Operating instructions (original)
aircontrol connect

822, 822a, 822b

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1 Product and manufacturer

1.1 Product

The following product is described in these operating instructions:

aircontrol connect.

Serial number: see type plate

1.2 Manufacturer

Name and address	deconta GmbH Im Geer 20 46419 Isselburg
	deconta group
Telephone	02874/9156-0
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e-mail	info@deconta.com
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1.3 Change index

date	Version	Amendment	Responsible
26.09.2024	1	New creation	Thomas Boland
21.11.2025	2	Chapter 12, additions added	Thomas Boland

2 About these operating instructions

To ensure proper and safe use, follow the descriptions and recommended actions in these operating instructions.

Keep these operating instructions for future reference until the appliance has been disposed of.

2.1 Purpose

These operating instructions contain information on the safe, trouble-free and economical use of the appliance.

This information is intended for persons who perform tasks with or in connection with the device.

The following table provides an overview of people and tasks.

Person	Task
Operator	<< Device-specific >>
Programmer	Teaching, programming
Occupational safety specialist	• Carry out a risk assessment • Create operating instructions • Instruct persons
Maintenance engineer	Maintenance of the mechanics
Qualified electrician (EFK)	Installation and maintenance of electrical equipment
Electrician with additional qualification (EFK ZQ)	Installation and maintenance of electrical equipment with additional qualification, e.g. live working
Freight forwarder	External transport
Conveyor	Internal transport
Disposer	Dispose of the device in a legally compliant, proper and professional manner

2.2 Availability

The operator shall make these operating instructions or extracts thereof available to persons who carry out tasks with or in connection with the appliance.

The operator must keep these operating instructions or extracts thereof within easy reach in the immediate vicinity of the appliance.

If the appliance is passed on to another person, the operator passes these operating instructions on to that person.

2.3 Warnings

These operating instructions contain warnings of residual dangers.

The categorisation of the warnings is based on the severity of the damage that can occur if the warnings are ignored and the recommended actions are not followed.

2.3.1 Warning words and warning colours

Warnings are introduced with one of the following warning words and marked with a corresponding warning colour.

Warning word	Meaning	Warning colour
DANGER	Consequence of non-compliance: Death or serious injury.	⚠ GEFAHR
WARNING	Consequence of non-compliance: Death or very serious injuries possible.	⚠ WARNUNG
CAUTION	Consequence of non-compliance: Serious or minor injuries possible.	⚠ VORSICHT
NOTE	Consequence of non-compliance: Material damage or environmental damage possible.	HINWEIS
SAFE HANDLING	Implement the following instructions.	-

2.3.2 Structure

Warnings are structured according to the SAFE method:

S	Warning word (DANGER; WARNING, CAUTION or NOTICE)
A	Type and source of danger Description of the hazard and the cause of the hazard
F	Consequence Description of the possible consequences of the hazard for humans, animals and the environment
E	Escape Recommendations on how hazards can be avoided

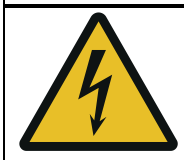
2.4 Symbols

The following symbols are used in these operating instructions.

2.4.1 Warning signs

The warning sign is a safety sign that warns of a risk or danger.

The following table provides an overview of the warning signs used and their meaning.

Symbol	Meaning	Symbol	Meaning
	Warning of electrical voltage		General warning sign

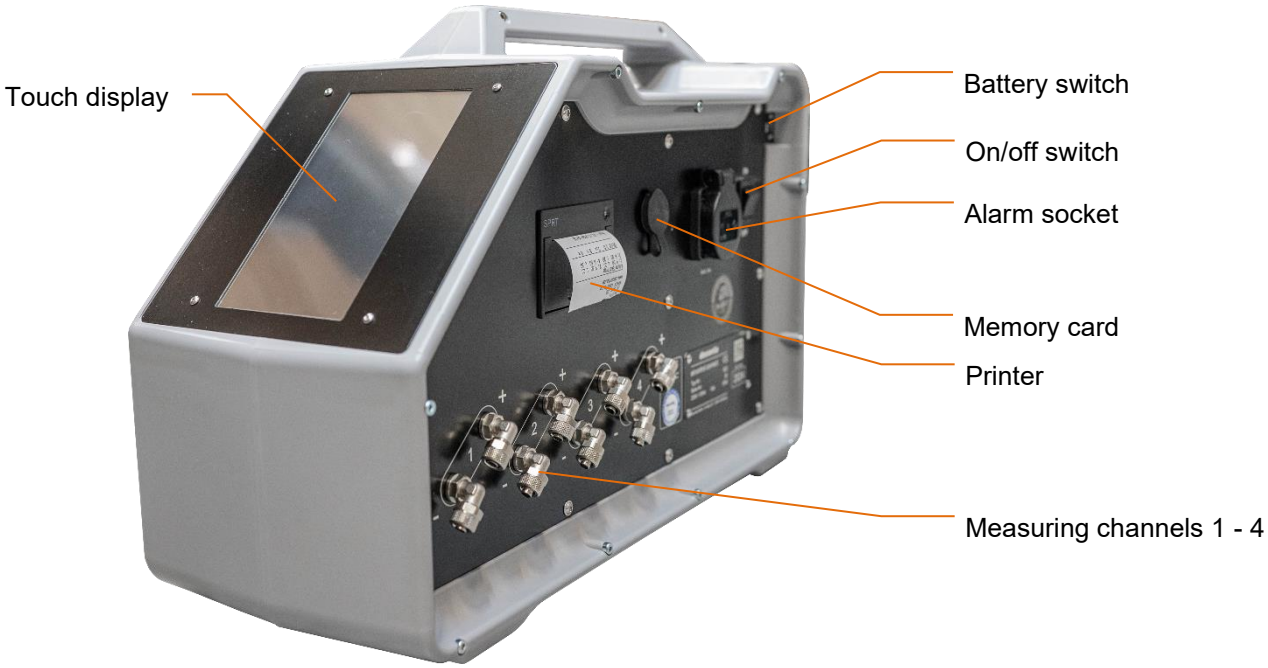
3 Description of the device

This section contains information on understanding the device.

3.1 General description

General description of the device

The aircontrol connect device is used to measure, document and forward alarm statuses for negative pressure monitoring.
Up to four differential pressure sensors (channels) are provided. The full range of functions is available for one to four channels. Each channel can define upper and lower limits from 0 to 100 Pascal, which result in an alarm message. Exceeding or falling below the limits triggers an alarm process.



3.2 Scope of delivery

The scope of delivery of the appliance includes the following items:

Pos.	Quantity
Device aircontrol connect	1
these operating instructions	1

3.3 Operating modes

3.3.1 Available operating modes

Type of utilisation

The device is intended exclusively for use in the following types of use. Use for other types of use is not intended.

User groups

- Commercial users

Utilisation environment

- on roofed areas
- in rooms closed on all sides

Operating modes

Operating modes for use

- On-site control
- Remote control

3.4 Interfaces

This section contains information about interfaces.

The following interfaces are available on the machine:

- Human product: Touch display operation (front), attachment of measuring hoses (side)
- Product power supply: Electrical power supply 230 V
- Machine > IT: WLAN, SIM module

4 Technical data

4.1 Time limits

- – none

Recommendation: Annual inspection and calibration

4.2 Mass

Weight	7.8 kg

4.3 Dimensions

Length x width x height	515 x 210 x 340 mm

4.4 Energy supply

Electric	230 V / 16 A

4.5 Further technical data

Measuring range	0 - 100 Pa
Number of measuring channels	4
Compressive strength load cell	max. 0.25 bar
Measuring hose connections	8 x 1 mm
Ambient temperature	0 °C to +40 °C
Relative humidity	70 % non-condensing

HINWEIS **To connect via WLAN, the aircontrol connect requires a 2.4 GHz network!**

5 Security

This section contains information on the protection of humans, pets, farm animals and the environment.

