

# Reliable industrial-grade Bluetooth® Low Energy tag for industrial identification and traceability

Beontag Viking Micro+ is a compact Bluetooth® Low Energy (BLE) device designed for high-volume asset tracking in challenging operational environments. It features a non-replaceable coin cell battery that delivers up to 8 years of lifetime typical usage. Eddystone™ (UID, URL, TLM) and iBeacon® open standard frame formats, enabling seamless integration across a broad range of BLE applications.

Viking Micro+ is built to withstand the most challenging environments. Its ultra-rugged and durable construction guarantees reliable performance, making it an ideal solution for demanding identification in sectors such as manufacturing, logistics, and heavy-duty operations.

## DIMENSIONS

Viking Micro+ CR2032 36x26x6 mm

Viking Micro+ CR2050 36x26x8 mm



**ASSET  
MANAGEMENT**



**LOGISTICS AND  
SUPPLY CHAIN**



**INDUSTRIAL  
MANUFACTURING**



**AUTOMOTIVE**



**RFIDCanada**  
Automating Identification

**BLE TAG**

**Viking Micro+**



## Electrical specifications

### Device type

Bluetooth® Low Energy tag, Battery powered

### Wireless interface protocol

Bluetooth® 5.3

### Compliance (Declaration of Conformity)

Europe (CE), UK (UKCA), USA (FCC), Canada (IC)

### Operational frequency band

2.4GHz ISM: 2402 – 2480 MHz

### System-on-Chip

InPlay IN100

### Configuration

One-time configured at ordering

### Sensors

Built-in temperature sensor\*, hall switch, battery Voltage

### Max transmit power

+4 dBm

### Read range\*\*

70m at 0dBm / 230 ft

### Battery capacity

non-replaceable coin cell

CR2032 220mAh

CR2050 380mAh

### Applicable surface materials

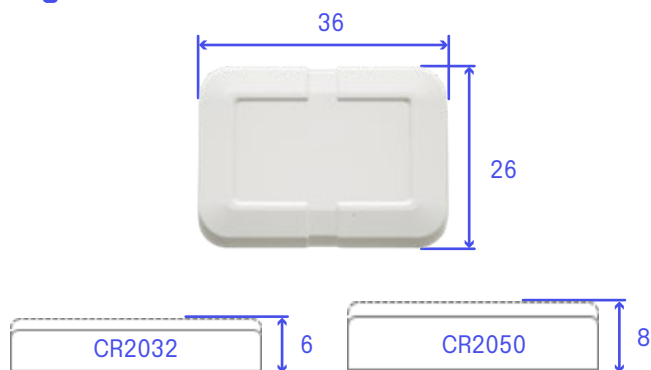
Can operate attached to any surface

\*Temperature sensor is located inside the housing, which limits real time measurement of the ambient temperature.

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



## Mechanical specifications



### Housing material

High quality PC+ASA  
PU  
Color: dark grey  
Pantone 433U

### Weight

CR2032: 10g  
CR2050: 14g

### Packaging amount and box size

CR2032: 30 pieces in box 30x40x250mm

### Dimensions

CR2032: 36 x 26 x 6mm  
/ 1.4 x 1.0 x 0.2inch

CR2050: 36 x 26 x 8mm  
/ 1.4 x 1.0 x 0.3inch



## Environmental resistance

### Operating temperature

-20°C to +60°C / -4°F to +140°F

### Water resistance

IP68, tested submerged at 1m for 5 hours

### ESD immunity

±8 kV according to EN 61000-4-2 (air discharge)

±4 kV according to EN 61000-4-2 (contact discharge)

### Chemical resistance\*\*\*

No physical or performance changes in:

- 168h Motor oil exposure
- 48h Salt water (salinity 10%) exposure
- 48h Sulfuric acid (10%, pH 2) exposure
- 48h NaOH (10%, pH 13) exposure

Generally good resistance with moderate concentrations of acids, alcohols, alkalis, detergents, and cleaners.

Acetone should be avoided.

\*\*\*Values 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.



### Supported frames



Eddystone is a trademark of Google Inc  
iBeacon is a trademark of Apple Inc.

Viking Micro+ tag utilizes Eddystone™ Eddystone, an open Bluetooth® Smart beacon format and/or iBeacon protocol, ensuring straightforward implementation on a wide range of Bluetooth® Low Energy devices.

Viking Micro+ is factory configured with customer-specific parameters to be used instantly with any third-party system. Vikings can also be personalized with a custom branded label to ease tag identification in the field.

Supported BLE advertisement beacon protocols:

- **Eddystone™-UID** frame broadcasts 16-byte Beacon ID composed of a 10-byte namespace and a 6-byte instance.

- **Eddystone™-TLM** frame broadcasts telemetry information (e.g. SoC voltage and temperature).
- **iBeacon®** frame type supported with advertising 16 bytes UUID, 2 bytes Major, and 2 bytes Minor.
- **Manufacturer Specific data**

### Expected lifetime\*\*\*\*

Typical lifetime at 6s UID advertisement interval, 0dBm:

6 years with CR2032

8 years with CR2050

\*\*\*\* Beacon lifetime is optimized for long term use, however highly affected by operating mode parameters and ambient conditions. Configured TX power level and advertisement interval have influence on lifetime



### Installation instructions

#### 1. High performance Acrylic adhesive

Mounting the tag with high performance acrylic adhesive can be used in most applications and surfaces. Clean and dry the surface to obtain the maximum bonding strength.

#### 2. Mechanical fixing Cable tie

Plastic or metallic cable ties can also be used for fixing Beontag Viking Micro+ at the middle of the tag. The maximum width of a cable tie is 4 mm.



### Activation

The Beontag Viking Micro+ must be activated once by using a **magnet**.

To activate touch a magnet to the area on the front indicated:



### Order informations

#### Viking Micro with standard settings

3005640 Viking Micro+ CR2032 (0dBm Eddystone with 5s interval + TLM)

3005641 Viking Micro+ CR2032 (0dBm iBeacon with 5s interval + TLM)

3005642 Viking Micro+ CR2050 (0dBm Eddystone with 5s interval + TLM)

3005643 Viking Micro+ CR2050 (0dBm iBeacon with 5s interval + TLM)

#### Viking Micro personalized with custom settings

300.... Viking Micro+ CR2032 personalized settings and label

300.... Viking Micro+ CR2050 personalized settings and label

For availability and additional information please write to [contact.BLE@beontag.com](mailto:contact.BLE@beontag.com)

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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  
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