

Omni-ID® Fit 100

The Fit 100 is the smallest form factor Omni-ID RFID tag and is available in three versions. The high temperature version expands the capabilities of temperature survivability to 225°C in cycling applications while the embedded version is optimized for insertion into small metal assets. All versions of the Fit 100 are ideal for integration into hand tools, medical instruments and metal IT assets where attachment areas are very small.

Building Intelligent Supply Chains

With its extremely small form factor, Omni-ID Fit 100 tags are ideally suited to tracking small metal assets including attachment to:

- ▶ Small Hand Tools including sockets
- ▶ Metal IT assets including covert tagging
- ▶ Surgical instruments & implants

Specifications

Fit 100	■ STANDARD	■ HIGH TEMPERATURE	■ EMBEDDED
Finish	Painted Black 5 sides	Painted Black 6 sides	Unpainted
Size (mm)	6.8 x 6.4 x 2.1	6.8 x 6.4 x 2.1 +/- 0.5	8.6 x 6.1 x 2.6
Weight (g)	0.8	0.8	0.63
Operation Temperature (°C) ¹ Max Temperature Exposure (°C) ¹	-20° to +70°C -20° to +70°C	-20° to +85°C -20° to +225°C	-20 to +70°C -20 to +70°C
Ingress Protection	IP68	IP68	IP68
Shock and Vibration	MIL STD 810-G	MIL STD 810-G	MIL STD 810-G
Attachment	Film adhesive Permanent liquid adhesive (option)	Film adhesive ² (option)for placement only Permanent liquid adhesive (option)	Omni-ID carrier (included) ⁴
Memory ^{3,5}	EPC: 96bits User: 512bits Unique TID: 64bits	EPC: 96bits User: 512bits Unique TID: 64bits	EPC: 96bits User: 512bits Unique TID: 64bits
Frequency Range (MHz)	866-868 (EU) 902-928 (US)	866-868 (EU) 902-928 (US)	866-868 (EU) 902-928 (US)
Fixed reader Read Range (m) Handheld reader Read Range (m)	Up to 1.1 Up to 0.5	Up to 1.1 Up to 0.5	Up to 1.0 Up to 0.4
Material Compatibility	Optimized for metal	Optimized for metal	Optimized for metal
IC Type	Alien Higgs3	Alien Higgs 3	Alien Higgs 3
Warranty	1 year	1 year	1 year

1. Excludes adhesive options, consult adhesive datasheets for recommended temperature ratings.

2. The product has been designed for optimal RF performance when used with 130 micron +/-20% adhesive under the tag.

3. EPC and User memory are reprogrammable, TID is locked at point of manufacture.

4. See Omni-ID Embedded Fit Tag User Guide for epoxy options.

5. Data retention 50 years at our operation temperature.

Related Products and Services

- ▶ **Omni-ID Fit 210** - Low profile on metal RFID tag available as a high temperature version and a global frequency version, optimized for small assets and embedding.
- ▶ **Omni-ID Fit 400** - High temperature, low profile, on metal RFID tag available in 4 versions optimized for application to small metal assets and embedding.
- ▶ **Service Bureau** - Omni-ID offers a full service bureau for printing and pre-encoding Omni-ID tags at point of manufacture.



Fit 100 embedded tag in the carrier



For a standard Embedded Fit 100 application, the recommended circular recess is a diameter of 14.5mm and depth of 4.5mm. Placement into the recess is carrier face down. Sourcing and validation of epoxy or potting compound used is the responsibility of the customer.

Please see the *Omni-ID Embedded Fit Tag User Guide* for epoxy types qualified by Omni-ID and more information on the custom service options.

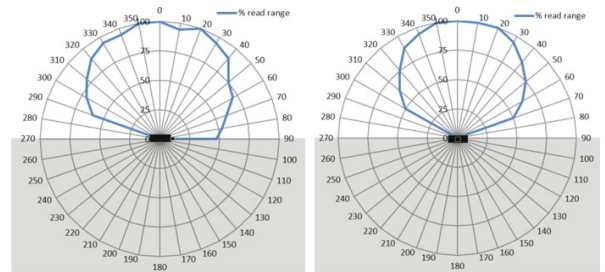
Certifications:



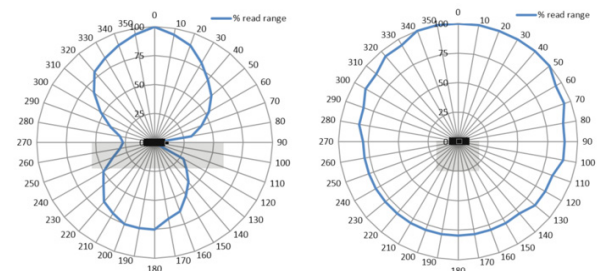
RoHS approved
CE approved
ATEX/IECEx certified (option)
US&Canada (C1D1/D2) certified (option)

Radiation Patterns

Large Metal Sheet



Small Metal Asset



Radiation patterns for the embedded version will vary dependent on the geometry and composition of the asset type.

Ordering Information

Fit 100	STANDARD	HIGH TEMPERATURE	EMBEDDED
Order Codes	130 – (EU, US)	129 – (EU, US)	126 – (EU, US)
Option Codes	:303 (Customization) ¹ :304 (ATEX/IECEx certified) :307 (US&Canada (C1D1/D2) certified) :701 (Standard Service Bureau) ¹	:303 (Customization) ¹ :304 (ATEX/IECEx certified) :307 (US&Canada (C1D1/D2) certified) :502 (Film adhesive option for placement only) :701 (Standard Service Bureau) ¹	:303 (Customization) :304 (ATEX/IECEx certified) :307 (US&Canada (C1D1/D2) certified) :701 (Standard Service Bureau)

¹ Label is not available due to small tag size.