



# SenlabT<sup>©</sup>

## Quick User guide

SENSING-LABS  
EXTERNAL DOCUMENTATION  
V1.0

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Thank you for your choosing our Senlab product !  
We hope you will find the instructions on this user manual clearly and easily to follow.

Please note that this Quick User Guide is only valid for V1.0 Engineering sample version.

## Network activation

### Starting configuration

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The devices you have received are delivered in a "stand-by mode" waiting to be activated and with the pre-configured activation process that you've asked for:

- ABP (Activation by personalization) or
- OTAA (Over-the-air activation)

*For OTAA: Device EUI, Application EUI and application Key are already configured.*

*For ABP: Device EUI, Application EUI, device address, network id, network session and application session keys are already configured.*

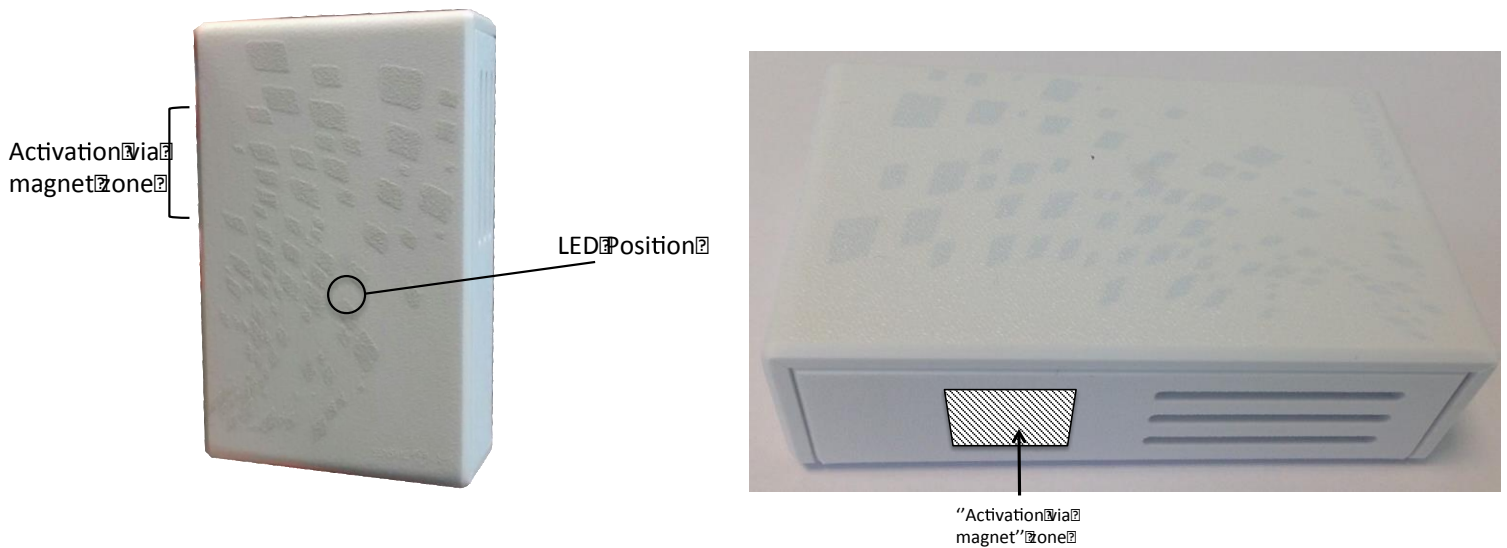
## Start the product

To start the product :

1. Put the magnet on the side of the product (as outlined in the pictures below) during 1 to 2 seconds to activate the product (i.e pulse counting, datalogging and radio sending).
2. The green LED of the product will start blinking rapidly during the « search network » process (that should last around 5 sec), then :
  - Once the network is found and the activation is done, the LED is illuminated during 2 seconds.
  - If not, the LED will end its 5 seconds blinking without any other lighting. The product will then come back to its stand-by mode and will be ready for a new activation attempt.

Nota : Once activated, if you pass the magnet over the activation zone again, the LED will blink during 2 second but it will not disturb the correct operation of the product.





## Return to the stand-by mode

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Once activated, two options are available to put the product back in the stand-by mode :

Option 1 : Send to the concerned product a **04FF command** on port 0 via the **Network Server**.

Option 2 : Send the following "Stand-by mode request" via the **Application Server**

```
POST http://{AppServerURI}/NwkV1.0/{devEUI}/MAC_COMMAND
TYPE x-www-form-encoded
FORM_PARAM command = 04FF
```

The request will be automatically be taken into account just after the next radio communication coming from the SenlabT. No confirmation is returned by the product.

# Application configuration

## Temperature

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The SenlabT product starts log periodic temperature once activated.

If the product is deactivated, it will stop counting the pulses of the meter it's connected to and will start again from zero once activated again.

## Datalog

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2 type of measures are collected in each datalog transmission

- Temperature (Float value, Unit T°C)
- Battery level (Unsigned integer value, Unit %)

The following request operations are supported

- request\_write\_datalog\_cfg - used for datalog configuration with parameters:
  - index log period (REQ - frequency of temperature value acquisition in x2 seconds) (minimum 1min; maximum 24h)
  - number of logs transmitted by message (REQ - in x2 seconds) (multiple of log period; minimum 1min; maximum 24h)
  - Log transmission random activation (OPT - Boolean) – add datalog transmission random feature to maximize device datalog reliability
- request\_shift\_log\_tx – used for shifting the datalog transmission with parameters:
  - log period (only for internal check)
  - shift log transmission (multiple of log period in x2 seconds)
- request\_reset\_battery\_level – used for reinit the level battery (when battery changed for indoor version)

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