Omni-ID®

■ STANDARD

■ HIGH TEMPERATURE*

■ EMBEDDED

⊠ GLOBAL EMBEDDED

Omni-ID® Fit 400

The Fit 400 is a small form factor, high performance RFID tag available in four versions. The High Temperature version expands the capabilities of this small ceramic tag to cycling applications with High Temperatures to 225°C. The Global version is optimized for embedding into a metal recess. Don't sacrifice performance for size. With up to a 4 meter read range, the Fit 400 is the perfect solution when space is limited, but performance is demanded.

Building Intelligent Supply Chains

With its small form, temperature versions and high performance, Omni-ID Fit 400 tags are ideally suited to tracking small metal assets and or embedding within a metal cavity in applications such as:

- Metal hand tools
- Metal IT assets, covert tracking
- Embedding into metallic containers
- Autoclaves and high temperature sterilizations
- Heavy machinery
- Oil & Gas

Specifications

Fit 400	■ STANDARD	■ HIGH TEMPERATURE*	■ EMBEDDED	■ GLOBAL EMBEDDED
Finish	Painted Black top & sides	Painted Black	Unpainted	Unpainted
Size (mm)	13.1 x 7.1 x 3.1	13.1 x 7.1 x 3.1	18 x 12 x 3.5	15 x 15 x 4.5
Weight (g)	1.6	1.6	3.9	6.0
Operation Temperature (°C)[1] Max Temperature Exposure (°C) [1]	-20 to +85°C -20 to +85°C	-20 to +85°C -20 to +225°C	-20 to +85°C -20 to +85°C	-20 to +65°C -20 to +65°C
Ingress Protection	IP68	IP68	IP68	IP68
Shock and Vibration	MIL STD 810-G	MIL STD 810-G	MIL STD 810-G	MIL STD 810-G
Attachment	Film adhesive (included) Permanent liquid adhesive (option)	Film adhesive[2](option for placement only) Permanent liquid adhesive (option)	Omni-ID carrier (included)[4]	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	EPC: 128bits User: 512bits Unique TID: 48bits
Frequency Range (MHz)	902–928 (US) 866–868 (EU)	902–928 (US) 866–868 (EU)	902–928 (US) 866–868 (EU)	860–930 (GS)
Fixed reader Read Range (m) Handheld reader Read Range (m)	Up to 4.0 Up to 2.0	Up to 4.0 Up to 2.0	Up to 4.0 Up to 2.0	Up to 3.0 Up to 2.5
Material Compatibility	Optimized for metal	Optimized for metal	Optimized for metal	Optimized for metal
IC Type	Alien Higgs 3	Alien Higgs 3	Alien Higgs 3	Monza 4QT

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.

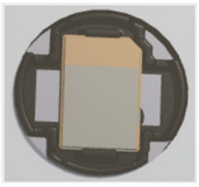
*High temperature version is a custom product, special order only. Available in an encased version, see the Exo 400 High Temperature.

Omni-ID®

Related Products and Services

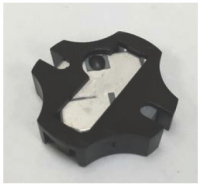
- **Omni-ID Fit 200 —** Extremely small footprint RFID tag for tracking very small metal assets.
- **Omni-ID Fit 210 —** High Temperature, global frequency, slim, low profile, on metal RFID tag optimized for application to small metal assets.
- **Omni-ID Fit 400P —** Small footprint tag optimized for application to small plastic assets and embedding.
- **Service Bureau —** Omni-ID offers a full service bureau for printing and pre-encoding Omni-ID tags at point of manufacture.

For a standard embedded Fit 400 application, the recommended circular recess dimensions & carrier placement are as follows:



■ EMBEDDED

- 26mm x 5.5mm deep recess
- Carrier placement face up



■ GLOBAL EMBEDDED

- 25.4mm x 7.0mm deep recess
- Carrier placement face down

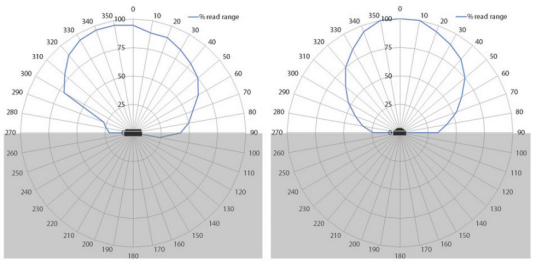
Sourcing and validation of epoxy or potting compound is the responsibility of the customer.
[Please see the Omni-ID Embedded Fit Tag User Guide for epoxy types qualified by Omni-ID and for more information on the custom service options.]

Certifications:

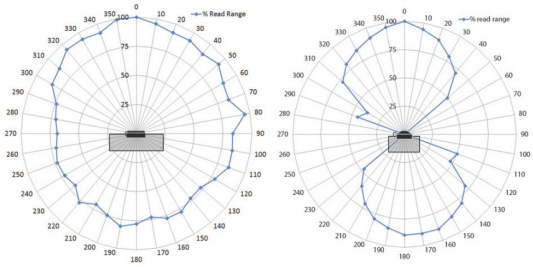
RoHS approved
CE approved
ATEX/IECEx certified (option)
US & Canada (C1D1/D2) certified (option)

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 400	■ STANDARD	■ HIGH TEMPERATURE*	■ EMBEDDED	■ GLOBAL EMBEDDED
Order Codes	051 – (EU, US)	124 – (EU, US)	128 – (EU, US)	131 – (GS)
Option Codes	:303 (Customization) :304 (ATEX/IECEx certified) :307 (US&Canada (C1D1/D2) certified) :701 (Standard Service Bureau)	:303 (Customization) :304 (ATEX/IECEx certified) :307 (US&Canada (C1D1/D2) certified) :502 (Film adhesive option for placement only) :701 (Standard Service Bureau)	:303 (Customization) :304 (ATEX/IECEx certified) :307 (US&Canada (C1D1/D2) certified) :701 (Standard Service Bureau)	:303 (Customization) :304 (ATEX/IECEx certified) :307 (US&Canada (C1D1/D2) certified) :701 (Standard Service Bureau)

*High temperature version is a custom product, special order only. Available as a featured product in an encased version, see the Exo 400 High Temperature.

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