Actility
Connecting with intelligence

Workplace Management Guide

QUICK STARTER GUIDE

REVISION 2.0

MARS 2021

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1. INTRODUCTION

In a post-pandemic world, workspace management is essential be it in offices or in public spaces. Our solution will make sure that the flow of people, their actions and the quality of the air will be easily monitored on a dashboard.

This **Workplace Management solution**, powered by Elsys, Skiply, Parametric and Vertical M2M, is an ideal to measure people flow in your office or retail space and will greatly help your decision-making process.

This tutorial provides you with the key steps to complete to get started with this solution.

- Step 1: Connect ThingPark Community to Vertical M2M application (section 3)
- Step 2: Activate your device on ThingPark Community (section 3.2)
- Step3 : Deploy your device.

2. WHAT DO YOU NEED TO GET STARTED ?

In order to complete this tutorial, you will need at least :

- The "Passage Monitoring Evaluation Kit" available on ThingPark Market. This kit contains the required hardware and software parts to implement the solution:
  - 1 x Elsys ERS CO2 and its accessories
  - 1 x Parametric PCR2 and its accessories
  - 1 x Skiply Smilio A – Timekeeping
  - 1 x three-month access to the Vertical M2M application.
- A ThingPark Community account with an active LoRaWAN™ gateway.
- If you don't have a gateway, you can purchase one on ThingPark Market, ready to be activated on ThingPark Community.

3. CONNECT THINGPARK COMMUNITY TO VERTICAL M2M APPLICATION

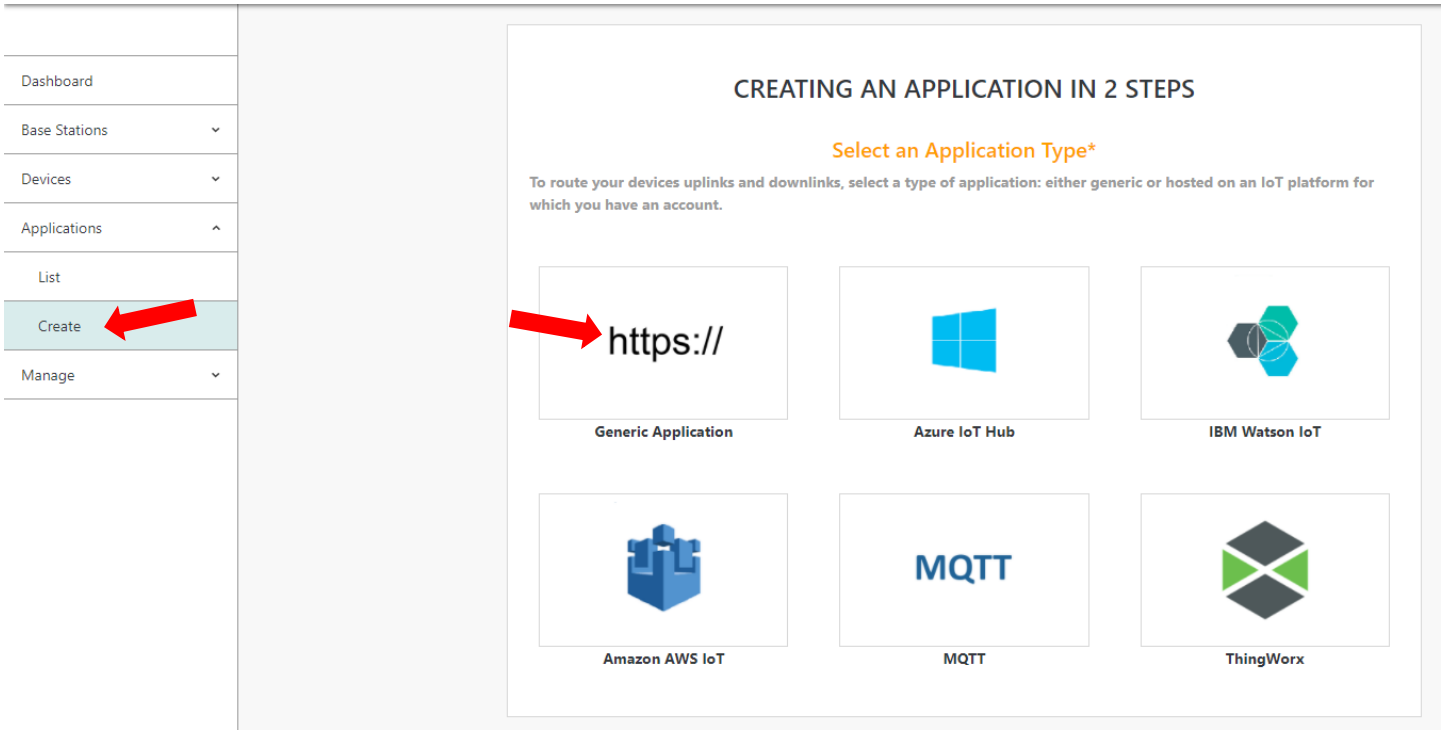
Your ThingPark Community application are accessible through the following URL:

