



lindab | for a better climate



Lindab UltraBT™

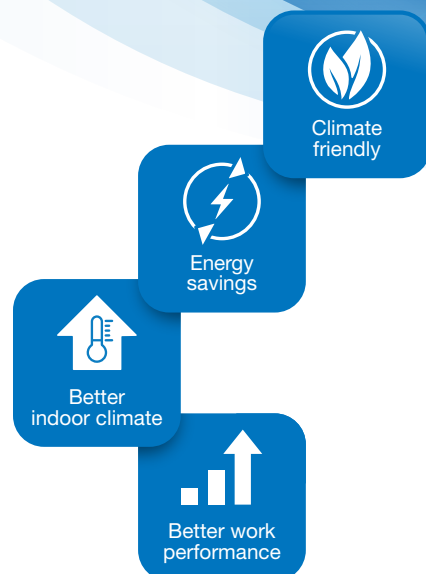
Room control system made easy



Why should we **control the air?**

As ventilation comprises a substantial part of the total energy consumption used in a building, it is essential that ventilation is controlled and used in an environmentally friendly and cost-effective way.

Moreover, indoor climate has a direct impact on our well-being, health, and performance, making it crucial to deliver the best climate possible. Doing so will increase work performance and create a better work environment.





Introducing Ultra BT™

Ultra BT is based on few components and introduces a revolutionized way of controlling and optimizing your Demand Controlled Ventilation system at room level.

It is a 360-degree system upgrade with a fully integrated Bluetooth Technology, making both costs, installation complexity, and daily operations much more efficient and indoor climate optimal at all times.

Ultra BT™ benefits

- + Easy setup
- + Wireless system
- + App controlled ventilation
- + Room specific setup
- + Room by room upgrade
- + Reuse existing ventilation components
- + Regulate heating and cooling devices

Ultra simple and ultra smart The Ultra BT™ system



Three components
- full control



Sensors



App

Ultra BT in action - a case story

A valuable ventilation upgrade

Return on investment, installation time, renovation and doubts that it will make a substantial difference on performance, risk of illness, costs, energy savings, and the environment are the key arguments why building owners are not modernizing existing ventilation systems. All arguments are literally aired out by the clear and convincing results of the Ultra BT system in action.

73%

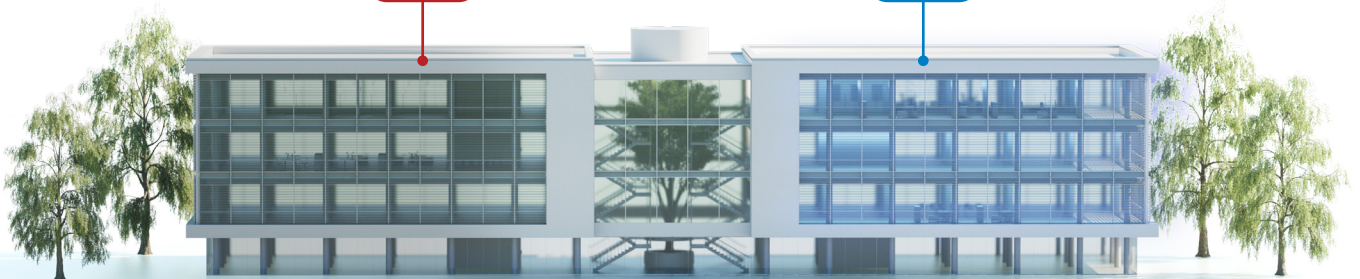
cost reduction

68%

energy saving

4.5

years ROI



What? Restructure of the existing ventilation system in a storage hall and office building.

Why? Cooling, improved work environment and noise reduced and optimized ventilation needed.

Who? 76 employees and work stations with an average occupancy between 60%-80% on a daily basis, on 830 m².

Where? Bargteheide, Germany.