5.1 Intended use

The device is intended exclusively for the following use:

The aircontrol connect device is used for measuring, documenting and forwarding alarm statuses during negative pressure monitoring.

The user must comply with the operating parameters specified in the operating instructions. The appliance may only be used in accordance with its intended purpose. Any other use beyond this is not in accordance with the intended use. The user is liable for any resulting damage or injuries of any kind.

5.2 Misapplication

Use of the device for the following purposes is not permitted:

Reasonably foreseeable misuse

- Any application other than that described in the operating instructions
- Any use of the device other than that described under "Intended use" without the written consent of the manufacturer
- Operation outside the technical limits of use
- Unauthorised modifications or conversions and tampering
- Use, installation, operation, maintenance or repair in a manner other than described
- Work carried out by unqualified personnel
- Use of unsuitable or incompatible materials, operating or auxiliary materials or accessories
- Non-compliance with safety and operating instructions, occupational safety and accident prevention regulations or relevant statutory regulations
- Failure to promptly rectify faults that could jeopardise safety
- Use of non-original replacement parts or accessories that are not equivalent in quality and function
- Operating the appliance in a technically unsatisfactory condition, not being aware of safety and hazards and not observing all instructions in the documentation.

5.3 Tasks and qualifications of staff

Person	Task	Required qualification
Operator	<< Device-specific >>	Instruction, training
Occupational safety specialist	• Carry out a risk assessment • Create operating instructions • Instruct persons	Completed training as an occupational safety specialist with recent experience with machines
Qualified electrician	Installation and maintenance of electrical equipment	A person with suitable training, appropriate education, timely experience and knowledge of the relevant regulations that enables them to recognise risks and avoid hazards that may arise from electricity.
Freight forwarder	External transport of the machine	A person with suitable training, appropriate education, up-to-date experience and knowledge of the relevant regulations, who is able to transport machines safely off-site.
Conveyor	Internal transport of the machine	A person with suitable training, appropriate education, up-to-date experience and knowledge of the relevant regulations, who is able to transport machines safely within the company.
Disposer	Dispose of the machine	Qualified waste disposal company for legally compliant, proper and professional disposal of the machine

5.4 Notes on occupational health and safety

The operator of the appliance is responsible for implementing the occupational health and safety obligations. The health and safety regulations of the country in which the appliance is used apply.

The obligations include the following points:

- make these operating instructions or extracts available to persons who perform tasks with or in connection with the device
- Provide the applicable documents to these persons
- Instruction of persons with regard to the intended use and misuse
- Instruction of persons with regard to protective devices and supplementary protective devices
- Instruction of persons with regard to residual risks

This list is not exhaustive and does not claim to be complete.

6 Transport

This section contains information on external and internal transport of the appliance.

Transport is the movement of the appliance by manual or technical means.

6.1 Loss of warranty claims

The manufacturer's warranty is void in the following cases:

- In the event of modifications to the device that have not been agreed with the manufacturer
- If the transport is not carried out properly

6.2 External transport

6.2.1 Transport space

Off-site transport takes place in public areas. The appliance is transported from one location to another.

6.2.2 Legislation

Transport of the appliance outside of the company is carried out in accordance with the legal regulations of the country in which the appliance is transported outside of the company.

6.3 Internal transport

6.3.1 Transport space

During in-house transport, the appliance is transported from one installation location to another on the company premises.

6.3.2 Legislation

The internal transport of the appliance is carried out in accordance with the legal regulations of the country in which the appliance is transported within the company.

7 Put into operation

This section contains information on commissioning the appliance.

Important notes:

- Check the appliance, cable and plug for damage before each use.
- In the event of malfunctions, switch off the appliance immediately and secure it. Have faults rectified immediately.
- The appliance and its electrical connections must not be damp and must not be operated in a damp environment.
- The union nuts on the measuring and reference connections must be firmly tightened.
- Measuring hoses must not be kinked or damaged.
- Do not lay the measuring hoses in the tread area.
- Do not expose the reference connections to dynamic pressure conditions (e.g. wind).
- The appliance must be levelled on a flat surface.
- Do not expose the appliance to vibrations or shocks during operation.
- Short measuring hose lengths reduce the response time of the measuring device.
- The pressure at the measuring connections must not exceed 0.1 bar (10,000 Pa), otherwise the measuring device may be damaged. **Never blow, suck or apply any other pressure!**

Starting position:

- Connect negative pressure areas to the device using measuring hoses "Connection -"
- Set the reference measuring point and connect it to the "Connection +" device using the measuring hose
- Switch on the device

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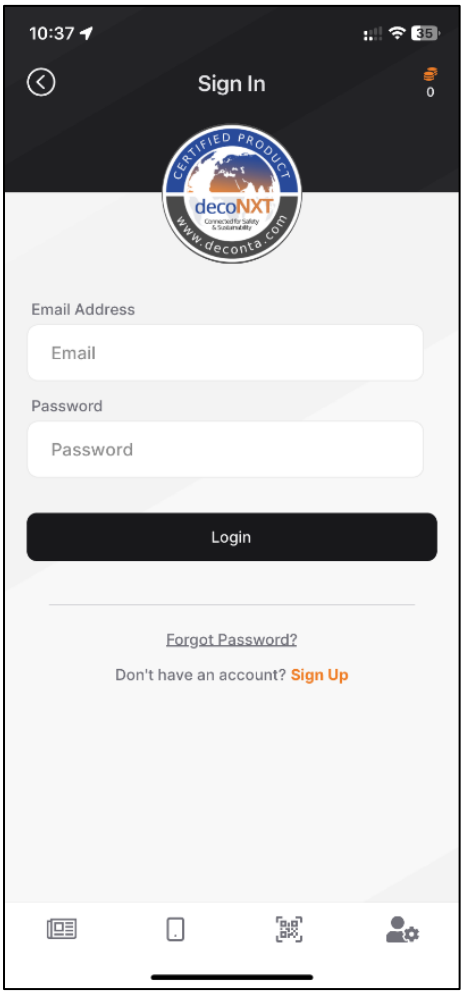
Neighbouring rooms to the work area should be selected as reference measuring points. The reference connection does not need to be assigned if the negative pressure monitoring device is located at the reference measuring point.

7.1 decoNXT App

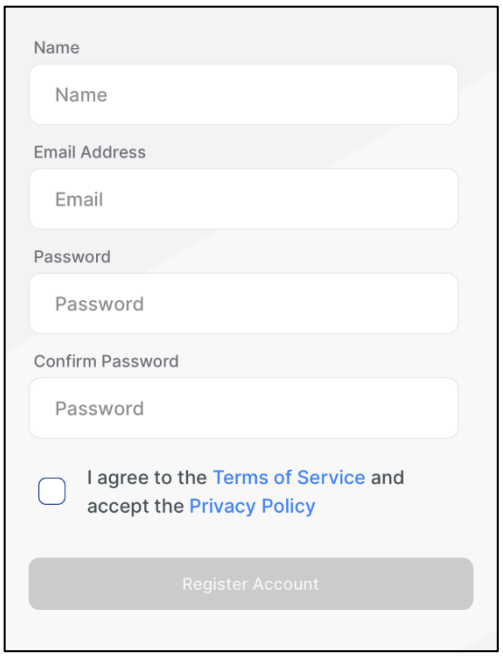
The vacuum gauge can be operated and monitored via a mobile app, available for Android and Apple.

