Lindab**UltraLink**

Bluetooth®

Mobile application
User manual

Updated **10/01/2020**

Lindab®

Mobile application
Contents

U INSTALLATION

Get the app from **App Store**
or **Google Play**

SCAN   2.1. settings

Open the application and ensure that the Bluetooth connection on your device is switched on.

Verify that the app has the correct permissions according to the following.

Android*

Go to the mobile's settings.

Click on Apps & Notifications
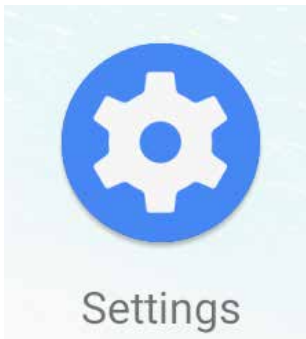
Settings

Apps & notifications
Recent apps, default apps

Click on see all apps.

Scroll down to the Ultra-Link-app in the list.

Allow Location while app is in use.

ALLOWED

Location
Only while app is in use
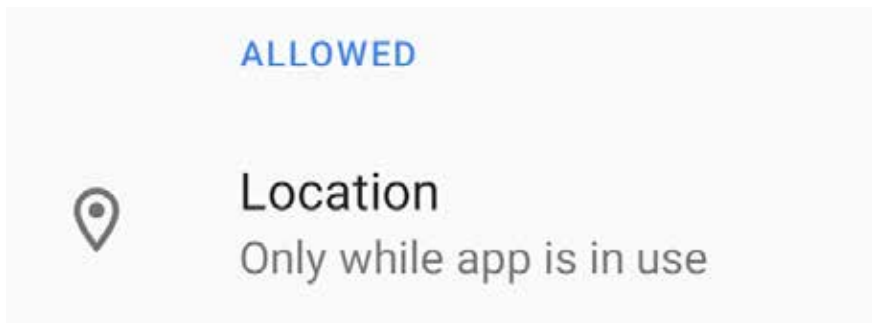
* May vary depending on model.

iOS

Go to the mobile's settings.

Scroll down to the UltraLink app in the list.

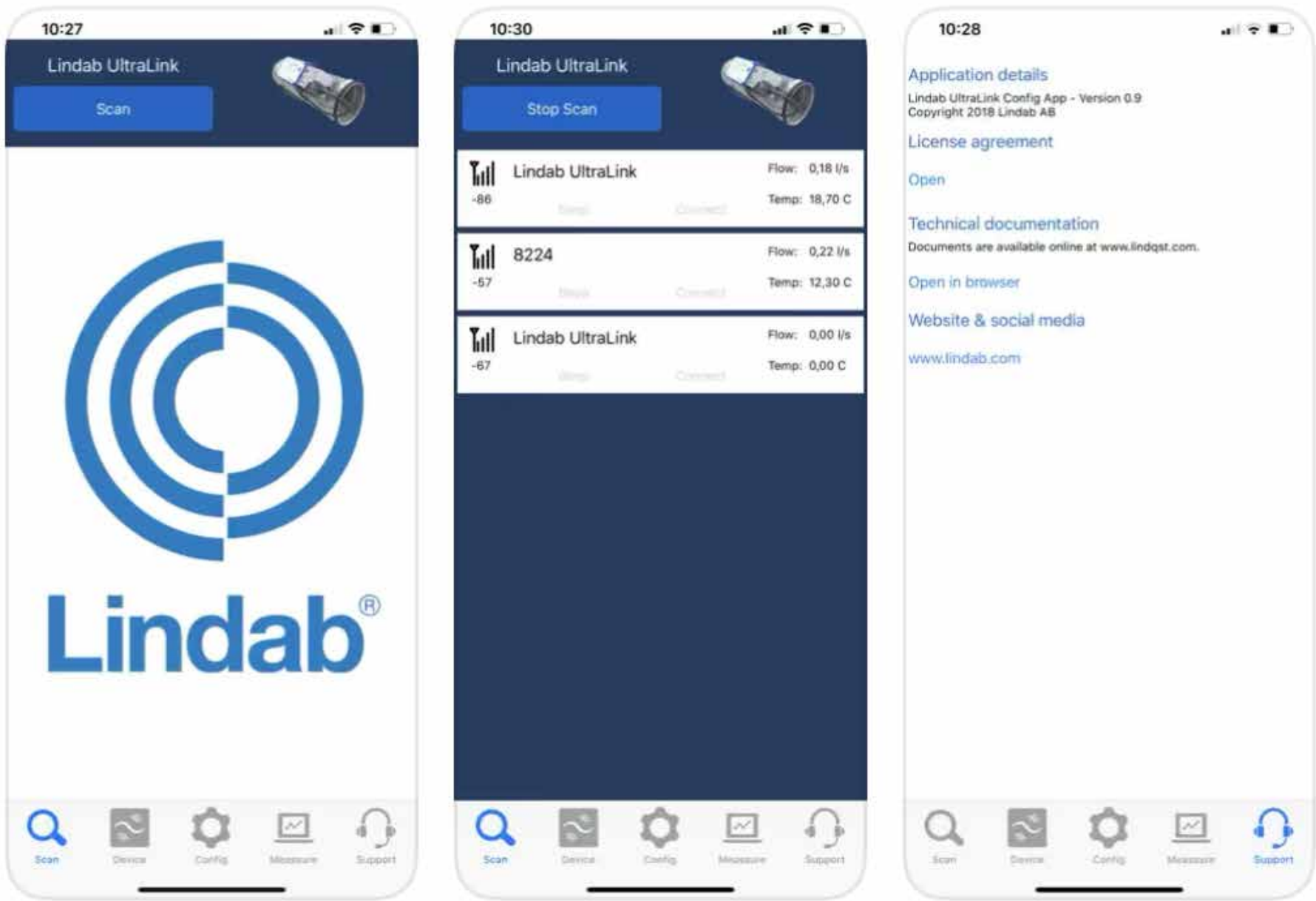Allow UltraLink to access Bluetooth.

