PRODUCT DATASHEET
Confidex Cruiser Headlamp™

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

ELECTRICAL SPECIFICATION

Device type
- UHF RFID / EPCglobal Gen2v2
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)*
- ETSI: up to 9 m / 27 ft
- FCC: 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). ETSI = 865 - 868 MHz, FCC = 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 Cruiser Headlamp™ 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 Cruiser Headlamp™ M4E

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

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