iDTRONIC
PROFESSIONAL RFID

HEAVY DUTY RFID TAG
TUBE EYELET TAG

APPLICATIONS

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

FEATURES

- Passive RFID UHF Tag
- Up to 2 m Reading Range
- PTFE Teflon
- IP69K Protection Class
- ATEX Compliant

RFID OPTIONS

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

PRODUCT DESCRIPTION

The Tube Eyelet Tag from iDTRONIC provides automatic identification and tracking capabilities in a plastic tube with two eyelets. It was designed for high pressure use-areas like sub-seas. 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 PTFE Teflon and is particularly resistant against most acids, solvents and bases. It was designed for high temperatures from - 50 °C up to + 250 °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 2 meters. The supported Standards are EPC Global Class1 Gen2; ISO 18000-6C, ISO 17665 and ISO 11135.

The Tube Eyelet Tag can be mounted to any metallic surface by simply using an existing mounting bolt and screwing it down on metal returnable containers, metal canisters, metal pipes or high value metal items.

TECHNICAL DATA

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: 1 – 2 meters* Lab environment: 7 meters*
IC Types	Standard: Alien Higgs 3™ (128 Bytes) Optional: 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

MECHANICAL SPECIFICATIONS

Dimensions	Overall Length: 240 mm Tag Body: 190 × 7.86 mm Eyelets: ø 24 mm | Wire: ø 4.8 mm
Weight	40 g
Housing Material	PTFE Teflon
Housing Colour	White Transparent
Applicable Surfaces	Metal pipes, metal returnable containers, metal canisters, metal pallets, high value metal items, aerospace applications, military applications
Mounting Option	Simply using an existing mounting bolt and screwing it down

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	- 50 ºC to + 250 ºC
Temperature Cycling Test	- 25 °C to + 250 ºC continuous, for 7 days
Protection Class	IP 69K
Weather Resistance	Excellent, incl. UV-resistance and continuous sea water immersion
Pressure Resistance	30,000 psi for 30 days
Chemical Resistance	No physical or performance changes in: - Salt water - NaOH - Sulfuric acid - Motor oil Generally good against: - Most solvents - Most acids and bases

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
ATEX Compliant	

PERSONALIZATION OPTIONS

- Tag Pre-Encoding

APPLICATION EXAMPLES

CHEMICAL AREAS

The Tube Eyelet 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 mounted to any metallic surface by simply using an existing mounting bolt and screwing it down.

MILITARY AREAS

The Tube Eyelet 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 Eyelet Tag.
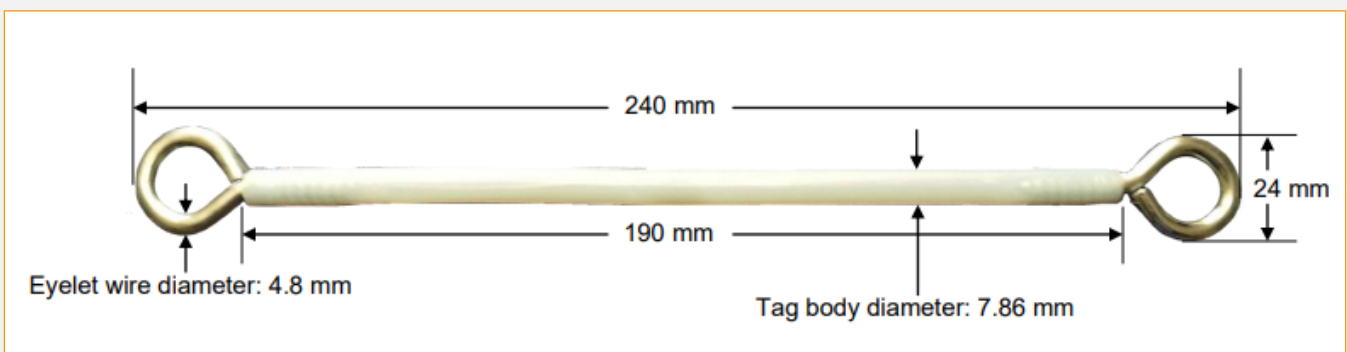
It can be securely mounted to any metallic surface by simply using an existing mounting bolt and screwing it down.

INSTALLATION INSTRUCTIONS

Remove an existing mounting nut, place the eyelet tag over the bolt and replace the nut – done!

The Tube Eyelet Tag mounted to any metallic surface by
simply using an existing mounting bolt and screwing.

MECHANICAL VIEW

240 mm

190 mm

24 mm

Eyelet wire diameter: 4.8 mm

Tag body diameter: 7.86 mm

ORDER CODES

VERSION	ORDER CODE
Alien Higgs 3™ (128 Bytes)	ST-UHF-TR-ST-1-ALIEN
EM (Up to 240 Bytes)	ST-UHF-TR-ST-1-EM
Fujitsu (Up to 240 Bytes)	ST-UHF-TR-ST-1-FU
Impinj (Up to 240 Bytes)	ST-UHF-TR-ST-1-IM
NXP (Up to 240 Bytes)	ST-UHF-TR-ST-1-NXP
Extended Memory: 512 Bytes	ST-UHF-TR-ST-1-EXM

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