https://community.thingpark.io/

Once you log in, you should see a screen displaying the number of base stations and devices you've connected on this account as well as their status. No device or base station should be connected for now.

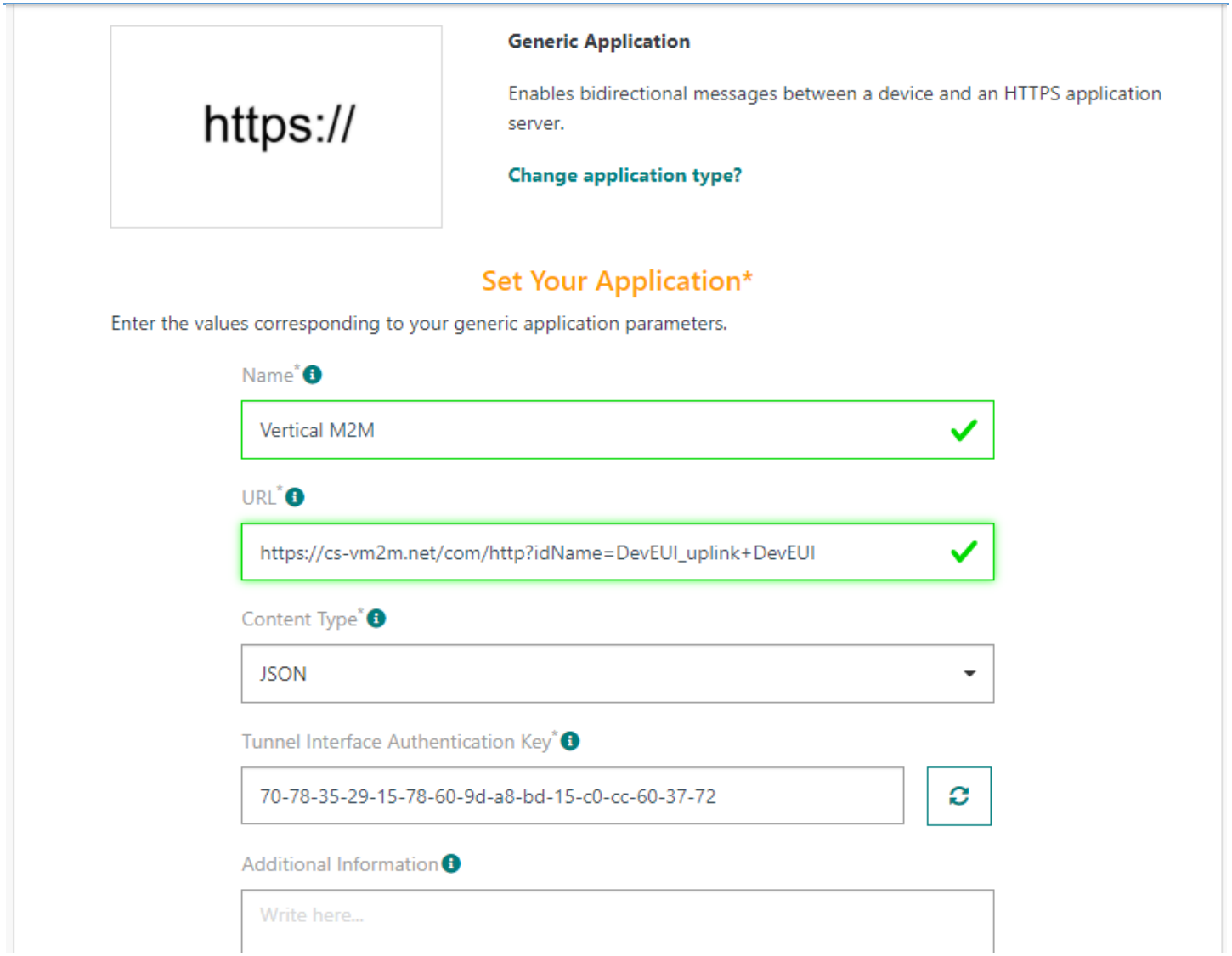
3.1 CREATE AN APPLICATION IN THINGPARK

Select "Application > Create" on the list on the left to create your Vertical M2M application, it is mandatory in order to send the device's messages to Vertical M2M; select the "https://" option.



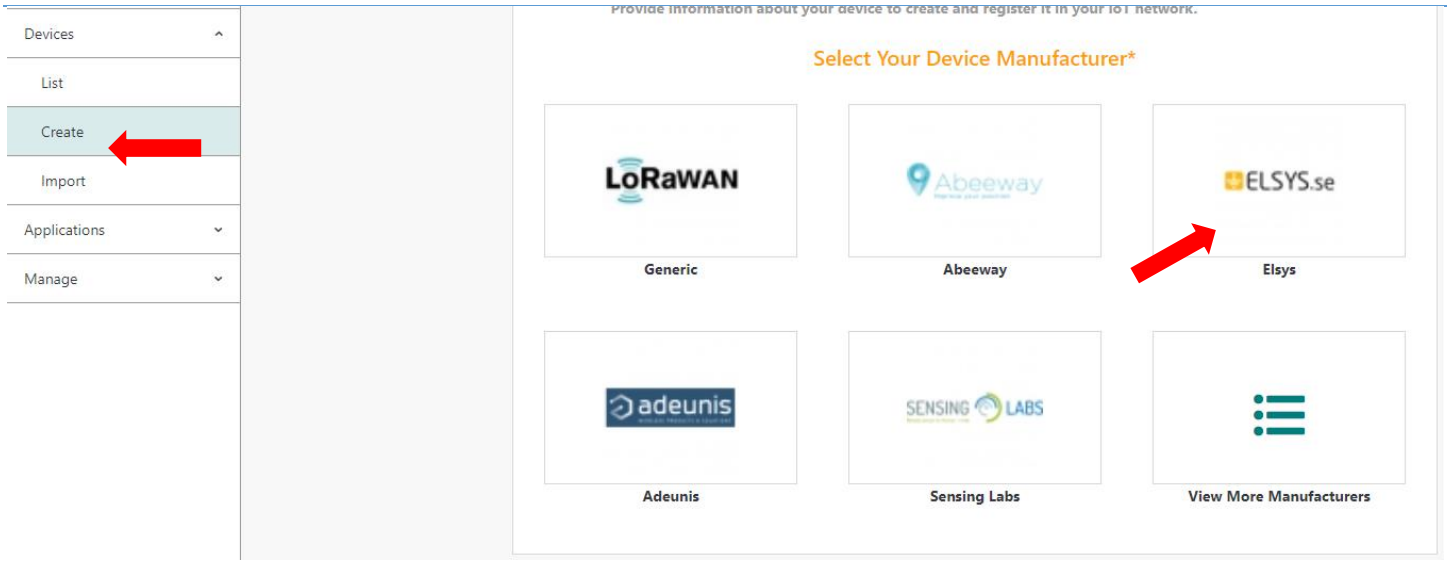
A few fields are to be filled in order to complete this operation:

- **Name**: Name of your application displayed in ThingPark Community
- **URL**: you **MUST** enter the following URL: https://cs-vm2m.net/com/http?idName=DevEUI_uplink+DevEUI
- **Content Type**: **DON'T CHANGE IT**
- **Additional information**: can be filled with useful information such as the device location.



3.2 CREATE A DEVICE IN THINGPARK

Now that you have your application, you can add your device on ThingPark too.
Go to “Device > Create” on the list on the left, if Elsys is in the list of the device manufacturers, select it, if it’s not, select “View more manufacturers”.