Settings

ALLOW ULTRALINK TO ACCESS

Bluetooth

Siri & Search
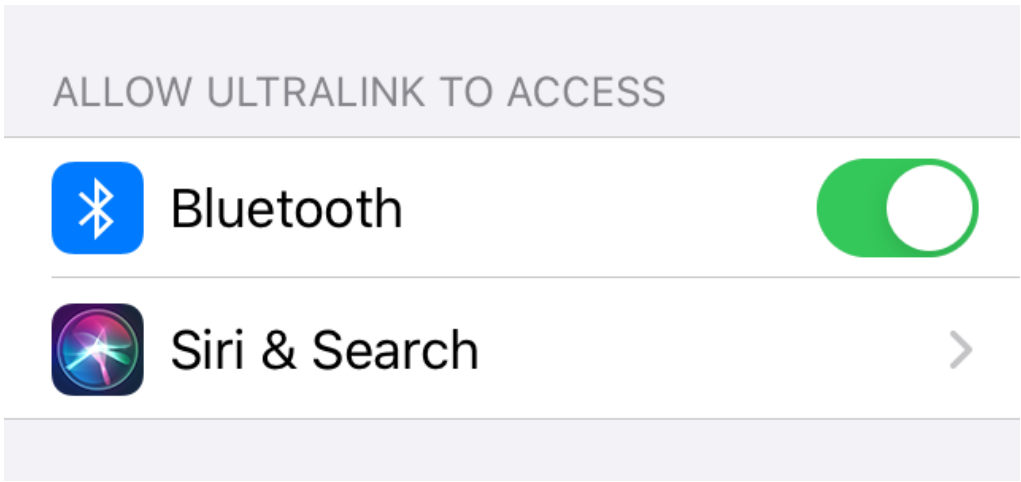
Press the **Scan** button.

Lindab UltraLink

Scan

The application will search for Ultralink Bluetooth devices

Lindab UltraLink

Stop Scan

8224   Flow: 0,00 l/s
49   Temp: 0,00 C
Beep   Connect
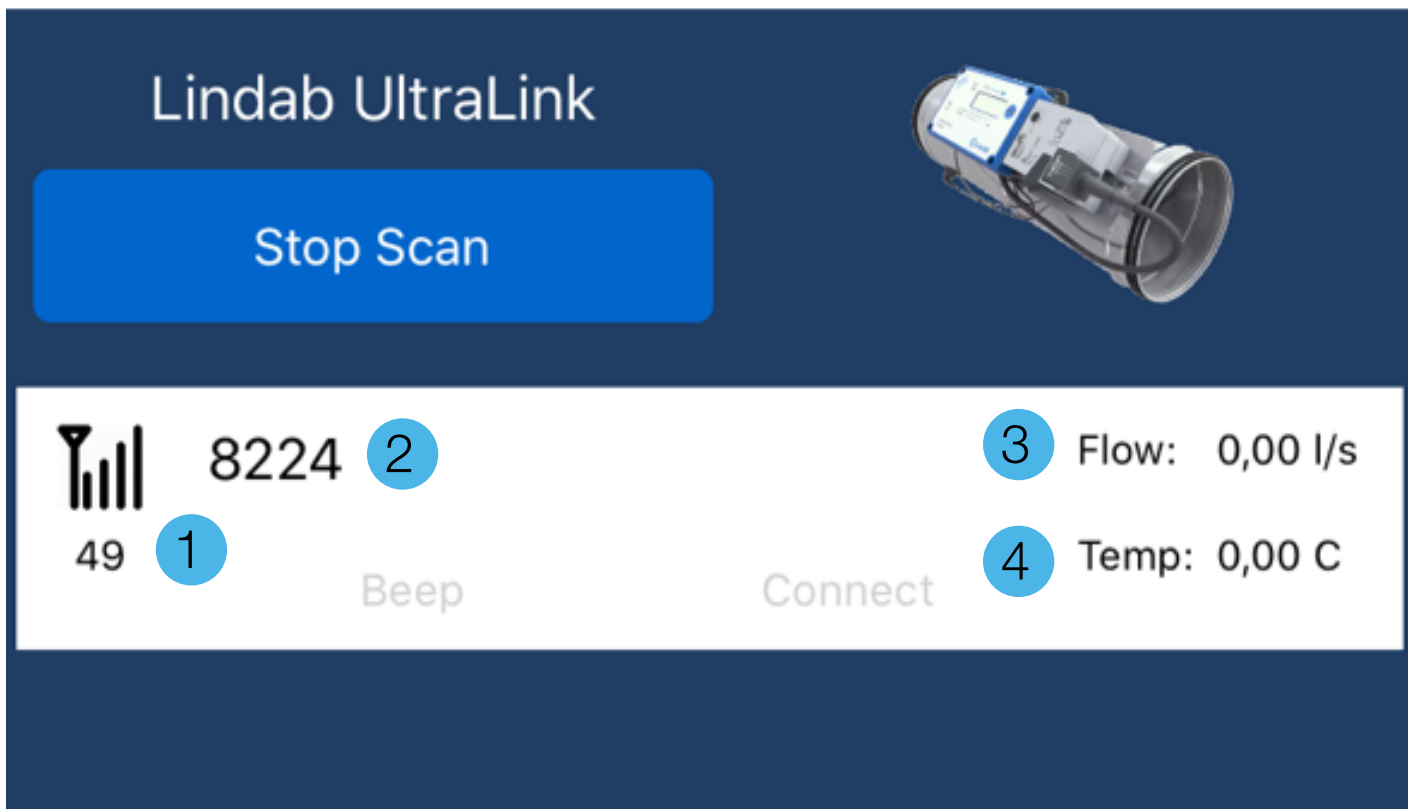
1. Bluetooth signal strength
2. Unit numeral
3. Flow
4. Temperature

