



NOTICE



DELTA L + MINI

The world's smallest connected crack monitoring sensor



The DELTA L+ mini provides precise and autonomous crack monitoring, as well as tracking the impact of façade sun exposure.



Installed in just a few seconds using patented adhesive bonding, without tools or drilling, it can be installed by hand, even on delicate substrates such as those containing asbestos.

It is the world's smallest connected crack monitoring sensor.



Installation

In less than 3 seconds



Precise

0,01 mm / 1°C
Measuring range 20 mm



Plug & Play

Easy to use and install



Autonomie

3.6 V battery – 2.6 Ah



Connected

LPWAN network
or Bluetooth



Mechanical



Bonded
(in 3 secondes)



Angled installation

Features

Battery 3,6 V - 2,6 Ah - Battery life 1 to 5 years*	Weight 150 g	Dimensions 14,5 cm x 4,7 cm x 3,5 cm
Resolution 0.01 mm - 1°C	Connectivity Bluetooth & LPWAN radio	Protection IP66
Accuracy 5 µm - 0,5C° (+/-)	Measurement interval from 10 min to 24 h	2 mounting options
Internal memory 250,000 measurements	Operating temperature -25C° to +70C°	Measurement range 0 to 20 mm (+/- 1 mm)

* Depending on the selected measurement interval, sensor exposure, and data transmission mode (Bluetooth, LPWAN, etc.).

