

# PRODUCT DATASHEET

## Confidex Ironside Slim H9™



Versatile and durable tag for global asset tracking applications with excellent performance

### ELECTRICAL SPECIFICATION

#### Device type

Class 1 Generation 2 passive UHF RFID transponder

#### Air interface protocol

EPCGlobal Gen2 v1.2 and ISO 18000-63

#### Operational frequency

Global 865-928MHz

#### IC type

Alien Higgs™ 9

#### Memory configuration

EPC up to 496 bit; User up to 688 bit; TID 96 bit  
- By default, EPC is 96 bit but can be extended to 496 bit by allocating more from 688 bit user memory.

#### EPC memory content

Unique number encoded as a default

#### Read range (2W ERP)\*

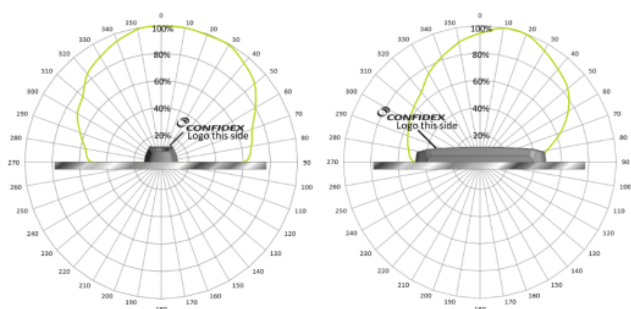
On metal up to 10 m / 33 ft Off metal up to 4 m / 13 ft

#### Applicable surface materials\*

Ideal application on metal, works on any material.

\* Read ranges are theoretical values that are calculated for non-reflective environment, in where antennas with optimum directivity are used with maximum allowed operating power according to ETSI EN 302 208 (2W ERP). EU = 865 - 868 MHz, US = 902 - 928 MHz, JPN = 952-956 MHz. Different surface materials may have an effect on performance.

### RADIATION PATTERNS



### MECHANICAL SPECIFICATION

#### Tag materials

High quality engineering plastics.

#### Weight

15,5 g

#### Delivery format

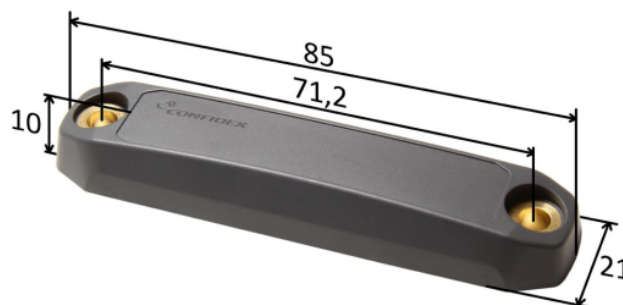
Single

#### Amount in box

600 pcs

#### Dimensions

85 x 21 x 10 mm / 3.35 x 0.83 x 0.39 in



### ENVIRONMENTAL RESISTANCE

#### Operating temperature

-35°C to +85°C / -31°F to +185°F

#### Ambient temperature

-35°C to +85°C / -31°F to +185°F

#### IP classification

IP68

#### Chemical resistance

No physical or performance changes in:

- 168 hour Motor oil exposure
- 24 hour Salt water (salinity 10%) exposure -
- 24 hour Sulfuric acid (10%, pH 2) exposure -
- 24 hour NaOH (10%, pH 13) exposure

Acetone should be avoided. For achieving increased chemical tolerance, the tag is designed to be attached with industrial adhesives such as polyurethane adhesives or epoxies.

#### Expected lifetime

Years in normal operating conditions

*Values in the table are the best recommendations; resistance against environmental conditions depends on the combination of all influencing factors, exposure duration and chemical concentrations. Thus, product's final suitability for certain environmental conditions is recommended to be tested. Contact Confidex for more specific information.*

## INSTALLATION INSTRUCTIONS

**Confidex Ironside Slim™** can be attached with several fixing methods:

1. High performance acrylic adhesive (not included by default)

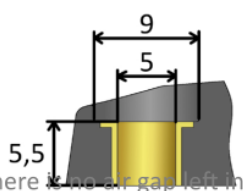
When background adhesive is ordered the tag is delivered with adhesive attached. When mounting the tag with its adhesive background, clean and dry the surface for obtaining the maximum bond strength. Ideal application temperature is from +21°C to +38°C (+70°F to +100°F), bond strength can be improved with firm application pressure and moderate heating from +38°C to +54°C (+100°F to +130°F). Installation at temperatures below 10°C (50°F) is not recommended.

2. Other adhesive fixings
  - Polyurethane adhesives
  - Epoxies
  - Silicone sealants

Structural adhesives like 3M DP410 provide very high bond strength and resistance against mechanical stress. When tag is attached with sealant adhesive, insert a layer of sealant under the tag and press the tag on the surface. Increase the bond by adding extra sealant from the tag holes. Adhesive type and thickness may have an effect on tag performance. In general more than 2mm layer of adhesive under the tag should be avoided. Please refer to adhesive supplier for exact fixing instructions and test the performance with chosen adhesive.

3. Mechanical fixing

Mechanical fixing is recommended to be used in every application that includes risk for high mechanical stress or low temperature during tag fixing. During fixing make sure there is no air gap left between the metal surface and tag. Hole dimensions are identical with and without compression limiters. Ironside Slim comes by default with compression limiters included. DIN 7985 M4 screws can be used as a reference.



To achieve the optimal performance locate the tag on metal in a way that there is metal on both ends of the tag, like shown below. Ideally the tag is placed on large even metal surface with direct metal contact underneath the whole tag. Tag polarization is along the longest dimension.



## PERSONALIZATION OPTIONS

### Pre-encoding

- Customer specific encoding of EPC or user memory. Locking permanently or with password.

### Customized data label

- Customer specific layout including logo, text, numbers, barcodes etc.

### Customized laser engraving

- Customer specific layout including logo, text, numbers, barcodes etc.

### Personalization Kit

- Confidex Ironside Slim™ is available also as a Personalization kit where 700 blank PET data labels are delivered on reel per each box of 600 tags. Labels can be printed with standard label printers. Resin ribbon is recommended for best durability.

## ORDER INFORMATION

**Product number:** 3003896

**Product name:** Confidex Ironside Slim™ H9

For other versions, additional information and technical support contact Confidex Ltd.

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