SCAN   2.2. settings

Press the **Stop Scan** button to stop the search. A blue **Connect** text for the devices will be displayed.

Select the desired device by pressing the **Connect** text. The devices can be given an individual unit numeral, as default this is the Modbus ID.
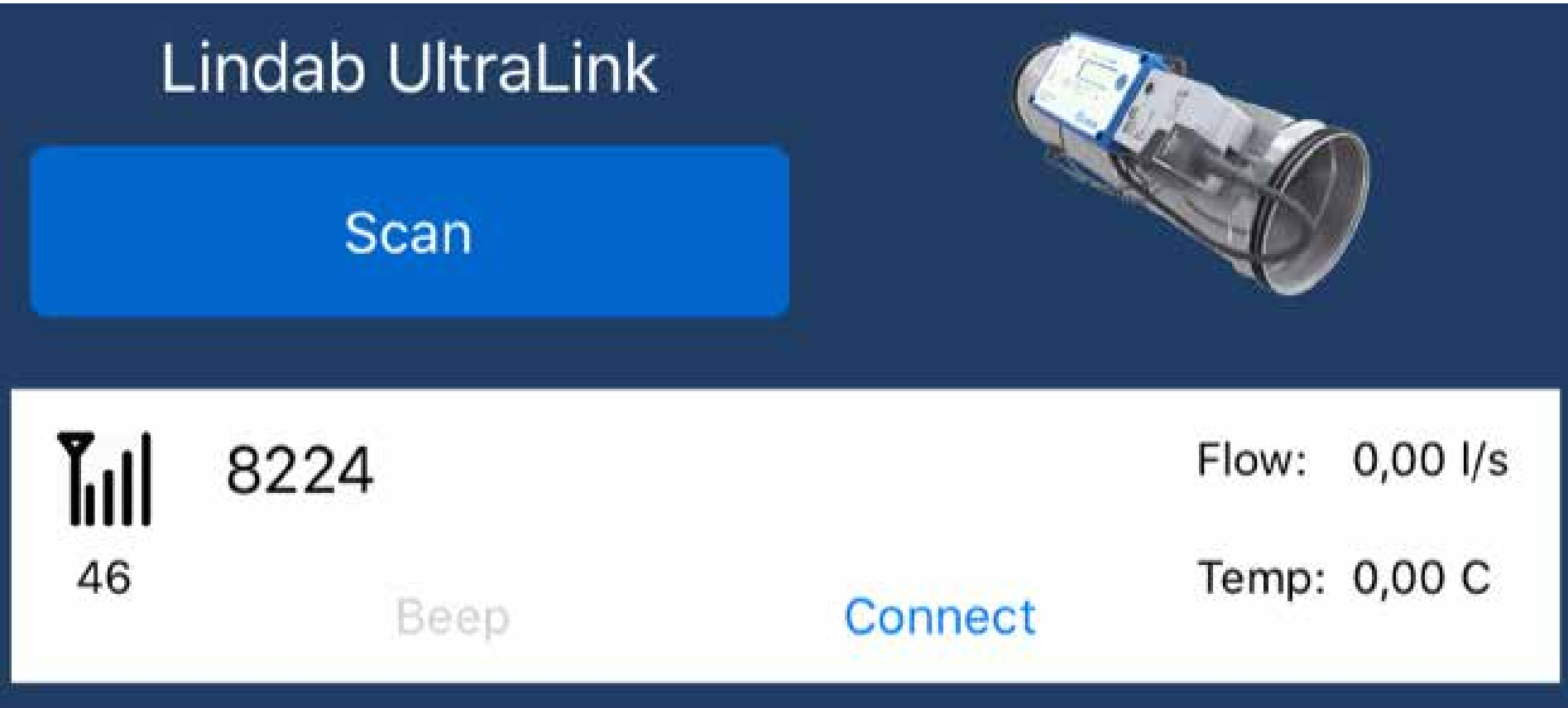
The signal strength displayed on the left of the display shows how close the device is. However, the signal reflections in a building determine the order in which the devices will appear on the display.

When one device has been selected, the application asks for a **PIN code**. It is factory set as **1111**. Enter it into the field and press the **OK** button.

