

PRODUCT DATASHEET

Confidex Viking Tough™



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

ELECTRICAL SPECIFICATION

Device type

Bluetooth® Low Energy beacon

Air interface protocol

Bluetooth 4.2

NFC: ISO/IEC 14443A

Compliance

CE certified

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

* Sensor is located inside the plastic housing, which limits real time measurement of the ambient temperature. Sensor calibration is available as additional service.

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

MECHANICAL SPECIFICATION

Encapsulation materials

Polyurethane coating

Weight

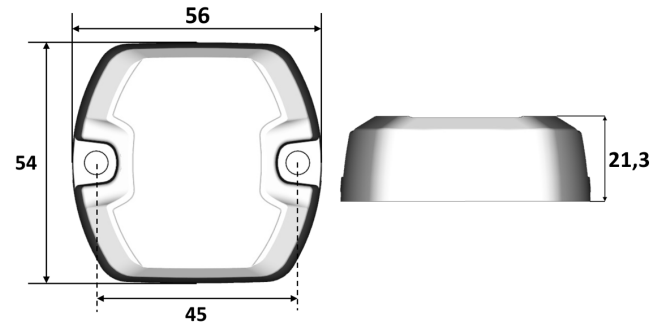
70 g

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 10 years (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.

OPERATING MODES



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

Confidex Viking™ Tough beacon can be configured to be compatible with AirFinder by LinkLabs, Trimble and HERE operating modes.

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

When mounting the tag with adhesive, 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

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

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