

# PRODUCT DATASHEET

## Confidex Carrier PRO™



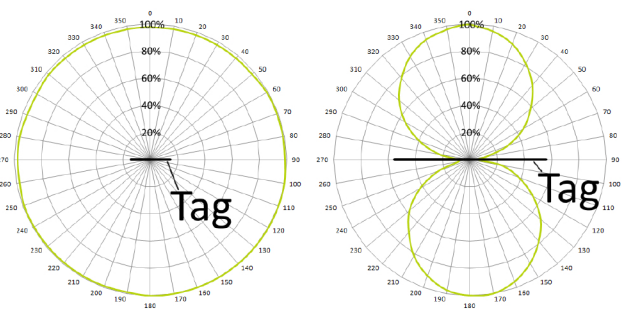
Special washable label for returnable plastic containers with great performance even when being close to challenging materials.

### ELECTRICAL SPECIFICATION

- Device type**  
UHF RFID / EPCglobal Gen2v2
- Operational frequency**  
Global 865-928MHz
- IC options and memory configurations**  
Impinj M780™
  - EPC 496 bit; User 128 bit; TID 96 bitAlien Higgs™ 9
  - Standard EPC memory is 96 bits but it can be extended to 496 bits by allocating user memory capacity to EPC. User memory 688bit; TID 96bit
- M780 EPC memory content**  
Unique random 96bit EPC in every label
- Read range (2W ERP)\***  
H9
  - On plastic up to 12 m / 39 ft
  - On cardboard up to 11 m / 36 ftM780
  - On plastic up to 23 m / 75 ft
  - On cardboard up to 20 m / 65 ft
- Applicable surface materials\***  
Non-metallic surfaces. Works well also on boxes where content varies from fruits, vegetables or other groceries to liquid bottles and utilities.

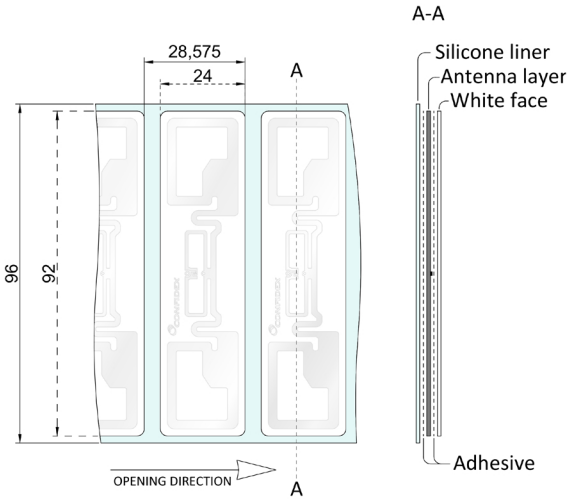
\* Read ranges are theoretical values that are calculated for non-reflective environment. Different surface materials may influence performance.

### RADIATION PATTERNS



### MECHANICAL SPECIFICATION

- Tag materials**  
Printable white PET, resin ribbon is recommended
- Background adhesive**  
High performance acrylic adhesive specifically for low surface energy plastics
- Weight**  
0,8 g
- Delivery format**  
2000 pcs on reel
- Pitch on reel**  
28,575 mm / 1,125 in
- Reel core inner diameter**  
76 mm / 3 in
- Tag dimensions**  
92 x 24 x 0,2 mm / 3.62 x 0.94 x 0.01 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, tested 5 hours in 1m deep water
- Washing resistance**  
Tolerates industrial washing processes. Tested according to IPX9K with water at 60° angle, 80-100bar, and 80°C. Water flow rate 14-16l/min.

Chemical resistance

No physical or performance changes in:

- 168h Salt water (salinity 10%) exposure
- 168h Motor oil exposure
- 168h Sulfuric acid (10%, pH 2) exposure
- 24h NaOH (10%, pH 13) exposure
- 20min Acetone exposure

Storage condition

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

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.

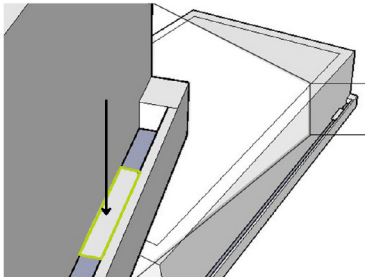
Customized printing

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

INSTALLATION INSTRUCTIONS



While planning the installation, most recommended location for the Confidex Carrier PRO™ label is in a position, where the structure of the identified asset provides protection against mechanical stresses such as impacts or jet streams. There's no need for line of sight between reader and label so it can be installed for example like shown in picture below.



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.

During attachment to the identified asset, please avoid touching the background adhesive. If the location on the asset needs to be changed, please use a new tag instead of re-placing the used one; the adhesion will suffer from the re-placement.

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

ORDER INFORMATION

- Product number:** 3003902
- Product name:** Confidex Carrier PRO™ H9
- Product number:** 3004654
- Product name:** Confidex Carrier PRO™ M780

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

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