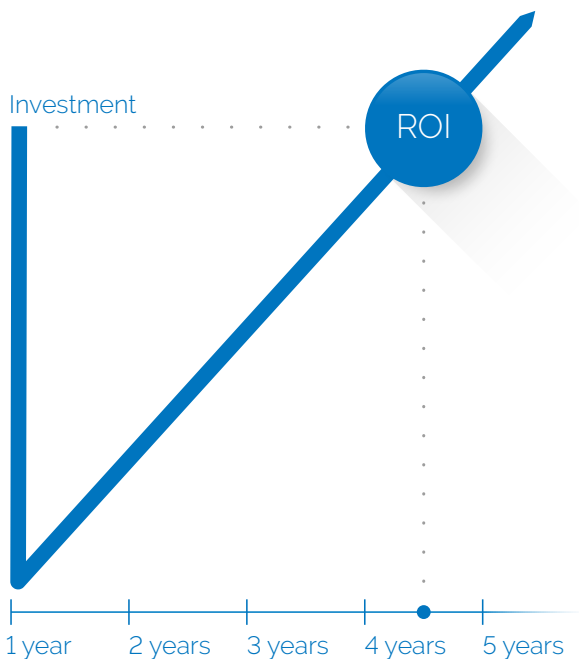
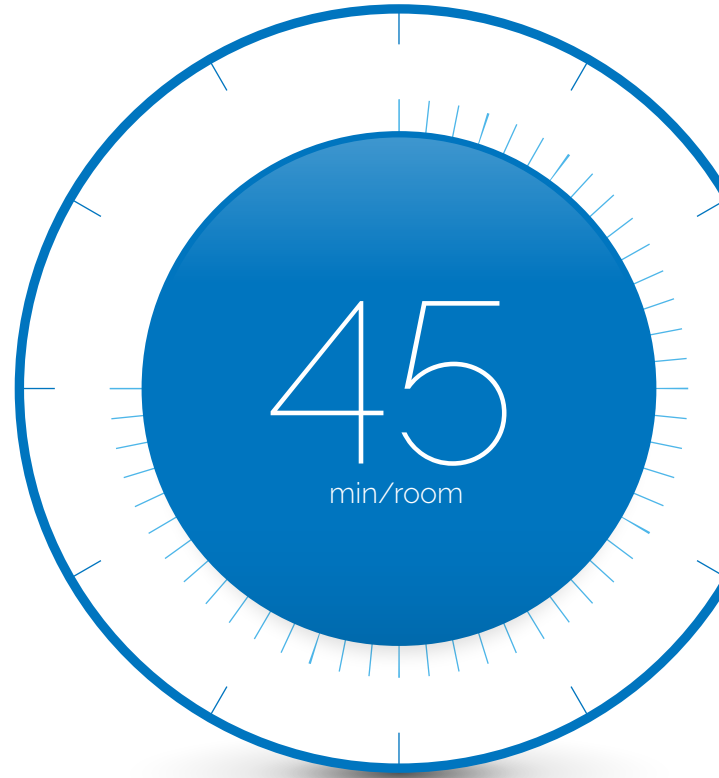
When? 2020-2021.

How we cool you down

The building owner of a combined storage hall and office building in our case study had clear goals when starting optimization of the ventilation system. First and foremost, they needed cooling and reduction of energy consumption, but they wanted to reuse as much of the old duct system as possible and ensure a short payback time.

All rooms were equipped with an UltraLink supply air volume flow controller type FTCU supplied with the basic voltage of 24V with a downstream silencer. In addition to humidity and CO₂ sensors, open offices were equipped with up to three presence sensors that detect even the slightest movement in the room. Each room installation took 45 minutes and left no renovation requirements, as there are no re-wiring or in-wall installation needed.

All rooms were setup with the commissioning app OneLink. If wanted, they can all be monitored, set, and reset by employees via the room control app OneSet.



The mind-blowing results

The advantages of Demand Controlled Ventilation are obvious. While the old system has blown a constant 2570 m³ / h into the building, the air volume is now adjusted to fit the actual demand and can blow up to 6000 m³ / h if needed.

Aside from the fact that a survey showed substantial improvement in indoor climate satisfaction, the annual energy costs of the system results in a reduction of 73% compared to the old system and leaves a calculated ROI of merely 4,5 years.

