

# PRODUCT DATASHEET

## Confidex Carrier Classic™



Special washable label for returnable plastic containers with strong adhesive.

### ELECTRICAL SPECIFICATION

**Device type**

UHF RFID / EPCglobal Gen2v2

**Operational frequency**

Global 860-960MHz

**IC type**

Impinj Monza 4QT™

Impinj Monza 4E™ (upon special request)

**Memory configuration**

With Monza 4QT: EPC 128 bit; User 512 bit; TID 96 bit

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

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

ETSI on plastic up to 10 m / 33 ft

ETSI on cardboard up to 4 m / 13 ft

FCC on plastic up to 8 m / 26 ft

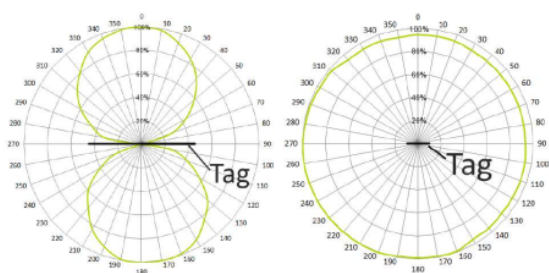
FCC on cardboard up to 8 m / 26 ft

**Applicable surface materials\***

Non-metallic surfaces.

\* 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**

Printable white PET, resin ribbon recommended

**Background adhesive**

High performance acrylic adhesive specifically for low surface energy plastics

**Weight**

0,1 g

**Delivery format**

2000 pcs on reel

**Pitch on reel**

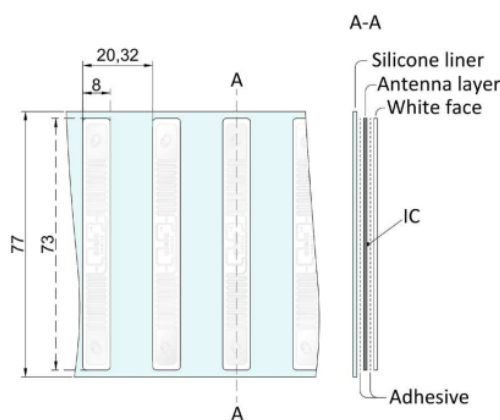
20,32 mm / 0.8"

**Reel core inner diameter**

76 mm / 3"

**Tag dimensions**

73 x 8 x 0,2 mm / 2.87 x 0.31 x 0.01 in



### ENVIRONMENTAL RESISTANCE

**Operating temperature**

-35°C to +85°C / -31°F to +185°F

**Ambient temperature**

-35°C to +90°C / -31°F to +194°F

**Water resistance**

Good, tested 5 hours in 1m deep water (IP68)

**Washing resistance**

Good, tested 300 cycles with water at 175bar / 80°C

**Chemical resistance**

- No physical or performance changes in:
- 168h Salt water (salinity 10%) exposure
- 168h Motor oil exposure
- 24h NaOH (10%, pH 13) exposure
- 24h Sulfuric acid (10%, pH 2) exposure
- 30min 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.

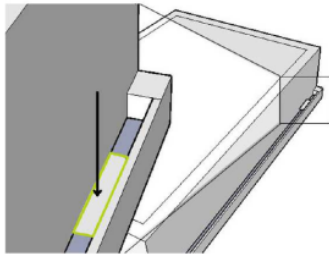
### Customized printing

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

## INSTALLATION INSTRUCTIONS



While planning the installation, most recommended location for the Confidex Carrier Classic™ 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 Classic™ is defined to be 50mm. Do not bend the label above the limit. Never touch on the location of the IC. IC chip is sensitive electrical component and can be damaged if unexpected pressure is applied on the chip.

## ORDER INFORMATION

**Product number:** 3000394

**Product name:** Confidex Carrier Classic™ M4QT

Following products are available upon special request:

**Product number:** 3000617

**Product name:** Confidex Carrier Classic™ M4E

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

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