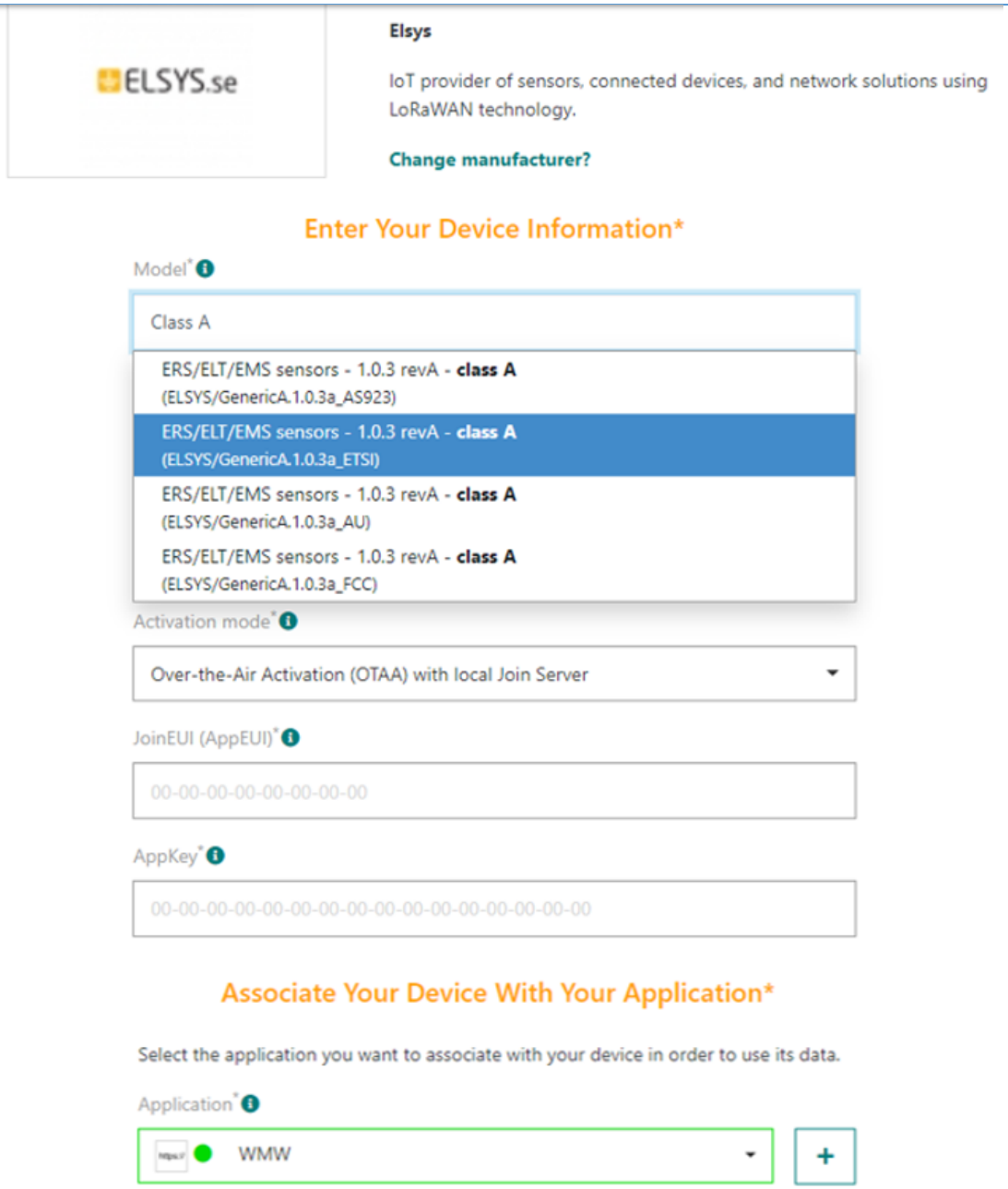


Once again, you will have to fill field to create your device:

- **Model**: Choose a Class A model that correspond to your region (AS923 correspond to Asia, AU is for Australia, ETSI is for Europe and FCC is for the United-States).
- **Name**: The name your device will have in ThingPark Community.
- **DevEUI, AppEUI and AppKey**: Codes you should have received with your device.

Select the application you created for Vertical M2M; it should have a green dot showing that it's working well.

Leave the mode to "No location" and click on "Save" finalize the operation.