CONTENTS

01

Packing list

P01_ Package contents

02

Recommendations

P02_ Mounting advice

03

The application

P03_ Download the application

P04_ Connect your sensor

04

Sensor start-up

P05_ Start the sensor

05

Install your sensor

P06_ By bonding

P06_ Mechanical

P07_ Angled installation

06

Good to know

P08_ Tips

07

JC1 installation

P09_ Installation

08

Webmonitoring

P10_ Web monitoring / Remote connection

09

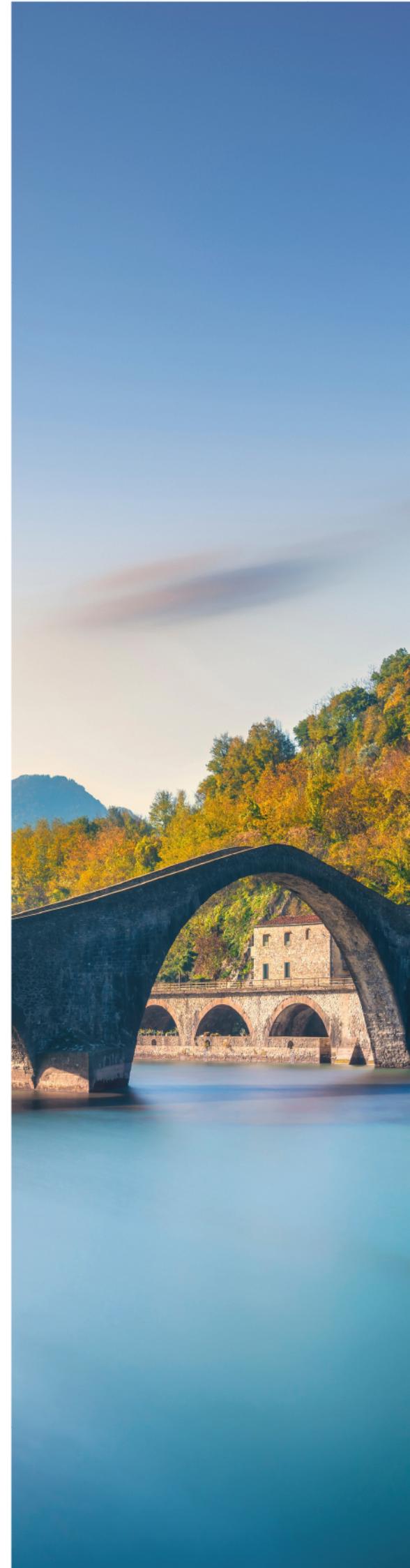
Use cases

P11_ Use cases

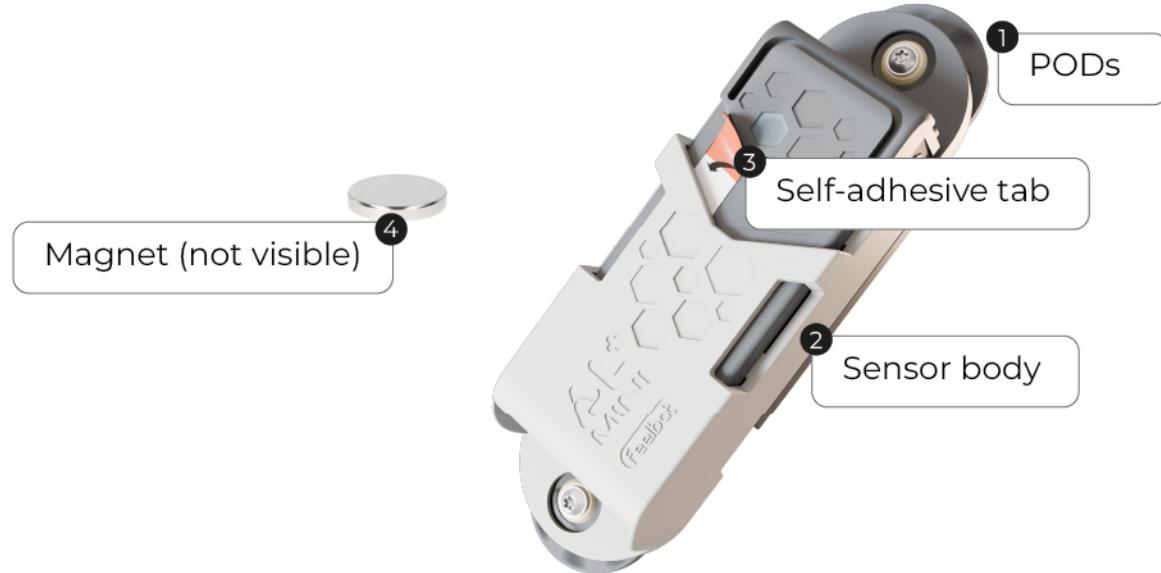
10

Useful information

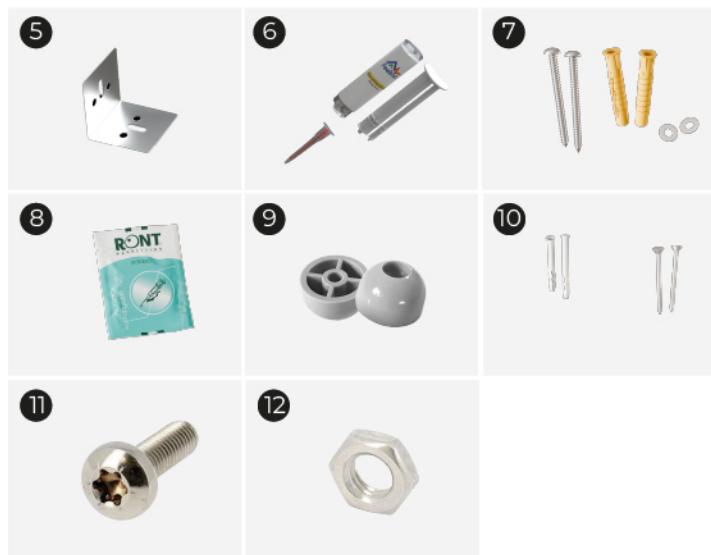
P12_ Warranty / FAQ



01 Packing list



Mounting accessories



- 5 Bracket for angled mounting
- 6 Adhesive
- 7 2 multi-material nylon wall plugs ($\varnothing 10 \times 60$ mm) with screws and washers
- 8 1 cleaning wipe
- 9 2 JCI (for one crack)
- 10 2 $\varnothing 5$ mm hammer-in wall plugs
- 11 1 Torx pan head screw, M6 x 15, stainless steel A2
- 12 1 6 mm nut

