Product Datasheet

BEONTAG IRONSIDE CLASSIC DUAL



Description

Dual-frequency tag with shared RAIN RFID and NFC memory for harsh industrial applications with easy user interaction.

Electrical specifications

Device type
RAIN RFID / EPCglobal Gen2v2
NFC Forum Type 5

Operational frequency
RAIN RFID: Global 865-928MHz
NFC: 13,56 MHz

IC type
EM4425

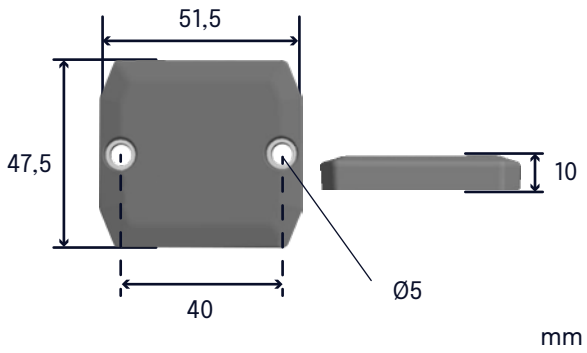
Memory configuration
HF: 64 bit UID
UHF: 288 bit EPC, 256 bit User
Shared user memory for HF and UHF: 1472 bits

Read range (2W ERP)*
-On metal - 7m
-On plastic - 3,5m

Applicable surface materials*
Works on any material.

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

Mechanical specifications



Tag materials
High quality engineering plastics. Surface thermoplastic elastomer.

Delivery format
Single

Amount in box
500 pcs

Weight
22g

Dimensions
51,5 x 47,5 x 10 mm/
2.03 x 1.87 x 0.39 in

Personalization options

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

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

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Environmental resistance

Operating temperature
-40˚C to +85˚C / -40˚F to +185˚F

Peak temperature
+125˚C /+257˚F 1h duration

IP classification
IP68

Expected lifetime
Years in normal operating conditions

Chemical resistance
No physical or performance changes in:
- 168 hour Motor oil exposure
- 168 hour Salt water (salinity 10%) exposure
- 168 hour Sulfuric acid (10%, pH 2) exposure
- 24 hour NaOH (10%, pH 13) exposure

Generally good against: Methanol (moderate concentrations), ethanol (moderate concentrations), glycerine, ethylene glycol, consistent grease, most acids, bases and tensides such as sulfuric acid 96%, nitric acid 10%, NaOH 50%, soap solution 30%. Testing recommended for hydrocarbons and carboxylic acids. Acetone should be avoided.

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

Beontag Ironside Classic Dual can be attached with several fixing methods:

1. 3M 300LSE high performance acrylic adhesive
When background adhesive is ordered the tag is delivered with adhesive attached. Clean and dry the surface for obtaining the maximum bond strength. 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 from +38˚C to +54˚C (+100˚F to +130˚F). Installation at temperatures below 10˚C (50˚F) is not recommended.

2. Structural adhesive
Structural adhesives such as 3M DP110 and SikaFast 5215 provide very high bond strength and resistance against mechanical stress. When tag is attached with structural adhesive, insert a layer of adhesive under the tag and press the tag on the surface. Increase the bond by adding extra sealant from the tag holes. Insert maximum 2mm layer of adhesive under the tag. Please contact adhesive supplier for exact fixing instructions.

3. Mechanical fixing - Screws M4, pop rivets 4mm
Mechanical fixing is always recommended for applications that includes risk for high mechanical stress or low temperature during the fixing. Make sure there is no air gap left in between the metal surface and tag.

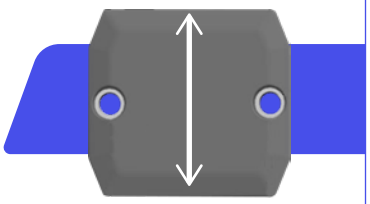
4. Additional fixing tools - welding bracket



When the application is too demanding for adhesives, but the metal surface cannot be punched for screw or rivet fixing, welding the tag with special bracket is an option for attachment. Welding bracket is made of stainless steel and allows attachment on both flat and curved surfaces.

With all attachment methods the optimal performance is achieved when there is metal left above the tag.
Tag orientation as shown with arrow should be considered when using linear reader antennas.

Leave metal above the tag



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Order information

Product number: **3005677**
Product Name: **Beontag Ironside Classic Dual EM4425V10**

Product number: **3005853**
Product Name: **Beontag Ironside Classic Dual EM4425V12**

Setup for the application:

- V10 has no HF crypto support with web authentication
- V12 has HF crypto mode enabled with web authentication

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.

CONTACT US FOR MORE INFORMATION:
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