

# PRODUCT DATASHEET

## Confidex Heatwave Flag™



High temperature resistance combined with flexible attachment for automotive paint shop process

### ELECTRICAL SPECIFICATION

**Device type**

UHF RFID / EPCglobal Gen2v2

**Operational frequency**

Global 865-928MHz

**IC type**

Alien Higgs™ 9

**Memory configuration**

Standard EPC memory is 96 bit but can be extended to 496 bit by allocating user memory capacity to EPC.  
User memory 688bit; TID 96 bit

**EPC memory content**

Unique number encoded

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

up to 10 m / 33 ft

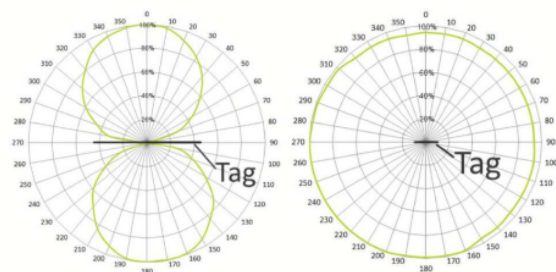
**Applicable surface materials\***

Can be attached on all materials but antenna part should not be in direct contact with metal

\* 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). Different surface materials may have an effect on performance.

### RADIATION PATTERNS

Note that metallic environment around the tag will affect the radiation pattern. Optimal read angle should be tested in real environment.



### MECHANICAL SPECIFICATION

**Tag materials**

Special polymer designed for high temperatures.

**Weight**

1,5 g

**Delivery format**

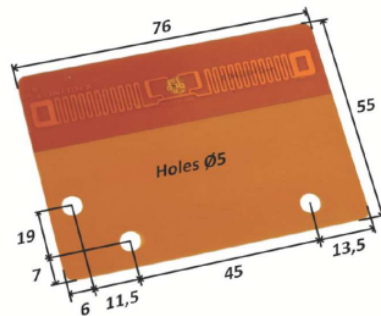
Single

**Amount in box**

200 pcs

**Dimensions**

76 x 55 x 0.37 mm / 2.99 x 2.17 x 0.015 in



### ENVIRONMENTAL RESISTANCE

**Operating temperature**

-35°C to +85°C / -31°F to +185°F

**Peak temperature**

168h: +180°C / +356 °F  
3 hours: +230°C / +446°F  
10 min: +260°C / +500°F

**IP classification**

IP68

**Chemical resistance**

- No physical or performance changes in:
- 168h Salt water (salinity 10%) exposure
  - 168h Motor oil exposure
  - 168h Sulfuric acid (10%, pH 2) exposure
  - 2h NaOH (10%, pH 13) exposure
  - Wiping with acetone

**Expected lifetime**

Product is designed for single use in vehicle manufacturing. However, the lifetime will be years when tag is left to car body and it can be used for identification in aftersales services.

*Some bending may occur in long term high temperature exposure. Values in the datasheet 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.*

## PERSONALIZATION OPTIONS

### Pre-encoding

- Customer-specific encoding of EPC with or without locking

### Visual marking

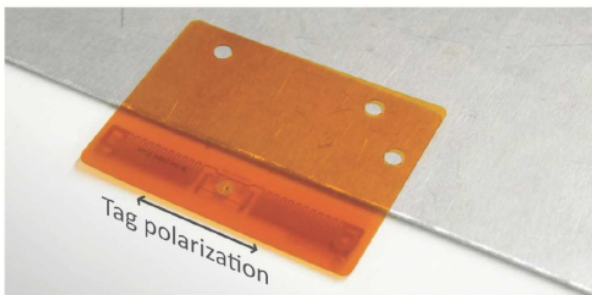
- Laser engraving of customer-specific content

## INSTALLATION INSTRUCTIONS

Confidex Heatwave Flag™ can be attached with screws or pop rivets through  $\varnothing 5\text{mm}$  holes. When tagging metallic assets, the tag shall be attached in a way that the antenna part is protruded out from the metal as shown in picture below.

The distance between antenna and metal should be maximized for the best performance. Tag will also work when attached on plastic assets.

Polarization of tag is along its longest dimension. This should be considered when linear reader antennas are used.



## ORDER INFORMATION

**Product number:** 3003520

**Product name:** Confidex Heatwave Flag™ H9

For additional information and technical support, please contact Confidex Ltd.

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