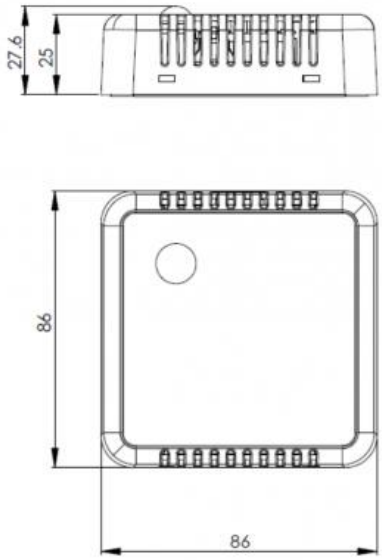
Repeat the operation for the Skiply device as well as for the Parametric one. For both of them, select “Generic” as their Device Manufacturer as for their model, the Skiply Smilio is a “LORAWAN 1.0.3 revA - class A” and the PCR2 is a “LORAWAN 1.0.2 revB - class A”.

4. OVERVIEW OF THE DEVICES

4.1 THE ELSYS ERS CO2

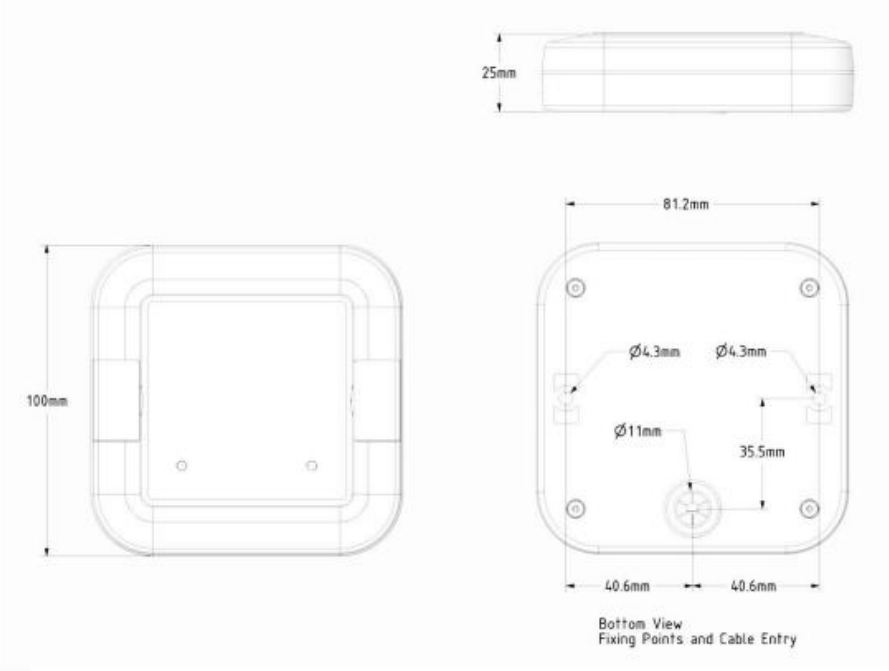
ERS sensors are LoRaWAN™ room sensors for measuring indoor environment. ERS CO2 is enclosed in a room sensor box and it is designed to be wall mounted. Inside the ERS CO2 you will find five internal sensors: co2 sensor, temperature sensor, humidity sensor, light sensor, and a motion sensor (PIR). ERS CO2 is powered by

two 3,6V AA lithium battery. The Battery life is estimated to be up to 10 years but depends on sample interval, transmit interval, data rate and environmental factors.



4.2 THE PARAMETRIC PCR2-IN

PCR2 Indoor are camera-less peopleflow sensors for indoor use with LoRaWAN connectivity. The system includes powerful signal processing that enables directional measurement. Counters are transmitted in regular intervals over a public or private LoRaWAN network. It can be powered by a wide range of power supply from 12 VDC to a USB 5V.



4.3 THE SKIPLY SMILIO A - TIMEKEEPING

Smilio A – Timekeeping is a system of 5 connected buttons which guarantees a more efficient monitoring of staff interventions, notably on distant sites: proof of presence (clocking of arrivals / departures), authentication through a unique 5-digit code.

