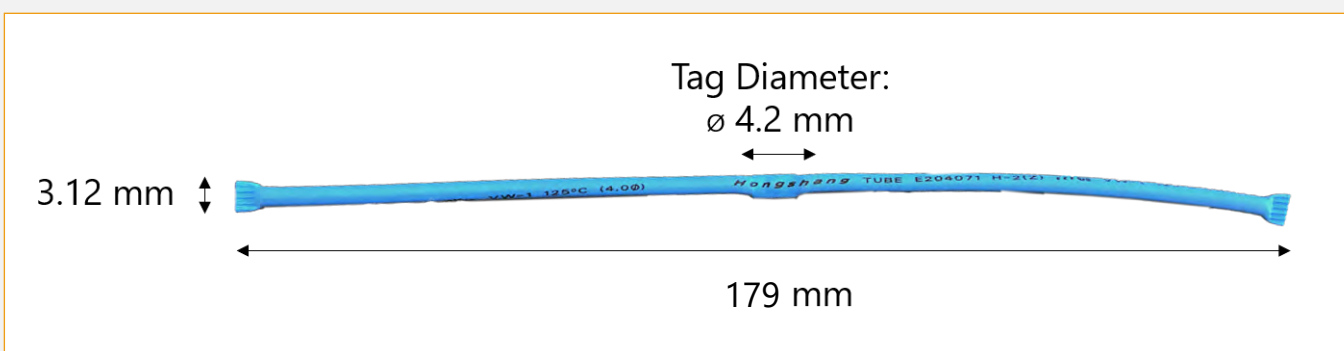
The RFID Tag is particularly resistant to the most common chemicals. The identification of pipes with metallic surfaces can be secured with this flexible Tag.

It can be securely embedded into concrete, wood, fiberglass, composites, compression or injection molds, etc.

INSTALLATION INSTRUCTIONS

- Wrap the tag around or along an object.
- Embed the tag into: fiberglass, composites, wood, concrete, compression or injection molds, etc.
- Epoxy the tag onto the surface using Adhesive Paint, Clips or eyelets

MECHANICAL VIEW



ORDER CODES

VERSION	ORDER CODE
Alien Higgs 3™ (128 Bytes)	ST-UHF-TR-FT1002-ALIEN
EM (Up to 240 Bytes)	ST-UHF-TR-FT1002-EM
Fujitsu (Up to 240 Bytes)	ST-UHF-TR-FT1002-FU
Impinj (Up to 240 Bytes)	ST-UHF-TR-FT1002-IM
NXP (Up to 240 Bytes)	ST-UHF-TR-FT1002-NXP
Extended Memory: 512 Bytes	ST-UHF-TR-FT1002-EXM

iDTRONIC GmbH
Donnersbergweg 1
67059 Ludwigshafen
GERMANY

Phone +49 (0) 621 66 90 09 4-0
Fax +49 (0) 621 66 90 09 4-9
E-Mail: info@idtronic-rfid.com
Web: idtronic-rfid.com

For further information & prices, please contact info@idtronic-rfid.com

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