SCAN   2.3. settings
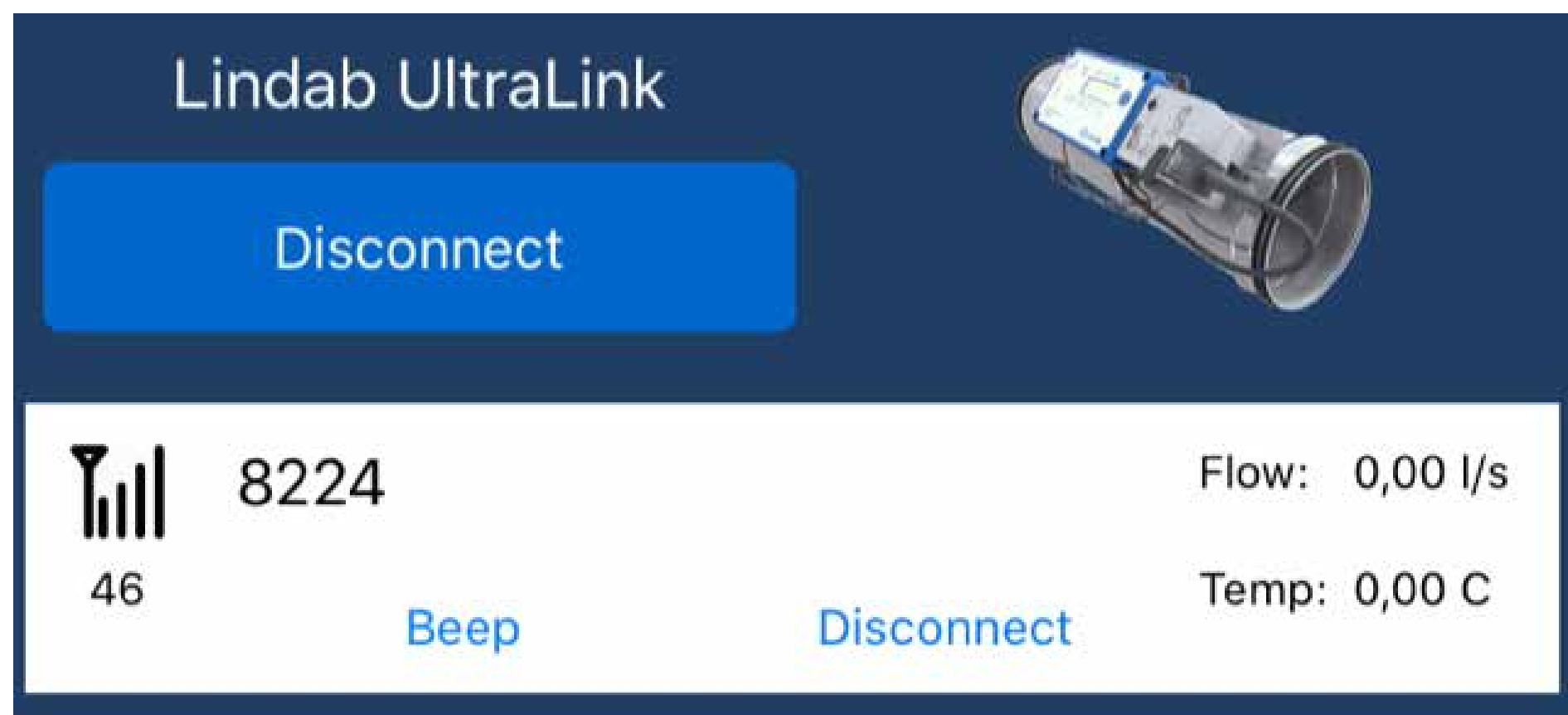
When you press the **Beep** button, the FTCU will give an audio signal that will enable you to check which device you are connected to. The device's **blue LED light** flashes rapidly when the connection is established.
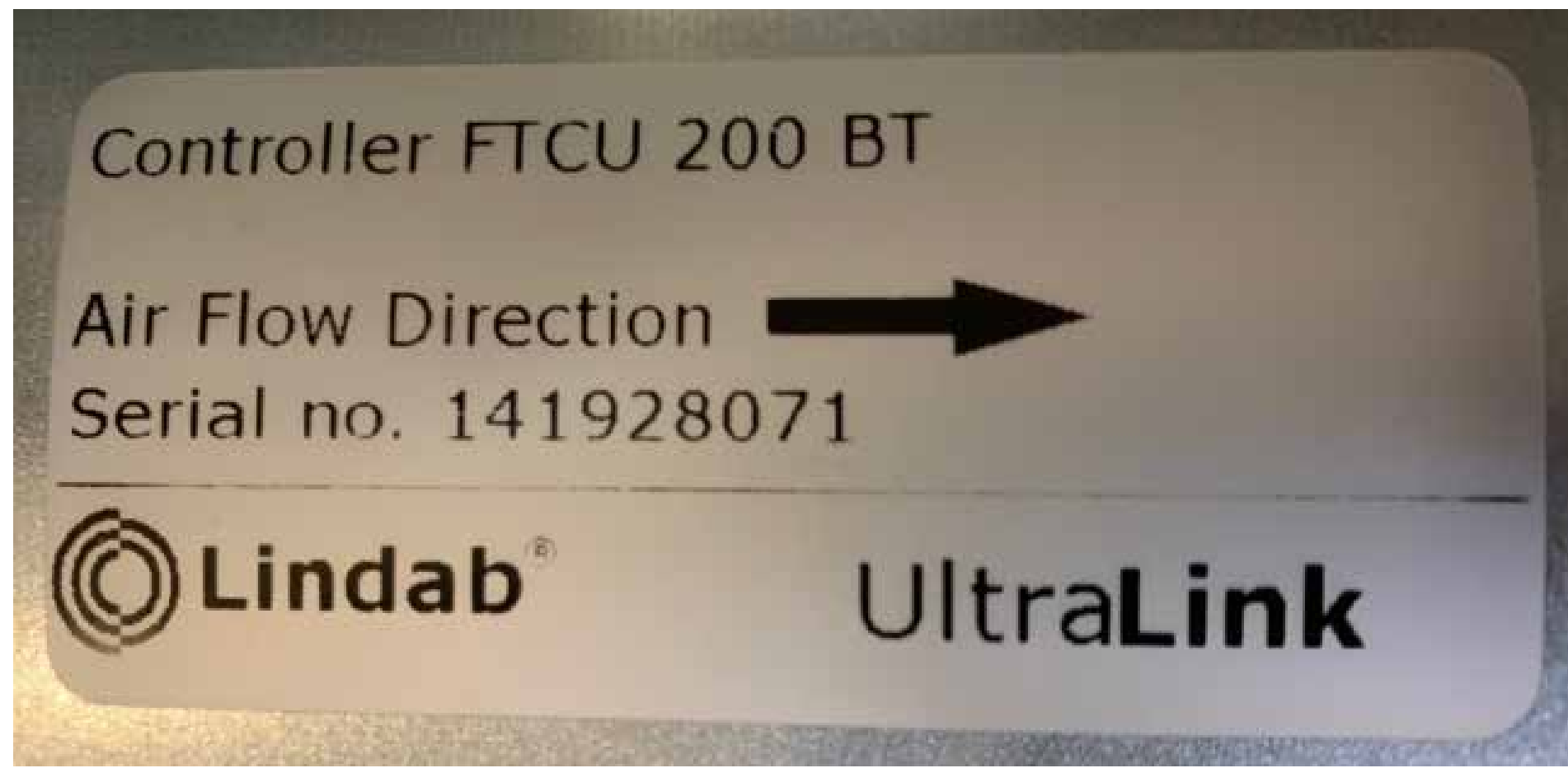
The device's serial number can be found on the data plate. The **last three digits** are the device's **Modbus address**. In this example, the Modbus address is 071.

