

PRODUCT DATASHEET

Confidex Ferrowave Classic™



RFID on metal label optimized for packaging and component tracking

ELECTRICAL SPECIFICATION

Device type

UHF RFID / EPCglobal Gen2v2

Operational frequency

ETSI: 865 - 869MHz

FCC: 902 - 928 MHz

IC type

Impinj Monza R6-P

Impinj Monza 4E

NXP UCODE 8m:

Memory configuration

Monza R6-P: EPC 96/128 bit; User 32/64 bit; TID 96 bit

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

NXP UCODE 8m: EPC 96 bit; User 32 bit; TID 96 bit

EPC memory content

Monza R6-P: Unique random EPC in every label

Monza 4E: Same EPC in every label

NXP UCODE 8m: Unique random EPC in every label

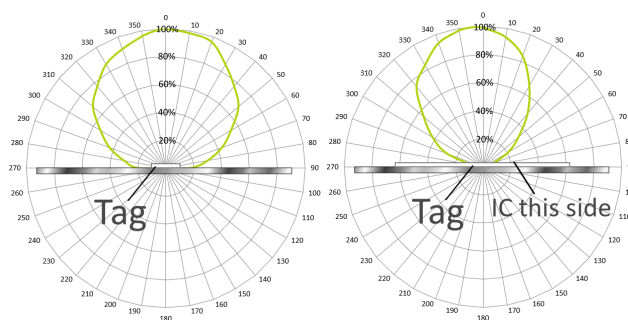
Read range (2W ERP)* Meters

Surface	Monza R6-P		Monza 4E		UCODE 8m	
	ETSI	FCC	ETSI	FCC	ETSI	FCC
Metal	4m	5m	3m	4m	4m	5m
Liquid	2m	2m	-	1m	1m	1m
Plastic	5m	8m	-	1m	3m	3m
Glass	12m	12m	1m	1m	7m	5m
Cardboard	4m	6m	-	1m	2m	2m

Read range (2W ERP)* Feet

Surface	Monza R6-P		Monza 4E		UCODE 8m	
	ETSI	FCC	ETSI	FCC	ETSI	FCC
Metal	13ft	16ft	10ft	13ft	13ft	16ft
Liquid	7ft	7ft	-	3ft	3ft	3ft
Plastic	16ft	26ft	-	3ft	10ft	10ft
Glass	40ft	40ft	3ft	3ft	23ft	16ft
Cardboard	13ft	20ft	-	3ft	7ft	7ft

RADIATION PATTERNS



MECHANICAL SPECIFICATION

Label surface

Printable white PET, resin ribbon recommended

Background adhesive

High performance acrylic adhesive

Weight

0,8 g

Delivery format

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

Pitch on reel

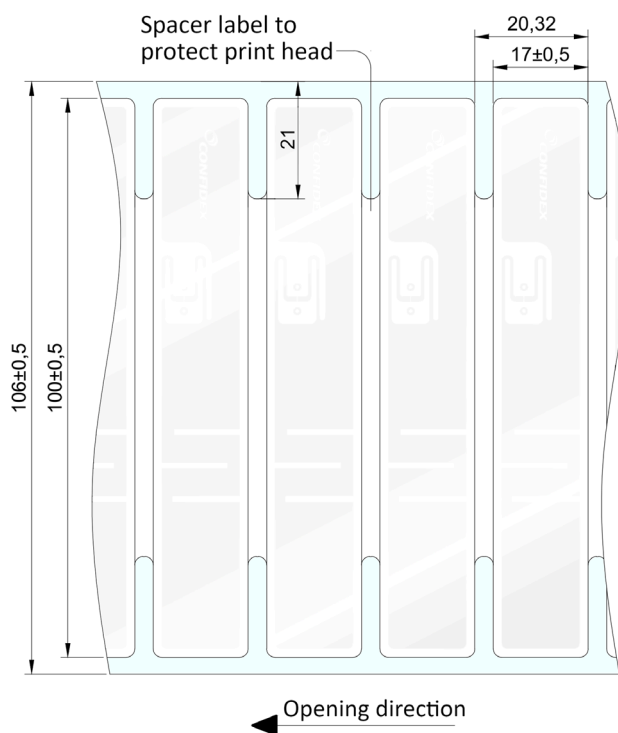
20,32 mm / 0.8"

Reel core inner diameter

76 mm / 3"

Tag dimensions

100 x 17 x 1,1 mm / 3.94 x 0.67 x 0.04



* 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). Different surface materials will have an effect on performance so testing in final application is recommended.

ENVIRONMENTAL RESISTANCE

Operating temperature

-35°C to +85°C / -31°F to +185°F

Peak temperature

+110°C / 230°F for 10min

Water resistance

IP68, tested for 5 hours in 1m deep water

Washing resistance

Tolerates washing with standard solvents. Washing process should be tested in final application.

Chemical resistance

No physical or performance changes in:

- 168h Motor oil exposure
- 168h Saltwater (salinity 10%) exposure
- 24h Sulfuric acid (10%, pH 2) exposure
- 24h NaOH (10%, pH 13) exposure

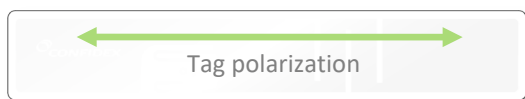
Acetone should be avoided

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 +17°C to +30°C (+62°F to +86°F), bond strength can be improved with firm application pressure and moderate heating up to 50°C (122°F). Application at temperatures below 15°C (59°F) is not recommended.

Minimum recommended bending diameter of the Confidex Ferrowave Classic™ is 100mm. Smaller diameters are recommended to be tested in final application. For optimal performance please bend the label in the orientation shown below.



PRINTER COMPATIBILITY

The Confidex Ferrowave Classic is tested and verified to work with the following printers:

- Zebra ZT411 On Metal
- Zebra ZT410 Silverline
- Sato CL4NX
- Printronix Auto ID T6000e
- Printronix Auto ID T4000

ORDER INFORMATION

Product number: 3003132
Product name: Confidex Ferrowave Classic™ MR6-P ETSI
Product number: 3003130
Product name: Confidex Ferrowave Classic™ MR6-P FCC

Product number: 3003093
Product name: Confidex Ferrowave Classic™ M4E ETSI
Product number: 3003091
Product name: Confidex Ferrowave Classic™ M4E FCC

Product number: 3003082
Product name: Confidex Ferrowave Classic™ UCODE 8m ETSI
Product number: 3003074
Product name: Confidex Ferrowave Classic™ UCODE 8m FCC

For additional information and technical support, please contact Confidex Ltd.

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