The central button can be configured as a call button or report any problem that needs a particular corrective action. Thanks to an integrated badging device, Smilio A can also be used by employees equipped with magnetic badges. Some SMS/Email alerts can be automatically triggered in case of abnormalities, thereby enabling better emergency management (replacements, delays) and appropriate communication towards final customers. With Smilio A – Timekeeping, you likely have trusted indicators to demonstrate your engagements and optimize your quality of service.

5. STARTING UP YOUR DEVICES

5.1 BOOT YOUR DEVICE

5.1.1 THE ELSYS ERS CO2

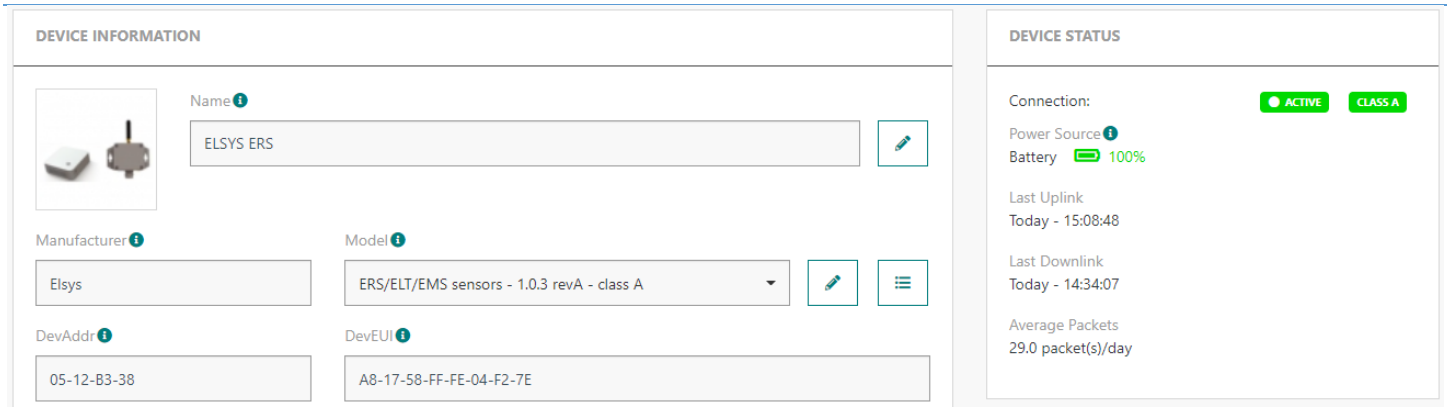
To install the batteries, you need to remove the 4 screws.

Once the batteries are plugged, the device will automatically start a Join Request to the network.

If it doesn't work, use the app "Sensor Settings" on an android phone to change the sensor configuration through NFC. Put your phone on the device, pick the parameters you want and click on write to confirm the new settings of your device. More information can be found here.

By default, the sensor will report all its properties every 5 minutes.

Once your device is active, you should be able to see it on ThingPark. In "DEVICE STATUS" there should be a green "ACTIVE" written in the top right.



5.1.2 THE PARAMETRIC PCR2-IN

There are no batteries, but you need to open the device in order to set it up. Here is a quick start guide to start up your device. If you need more information, the user manual can be found here.

By default, the PCR2 will have a measurement interval of 10 minutes and its uplink acknowledgement deactivated.

5.1.3 THE SKIPLY SMILIO A - TIMEKEEPING

To install the batteries, you need to remove the 4 screws.

Once the batteries are plugged, the device will automatically start a Join Request to the network. Throughout the boot process, the LEDs will blink alternatively green and red. More information can be found in the section 9 of the user manual.

The default settings are also available at the section 15.

5.2 DEVICE INSTALLATION

5.2.1 THE ELSYS ERS CO2

The Elsys ERS is equipped with 6 holes and can be mounted on any location; more information can be found in the “Installation” section of the operating manual.

5.2.2 THE PARAMETRIC PCR2-IN

The Parametric PCR2 has two holes on each side and can be mounted on either the walls or the ceiling; more information can be found in the “Installing the device” section of the quick start guide.

5.2.3 THE SKIPLY SMILIO A - TIMEKEEPING

The Skiply Smilio A is made to be mounted on displays such as those available on the Skiply’s website.