Depending on the device used, install the decoNXT app from the Google Play Store or Apple App Store.

7.1.1 Login / Create user account

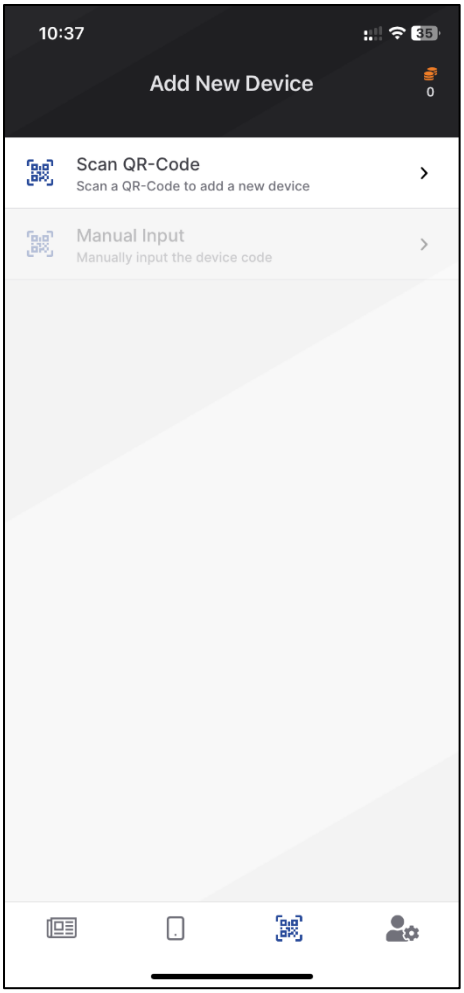


Log in with an existing user account or register a new account (Sign Up).

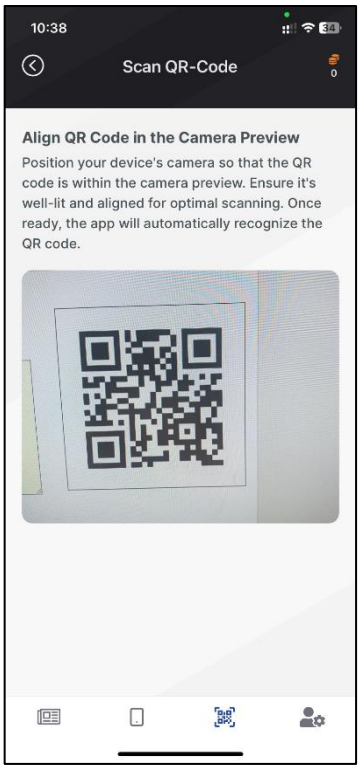


7.1.2 Add a new device to the user account

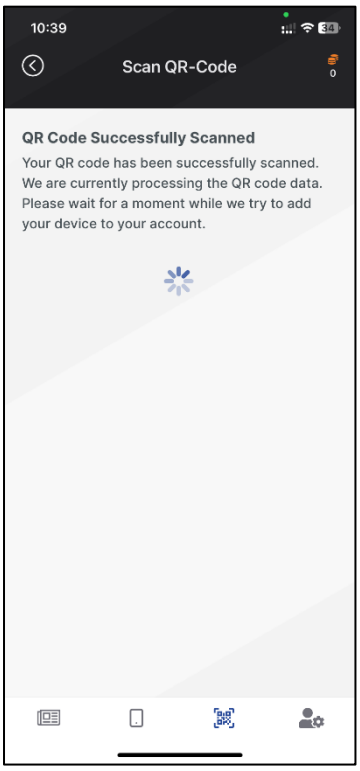
Tap on the QR code icon in the lower menu bar (3rd icon from the left)



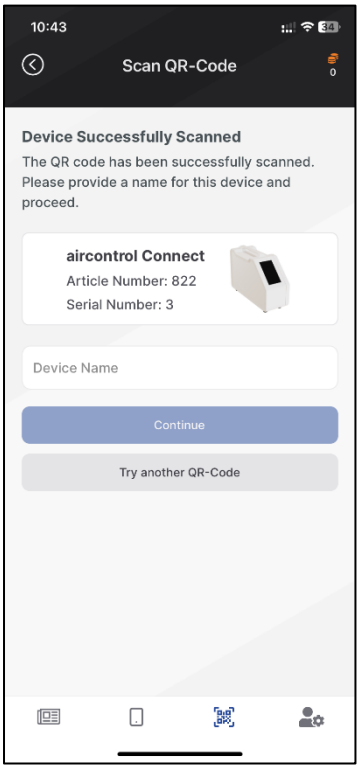
After tapping on "Scan QR code", the following page opens.



Display the QR code on the aircontrol connect display (see chapter 8.2.5) and scan it.



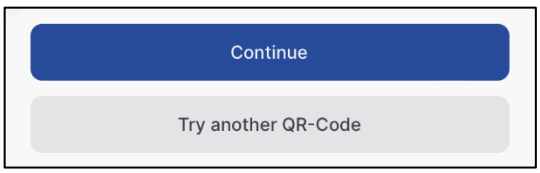
The QR code has been recognised, processing is running.

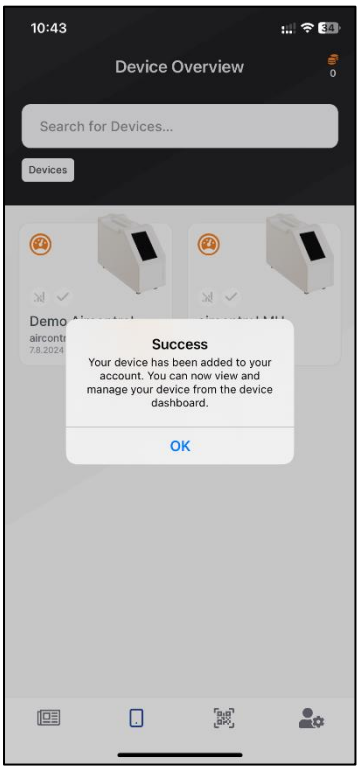


The scan was successful, a device was recognised.

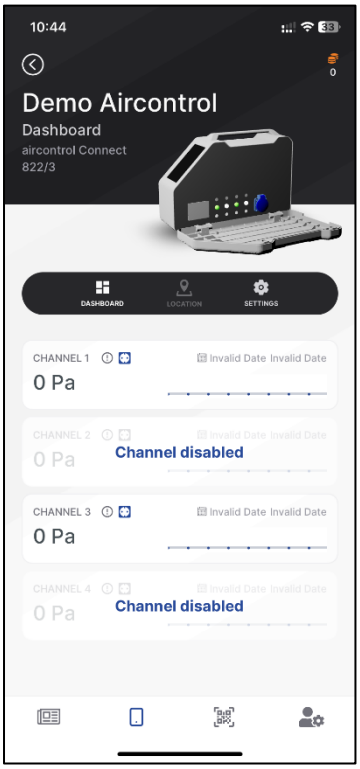
A name for the device must be entered in the "Device Name" field, with which it is then displayed in the device list of the user account.

Complete the process by tapping the "Continue" button.

