



D1184A Technical Guide

NODE One

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I. Product Overview

1. Key Features

The NODE One temperature sensor is an accessory compatible with the **FLOW** thermostatic head. It enables remote temperature measurement, which more accurately reflects the room's ambient temperature, thereby improving the precision of FLOW's temperature control.

Using a NODE One remote sensor allows you to:

- Minimize the radiator's influence on the temperature reading
- Freely position the sensor anywhere in the room, taking into account installation height, distance from windows, or any other source that could affect the temperature reading.
- Control one or more FLOW thermostatic heads using a single temperature reading.

The NODE One sensor must be installed in an environment close to the FLOW thermostatic head, ideally in the same room, with a recommended maximum distance of 20 m.

When a NODE One sensor is available and paired with FLOW, temperature control is based on the reading provided by the sensor. If the sensor is unavailable or communication is interrupted, FLOW automatically switches to the reading from its internal temperature sensor.

NODE One communicates directly with FLOW. Information regarding the sensor is then transmitted by FLOW via LoRaWAN.

2. Product Diagram

DIMENSIONS & WEIGHT

Dimensions: 66 x 28 mm

Weight: 45 g (including battery)



3. Kit Description



1x NODE One remote sensor



1x CR2450 battery



1x anti-theft screw



1x screw and anchor mounting kit



1x Adhesive

4. Operating Environment and Certifications

PRODUCT USAGE CONDITIONS

- > Indoor environment
- > Temperature: -20°C to +60°C
- > Relative humidity: 0% to 99% RH (non-condensing)

CERTIFICATIONS

The applicable certifications and associated declarations of conformity are available on the Nexelec support website at support.nexelec.fr

5. Support and Integration Assistance Tools

Product documentation and tools can be found on our website at support.nexelec.fr.

If you have any questions, our support team can be reached by email at: support@nexelec.fr.

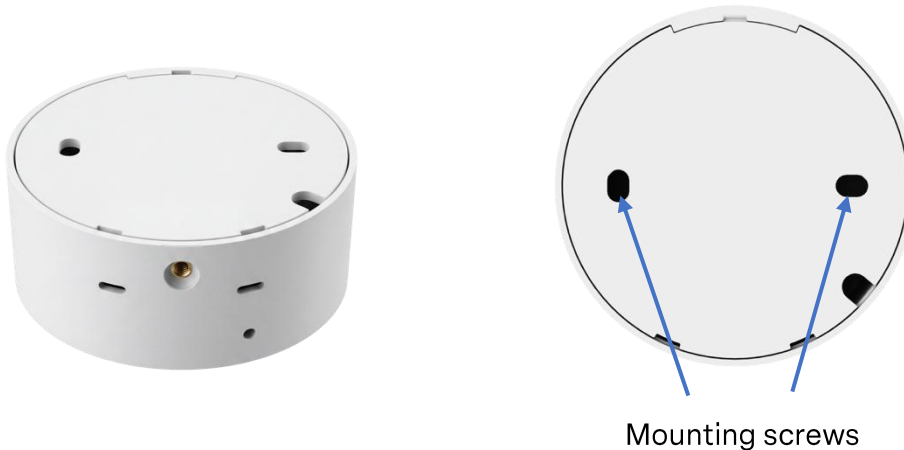
II. Product Installation

1. Setup

The product can be placed on a piece of furniture or mounted on the wall.

For wall mounting, there are two options:

- Mounting using the screws and anchors provided:
 - o Choose a suitable location for wall-mounting the sensor
 - o Remove the mounting base from the product
 - o Mark the locations of the mounting holes on the wall with a pencil
 - o Drill the holes, then insert the provided wall anchors
 - o Screw the mounting base to the wall
 - o Insert your product into the mounting base and secure it using the screw located on the bottom edge of the product'



- Mounting using the double-sided adhesive tape provided:
 - o Choose a suitable location for wall-mounting the sensor
 - o Remove the mounting base from the product
 - o Apply the double-sided adhesive tape to the back of the base and press firmly for about 10 seconds.
 - o Remove the second protective film from the adhesive
 - o Place the mounting base on the wall and apply pressure for about 10 seconds.
 - o Insert the product into the mounting base, then secure the assembly using the screw located on the bottom edge of the product



2. Anti-Theft Mounting

The product comes with an anti-theft screw to secure it to its mounting base. Once the screw is installed, the product can only be removed from its base using a special tool.



3. Anti-tear detection

The product is equipped with a system that verifies whether it is correctly positioned on its mounting base.

The sensor's positioning status on its base is transmitted to the FLOW thermostatic head during periodic communication, which occurs every 10 minutes. The head then transmits this information via a LoRaWAN message.

Consequently, if the sensor is removed and then replaced on its mounting base between two periodic communications, this temporary removal may not be detected or transmitted.

4. Product Setup

— 01. Product Power Supply

- The product is powered by a 3V CR2450 battery.
- To set up your product, insert the battery into the designated compartment in the direction indicated on the product.



