

# PRODUCT DATASHEET

## Confidex Halo™



A light weight tag with small foot print for asset management applications

### ELECTRICAL SPECIFICATION

**Device type**

Class 1 Generation 2 passive UHF RFID transponder

**Air interface protocol**

EPCGlobal Class1 Gen2 ISO 18000-6C

**Operational frequency**

EU 865 - 869 MHz  
US 902 - 928 MHz

**IC type**

NXP UCODE G2XM

**Memory configuration**

EPC 240 bit; User 512 bit; TID 64 bit

**EPC memory content**

Unique number encoded as a default

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

EU on metal up to 7 m / 23 ft  
US on metal up to 8 m / 26 ft

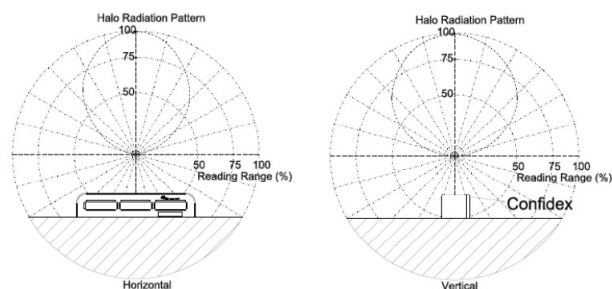
**Applicable surface materials\***

Metallic surfaces

\* 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

**On metal**



### MECHANICAL SPECIFICATION

**Tag materials**

High quality engineering plastics.

**Weight**

7 g

**Delivery format**

Single

**Amount in box**

1250pcs

**Dimensions**

60 x 12 x 14 mm / 2.36 x 0.47 x 0.55 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

**Weather ability**

Good, including UV-resistance and sea water

**Vibration resistance**

- JESD22-B103B, service condition 2; vibration that is aligned with tag height (z-axis)

**Chemical resistance**

No physical or performance changes in:

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

Generally good with moderate concentrations: acids, alcohols, alkalis, detergents and cleaners. Acetone should be avoided.

**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.

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.

Customized laser engraving

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

INSTALLATION INSTRUCTIONS

Confidex Halo™ can be attached with several fixing methods:

1. 3M 300LSE 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
  - Silicone sealants

Silicone sealants like Dow Corning AS 7096 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. Insert maximum 1mm layer of adhesive under the tag. Please refer to silicone sealant supplier for exact fixing instructions.

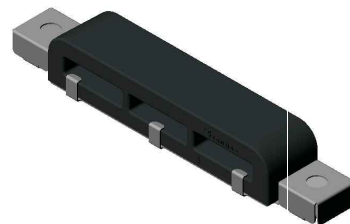
3. Mechanical fixing
  - Metallic or plastic cable ties

Mechanical fixing is recommended to be used in applications that includes risk for high mechanical stress or low temperature during tag fixing. During fixing make sure there is no air gap left in between the metal surface and tag. Plastic cable ties can be attached on any of 3 holes but metallic ties must be put through the middle hole like shown on the right.



4. Additional fixing tools
  - Magnetic holder

When the application requires either the quickest fixing method to be used or the tag should be removed during its use to another location, magnetic holder is the best fixing method. Two strong NdFeB magnets will grip metal surface efficiently. When magnetic holder is ordered the tag is delivered with holder attached.



For the optimal performance please locate the tag on metal like shown below. Ideally the tag is placed on large even metal surface with direct metal contact underneath the whole tag.



ORDER INFORMATION

**Product number:** 3000068  
**Product name:** Confidex Halo™ ETSI G2XM

**Product number:** 3000069  
**Product name:** Confidex Halo™ FCC G2XM

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

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