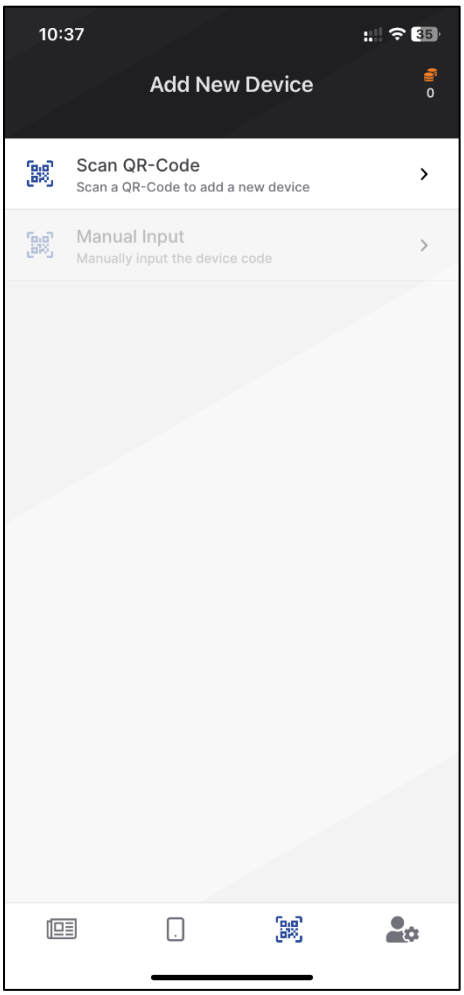




The successful addition of a new device is displayed.



All devices registered in the app are displayed in the dashboard and can be controlled from there.



As an alternative to scanning the QR code, the key displayed on the aircontrol above the QR code can also be entered by tapping on "Manual Input".

Display of the QR code / key see chapter 8.2.5

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Further operation of the app is described in the app's online help.

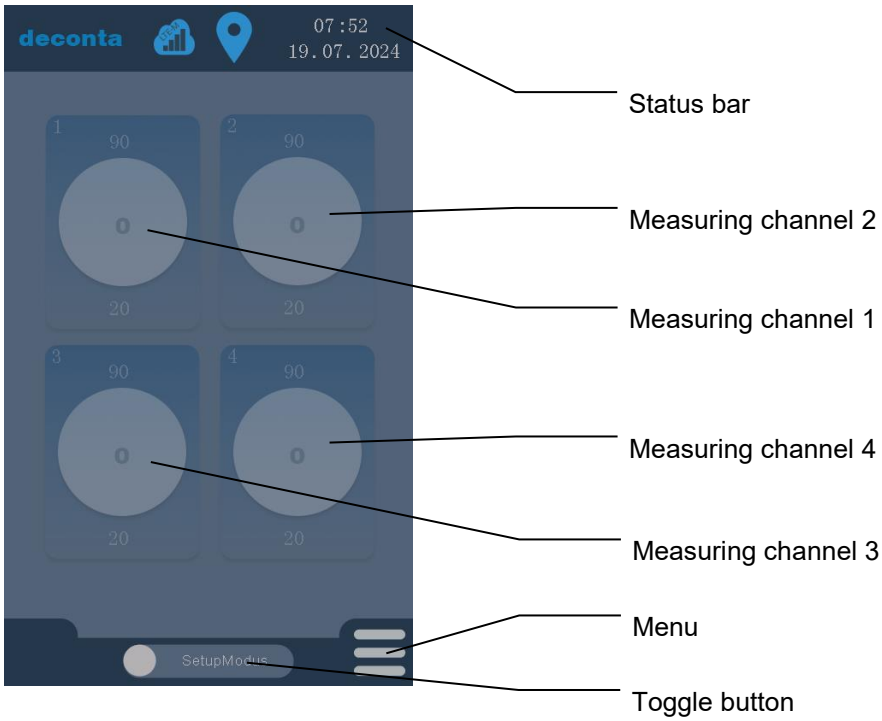
8 Operation

This section contains information for the safe use of the appliance.

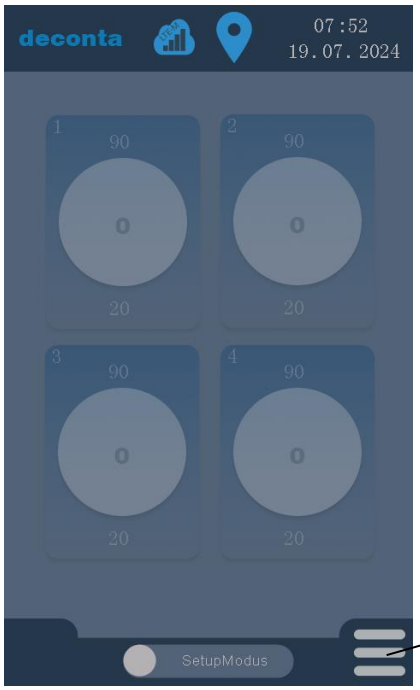
8.1 Displays on the touch display

Switch on the device, the following start screen is displayed for 30 seconds.

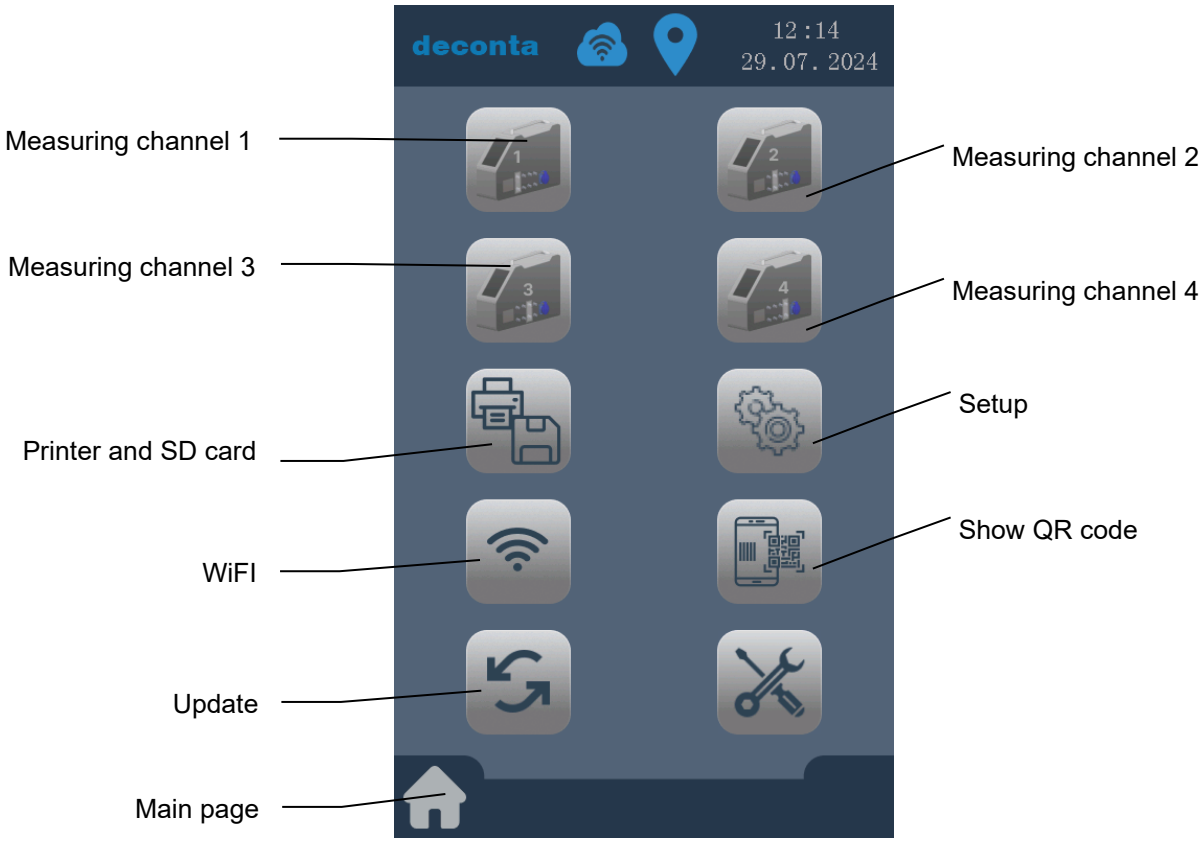
After 30 seconds, the main page is displayed.