Now those are cool(ing) numbers.

UltraLink[®]

Endless possibilities

The Ultra BT system consists of our premium product UltraLink Demand Controlled Ventilation regulator, which is installed in existing duct system.

UltraLink's ultrasonic sensor technology makes it possible to measure airflow, velocity, and temperature with a very high precision and reliability compared to traditional products.



The UltraLink[®] benefits

- + Increase energy efficiency and comfort
- + Decrease costs
- + High precision measurement
- + No unnecessary pressure loss
- + Easy to clean and maintain
- + Reduced noise level
- + Wireless firmware upgrade

Why go with Ultra BT[™]

Can you afford not to?

By controlling the air at room level with a wireless installation and app managed system, you are taking an important step into a fresher, greener, and more provident future, where you can decrease your energy consumption.

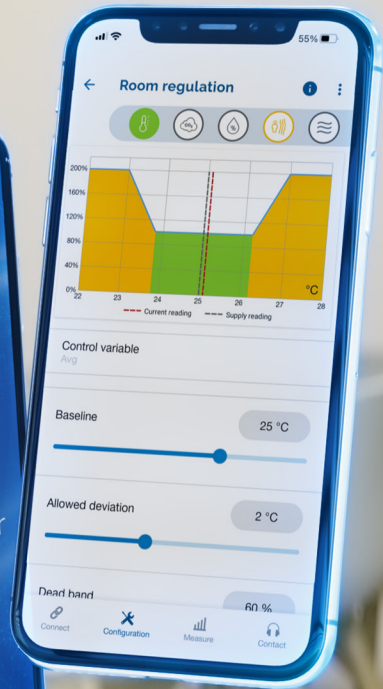
And why not start by upgrading a couple of rooms at a time and add more sensors if needed? The choice is yours...

Upgrade with sensors to control...

- + CO₂ levels
- + Airflow
- + Humidity
- + Presence
- + Temperature







No wires – no worries

Traditionally, installing a ventilation system is time consuming, disruptive, and expensive. At Lindab we have made it our primary objective to fan out these facts of the past and replace them with innovative ventilation systems of tomorrow.

With Ultra BT you get premium air quality, adjusted by time of day and usage and all with easy installation and simple management.
No wires, no heavy installation, no restoration required at room level.

Easy commissioning

How easy? You simply install the UltraLink in existing ducts, you place the sensors on the wall, you download the OneLink app to your phone, set all preferred levels in the room, and that is it.



