

PRODUCT DATASHEET

Confidex Xenon™



Non-transferable tamper-proof label for vehicle headlamps and windshields.

ELECTRICAL SPECIFICATION

Device type

Class 1 Generation 2 passive UHF RFID transponder compliant with EPC Gen2V2

Air interface protocol

EPCGlobal Class1 Gen2 ISO 18000-6C

Operational frequency

Global 860-960MHz

IC type

Impinj Monza 4E

Memory configuration

With Monza 4E: EPC 496 bit; User 128 bit; TID 96 bit

Read range (2W ERP)*

EU: up to 9 m / 27 ft

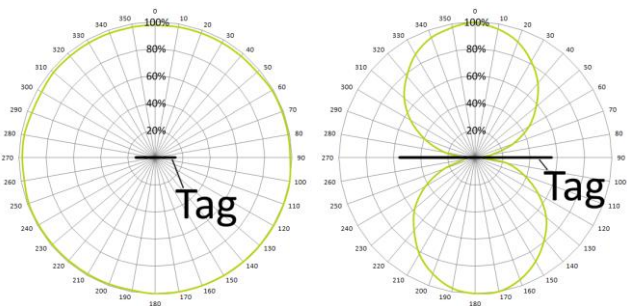
US: up to 10,5 m / 34 ft

Applicable surface materials*

Glass

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

RADIATION PATTERNS



MECHANICAL SPECIFICATION

Tag materials

- Back side (facing windshield): Aluminum antenna with acrylic adhesive
- Front side (facing driver): Inkjet and thermal printable transparent PET. Resin ribbon recommended. Can be ordered with static color printing and black personalization.

Weight

<1 g

Delivery format

1000 pcs on reel

Pitch on reel

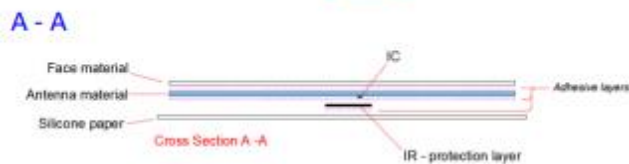
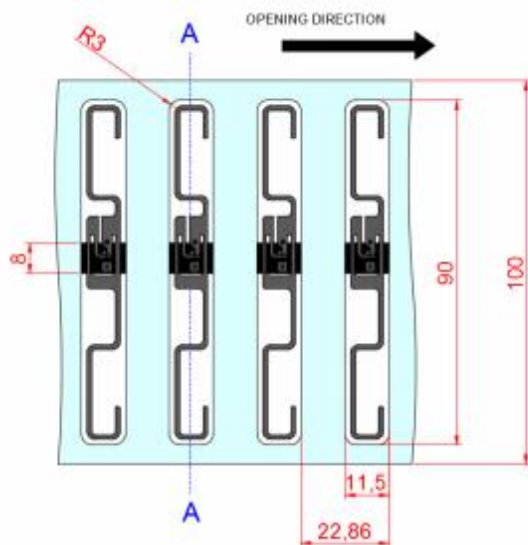
22,86 mm / 0,9 in

Reel core inner diameter

76 mm / 3 in

Tag dimensions

90 x 11,5 x 0,2 mm / 3.54 x 0.45 x 0.008 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

Storage condition

1 year in +20°C / 50% RH (shelf life for adhesive)

Expected lifetime

Years in normal operating conditions

Chemical resistance

No physical or performance changes in:

- 168h Salt water (salinity 10%) exposure
- 24h NaOH (10%, pH 13) exposure
- 168h Motor oil exposure
- 168h Sulfuric acid (10%, pH 2) exposure
- 168h Windshield washing fluid exposure
- 168h Antifreeze exposure
- 168h Car shampoo exposure
- 168h Gasoline exposure
- Small exposure of car wax

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 full color artwork

- Layout can include any static artwork.

Customer-specific visual printing

- Variable data like barcodes, human readable text, serial numbers etc.

INSTALLATION INSTRUCTIONS



← Tag polarization →

Ideal installation conditions are +20°C (+68°F) / 50% RH. For exceptional conditions, please contact Confidex. Adhesive of the label will provide best adhesion in 24 hours after the installation. Bond strength can be improved with firm application pressure. Always clean and dry the surface for obtaining the maximum bond strength. Avoid touching the background adhesive.

Label antenna parts should not be in contact with metal to enable best performance of the label. Note that metallized UV-protection films have strong effect on RFID performance.

Minimum bending diameter of the Confidex Xenon™ label is defined to be 50mm. Do not bend the label below the limit. Never touch on the location of the IC. IC chip is a sensitive electrical component and can be damaged if unexpected pressure is applied on the chip.

ORDER INFORMATION

Products are delivered by default without any printing.

Product number: 3001116

Product name: Confidex Xenon™ M4E

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

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