8.2 Menu



Tapping on the "Menu" button opens a page on which all settings can be made.



8.2.1 Measuring channel settings (channel 1 - 4)

Tapping the "Measuring channel 1" button opens the settings page for this measuring channel.

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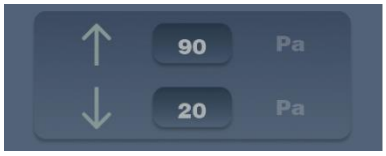
The settings are only saved by tapping the green tick.

Tap the red X to discard the entries.

An inactive measuring channel is displayed as follows:

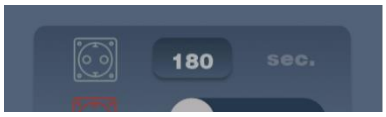
By tapping the "Ch. 1 inactive" button, this is activated and then displayed as follows:

The high and low alarm values are set by tapping the number field next to the up or down arrow.



The values are entered in a number field and confirmed with ok.

The delay time for activating the alarm socket is set by tapping on the number field next to the socket symbol.

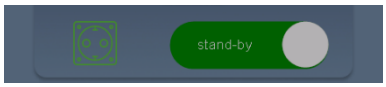


The values are entered in a number field and confirmed with ok.

An additional Negative pressure unit can be connected to the alarm socket of the aircontrol connect in standby mode. This is switched on when the negative pressure falls below the set value for low alarm and the delay time has elapsed.

An inactive standby mode is displayed as follows:

By tapping on the "stand-by" button, this is activated and then displayed as follows:



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The settings for measuring channels 2, 3 and 4 are made in the same way.

The settings of the respective measuring channel can also be called up directly by tapping the channel on the main page.

8.2.2 Printer and SD card

Tapping on the "Printer and SD card" button opens the following settings page.

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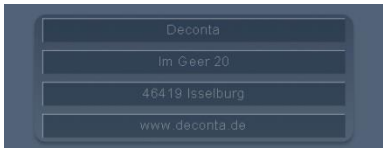
The settings are only saved by tapping the green tick.

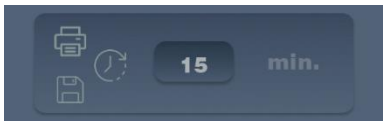
Tap the red X to discard the entries.

A customer-specific text (e.g. an address) can be entered here in 4 lines, which is then printed on the printer.



A maximum of 32 characters can be entered in each of the 4 lines.

Setting the storage interval and print output every X minutes.



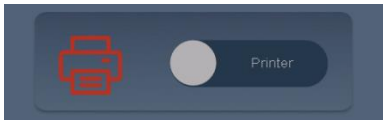
The value is entered in a number field and confirmed with ok.

Tapping this button deletes all data saved on the memory card.

To protect against accidental deletion, this is protected by a pin query. Default pin on delivery: 1234

The output of measurement data via the printer can be activated or deactivated.

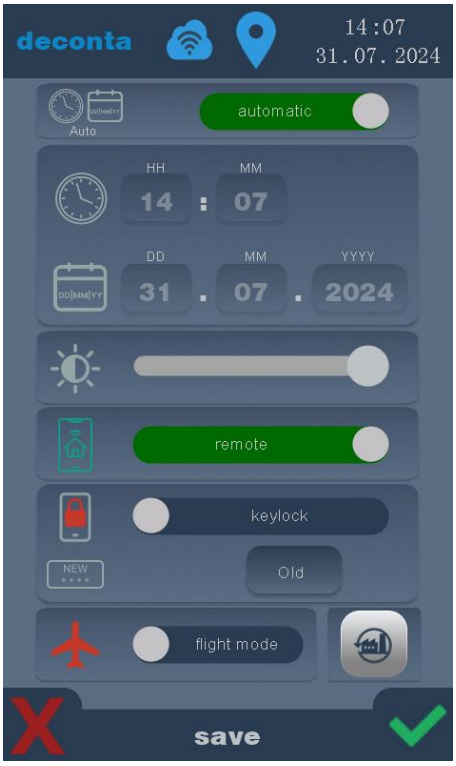
A deactivated printer is displayed as follows:



By tapping on the "Printer" button, this is activated and then displayed as follows:

8.2.3 Setup

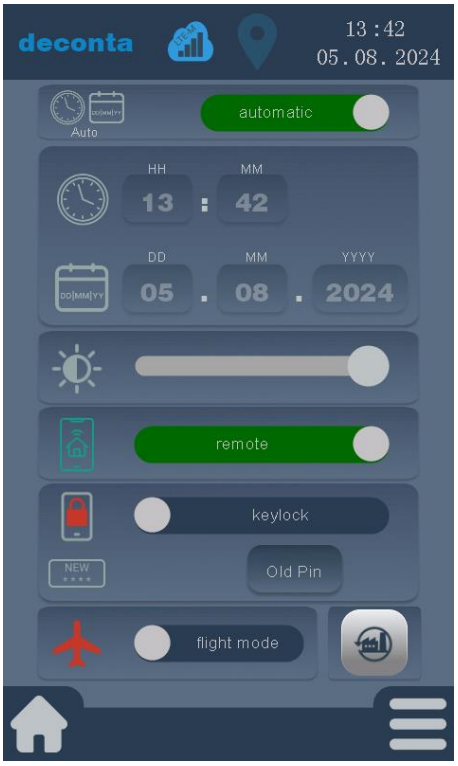
Tapping the "Setup" button opens the following settings page.



HINWEIS

The settings are only saved by tapping the green tick.

Tap the red X to discard the entries.

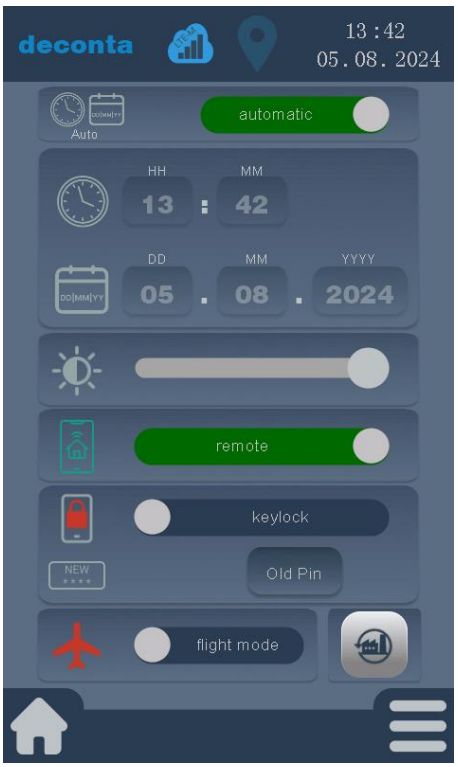


The time and date can be set automatically or manually.

