

Product Data Sheet



Eureka-411 Active RFID Tag

Eureka 411 Tag

One of the most advanced high performance tags on the market today with read and write capabilities of over 1.25 metres, fast and accurate data transfer and incorporated advanced anti-collision protocols.

Versatile Tag

The Eureka 411 tag is used in numerous industrial, logistics and security applications for personnel and asset identification and tracking from production lines to key tagging.

Advantage

An advantage of this tag is its ability to both read and write up to 119 alphanumeric characters at a range of 1.25 metres from a standard Eureka antenna.

Operation

The 411 tag is an active tag operating on two frequencies. A tag is activated and transmits its data when it is within range of a RF field produced by the Eureka 411 reader. To extend battery life, the tag is placed into a quiescent state when it is not in an RF field allowing a tag to be operational for up to five years.

Harsh Environments

The RF communications of the tag can function through most non-conducting materials allowing tag operations in very difficult or harsh environments.

Applications for:

People, moving vehicles, assets and objects.

Tag

Type	Active
Receive Frequency	132kHz
Transmit Frequency	66kHz
Write Speed	50 Characters/second
Transmit Speed	1000 Characters/second
Read/Write Range	1.25m
Data Capacity	119 Characters
Battery Life	7 Years (shelf Life)
Tag Life	5 Years / Up to 1 million tag reads
Anti-collision	Yes
Error Detection	Yes

Environmental

Operating Temperature	-65°C to +60°C
Storage Temperature	-10°C to +60°C

Physical

Case Size	38.3mm x 33.1mm x 10.2mm
Optional Rubber Housing*	83mm x 55mm x 27mm
Weight	20 grams
Weight In Rubber Housing	128 grams
Colour	Black
Case Material	ABS (Ultrasonically Sealed or resin potted)

Electrical

Power	Internal lithium coin cell
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* **Option** - Tough rubber housing with fixing holes. Provides improved performance on metallic objects. Ideal for vehicle applications and harsh environments.



Excellent read/write distance

- Read & write distance at 1.25m
- Common read/write antenna simplifies installations

Ability to write to the tag

- Character data sent using ACK/NAK handshaking
- Write speed of 50 characters per second
- 119 characters are byte addressable
- Characters can be written to tag from a specified start address
- Write protected fields can be incorporated into the reader firmware

Anti-collision

- Tags in the same field can be read simultaneously
- Two operational parameters can be adjusted

Error detection

- Each stored character has a parity bit
- Checksum calculated by tag

High speed data transmissions

- Tag transmits at a rate of 1,000 characters per second

Large data capacity

- 119 characters
- Characters can be programmed with ASCII
- Range "space" to "~" (20 to 7E hexadecimal)
- Characters transmitted are programmable

Reliable operation

- Low frequency device
- Effective hands-free data collection
- Operation through a variety of materials

Long life

- Up to 1 million reads (typically 5 years operation)
- Monitors battery voltage

Tag Variants

- High memory
- Long range
- High speed

Enclosure Options

- Rubber housings for vehicle mounting
- ABS badge holders for ISO ID cards
- Key fob enclosures
- Custom enclosures Available