OneLink™ – The commissioning app

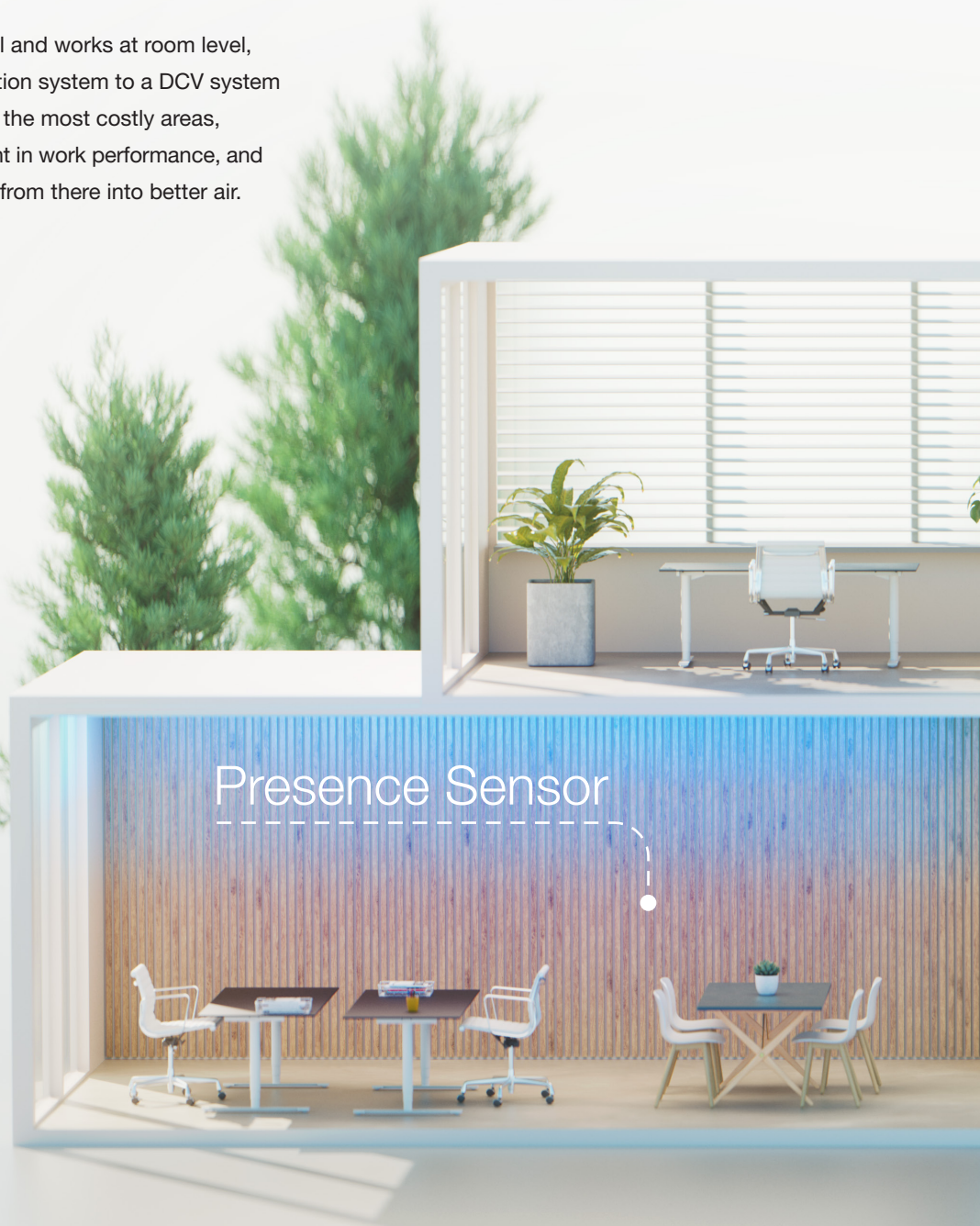
What is the one thing you carry with you at all times? Your smartphone. With the OneLink app, you carry your commissioning setup in your pocket. Your entire ventilation system linked to one app – OneLink gives you full access. In the app you can...

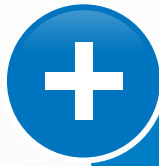
1. Set up your system
2. Monitor performance
3. Adjust settings accordingly
4. Upgrade firmware
5. Get virtual support directly from OneLink

Easy upgrade over time

As 30% of the energy consumption used in a building comes from ventilation, it is essential to keep it updated. Not only will it reduce costs, it also has a proven positive effect on your staff or residents, and it can be installed in stages to keep your initial investment to a minimum.

As the Ultra BT is so easy to install and works at room level, you can upgrade your CAV ventilation system to a DCV system room by room. Start by optimizing the most costly areas, measure your savings, improvement in work performance, and overall comfort and move forward from there into better air.





Investment benefits

- ⊕ Easy upgrade from CAV to DCV system
- ⊕ Add Ultra BT room by room
- ⊕ Upgrade with new sensors over time
- ⊕ Split your investment



OneSet™

The room control app

There is nothing more efficient and cost-effective than continuous monitoring and adjustment. See, set and reset your indoor climate room by room to make sure you are ventilating optimally and according to the usage of the room and time of day.

With the OneSet app, you get visuals of the current indoor climate state for each room. Depending on your selected sensors, you can see and set room temperature, humidity, CO₂ levels and so forth. If some employees should have more or less control over certain rooms, you can even set up who can do what in which rooms.