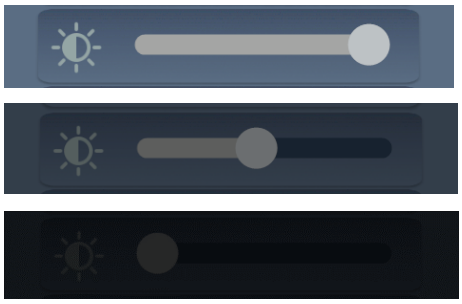
The automatic time is displayed as follows:

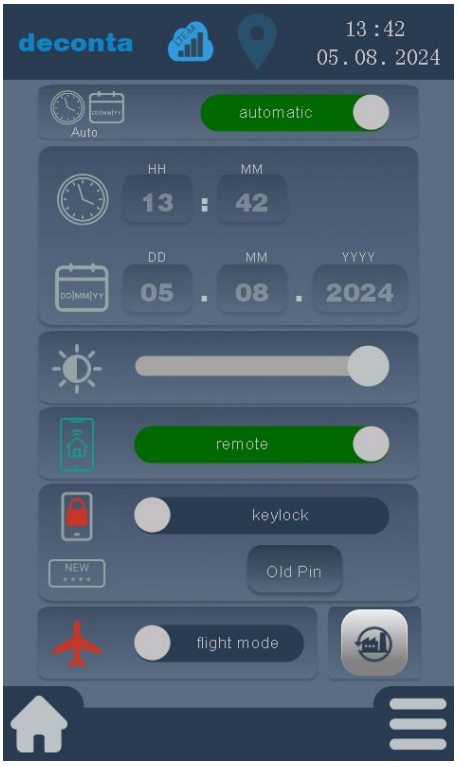
To enter the time and date manually, tap the green "automatic" button, the button label changes to "manual"

The hours, minutes, day, month and year can now be entered manually by tapping on the corresponding field.



Setting the display brightness. The brightness can be changed using a slider.

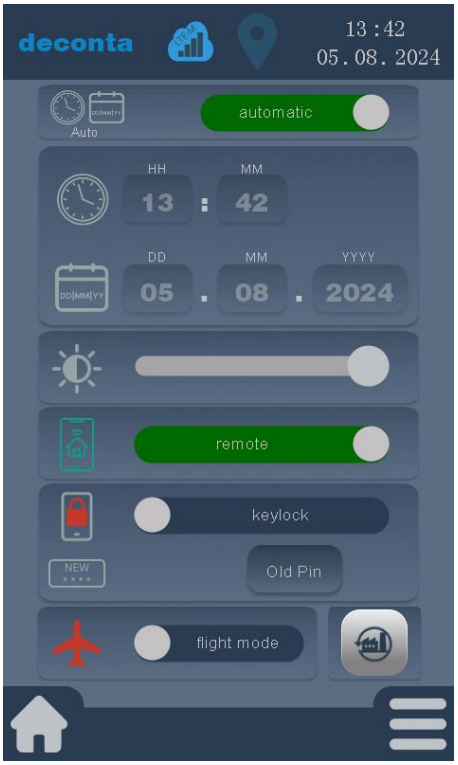




The remote control function of the aircontrol connect can be switched on or off using the "remote" button.

An activated remote control is displayed as follows:

Deactivated remote control capability is displayed as follows:



A key lock can be switched on or off using the "keylock" button.

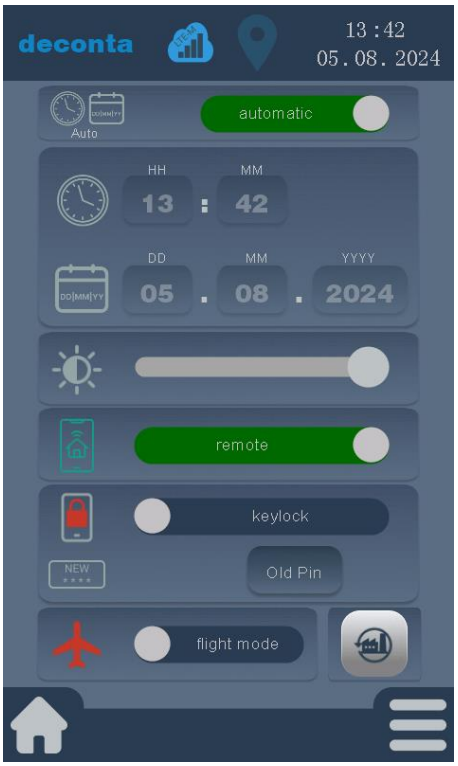
An activated key lock is displayed as follows:

A deactivated key lock is displayed as follows:

The button lock is activated if no action is taken on the touch display within one minute of leaving the setup menu.

Tap to unlock and enter the pin.

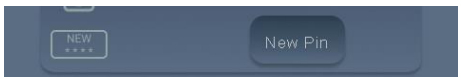
Standard pin on delivery: 1234



Tapping on the "Old Pin" button opens a window with a request for the previous pin.

Enter the previous pin (factory setting 1234) and confirm with OK.

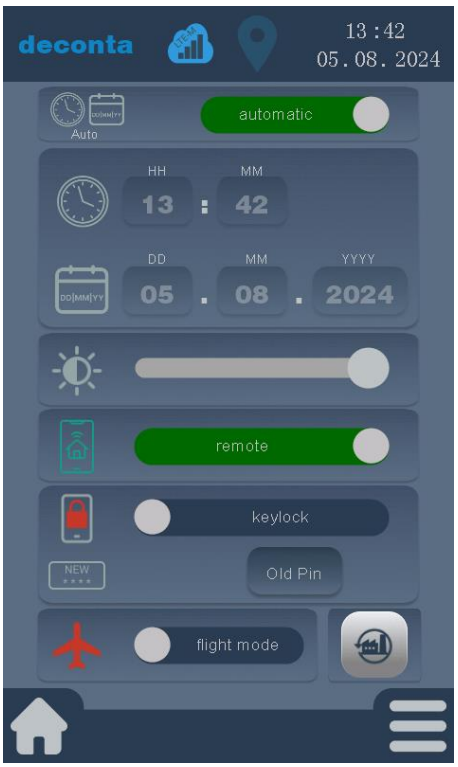
The labelling of the button changes to New Pin.



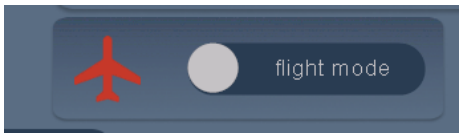
A new customised pin can be defined by tapping the "New Pin" button.

Enter the new pin and confirm with OK.

The changes are only saved after tapping the green tick.

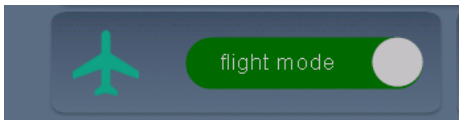


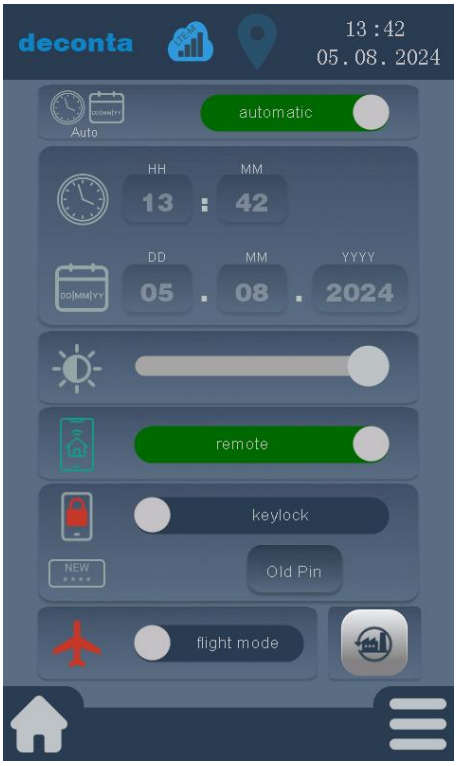
The device can be set to flight mode. This disconnects GPS, WiFi and mobile data.



