

# PRODUCT DATASHEET

## Confidex Ferrowave Micro™



RFID on metal label with small footprint optimized for short term tracking of specialty retail items

### ELECTRICAL SPECIFICATION

#### Device type

RAIN RFID / EPCglobal Gen2v2

#### Operational frequency

Global 865 – 928 MHz

#### IC options and memory configurations

Impinj® M730

- EPC 128 bit; TID 96 bit

Impinj® M780

- EPC 496 bit; User 128 bit; TID 96 bit

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

On metal up to 4 m / 13 ft

On liquid up to 3m / 10 ft

On plastic up to 1,5 m / 5 ft

On cardboard up to 1,2 m / 4 ft

#### Applicable surface materials\*

All surfaces, optimized for metal

#### Attachment on curved surface\*

Label can be attached on a slightly curved surface.

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

### MECHANICAL SPECIFICATION

#### Label surface

Printable white PET, resin ribbon recommended.

#### Background adhesive

Acrylic adhesive optimized for metallic and painted metal surfaces.

#### Weight

0,25 g

#### Delivery format

800 pcs good labels on reel, bad ones marked with "XXX" printing.

#### Pitch on reel

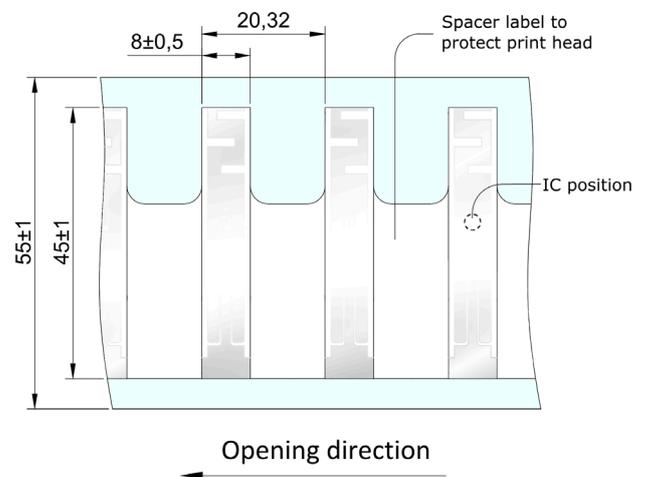
20,32 mm / 0.8"

#### Reel core inner diameter

76 mm / 3"

#### Tag dimensions

45 x 8 x 1,5mm / 1.77 x 0.31 x 0.06"



### 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

#### Water resistance

IP68, tested for 5 hours in 1m deep water

#### Chemical resistance

No physical or performance changes in:

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

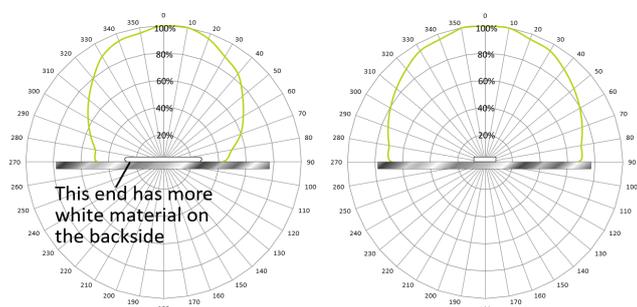
#### Storage condition

1 year in +20°C / 50% RH

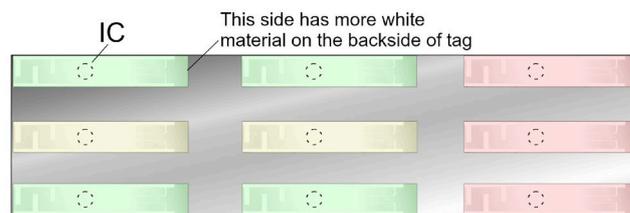
*Environmental values are the best recommendations; resistance against different conditions depends on the combination of all influencing factors, exposure duration and chemical concentrations. Thus, product's final suitability for certain environmental conditions is recommended to be tested.*

## RADIATION PATTERNS

Radiation pattern is heavily impacted by the shape and material of the tagged asset. Below pattern is measured on metallic plate. It is recommended to test the optimal positioning on an actual asset.



For optimal read range below positioning on a metal item is recommended. Ferrowave Micro works in all positions and has the specified read range also on the yellow marked locations, but the read range can be enhanced using green positions.



## INSTALLATION INSTRUCTIONS



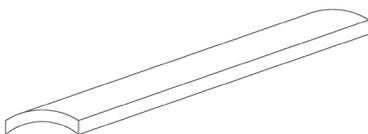
When attaching the label ensure the following

- Select a smooth surface without uneven areas below tag.
- Avoid touching the background adhesive and IC location.

When mounting the label with its adhesive, clean and dry the surface for obtaining the maximum bond strength. Typical cleaning solvents are heptane or acetone for oily surfaces or isopropyl alcohol for plastics. Do not use household cleaning solvents that contain oils. Carefully read and follow the manufacturer's precautions and directions for use when working with solvents.

Ideal application temperature is from +21°C to +38°C (+70°F to +100°F). Bond strength can be improved with firm application pressure and moderate heating up to +54°C (+130°F). Application at temperatures below 10°C (50°F) is not recommended.

Attachment on curved surface is highly recommended to be done along the asset, as shown in below drawing. This orientation would ensure better performance and adhesion.



## PRINTER COMPATIBILITY

The Confidex Ferrowave Micro™ is tested to work with the following printers:

- Zebra ZT411 On Metal
- Sato CL4NX
- Printronix Auto ID T6000e

For printing instructions please contact Confidex Ltd.

## PERSONALIZATION OPTIONS

### Pre-encoding

- Customer specific encoding of EPC. Locking permanently or with password.

### Customized printing

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

## ORDER INFORMATION

**Product number:** 3003658

**Product name:** Confidex Ferrowave Micro M730™

**Product number:** 3004218

**Product name:** Confidex Ferrowave Micro M780™

For additional information and technical support, please contact Confidex

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