

# PRODUCT DATASHEET

## Confidex Carrier KLT™



Label for returnable plastic containers compliant with VDA recommendation 4500.

### ELECTRICAL SPECIFICATION

**Device type**

UHF RFID / EPCglobal Gen2v2

**Operational frequency**

Global 865-928MHz

**IC type**

Impinj M780™

**Memory configuration**

EPC 496 bit; User 128 bit; TID 96 bit

**EPC memory content**

Unique random 96bit EPC in every label

**Read range (2W ERP)\***

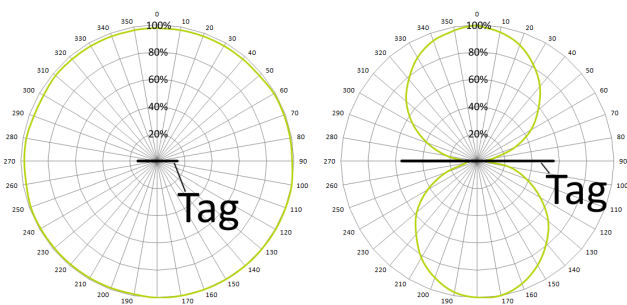
On plastic up to 23 m / 75 ft  
On cardboard up to 20 m / 65 ft

**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**

1 g

**Delivery format**

2000 pcs on reel

**Pitch on reel**

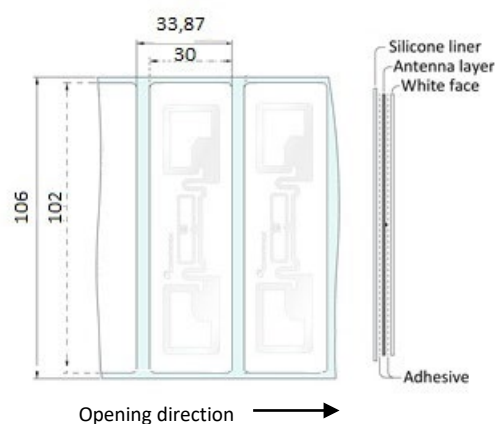
33,87 mm / 1.33 in

**Reel core inner diameter**

76 mm / 3 in

**Tag dimensions**

102 x 30 x 0,2 mm / 4.01 x 1.18 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.

**Over-lamination**

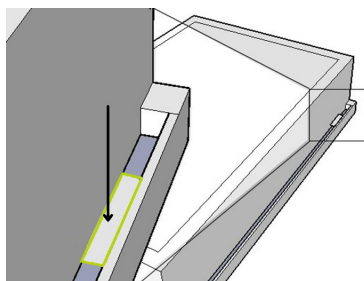
- Pre-printed labels may be protected with optional protective PET film on top of the label

**INSTALLATION INSTRUCTIONS**



← Tag polarization →

While planning the installation, most recommended location for the Confidex Carrier KLT™ label is in a position, where the structure of the identified asset provides protection against mechanical stresses such as impacts or jet streams. There is 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 KLT™ 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 the it.

**ORDER INFORMATION**

**Product number:** 3004810  
**Product name:** Confidex Carrier KLT™ M780

**Protective over-lamination:** Contact Confidex for item details.

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

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