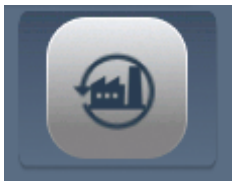
To activate flight mode, click on the "flight mode" button.

An activated flight mode is displayed as follows:

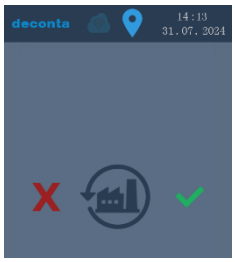




The device can be reset to factory settings by tapping the "Factory reset" button. **ATTENTION: This will delete all user-defined settings and all saved data.**



Cancel by tapping the red X, reset to factory settings by tapping the green tick.



After resetting, the device restarts with factory settings.

8.2.4 WiFi

Tapping on the "WiFi" button opens the following page.

To activate WiFi, click on the "WiFi is off" button. The display changes from

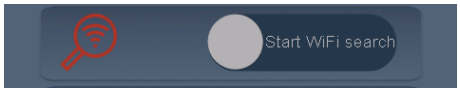
to

HINWEIS

To connect via WLAN, the aircontrol connect requires a 2.4 GHz network!

Ports 1883 and 8883 must be enabled on the router!

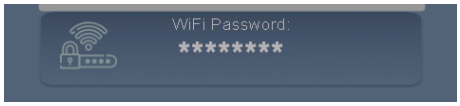
To search for available WiFi connections, tap the "Start WiFi search" button. The display changes from



to

The available networks are displayed. Select the desired network and confirm by tapping the green tick.

To enter the WiFi key, tap the "WiFi Password" button.



Enter the key and confirm with OK.

The entries are only saved after tapping the green tick.

The WiFi connection is displayed

8.2.5 QR code

Tapping on the "QR code" button opens the following display.

A key and a QR code are displayed here, which are required to add the aircontrol to a user account in the mobile app, see chapter 7.1.2.

8.2.6 Update

Tapping the "Update" button opens the following display.

HINWEIS

An update is only carried out with an activated WiFi connection. The device checks for updates every time it is restarted and displays any available updates.

Tapping the button triggers a search for an update.

A new update is displayed below the button.

To install, tap the following button.

The update is downloaded and installed.

A status bar shows the progress.

The update can be cancelled by tapping this button.

At the end of the update process, the aircontrol connect restarts.

8.3 Displaying the status bar

8.3.1 Display of the Internet connection

Not connected with deconta decoNXT

Connected to deconta decoNXT via mobile data

Connected to deconta decoNXT via WiFi

Device is in flight mode, data connections and location determination are deactivated

8.3.2 Display of the location determination

Location determination is deactivated

Location determination is activated

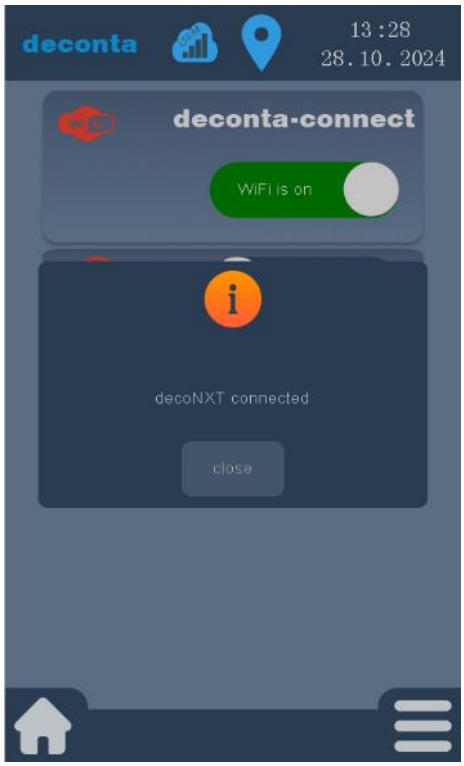
8.3.3 Time and date

8.4 Pop-up info window

Additional information is displayed via pop-up windows.

Examples of a pop-up window:

Incorrect password, a WiFi connection cannot be established.



The device is connected to deconta decoNXT.

Pop-up windows can be closed by tapping on "close".

8.5 Display of the measuring channels (examples)

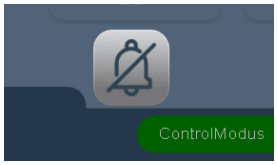
Measuring channel 1 is activated, channels 2, 3 and 4 are deactivated and are greyed out.

The currently measured negative pressure in Pa is displayed in the centre of the circle (24). The set high alarm (90 Pa) is displayed above the circle and the set low alarm (20 Pa) is displayed below the circle.

The measured negative pressure (19 Pa) falls below the set value (20 Pa) for the alarm low, the adjustable delay time starts to run.

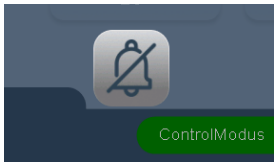
The measured negative pressure is displayed in orange until the delay time for an alarm message has elapsed.

An acoustic signal (buzzer) sounds. The signal can be suppressed by pressing the button with the bell at the bottom left of the display.



After the delay time has elapsed, the measured negative pressure is displayed in red and an alarm is triggered.

The acoustic signal (buzzer) continues to sound. The signal can be suppressed by pressing the button with the bell at the bottom left of the display.



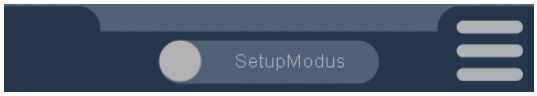
The socket on the device is switched to active. This is indicated by the symbol of a socket at the top right of the measuring channel.

If the standby function for the socket is active in the settings of the measuring channel, the function is displayed below the socket symbol.

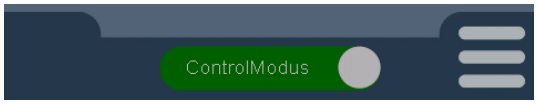
When the measured negative pressure is back within the limit values, the socket for the connected standby device can be switched off again by tapping the "reset standby" button.

8.6 Toggle button, start negative pressure measurement

Once all parameters have been set, the negative pressure measurement can be started by tapping the "Setup mode" button.



The labelling changes to "Control mode", the negative pressure measurement is active.



8.7 Storage of measurement data

The measurement data is saved on a micro SD memory card. A file in CSV format is saved there for each day.

The stored data can be analysed on a PC.

The slot for the memory card is located on the side of the device behind a protective cap.

If no memory card is inserted, the message "SD missing" is displayed on the main page.