① **The serial number of your sensor is located here**



02 Recommendations



This installation manual is soon available as a video

[Watch the installation video](#)

By bonding

[Watch the installation video](#)

Angled installation

[Watch the installation video](#)

Mechanical installation

💡 Mounting advice

- Air blower to remove dust after drilling
- Pencil
- Ruler
- TORX T25 screwdriver
- TORX T15 screwdriver
- 10 mm wrench
- Drill with suitable bit (drilling diameter 5 mm for hammer-in wall plugs, drilling diameter 10 mm for nylon wall plugs)



03 Télécharger l'application

To connect your sensor, install the FEELBAT mobile app:



Download the FEELBAT app from your smartphone's app store.



Accept all access requests to use the app properly.



Sign up, then a confirmation email will be sent to you.

If you encounter any issues, please contact us at: (may end up in your spam folder)
SAV@feelbat.fr



03 Connecter votre capteur

After signing up, **open the FEELBAT application.**

You will be guided step by step to add and configure your first sensor.



Stay close!

When connecting your sensor, it must be close to you in order to capture the Bluetooth signal.

Stay within a maximum distance of 30 meters from the sensor, in open field conditions (no obstacles between you and the device).

Without a LINKFEEL token, you will not be able to receive data remotely, and you will only be able to synchronize via Bluetooth.

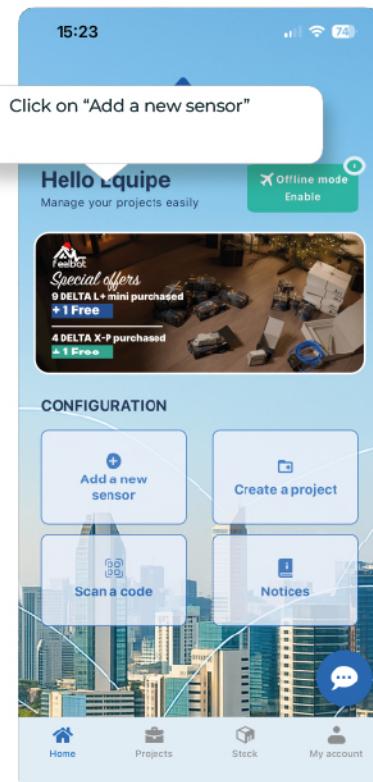
If you wish to activate the remote connection, you must have at least 10 credits.

To do so, please contact your sales representative or write to us.

You must be connected to the sensor via Bluetooth in order to activate the token.



Do not forget to enable Bluetooth on your phone.



04 Sensor start-up



We strongly recommend connecting and configuring your sensor via Bluetooth before going to the job site.
It is essential to prepare your equipment 48 to 72 hours in advance and to test Bluetooth connectivity.

Before installing your sensor, you must remove the magnet.

Please follow the numbers shown in green; they correspond to the items listed in the packing list.

**Remove the magnet



Remove the cover



Pull the tab



Peel off the magnet



Wait for the signal

After removing the magnet and adding the sensor, the deep sleep mode is deactivated and the sensor becomes detectable via Bluetooth.

You can now link it to your account.

All the actions below must be performed near the sensor.

Do not forget to enable Bluetooth on your phone.



01

1. Magnet removal

The sensor is initially delivered in sleep mode, maintained by an external magnet.**

To activate the sensor, **remove the magnet positioned on the sensor.**

A blue light will flash for 3 seconds to confirm proper activation.

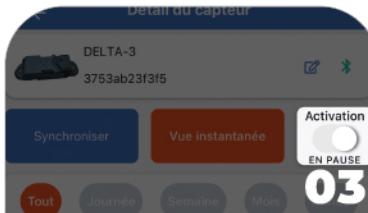


02

2. Add the sensor to a user account

The sensor can be added to your account in several ways.

Bluetooth proximity: bring your phone close to the sensor to detect it via the Bluetooth signal (RSSI).



03

3. Sensor activation

Click on sensor activation to start data recording.