You can also find the Modbus address (ID number) in the device display by using the button.

SCAN

2.4. application

The application functions are divided into five tabs

Scan
Search for devices

Device
Details about the device found

Config
Control settings of the device found

Measure
Measured values of the device found

Support
Links to contact details and technical information

DEVICE   3.1. settings

The device's serial number is displayed on the application's **Device** tab.

You may need to wait a few seconds while the connection is being established (Receiving).

In this case, the serial number is 27154 and the Modbus address is 154.

On this tab, you can change the Modbus settings, the PIN code and the device name (Device designation).

Make a change by pressing the blue Set button.

Device information

Serial number:	27154		Serial number
Nominal size:	250		Device size
Parameter version:	325		Database version
Pincode	1111	Set	PIN code

Communication

Protocol:	Modbus/...	Set	Communication protocol
Baud rate:	19200	Set	Baud rate
Parity	Odd	Set	Parity
Stop bit:	1	Set	Stop bit
Modbus address:	154	Set	Modbus address
PLA:	154	Set	PASCAL address PLA
ELA:	154	Set	PASCAL address ELA

DEVICE 3.1. settings

Device designation:

| UltraLink 9988 |

Set

The **Device designation** that is displayed on the Scan page can be changed by clicking the **Set** button.

Update parameter

Please type in the new parameter

| Reception exhaust |

OK   Cancel

You can name the UltraLink with letters and special characters such as the example above. If the UltraLink has older firmware, you can only use four digits to identify the UltraLink.

Flow disturbance settings

UltraLink can be installed close (<5 Ød) to a bend or reducer and have 5% measurement uncertainty, if the **Type of disturbance** and **Distance from disturbance** corrections is set in the app. If not, the measurement uncertainty will be much higher.
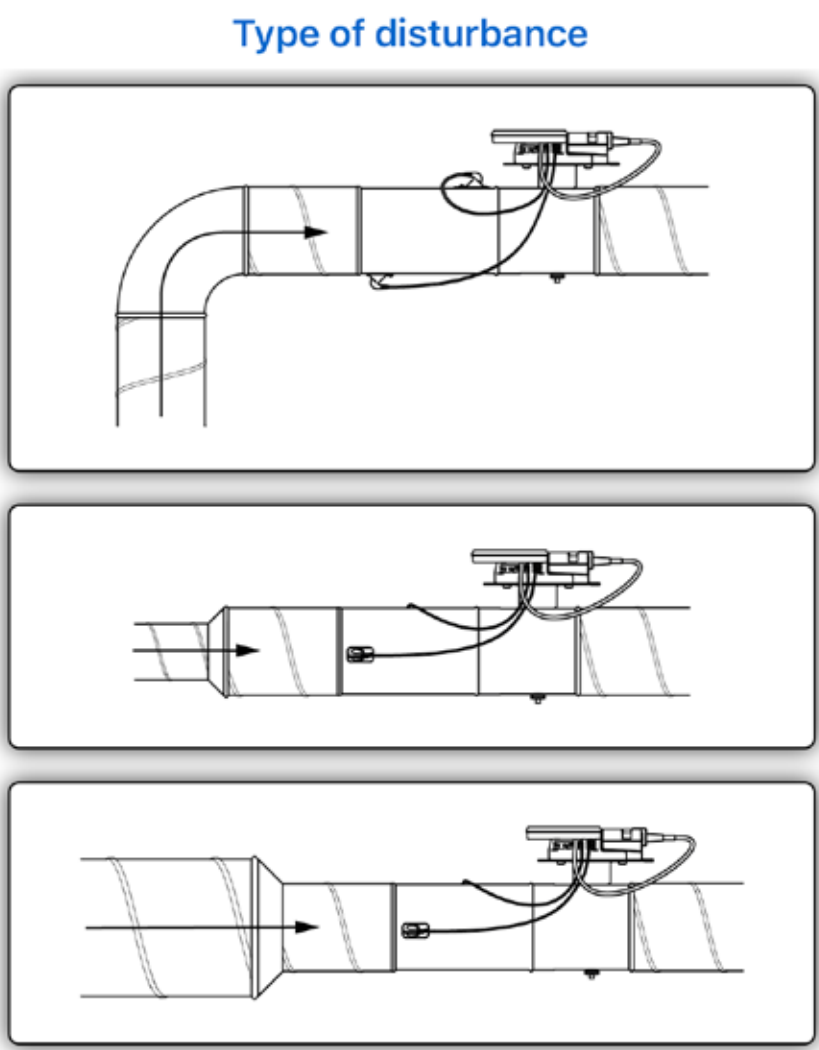
Flow correction

