

## The only thing you cannot measure is its potential

Now with Bluetooth & App

### Lindab UltraLink®

A revolutionary technology for precise measurement and regulation of airflow without unnecessary pressure loss



# The world needs energy-smart solutions

Large pressure loss in ventilation systems have been a problem for a long time. Part of the pressure loss is due to measuring devices that have parts in the air flow. These devices collect dirt which in turn makes it difficult to get precise measurement values especially for low airflows. To compensate for this, ventilation systems are often over-dimensioned, with a larger air handling unit and higher energy costs as a result.

#### Precise measurement of airflow with ultrasound

An increased focus on energy savings has led to low airflow ventilation systems becoming more common. This has in turn created a need for measuring devices and methods that can ensure high accuracy even in low air flows.

With UltraLink® this need is fulfilled.

### 2020

To stop global warming, the European Union has set climate targets to be fulfilled in 2020.

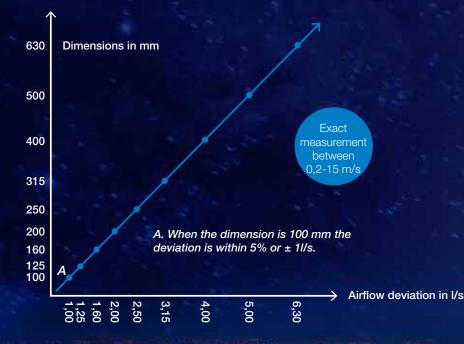
20%

According to the EU's climate targets, energy consumption must be reduced by 20 per cent by 2020.



# A new revolution for optimum indoor climate

UltraLink<sup>®</sup> provides an exact measurement of the entire flow area with high accuracy without unnecessary pressure drops in the ventilation system. It is a unique and energy-saving method of measuring airflow. The deviation is within 5% or +/- as many litres/second as the product's diameter in decimetres.



The technology is based on ultrasound sensors, which means there are no parts in the airflow on which dirt can collect. Instead, you experience uninterrupted airflow without unnecessary pressure loss, offering unique benefits in terms of comfort, energy efficiency, commissioning, installation, maintenance and cleaning.

Intelligent component in a demand- and presence-controlled system UltraLink® is now possible to integrate in new as well as already installed VAV systems to make the system completely energy optimised.



Integrated VAV damper which is effectively controlled Sensor housing

Ultrasound sensor

TRACK ST

Motor

Display unit

5

DOMESTIC TODATE

## UltraLink® - How it works

### Eliminates further pressure loss

There are no parts in the airflow resulting in unnecessary pressure loss or on which dirt can collect.

## $\mathcal{D}$

### Can be integrated in VAV system

Add UltraLink<sup>®</sup> to Lindab Pascal (Lindab's DCV solution for demand- and presence-controlled ventilation) to boost the performance of your current system, upgrading it to an energy optimised system.

#### Precise measurement

Use of ultrasound for precise measurement of airflow in the ventilation. This way the need to over dimensioning of the ventilation system, which in turn leads to higher energy costs, is eliminated.

#### Efficient control

By adding UltraLink<sup>®</sup> technology in our products we can use collected data showing correct airflow, temperature and air velocity directly in the display. The integrated VAV damper effectively regulates the airflow in an optimal way.

Patented Technology by Lindab

Integrated VAV damper

## Maximum savings and ultrasmart benefits for everyone

Upgrade your VAV system with UltraLink<sup>®</sup> to make it an energy optimised ventilation system that only consumes the exact amount of energy that is actually needed. Both the environment and economy will gain fully from this. The total life cycle cost is decreased as products with UltraLink<sup>®</sup> technology requires minimal maintenance from its high quality and optimum operating safety.

## 680 MWh

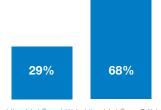
For an office in i Stockholm measuring 10,000 m<sup>2</sup>, with a ventilation system calculated to last for 20 years, the potential energy savings would be 680 MWh.



68%

### € 833,859

Total savings in the example in pure money compared to CAV.



UltraLink® vs VAV UltraLink® vs CAV

Compared to traditional CAV systems, you can save 68 percent over time.



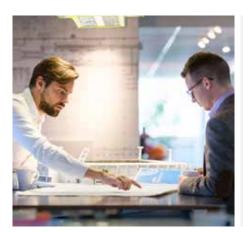


#### Calculate how much you save

Compare UltraLink® to other products with our easy to use calculation tool. Visit lindab.com/ultralink

#### Optimise your system

Add UltraLink® to Pascal to maximise the system to its full potential for an energy-optimised system.



#### Consulting engineer and property owner

UltraLink<sup>®</sup> products can be installed in an existing VAV system or be placed in a whole new system. This gives you high flexibility and a possibility to give a building an energy optimised system meeting the climate targets and decreasing life cycle cost.

- Energy-optimised system
- Demand- and presencecontrolled ventilation
- Minimal cleaning

- Minimal energy consumption
- Maximum savings for your wallet and the environment
- Low lifecycle cost



#### Contractor

To meet future demands for air tight ventilation systems and low energy costs in buildings, energy efficient ventilation systems are required to guarantee an optimal indoor climate. They also need to be easy and time-efficient when it comes to commissioning and installation.