4. Measurement interval setting

Once the sensor is added to your account, define a measurement interval to activate data recording.

This action automatically puts the sensor into standby mode.

05 Sensor installation

Bonded installation

Adhesive included in the pack



01

Before cleaning, mark the positioning points by making two marks spaced 13 cm apart.



02

Clean the two areas where the PODs (8) will be installed using the cleaning wipes provided (1).



03

Remove the protective film (orange).



04

Apply the two-component adhesive (6) supplied in the pack.**

** Warning: see next step.



05

Apply an amount of adhesive in the center of the PODs equal to that shown in the photo, forming a cone. **Do not leave the adhesive in place for more than 30 seconds without installation.**



06

Place the sensor on the previously cleaned points, aligning the center mark (see note below).** Press firmly for 3 seconds at the center of both PODs. The adhesive sets immediately.

Mechanical installation

Included in the pack



01

Before cleaning, mark the positioning points by making two marks spaced 13 cm apart.



02

Drill two holes using a Ø10 mm concrete drill bit, then clean the holes by blowing out the dust.

⚠ Remember to remove the dust using an air blower.



03

Insert the two nylon wall plugs (7) using a hammer.



04

Insert the screws with washers into the nylon wall plugs.



05

Your sensor is installed.

** A mark on the cover allows you to position the sensor at mid-range.

Angled installation

Bonded installation method – see the steps on the previous page.



Mark your positioning points and clean the surface (8). Remove the protective film (orange), then apply the two-component adhesive (6) supplied in the pack.

See bonded installation.



Apply the two-component adhesive and place the bracket (5) on the wall at the desired angle.



Bond the POD (1) onto the bracket (5) using the same adhesive supplied in the pack.

Angled installation

Mechanical installation method – see the steps on the previous page.



Mark the positioning points. Drill two holes using a Ø5 mm concrete drill bit.

⚠ Remember to remove dust using an air blower.



Pre-assemble the Torx pan head screw (5) on the bracket (11).



Install the two Ø5 mm hammer-in wall plugs inside the bracket. (10).



Using a hammer and a hammer drill bit, drive the Ø5 mm hammer-in wall plugs (10) into the bracket (5) and the wall.



Install and fasten your DELTA L+ mini onto the bracket (5), then add the nut (12) to the Torx pan head screw (11).

See mechanical installation.



Your DELTA L+ mini is installed.

Example of angled installation



Bonded PODs + bonded angled bracket



Bonded PODs + mechanical angled bracket (with 2 screws)
Bonded PODs + mechanical angled bracket (with 1 screw)



Bonded, mechanical and angled bonded installation



Mechanical + mechanical angled bracket

06 Good to know

Pause the sensor or set it to sleep mode

If you choose not to put the sensor into sleep mode, it will continue to consume power. It is recommended to set the sensor to sleep mode if it will not be used for a long period.



Repositioning the magnet

Place the magnet on the sensor.

Follow the instructions in the mobile application; an icon will confirm that the magnet is correctly positioned.



Data management request

Paused

The sensor will remain visible via Bluetooth for later activation.

Warning: it will continue to consume power.

Deep sleep

Recommended when the sensor will not be used for a long period.

This mode helps preserve battery life.

Warning: you must reposition the magnet.



You will be notified if the magnet is not positioned correctly.

You can “wake up” your sensor at any time by simply removing the magnet.

After this action, your sensor will return to its initial state.

LED	Meaning
After a few seconds, 1 blue flash (1 second)	Sleep mode
2 blue flashes (1 second each) spaced by 1 second	Start-up / Wake-up from sleep
2 blue flashes (<1 second) every 10 seconds	Bluetooth connection



A tutorial is available from your application for installation, as well as for sensor removal and sleep mode activation.