Type of disturbance

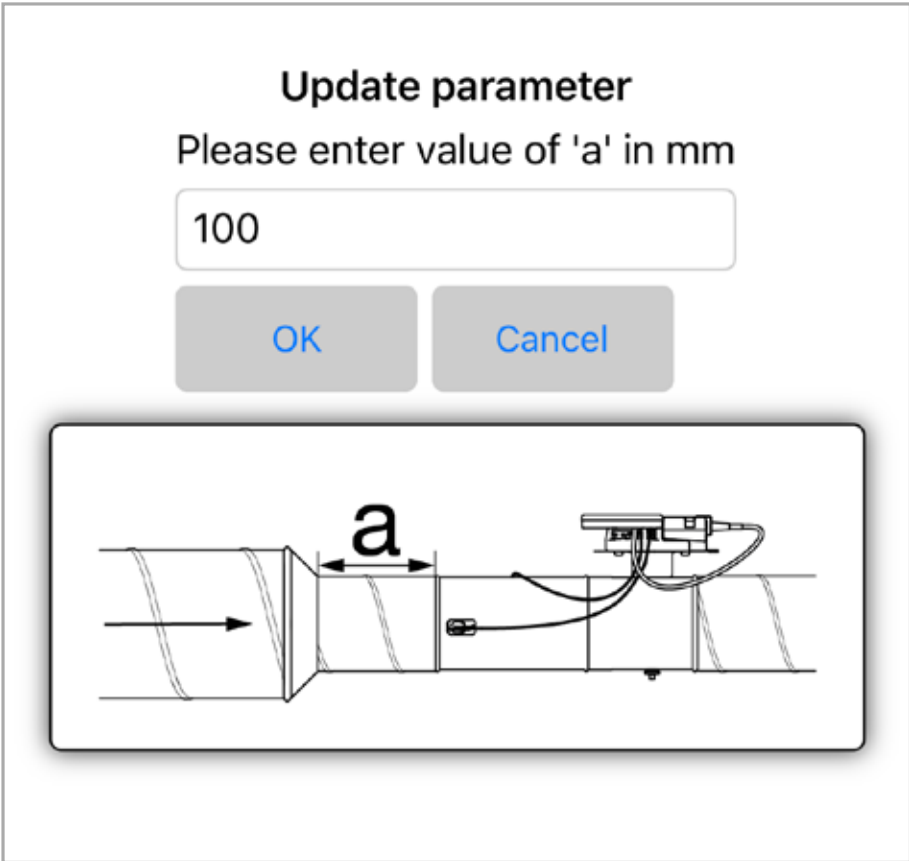| None | Set

Distance from disturban...

| 90 | Set

Click on the **Set** button next to **Type of disturbance**. Chose the type of disturbance out of the three choices.

Type of disturbance

DEVICE   3.1. settings

Click on the **Set** button next to **Distance from disturbance**. Enter the distance from stop beads of the disturbance and the UltraLink according to the picture. Click OK, the function is now active.

To turn off the function, press **Set** button for **Type of disturbance** and then chose **Cancel**. The text now says **None** and flow correction is disabled.

It is possible to insert a custom correction factor if you want to adjust the flow. Clicking on the **Set** button after **Manual correction factor** enables you to insert a factor that modifies the flow. For example, an input of 1,1 increases the flow displayed by 10%.

You can also execute the calibration of the damper's position (Angle recalibration), restart the device (Reboot) and reset the device to factory defaults (Reset device). The Reset device password is Lindab.

Calibration of the damper's position
Start by pressing Execute

Device restart
Start by pressing Reboot

Device reset to factory defaults
Start by pressing Reset device

⚙ CONFIG 4.1. settings

The device's control settings can be found on the **Config** tab.

Control

Controlled variable:

| Flow | Set |

Control by:

| Analog In | Set |

Flow rate setpoint (l/s):

| 0 | Set |

First, check the **Control / Controlled variable** and ensure that the device's control parameter is the desired one: **Flow** (setpoint is an airflow) or **Damper** (setpoint is a damper angle).