— 02. Pairing a NODE One Sensor with FLOW

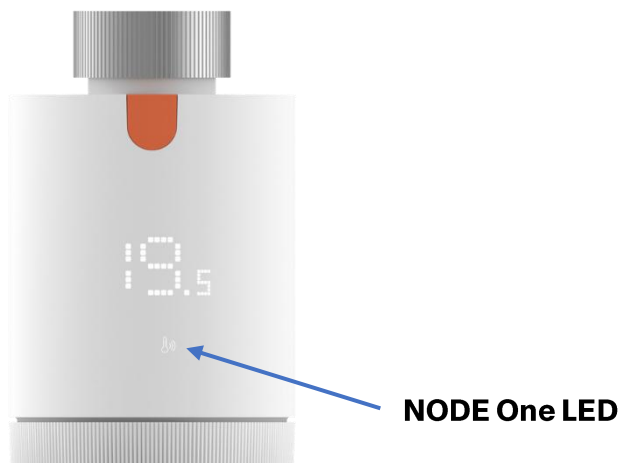
To pair a NODE One sensor with a FLOW thermostat head, follow these steps:

- Install the FLOW thermostatic head on the radiator, then insert the batteries
- Wait for FLOW to finish initializing (about 40 seconds)
- Activate FLOW's pairing mode by pressing the dial three times in a row: A running light pattern will appear on the head's LEDs, indicating that FLOW is ready for pairing

- Place the NODE One sensor in its designated location before proceeding with pairing with a FLOW thermostatic head.
- Insert the battery into the NODE One sensor.
- When powered on, NODE One automatically enters pairing mode for about 1 minute. The sensor's LED flashes during this phase.



- Wait for the pairing process to complete.
 - Pairing successful: The "NODE One" LED on FLOW remains lit steadily for 5 seconds.



- Pairing failed: the FLOW "NODE One" LED flashes. In this case, move the two devices closer together if necessary and repeat the procedure.

Note - The NODE One sensor's pairing mode can also be initiated manually by briefly pressing the button. The sensor remains in pairing mode for 1 minute. During this phase, the green LED flashes.



III. B utton and LED

NODE One has a pairing button on the bottom edge of the device.

A short press of this button activates the sensor's pairing mode. The sensor remains in this mode for 1 minute. During this phase, the green LED flashes.



Button press type	Actions triggered	LED
Short press	Launches pairing mode	LED flashes for 1 minute

IV. Environmental measurements

ACCURACY AND RESOLUTION

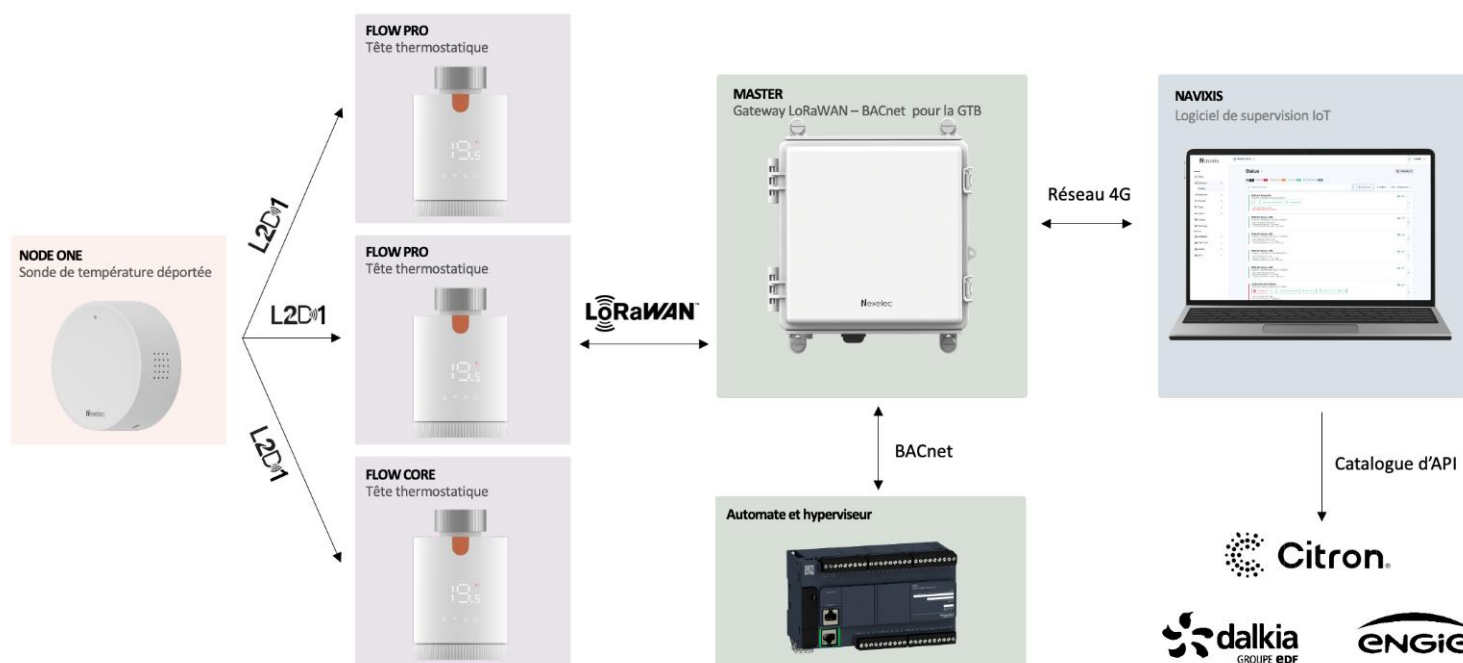
Type	Unit	Range	Resolution	Accuracy	
				Typ.	Max.
Temperature	°C	-30 – +70	0.1	±0.2 °C	±0.4 °C

V. Network Settings

The NODE One sensor communicates with the FLOW thermostatic head via Nexelec's proprietary L2D1 wireless protocol.

Every 10 minutes, NODE One transmits several pieces of information to FLOW: the measured temperature, the operational status of its temperature sensor, whether its mounting base is present or absent, and its battery level.

The FLOW head then forwards this data to the LoRaWAN network.



VI. Markings



Tracking Changes

Document Revision	Details	Date
A	Created	June 11, 2026