Product Datasheet

BEONTAG STEELWAVE FLEX

Description

Global and compact UHF RFID label optimized for metallic surfaces with flexible attachment on curved assets.

Electrical specifications

Device type
UHF RFID / EPCglobal Gen2v2

Operational frequency
Global 865-928MHz

IC options and memory configurations
Impinj M780
- EPC 496 bit; User 128 bit; TID 96 bit

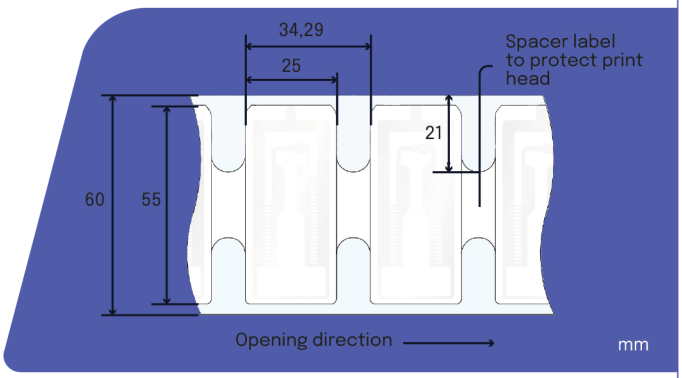
Read range (2W ERP)*
M780:
- On flat metal up to 8 m / 26 ft
- On Ø50mm radius metal up to 8 m / 26 ft
- On Plastic ETSI 2 m / 6 ft
- On Plastic FCC 5 m / 16 ft

Applicable surface materials*
All surfaces but performance optimized for metal

Attachment on curved surface*
Label can be attached on a curved surface with smallest
diameter of 50mm. For best performance follow the attachment instructions.

* Read ranges are theoretical values that are calculated for non-reflective environment. Different surface materials may influence performance.

Mechanical specifications



Label surface
White specially coated PP for high printing quality. Resin ribbon recommended.

Background adhesive
High tack adhesive with excellent adhesion to all surfaces including low surface energy plastics and painted metal.

Weight
1 g

Delivery format
250 pcs good labels on reel, bad ones marked with "XXX" printing. Typical yield >95%

Pitch on reel
34,29 mm / 1.35"

Reel core inner diameter
76 mm / 3"

Tag dimensions
55 (+0,5/-1,5) x 25 x 2.2 mm / 2.17 x 0.98 x 0.087"

Printer compatibility

The Beontag Steelwave Flex is tested to work with the Custom Zebra ZT410 RFID Silverline and ZT411 On-Metal printers.

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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

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

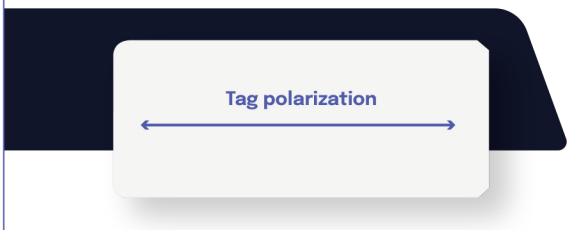
Chemical resistance
No physical or performance changes in:

- 168h Motor oil exposure
- 168h Salt water (salinity 10%) exposure
- 2h Sulfuric acid (10%, pH 2) exposure
- 30min NaOH (10%, pH 13) exposure
- Wiping with acetone

Storage condition
1 year in +20°C / 50% RH

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 Beontag for more specific information.

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 anufacturer'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.

Optimal read range is achieved when label is attached close to the edge of metal asset, like shown in below picture.

Smallest recommended bending diameter of the Beontag Steelwave Flex is 50mm. For optimal read range please bend the label in the orientation shown below. Note that with smaller assets it is recommended to bend the label to other direction for optimal adhesion.

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Order information

Product number: **3004304**
Product Name: **Beontag Steelwave Flex M780**

For other versions, additional information and technical support please contact Beontag.

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About Beontag

From the science of graphic and label materials, RFID and wireless IoT enablers, we create solutions across the value chain to deliver digital transformation for businesses around the world.

Sustainability is at the core of what we do and we strongly believe that by substituting non-renewable materials and innovating through more sustainable and renewable products, we act as an ESG enabler for our customers' value chain.

Beontag is one of the world's leading providers of RFID and wireless IoT solutions, being present in more than 40 countries with 7 R&D centers and 2,000 employees, in constant development of technological and sustainable solutions designed to connect items, and gain efficiency and end-to-end traceability