Next, check the control method under **Control by**:
Analog In = control by voltage signal,
Serial = Modbus bus control.

⚙ CONFIG 4.2. Modbus bus

If the desired control method is Modbus use the **Set** button to switch to Control by: **Serial**

Control

Controlled variable:

| Flow | Set | Control parameter |

Control by:

| Serial | Set | Control method |

Flow rate setpoint (l/s):

| 60 | Set | Setpoint |

Settings of control by bus

Max. flow rate setpoint (bus):

| 736 | Set | Max. setpoint flow |

Min. flow rate setpoint (bus):

| 0 | Set | Min. setpoint flow |

Max. damper position rate setpoint (bus):

| 100 | Set | Max. setpoint damper angle |

Min. damper position rate setpoint (bus):

| 0 | Set | Min. setpoint damper angle |

Damper override timeout:

| 120 | Set | Time for override in minutes |

Override function:

| 4 | Set | Override* |

Start Override: Execute

*Alternatives for override
O = Normal function
1 = Max. airflow
2 = Min. airflow
3 = Damper 100% open
4 = Damper closed

⚙ CONFIG 4.3. Analog

If the desired control method is Analog In, use the **Set** button to switch to Control by: **Analog In**

Control	
Controlled variable:	
Flow	Set
Control by:	
Analog In	Set
Flow rate setpoint (l/s):	
12	Set

Control parameter

Control method

Setpoint

If the control method is Analog In (voltage signal), ensure that the control method is selected and check the other settings. Make the necessary changes. It is important that the device and the building management system (voltage range and airflows) are on the same scale.

Airflow factory defaults

Device size	Max flow rate setpoint (7m/s)
Ø [mm]	l/s
100	55
125	86
160	141
200	220
250	344
315	546
400	880
500	1374
630	2182

Min flow rate = 0 l/s

CONFIG 4.4. Analog

If you want to define Min and Max airflows on the device, it should be done here:

Settings of control by analog input (AIn)

Max. flow rate setpoint:

| 344 | Set |

Min. flow rate setpoint:

| 0 | Set |

Max. damper position rate setpoint:

| 100 | Set |

Min. damper position rate setpoint:

| 0 | Set |

Voltage range:

| 2 - 10 V | Set |

Analog In override: 0.1 to 1.9V:

| 0,5 | Set |

The control voltage type is set as factory default 2–10 V
2 V = Min flow rate setpoint (factory default 0 l/s)
10 V = Max flow rate setpoint (factory default 7 m/s air speed, airflows based on specific dimensions)

0 V = Damper will be force closed
If the control method is 2-10 V, a voltage range for override control can be set within 0.1-1.9 V (Analog In override: 0.1-1.9 V). The factory default is 0.5 (0-0.5 V = closed).

If the control method is 0-10 V:
0 V = Min. flow rate setpoint, 10 V = Max. flow rate setpoint

CONFIG 4.5. Analog settings

Settings for AO analog outputs (feedback signals). Your device has two outputs, AO1 and AO2

Below are the factory defaults.

Settings of analog output (AO1)

Variable:

| Flow rate | Set |

Maximum value:

| 344 | Set |

Minimum value:

| 0 | Set |

Voltage range:

| 2 - 10 V | Set |

Settings of analog output (AO2)

Variable:

| Damper position | Set |

Maximum value:

| 100 | Set |

Minimum value:

| 0 | Set |

Voltage range:

| 2 - 10 V | Set |

Check that the return signals are in the desired form and scale. Return signal **(Variable)** can be flow rate, temperature or damper position. The airflow factory default Maximum value depends on the device size (7 m/s duct speed as factory default).

MEASURE 5.1. measured results

Measured results can be found on the **Measure tab.**

| Setpoint & measured values		A	B	
Flow rate setpoint	60 l/s			Setpoint Voltage signal AIN or MODBUS bus
Flow rate	60,607 l/s			Airflow measured value
Velocity	1,234 m/s			Duct speed measured value
Temperature	20,5 C			Air temperature measured value
Damper position:	28,5 %			Damper position
Analog input voltage	0 V			AIN value
Analog output 1 voltage	3,41 V			AO1 value
Analog output 2 voltage	4,28 V			AO2 value
Graph interval	1 s	Set		

You can select parameters for the curves by using the A and B buttons.

