

# PRODUCT DATASHEET

## Confidex Viking Tough™



Reliable extra durable industrial beacon for identifying, sensing and locating applications.

### ELECTRICAL SPECIFICATION

#### Device type

Beacon based on Bluetooth Low Energy chipset

#### Air interface protocol

Bluetooth 4.2

Compatible with Wirepas Connectivity

NFC: ISO/IEC 14443A

#### Compliance

FCC-ID: 2AMK9-CFXBLE-1

#### Operational frequency

ISM: 2.45 GHz

NFC: 13,56 MHz

#### SOC

Nordic Semiconductor NRF52832

#### Memory configuration

512 kB FLASH, 64 kB RAM

#### Configuration interface

NFC interface for fast deployments and configuration

#### Sensor

Built-in temperature sensor; other sensors by request

#### Sensitivity

-96 dBm sensitivity (Bluetooth Low Energy)

#### Read range\*

Up to 200 m / 650 ft

#### Battery type

2 x CR2477 coin battery for maximal lifetime

#### Applicable surface materials

Can be attached to any surface

\* Read ranges are measured in laboratory environment and there can be some variation in real application.

### MECHANICAL SPECIFICATION

#### Encapsulation materials

Polyurethane coating

#### Weight

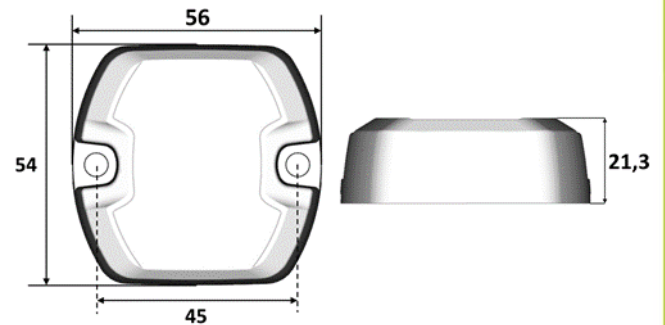
70 g

#### Delivery format

Single

#### Tag dimensions

56 x 54 x 21,3 mm / 2.20 x 2.13 x 0.84 in



### ENVIRONMENTAL RESISTANCE

#### Operating temperature

-20°C to +60°C / -4°F to +140°F

#### Water resistance

Good, tested 5 hours in 1m deep water (IP68)

#### Vibration resistance

JESD22-B103B, service condition 1; 3-axis vibration with 20G acceleration

#### 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

Up to 60 months (depending on operating mode)\*\*

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

*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 Confidex for more specific information.*



Confidex Viking Tough™ supports following Eddystone™ frame types:

**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 as temperature.

**Eddystone™-EID** frame broadcasts and encrypted ephemeral identifier that changes periodically. Eddystone™-EID frame operating mode requires service for resolving the ephemeral ID. Please contact Confidex for more information.

## INSTALLATION INSTRUCTIONS

Confidex Viking Tough™ can be attached with several fixing methods:

### 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 Tough™. Maximum width of cable tie is 4 mm.



### 3. High performance acrylic adhesive (optional)

When background adhesive is ordered the tag is delivered with adhesive attached. When mounting the tag with its adhesive background, 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.

## ORDER INFORMATION

**Product number:** 3002061

**Product name:** Confidex Viking™ Tough

**Availability:** Please contact Confidex Smart Industries Sales at [www.confidex.com/contact-us](http://www.confidex.com/contact-us)

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

### DISCLAIMER

THE MATERIALS, PRODUCTS AND SERVICES ARE SOLD SUBJECT TO ITS STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, CONFIDEX MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN CONFIDEX STANDARD CONDITIONS OF SALE, CONFIDEX AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN.

Each user bears full responsibility for making its own determination as to the suitability of Confidex products, materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished systems incorporating Confidex products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Confidex.