LindQST®

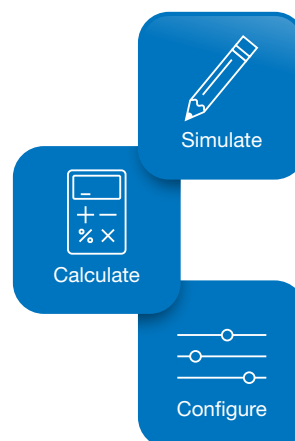
One step closer to well-ventilated air

LindQST is an online tool we at Lindab have developed to make the steps towards the best ventilation as easy as possible.

With this intuitive tool you can plan, calculate and simulate your ventilation projects.

The more you know upfront – the easier it is to do a ventilation upgrade. With the LindQST tool you can choose and configure solutions to ensure best performance at the lowest operating cost. Also, we have made it easy to find all products, documentation and relevant information and you can save ongoing projects and finish calculations at whatever time suits you best.

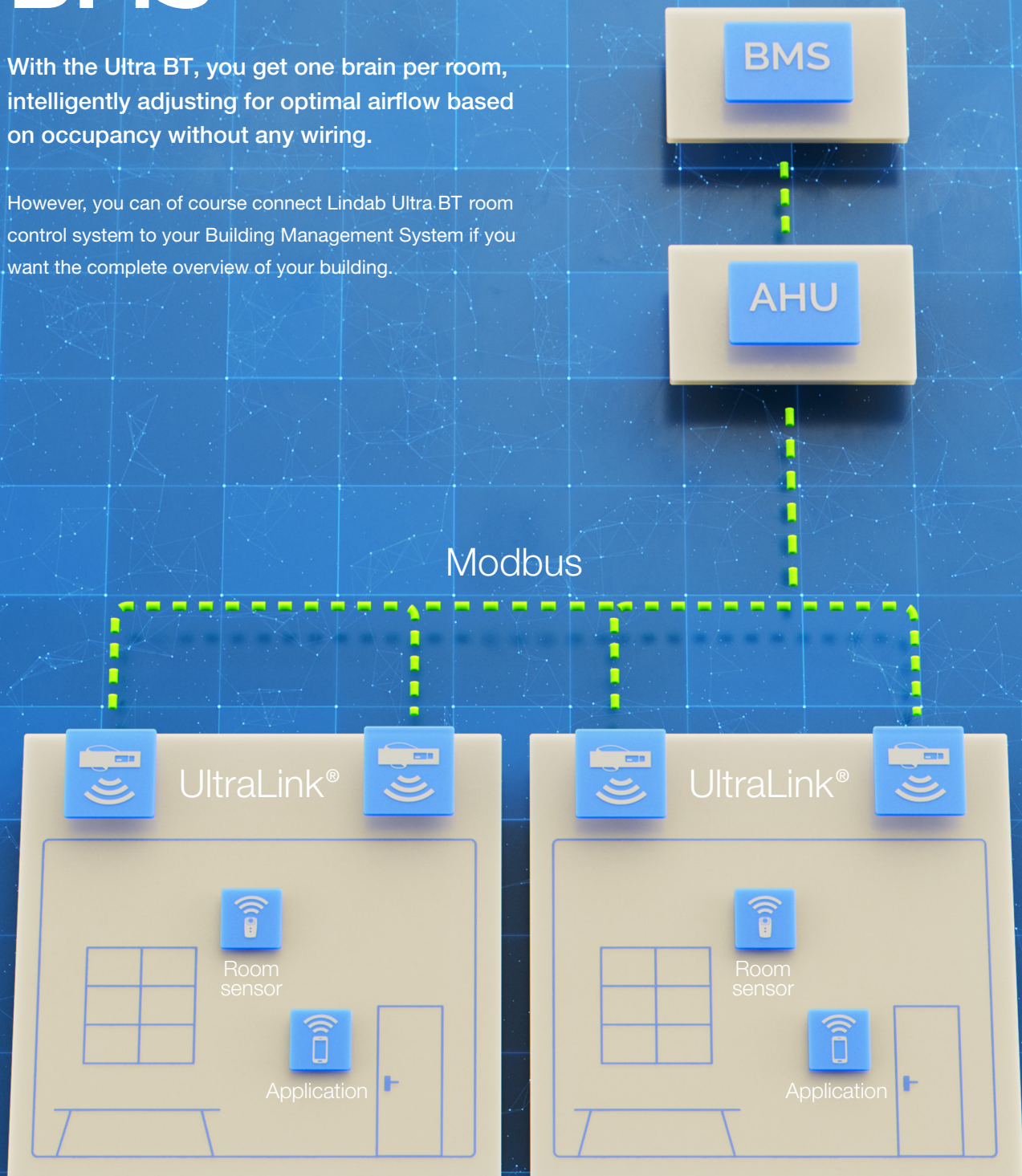
See more on Lindqst.com



Connect to your BMS

With the Ultra BT, you get one brain per room, intelligently adjusting for optimal airflow based on occupancy without any wiring.

However, you can of course connect Lindab Ultra BT room control system to your Building Management System if you want the complete overview of your building.



UltraLink® Controller FTCU

Technical data

Power supply	AC/DC	24 (19 - 28)	V
Cable	Max outer diameter	7	mm
Power consumption	Dim. 100 - 315	2	W
	Dim. 400 - 630	3	W
Power consumption	For wiring, dim. 100 - 315	3	VA
	For wiring, dim. 400 - 630	5	VA
Premounted cable	Length	0,7	m
Degree of protection	EN 60529	IP44	
Tightness class to the environment	EN 12237	D	
Tightness class, past a closed damper	EN 1751	4	
Pressure class, Δp closed damper	Dim. 100 - 315	C (max 5000 Pa)	
	Dim. 400 - 630	B (max 2500 Pa)	
Storage temperature range		-30 to +50	°C
Maximum ambient moisture		95	% RH
Connection	RS485 standard or analog		
Cable	RS485 standard cable, 2-wire shielded twisted pair, min. 0,1 mm ² (LIYCY cable)		