MEASURE 5.2. measured results

Measured results can be found on the **Measure tab.**

? FAQ
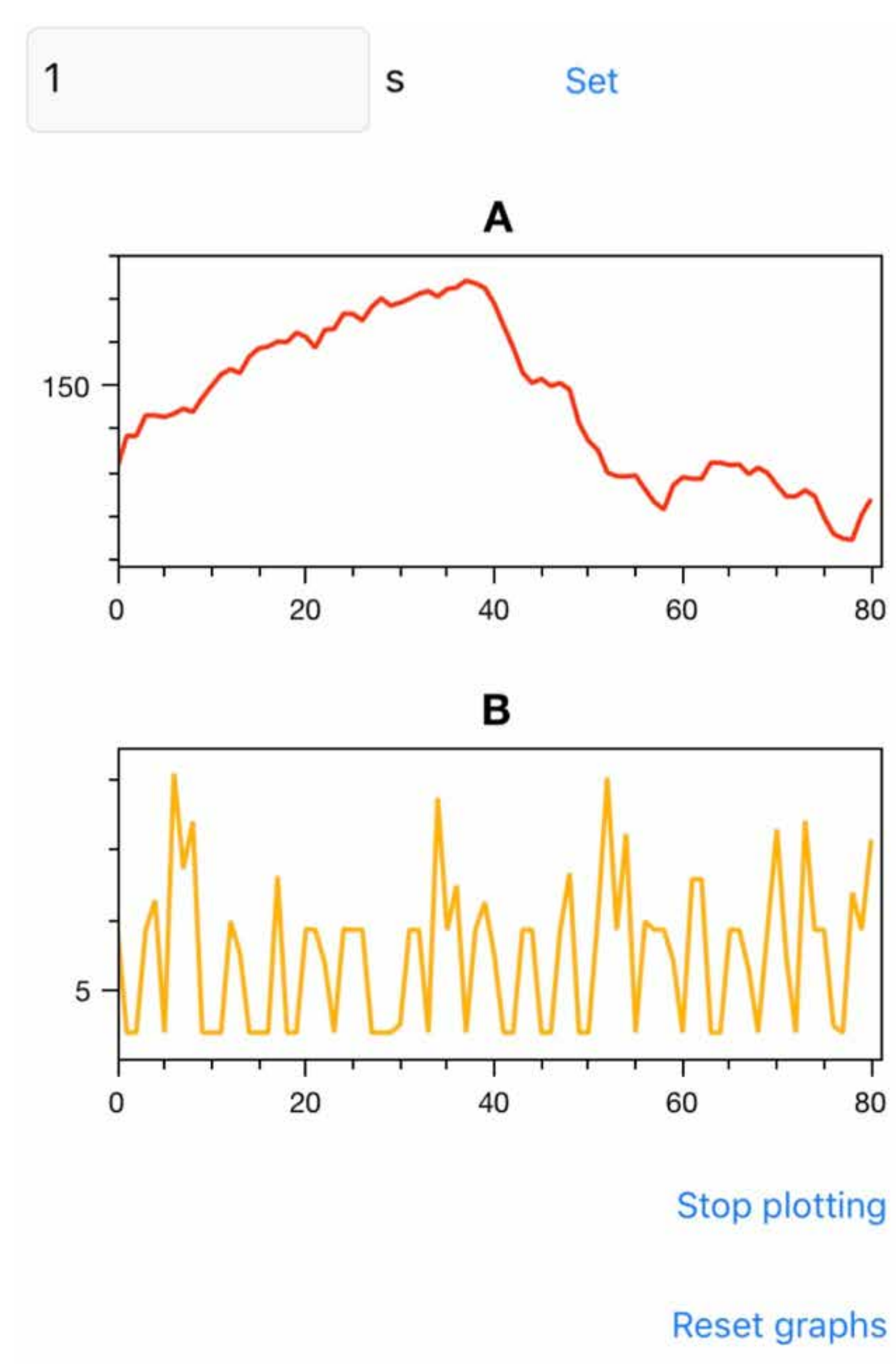
Troubleshooting and solutions MODBUS
The device does not regulate, the damper is closed, the damper is 100%
- check the device's setpoint, make sure it is not 0.
- check the device's min. and max. settings for flow and damper angle, see page 11 for digital or page 13 for analog settings.
- ensure that the bus settings are correct (baud rate, stop bit, parity)
- if connections have been made to the bus cables with the device powered on, or if there have been interferences in the supply voltage, the device may be in failure mode. Reboot the device.

Troubleshooting and solutions, Analog In voltage control
The device does not regulate, the damper is closed, or the airflow is 0 l/s
- the control voltage is 0 V and the control method on the device is 2-10 V (0V=closed)
- the control voltage is 2 V and the control method on the device is 2-10 V (2V= 0l/s)

The damper position information is incorrect (usually 0%) or there is an error 1 or error 2 on the device
The device reads the damper position from the end of the axis using a magnet. If the magnet momentarily loses contact during the installation, the position information may be lost.

If the damper position is incorrect, carry out the calibration from the Device tab. The calibration cycle will take approximately 3-5 min. The device goes to both its limits. In some cases, the product can remain shut after calibration cycle is complete and the 5 minutes has passed. In this case, press Reboot and check on the Measure tab that the device finds the damper position. In rare cases, the device may need another calibration cycle.

Error 3 on the device display (set value is not reached)
Check the damper position. If it is fully open (100%), there is not enough pressure in the duct.

Error 4 on the device display (measurement error)
Reboot the device. If the device's measured airflow and temperature values are zero, check that the sensors are in place. If the sensors are in place, the sensors or cables are damaged, and the device must be replaced.

PRODUCT SUPPORT

Contact details

XX
Name
Phonenumer
email

XX
Name
Phonenumer
email

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Good Thinking

At Lindab, good thinking is a philosophy that guides us in everything we do. We have made it our mission to create a healthy indoor climate – and to simplify the construction of sustainable buildings. We do that by designing innovative products and solutions that are easy to use, as well as offering efficient availability and logistics. We are also working on ways to reduce our impact on our environment and climate. We do that by developing methods to produce our solutions using a minimum of energy and natural resources, and by reducing negative effects on the environment. We use steel in our products. It's one of few materials that can be recycled an infinite number of times without losing any of its properties. That means less carbon emissions in nature and less energy wasted.

We simplify construction

Lindab®