PRODUCT DATASHEET
Confidex Viking™ Slim

Reliable industrial grade Bluetooth® Low Energy beacon for industrial identify, sense and locate applications.

ELECTRICAL SPECIFICATION

Device type
Bluetooth® Low Energy beacon, Battery powered

Wireless interface protocol
Bluetooth® 5.1
NFC: ISO/IEC 14443A

Compliancy (Declaration of Conformity)
Europe (CE), UK (UKCA), USA (FCC), Canada (IC)

Operational frequency
ISM: 2402 - 2480 MHz
NFC: 13,56 MHz

System-on-Chip
Nordic Semiconductor NRF52832

Memory configuration
512 kB FLASH, 64 kB RAM

Configuration interface
Over NFC interface with Confidex Runestone™ mobile app (available for android mobile phones in Google Play store)

Sensors*
Built-in temperature sensor, LED and hall switch
Optional accelerometer

Sensitivity / Max transmit power
-96 dBm / +4 dBm

Read range**
Up to 100 m / 330 ft

Battery type (total capacity)
Replaceable CR2477 (1000mAh) coin battery

Applicable surface materials
Can be attached to any surface

MECHANICAL SPECIFICATION

Housing material
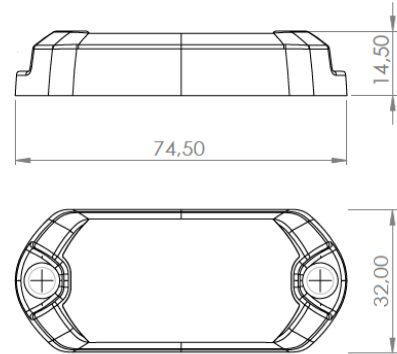High quality PC/ASA, white RAL9003 (15% recycled)

Enclosure IP class
IP67, high quality PC/ASA + PC/ABS + TPE

Weight
25 g

Tag dimensions
74,5 x 32 x 14,5 mm / 2.95 x 1.26 x 0.57 (M5 size hole)

ENVIRONMENTAL RESISTANCE

Operating temperature
-20°C to +60°C / -4°F to +140°F
EN 60068-2-14: 2009, Test N: Change of temperature

Vibration resistance
EN 60068-2-6: 2008, Test Fc: Vibration, 10G
EN 60068-2-27: 2009, Test Ea: Shock, 20G

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.

Expected lifetime**
3-4 years with typical operating parameters

***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 Confidex for more specific information.
**** Beacon lifetime is optimized for long term use, and is highly affected by operating mode parameters, accelerometer usage and ambient temperature. Configured TX power level and advertisement interval have influence on lifetime.

* Temperature sensor is located inside the housing, which limits real time measurement of the ambient damperature.
** Read ranges can vary significantly depending on the mounting surface and environment.

SUPPORTED FRAMES

Confidex Viking™ beacon utilizes Eddystone™ open standard frame format and/or iBeacon protocol ensuring straightforward implementation on a wide range of Bluetooth® Low Energy devices.

Confidex Viking™ Slim comes with standard parameters by default. It can be factory configured with customer specific parameters to support any 3rd party system. Confidex™ Viking can also be personalized with a custom label to ease the tag identification in the field.

Following Eddystone™ frame types are supported:
- **Eddystone™-UID** frame broadcasts 16-byte Beacon ID composed of a 10-byte namespace and a 6-byte instance.
- **Eddystone™-URL** frame broadcasts a URL using a compressed encoding format.
- **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.
- **Accelerometer** frames (optional) are proprietary advertising packets which broadcasts Confidex Viking™ acceleration statistics and activity.

INSTALLATION INSTRUCTIONS

1. Mechanical fixing – Screw

Mechanical fixing is recommended to be used in every application that includes risk for high mechanical stress or low temperature during tag fixing. Screw size M5 is to be used for fixing.

2. Mechanical fixing – Cable tie

Plastic or metallic cable ties can also be used for fixing Confidex Viking™. Maximum width of cable tie is 4 mm.

3. High performance acrylic adhesive

When mounting the tag with adhesive, clean and dry the surface for obtaining the maximum bond strength.

ORDER INFORMATION

3003960 Confidex Viking™ Slim, no accelerometer
  - White, default configuration and no label

3004056 Confidex Viking™ Slim, no accelerometer
  - White, customer specific configuration and label

3004057 Confidex Viking™ Slim, with accelerometer
  - White, default configuration and no label

3004058 Confidex Viking™ Slim, with accelerometer
  - White, customer specific configuration and label

3004125 Confidex Viking™ Slim Sample Kit
  - Contains 5 pcs of item 3004057

Availability: Please contact Confidex Smart Industries Sales at www.confidex.com/contact-us

For additional information and technical support, please contact us in contact.BLE@confidex.com

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contact.BLE@confidex.com   www.confidex.com