

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

Class 1 Generation 2 passive UHF RFID transponder

Air interface protocol

EPCGlobal Class1 Gen2 ISO 18000-6C

Operational frequency

Global 865 – 928 MHz

IC type

Impinj® M730

Memory configuration

EPC 128 bit; TID 96 bit

Read range (2W ERP)*

ETSI:

- On metal up to 3 m / 10 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

FCC:

- 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

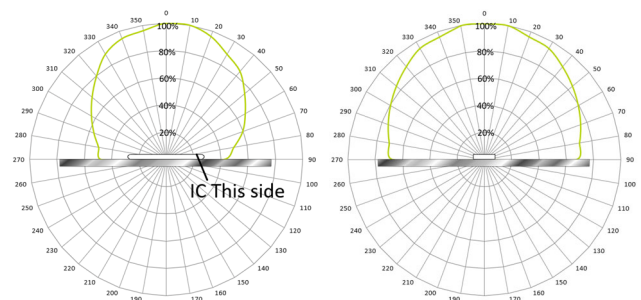
Attachment on curved surface*

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.

RADIATION PATTERNS

Radiation pattern is heavily impacted by the shape and material of the tagged asset. Below pattern is measured on metallic plate.



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

1000 pcs good labels on reel, bad ones marked with "XXX" printing.

Pitch on reel

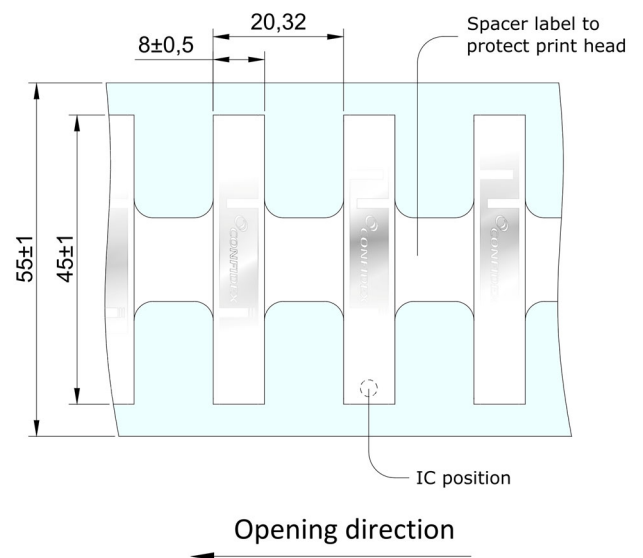
20,32 mm / 0.8"

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:

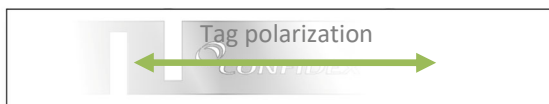
- 168h Motor oil exposure
- 168h Salt water (salinity 10%) exposure
- 2h Sulfuric acid (10%, pH 2) exposure
- 10min NaOH (10%, pH 13) exposure

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.

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.

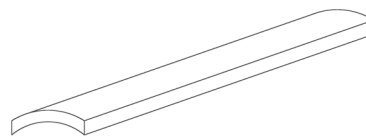
When mounting the label with its adhesive, clean and dry the surface for obtaining the maximum bond strength. Typical cleaning solvents are heptane or acetone for oily surfaces or isopropyl alcohol for plastics. Do not use household cleaning solvents that contain oils. Carefully read and follow the manufacturer's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

For best performance please choose the attachment position according to below picture. If possible, use the green location for boosted read range. Avoid red location as those will decrease the read range.



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 and verified 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™

For additional information and technical support, please contact Confidex

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