



# PRODUCT DATASHEET

## Confidex SteelWING

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# 1. PRODUCT DESCRIPTION

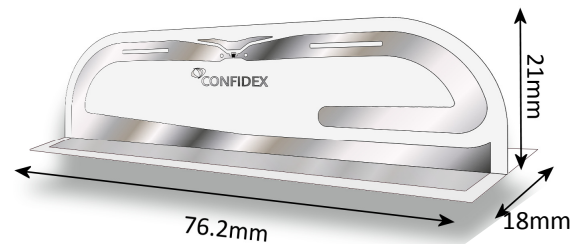
With up to 10 meter (32ft) read range on metal surfaces, UHF Class 1 Generation 2 compliant Confidex SteelWING has been designed to overcome the challenges of metal asset tagging. The key design targets; high performance, compact structure and cost-efficiency were achieved with SteelWING’s innovative patent pending design. The light-weight tag has adhesive background and it can be directly attached on metal surface – without any extra spacer material.

## 1.1 SPECIFICATION DATA

<b>Device type</b>	Class 1 Generation 2 passive UHF RFID transponder
<b>Air interface protocol</b>	EPCGlobal Class1 Gen2 ISO 18000-6C
<b>Operational frequency</b>	865-928 MHz
<b>IC</b>	NXP UCODE G2XM
<b>EPC memory</b>	240 bit
<b>Extended memory</b>	512 bit
<b>Read range</b>	8-10 m / 26-32 ft, reader power 2W ERP
<b>Material</b>	PET
<b>Weight</b>	0,6 g
<b>Delivery format</b>	Single
<b>Tag amount in a box</b>	400pcs (default)
<b>Protection class</b>	IP67
<b>Product is RoHS compliant</b>	

## 1.2 DIMENSIONS

<b>General dimensions (Width x Height x Thickness)</b>	76.2 x 18 mm (area) x 21 mm (height), thickness 120um 3 x 0.71” (area) x 0.83” (height), thickness 4.7 mil
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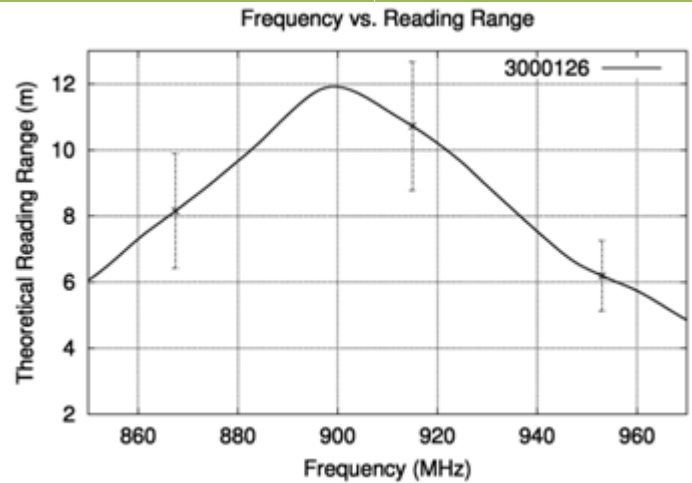


<b>Delivery format</b>	76.2 mm x 29 mm / 3” x 1.14”
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### 1.3 ELECTRICAL PERFORMANCE

#### SteelWING G2XM on metal surface



Presented reading ranges are calculated values in non-reflective environment, in where antennas with optimum directivity are used with maximum allowed operating power: EU 865-868 MHz (2W ERP), US 902-928 MHz (4W EIRP), and JPN 952-954MHz (4W EIRP). Variation of 3σ from test batch marked in the picture.

**Performance off-metal:** Approx. 50% of the maximum on-metal performance value.

### 1.4 RESISTANCE AGAINST ENVIRONMENTAL CONDITIONS\*

Typically values are valid for all tag versions. If not, applicable IC versions are marked

<b>Operating temperature</b>	-35°C to +85°C (-31°F to +185°F)
<b>Ambient temperature</b>	-35°C to +85°C (-31°F to +185°F)
<b>Storage condition</b>	2 years in +20°C / 50% RH (shelf life for adhesive)
<b>Expected lifetime</b>	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.*

### 1.5 SUPPORTED SERVICES

There is several personalization options available for Confidex SteelWING in order to “fine tune” the tag to match with the application requirements:

- Pre-encoding
- Data label

For exact specifications, please refer “Personalization Datasheet”.

### 1.6 POSSIBLE APPLICATIONS

<b>Metal surfaces</b>	Various metal assets incl. industrial returnable transport items and IT assets.
<b>Other surface materials</b>	Plastics

## 2. INSTALLATION INSTRUCTIONS

### 2.1 LABEL ORIENTATION AND APPLICATION

Label polarization is along the tag's longest dimension:



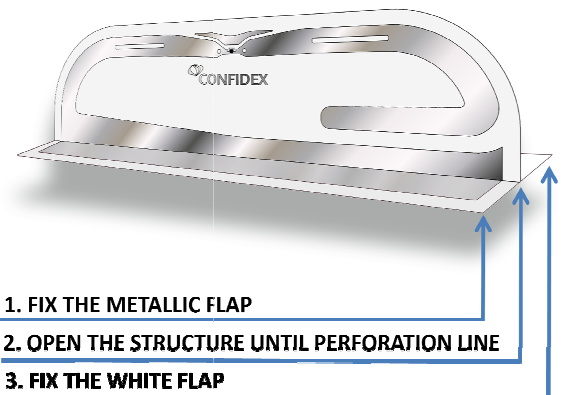
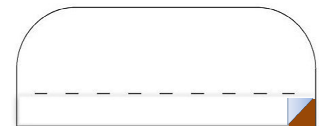
#### Tag fixing

SteelWING tag is fixed on the surface with its background adhesive.

Tag structure consists of two adhesive flaps, which need to be exposed before fixing the tag:

- Open slightly either one of the corners from tag's white side:
- Remove the brown liner and keep adhesive areas away from each other.  
Avoid touching the adhesive surfaces as much as possible.

Note: For obtaining the optimum adhesive bond strength, the metal surface should be clean and dry. 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). Application at temperatures below 10°C (50°F) is not recommended.



### 2.2 PROTECTION OF TAG DURING USAGE

Minimum bending diameter of the Confidex SteelWING is defined to be 50mm. Do not bend the tag above the limit. Never touch on the location of the IC. IC chip is sensitive electrical component and can be damaged if unexpected pressure is applied on the chip. Try to avoid mechanical impacts to the Confidex SteelWING. IC and antenna may be damaged due to mechanical shocks.

### 3. ORDER INFORMATION

Product number	Product name
3000126	SteelWING NXP G2XM

For additional information and technical support contact Confidex Ltd.

#### FINLAND

Confidex Ltd.  
Haarlankatu 1 B, 33230 Tampere, Finland  
Tel. +358 10 4244 100 Fax. +358 10 4244 110  
contact@confidex.fi www.confidex.fi

#### USA

Confidex Inc.  
1502 Fair Weather Ct., Apex, NC 27523, USA  
Tel. +1 919 349 5607 fax +1 810 958 0515  
www.confidex.net

#### CHINA

Confidex China  
Guangzhou XinTag Electronics Science and Technology Co. Ltd  
3 F Section E Guangzhou Technology Innovation Base  
No. 80 Lan Yue Road, Science City, PRC 510663 Guangzhou,  
People's Republic of China  
Tel. +86 20 3205 7361 fax +86 20 3205 1429  
www.confidex.net.cn

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