Battery replacement

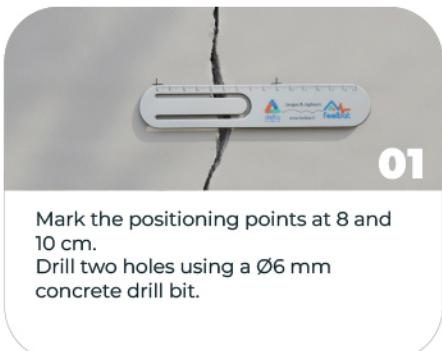
When replacing the battery, we strongly recommend using silicone grease to make insertion easier.

This grease is supplied in your pack.

07 JC1 Installation

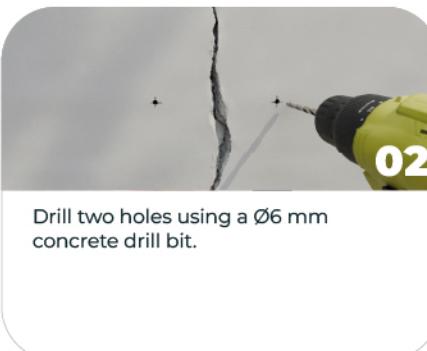
Mechanical fixing method for JC1 gauges

Adhesive included in the pack



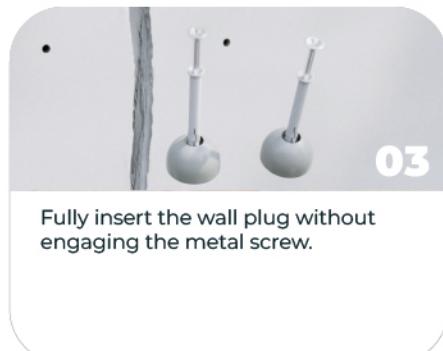
01

Mark the positioning points at 8 and 10 cm.
Drill two holes using a Ø6 mm concrete drill bit.



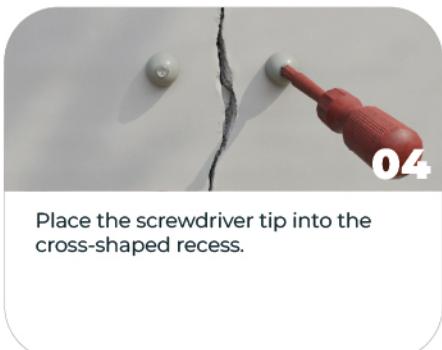
02

Drill two holes using a Ø6 mm concrete drill bit.



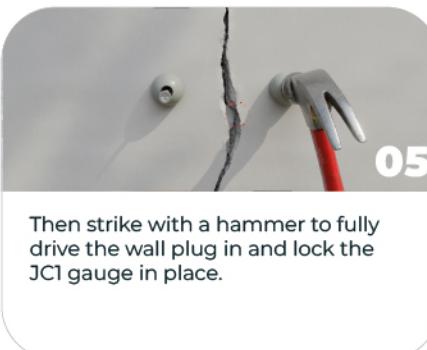
03

Fully insert the wall plug without engaging the metal screw.



04

Place the screwdriver tip into the cross-shaped recess.



05

Then strike with a hammer to fully drive the wall plug in and lock the JC1 gauge in place.

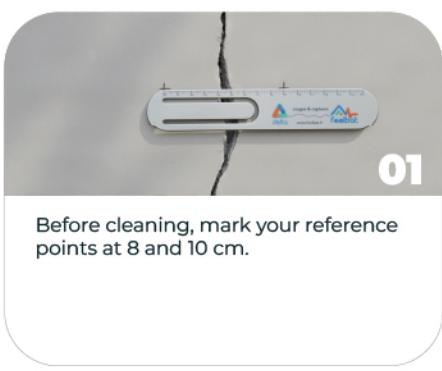


06

You can then take your measurements and record them directly in the FEELBAT application.