- High level of reliability
- Precise measurement accuracy
- Easy installation and control
- State-of-the-art ventilation system
- Optimum performance with Lindab Safe ventilation system (type-approved and Eurovent certified for tightness class D)



#### Installer

For an installer it is important to work with reliable products and systems, but these also need to be easy to handle, install, regulate and clean.

- Easy to commission
- Easy installation and control
- Latest innovative technology
- Minimal cleaning

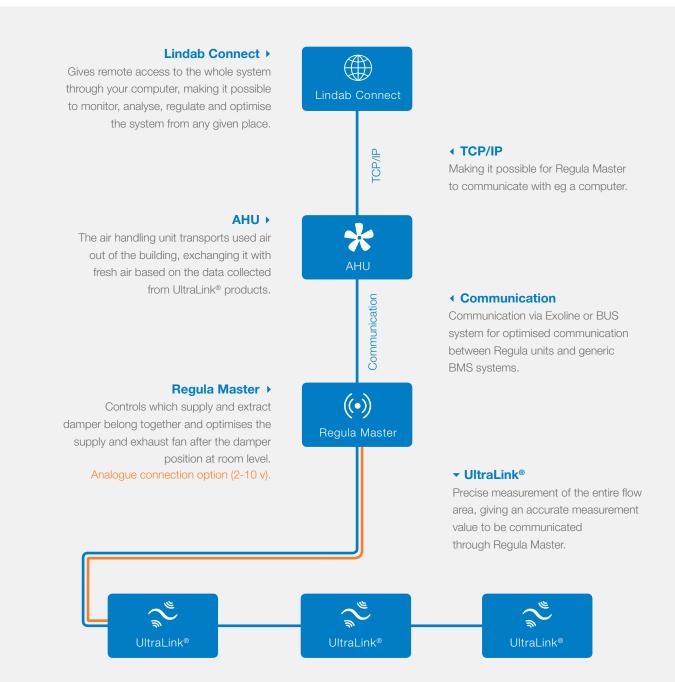
- Precise measurement of airflow and temperature
- Easy to read data from anywhere using Lindab Connect

## Monitor, analyse and optimise UltraLink® online

Allowing different systems to communicate and work together in a building optimises performance and offers greater comfort, while at the same time reduces energy consumption. Today Lindab provides products and systems that can be connected and communicated with, for instance, Building Management Systems, and we are regularly adding more products.

Products with UltraLink<sup>®</sup> technology communicates with all components in the ventilation system and offers unsurpassed levels of optimum indoor climate.





#### **Bluetooth & App**

With Bluetooth technology and a new userfriendly mobile app for any device, both end-users and installers can read and regulate airflow and read temperature from all UltraLinks within range, simultaneously, from both the display unit or the app.



#### **Display unit**

The display unit shows both information regarding airflow (m<sup>3</sup>/h), airflow (l/s), air velocity (m/s) and temperature (°C).



# Total energy-efficient ventilation solutions

Lindab's solutions comprise all the parts needed to efficiently execute a project. You receive a complete combination of ventilation systems, products, knowledge and support – all in one package.

#### We simplify the construction of sustainable housing

As your partner, we put together a solution that is tailored to meet your needs and those of the end user – while supporting you throughout the process. We help you to plan, dimension and optimise your project with our unique IT tools. We provide complete documentation about your systems and industry-leading products. And you can draw on the knowledge we have amassed over years of developing ventilation solutions to meet tomorrow's needs.

This means you can carry out your project more efficiently, and offer your customers a sustainable indoor climate. Read more at lindab.com.



#### AHU

Air handling units in different models and sizes (CompAir and Modular).



#### Fire & smoke

Wide range of fire protection systems and products which protect properties and save lives in the event of fire.

#### Silencer

Available in various finishes, and both circular and rectangular depending on requirements.



#### Indoor climate solutions

Lindab has a wide range of both waterborne- and airborne climate systems, including all components and accessories.

#### **Duct systems and Lindab Safe**

A complete portfolio of circular ducts, duct components and silencers for a wide range of applications. Lindab Safe is type-approved and Eurovent certified for tightness class D.

#### **IT Solutions**

We offer a large range of intelligent IT tools (Vent Tools, lindQST, TEKNOsim, DIMsilencer and CADvent) to make your working day easier.

# Innovations which drive development

Innovation is at the core of Lindab's operations. The entire company is permeated by a deep entrepreneurial spirit and a desire to create improvements. With issues of the future such as simplification and energy efficiency high on our agenda, we are continuously developing and launching patented technological solutions that are driving development forward. A large proportion of Lindab's innovative ideas are the result of close collaboration with different customers and with the people who live and work in our buildings.

UltraLink<sup>®</sup> is one of Lindab's many innovations, which is constantly updated to help create an even better indoor climate in the future.



4

#### R&D Centre

In Padova, Grevie, Farum and Godovic all of Lindab's products are developed and tested in full-scale test laboratories. 79

#### Patent since 1959

We constantly strive to create improvements and search for new innovations. We do it with passion and knowledge and we steadily increase our efforts for new patents.





### 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