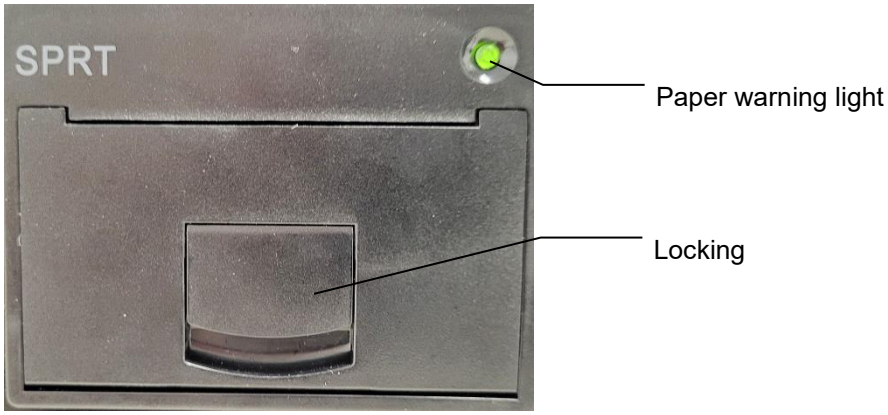
8.8 Printer

If the printer is activated in the settings, the measurement data and alarm statuses are printed on a ribbon printer on the side of the device.

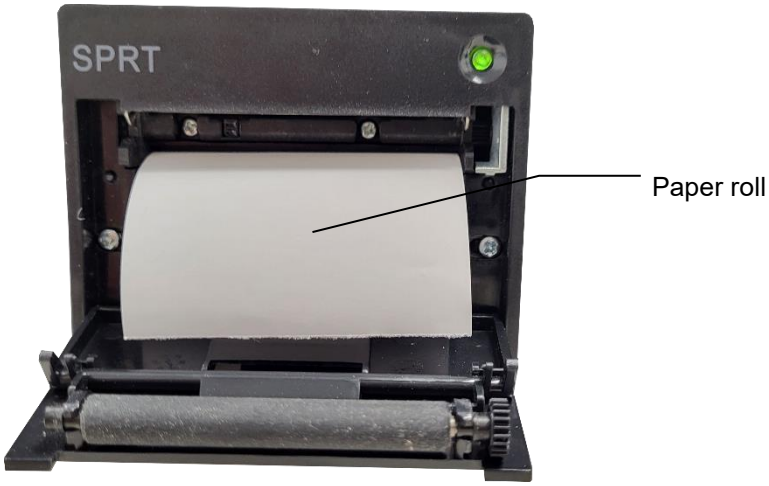
8.8.1 Inserting / changing the paper roll

The paper warning light flashes if there is no paper.

Pull the latch and open the flap.



Insert paper roll.



Close the flap again, making sure that the latch engages.

8.9 Battery switch

A rechargeable battery is integrated into the device. When the switch is set to "On", the device sends a message to the mobile app in the event of a power failure.

If the device is disconnected from the power supply, it sends its location to the mobile app via GPS every 15 minutes (theft protection).

HINWEIS

To prevent the battery from being completely discharged, set the switch to the OFF position when transporting or storing the aircontrol connect.

8.10 Alarm socket

A signal lamp or a signal horn can be connected to this socket. This socket is activated if the measured negative pressure is outside the set values for "Alarm high" and "Alarm low".

If the stand-by function is activated, a Negative pressure unit connected to this socket is supplied with power in the event of an alarm.

9 Storage

This section contains information on the safe storage of the appliance.

The device is stored in the following cases:

- After decommissioning for a longer period of non-use
- After decommissioning for a relocation

9.1 Ambient conditions

The machine can be stored under the following ambient conditions:

Ambient temperature (°C)	0 °C to +40 °c
Relative humidity (% non-condensing)	80 %, non-condensing

10 Waste disposal

Disposal is the capture, collection, transformation, selection, processing, regeneration, destruction, utilisation and sale of the materials to be disposed of that are used in the machine.

This section contains information on the proper and professional disposal of the machine.

10.1 Qualification of staff

Persons who dispose of the machine must fulfil the following requirements:

Person	Required qualification
Disposer	Qualified waste disposal company for legally compliant, proper and professional disposal of the machine

10.2 Legislation

The machine is disposed of in accordance with the legal regulations of the country in which the machine is disposed of.

The operator of the machine or the person authorised to dispose of the waste is responsible for compliance with these legal regulations.

10.3 Waste

The waste generated by the machine must be disposed of properly and professionally in accordance with the law

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11 EU Declaration of Conformity

The manufacturer / distributor

deconta GmbH
Im Geer 20
46419 Isselburg

hereby declares that the following product

Product designation:	aircontrol connect
Type designation:	822, 822a, 822b
Year of manufacture:	see type plate

complies with all relevant provisions of the applicable legal regulations (hereinafter) - including their amendments valid at the time of the declaration. The sole responsibility for issuing this declaration of conformity lies with the manufacturer.

The following harmonised standards were applied:

EN 300 386 V1.6.1	Electromagnetic compatibility and radio spectrum matters (ERM) - Telecommunication network equipment - Electromagnetic compatibility (EMC) requirements
EN 301 489-1 V1.9.2	Electromagnetic compatibility and Radio Spectrum Matters (ERM) - Electromagnetic Compatibility (EMC) standard for radio equipment and services - Part 1: Common technical requirements
EN 55011:2016	Industrial, scientific and medical equipment - Radio disturbance - Limits and methods of measurement
EN 60204-1:2018	Safety of machinery - Electrical equipment of machines - Part 1: General requirements (IEC 60204-1:2016 (Modified))
EN 61000-6-2:2005	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments (IEC 61000-6-2:2005)
EN 61010-1:2010	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 1: General requirements (IEC 61010-1:2010)
EN 61326-1:2013	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements (IEC 61326-1:2012)
EN 62368-1:2014/AC:2015	Equipment for audio/video, information and communication technology - Part 1: Safety requirements (IEC 62368-1:2014 (Modified))
EN ISO 12100:2010	Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)

The following legal provisions were applied:

Low Voltage Directive 2014/35/EU
EMC Directive 2014/30/EU
Radio Equipment Directive 2014/53/EU
RoHS Directive 2011/65/EU

Place: Isselburg
Date: 16.09.2024

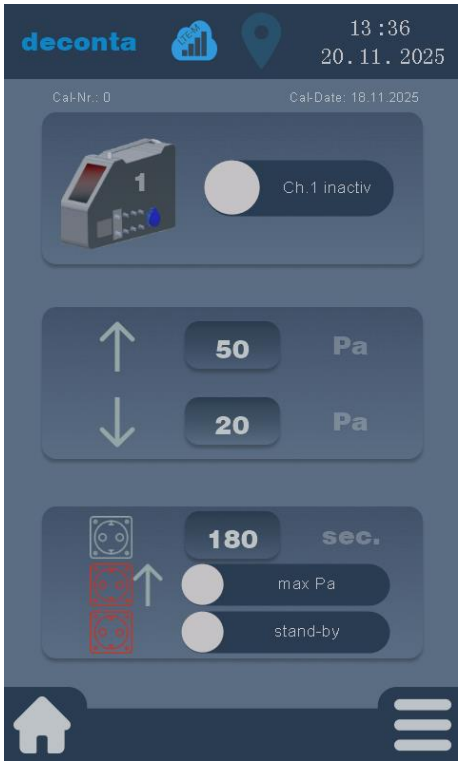
Leiter Konstruktion / head of construction

Leiter Elektro / head of electro

12 Additions

12.1 Update to firmware version 1.2.5 and HMI version 1.1.5

- If the display lock is active, the device will start up with a locked screen even after being switched back on.
- If the "Alarm High" limit value is exceeded, a separate switch for each channel on the corresponding channel page can be used to select whether the socket switches after the set delay time. This allows you to connect a standby device that does not have its own vacuum control.



Socket does not switch on

Socket switches

If the value falls below "Low alarm", the socket always switches.