

PRODUCT DATASHEET

Confidex Ironside Plate™



Robust RAIN RFID tag with durable visual marking and excellent performance for challenging environments

ELECTRICAL SPECIFICATION

Device type

Class 1 Generation 2 passive UHF RFID transponder

Air interface protocol

EPCGlobal Class1 Gen2 ISO 18000-6C

Operational frequency

Global 865 - 928 MHz

IC type

NXP UCODE 8

Memory configuration

EPC 128 bit; TID 96 bit

EPC memory content

Unique 96bit EPC in every tag

Read range (2W ERP)*

On metal up to 10 m / 33 ft

On plastic up to 7 m / 23 ft

Applicable surface materials*

Optimized for metal but works on any surface

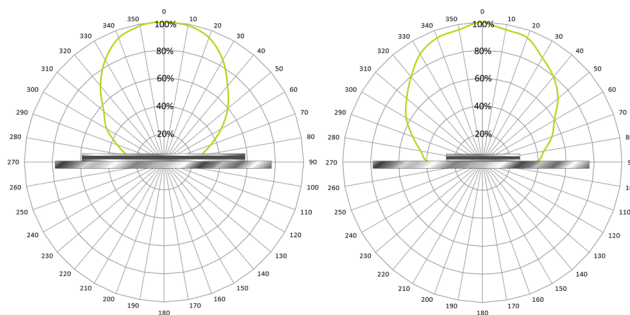
Attachment on curved surface

Label can be attached on a curved surface. Check installation instructions for more details.

* Read ranges are theoretical values that are calculated for non-reflective environment. Different surface materials may have an effect on performance.

RADIATION PATTERNS

Below radiation pattern is measured on metal. Pattern may be affected by the shape of the tagged item.



MECHANICAL SPECIFICATION

Tag surface

Top: Aluminum with anti-corrosion coating

Backside: Stainless steel

Background adhesive

Standard product comes without adhesive. When background adhesive is ordered tag is delivered with high quality 3M VHB adhesive attached on the product.

Weight

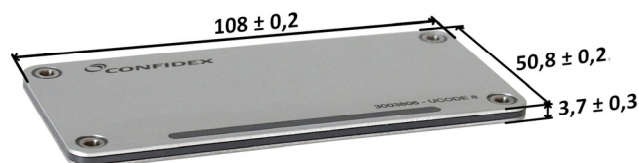
68 g

Delivery format

80 pcs tags in a box

Tag dimensions

108 x 50.8 x 3.7 mm / 4.25 x 2 x 0.15"



Thickness with adhesive: 4.5 ± 0.3 mm / 0.18 ± 0.01"

ENVIRONMENTAL RESISTANCE

Operating temperature

-35°C to +85°C / -31°F to +185°F

Peak temperature

+130°C / 266°F for 10min

Ambient temperature

-35°C to +85°C / -31°F to +185°F

Water resistance

IP68, tested for 5 hours in 1m deep water*

Washing resistance

Tolerates industrial washing with standard solvents.

Washing process should be tested in final application.

Chemical resistance

No physical or performance changes in:

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

Acetone should be avoided.

Storage condition

1 year in +20°C / 50% RH

*Vertical attachment is recommended to enable any possible water getting out faster. Performance may be slightly reduced right after prolonged water immersion for short period of time.

Environmental values are the best recommendations; resistance against different 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.

INSTALLATION INSTRUCTIONS



When attaching the tag ensure the following

- Select a smooth surface without uneven areas below tag
- Avoid touching the background adhesive

Installation using background adhesive

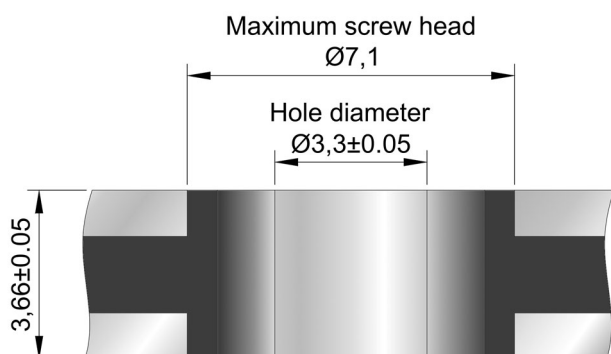
When mounting the tag with its adhesive, clean and dry the surface for obtaining the maximum bond strength. Typical cleaning solvents are heptane or acetone for oily surfaces or isopropyl alcohol for plastics. Do not use household cleaning solvents that contain oils. Carefully read and follow the manufacturer's precautions and directions for use when working with solvents.

Ideal application temperature is from +21°C to +38°C (+70°F to +100°F). Bond strength can be improved with firm application pressure (>15 psi) and moderate heating up to +66°C (+150°F). Application at temperatures below 10°C (50°F) is not recommended. At room temperature, approximately 50% of the final strength is achieved in 20 minutes. Final bond strength is achieved in 72 hours.

Installation using mechanical attachment

Mechanical attachment is recommended for the harshest of environments. Ironside Plate hole is designed for M3 screws and rivets. Hole is protected with metallic limiter for better tolerance against installation torque.

It is important that the screw/rivet head diameter does not exceed 7,1mm. Bigger head diameter would affect the performance of the tag.



Ironside Plate tolerates well different attachment positions but does provide slightly improved read range when there is metal left at both short ends of the tag.



PERSONALIZATION OPTIONS

Pre-encoding

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

Laser engraving

- Customer specific layout including logo, text, numbers.

Backside adhesive

- High quality 3M VHB adhesive attached on the product.

ORDER INFORMATION

Product number: 3003806

Product name: Confidex Ironside Plate™ U8

For additional information and technical support, please contact Confidex

DISCLAIMER

THE MATERIALS, PRODUCTS AND SERVICES ARE SOLD SUBJECT TO ITS STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, CONFIDEX MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN CONFIDEX STANDARD CONDITIONS OF SALE, CONFIDEX AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN.

Each user bears full responsibility for making its own determination as to the suitability of Confidex products, materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished systems incorporating Confidex products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Confidex.