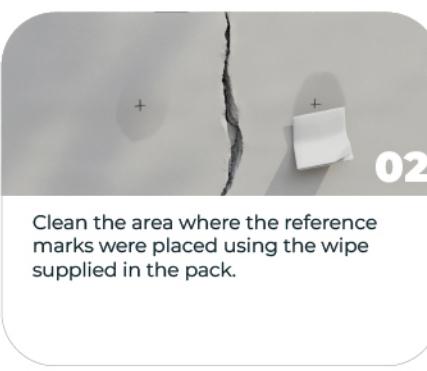
Bonded fixing method for JC1 gauges

Included in the pack



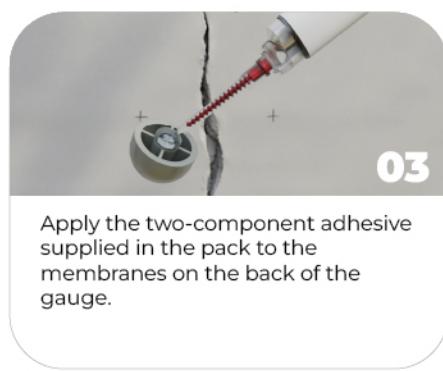
01

Before cleaning, mark your reference points at 8 and 10 cm.



02

Clean the area where the reference marks were placed using the wipe supplied in the pack.



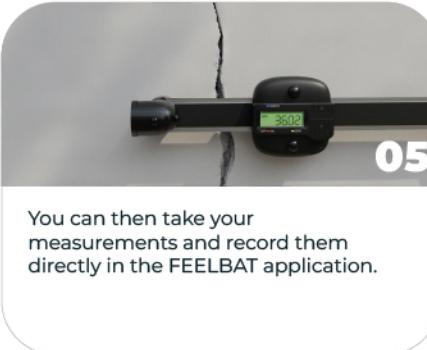
03

Apply the two-component adhesive supplied in the pack to the membranes on the back of the gauge.



04

Place the gauges on the cleaned points, pressing firmly for 20 seconds, then allow to dry for 3 minutes.



05

You can then take your measurements and record them directly in the FEELBAT application.

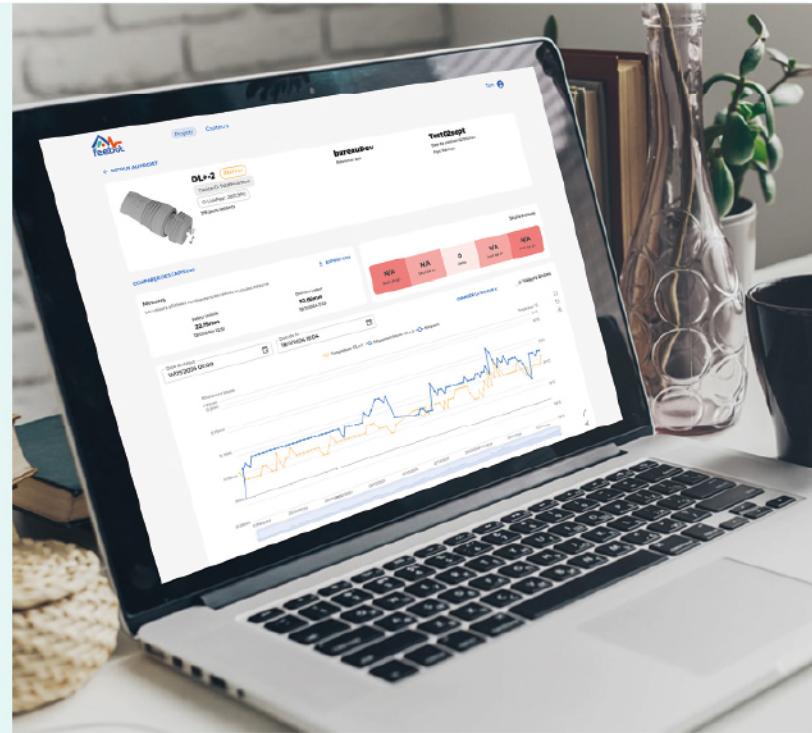
08 Web monitoring

Go further!

All the features available on the application are also accessible via the web, making it easier to analyze and compare charts.