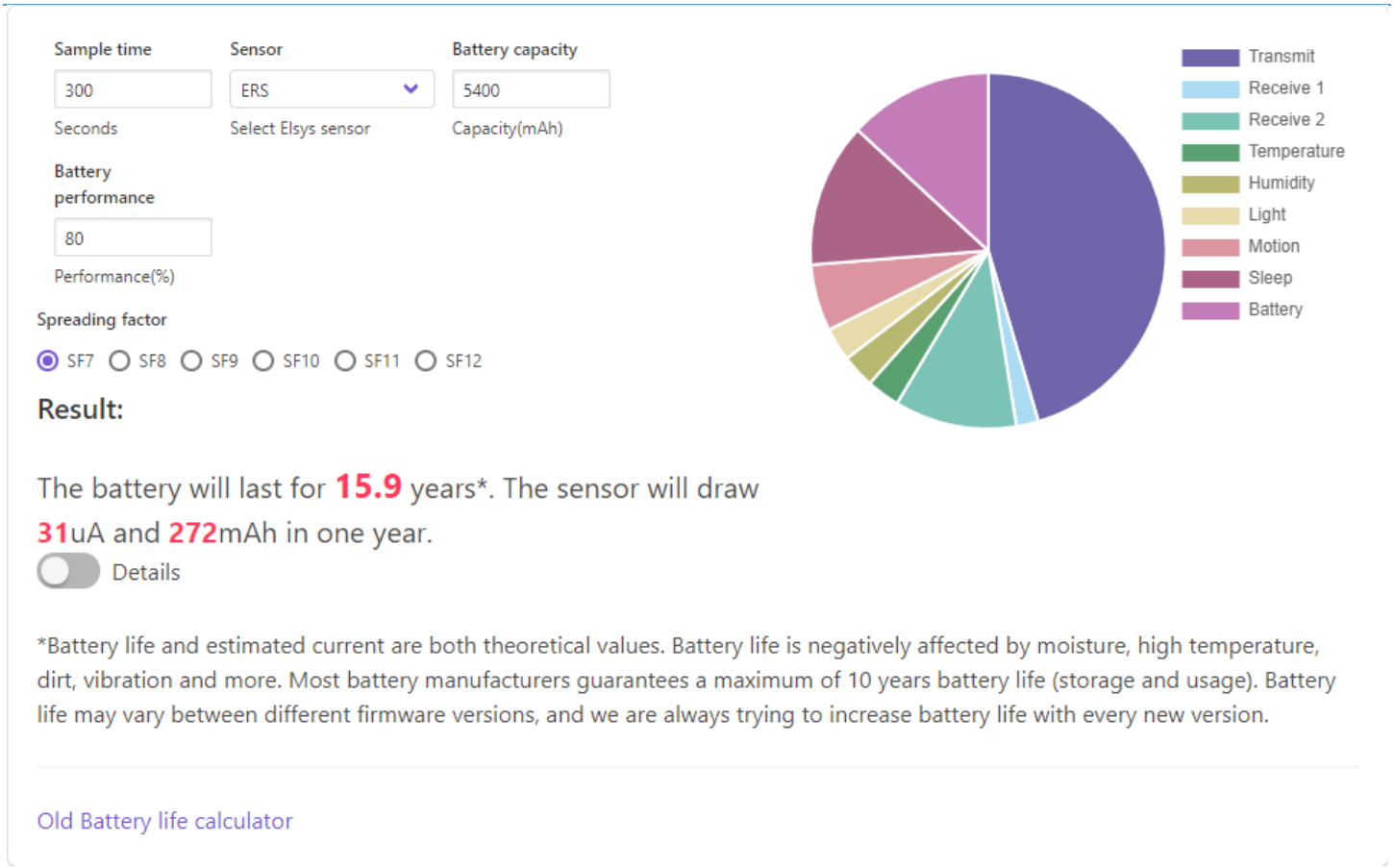
6. LOGIN TO VERTICAL M2M

You will find the user guide by Vertical M2M here.

7. COMPLEMENTARY INFORMATION: BATTERY LIFE CALCULATOR FOR ELSYS

Elsys is providing a calculator to estimate the battery lifetime of the device. https://www.elsys.se/en/battery-life-calculator/#

Based on the default configuration the estimated battery life is expected for 16 years for a device working at SF7.



Battery Life Estimation using SF7