Protocol	Modbus		
Output	Flow Flow Velocity Temperature Damper position (0% fully closed, 100% fully open)		m ³ /h l/s m/s °C %
Velocity range	For guaranteed measurement uncertainty	0,2 - 15,0	m/s
Measurement uncertainty flow (assuming correct installation)	Depending on which is the greatest of the percentage or the absolute number for the specific products size.	±5 Dim. 100 = ±1,00 Dim. 125 = ±1,25 Dim. 160 = ±1,60 Dim. 200 = ±2,00 Dim. 250 = ±2,50 Dim. 315 = ±3,15 Dim. 400 = ±4,00 Dim. 500 = ±5,00 Dim. 630 = ±6,30	% or l/s l/s l/s l/s l/s l/s l/s l/s l/s
Temperature range		-10 to +50	°C
Measurement uncertainty, temperature		±1	°C
Bluetooth radio	Frequency	2402 - 2480	MHz
	Output power	-40 to +9	dB
Bluetooth range (free line of sight)	UltraLink	100	m
Firmware	Upgrade in OneLink for optimal performance		

UltraLink® Controller FTCU

Airflows

Ø [mm]	0,2 m/s		7,0 m/s		15,0 m/s	
	m ³ /h	l/s	m ³ /h	l/s	m ³ /h	l/s
100	6	2	198	55	425	118
125	9	3	309	86	662	184
160	14	4	507	141	1087	302
200	23	6	792	220	1696	471
250	35	10	1237	344	2650	736
315	56	16	1964	546	4208	1169
400	90	25	3167	880	6786	1885
500	141	39	4948	1374	10603	2945
630	224	62	7855	2182	16833	4676



Most of us spend the majority of our time indoors. Indoor climate is crucial to how we feel, how productive we are and if we stay healthy.

We at Lindab have therefore made it our most important objective to contribute to an indoor climate that improves people's lives. We do this by developing energy-efficient ventilation solutions and durable building products. We also aim to contribute to a better climate for our planet by working in a way that is sustainable for both people and the environment.

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