- ✓ SIMPLIFIED PROJECT MANAGEMENT
- ✓ ZONE VISUALIZATION
- ✓ CURVE ANALYSIS
- ✓ PDF REPORT GENERATION

[ACCESS THE WEB APPLICATION](#)



Test Button

The test button allows you to **check Sigfox coverage** when the exact address or location of the sensors has not yet been defined, thus ensuring the proper functioning of the device.

Solutions to extend your network and ensure data recovery from your sensors



The FEELBOX

The FEELBOX is a 4G gateway that ensures data transmission from your FEELBAT sensors when Sigfox coverage is insufficient.

Wherever a 4G connection is available, your sensors can transmit their measurements.



The Repeater

The repeater extends the range of sensors in low Sigfox coverage areas.

It can relay up to 15 sensors (140 messages/day) and operates on battery power with a battery life of 1 to 7 years depending on use. A 1-year subscription is included, renewable with a LINKFEEL token.

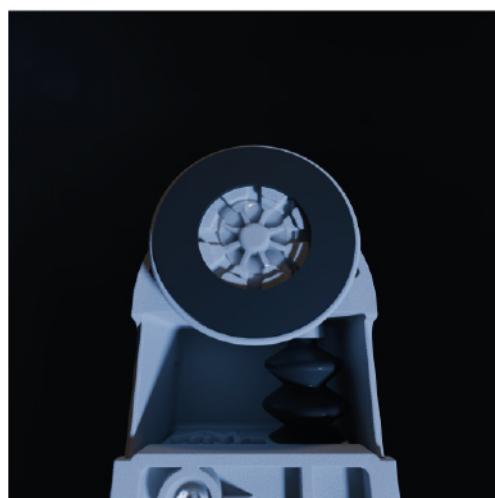
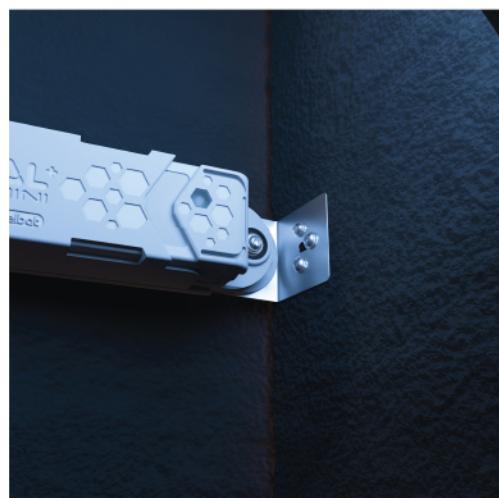


The Sigfox microstation extends Sigfox coverage indoors or in poorly covered areas.

It operates on 220 V with Ethernet or 3G/4G connection (optional). An IP65 enclosure is recommended for outdoor use. 3G/4G USB dongles are available as an option (SIM card not included).

If you have any questions, please contact us:
SAV@feelbat.fr

09 Use case



10 Useful Information

FEELBAT products are covered by the legal warranty of conformity.

This warranty covers defects of conformity with respect to the sales contract that appear within two years following delivery of the product.

They are also covered by the warranty against hidden defects, which applies to defects not apparent at the time of sale and which render the product unfit for use or significantly reduce its use.

As such, the warranty does NOT apply in the following cases:

-  The sensor has fallen
-  The housing is damaged (impacts, cracks, marks)
-  The sensor is used for non-compliant purposes
-  The sensor has been immersed in water
-  The sensor is stored or used outside the temperature range (-25 °C to +70 °C)
-  The fixings restrict the linear operation of the sensor
-  The sensor is used beyond its measurement range
-  The sensor was purchased more than 2 years ago



Have a question?

Visit our FAQ: it gathers answers to the most frequently asked questions and guides you step by step in using our solutions.

[Access the FAQ](#)



**If you have a crack
You FEELBAT**

Discover our tutorial videos

Watch the help videos

 info@feelbat.fr
04 123 800 90

4 rue Louis Breguet
JACOU 34830 FRANCE
Head office 20 rue Maxime Rivière
97490 SAINT-DENIS



www.feelbat.fr
in f o