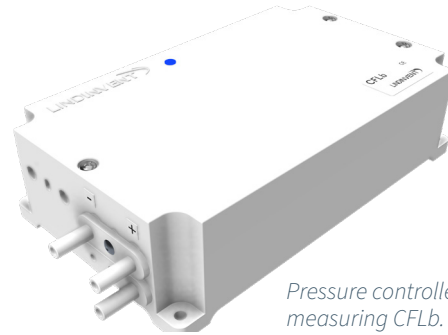


CFLb PRESSURE CONTROLLER WITH AIRFLOW MEASURING

INTRODUCTION

CFLb is used in lab solutions but also for comfort ventilation. The controller is included in Lindinvent's smart damper and measuring unit DCV-CFb for pressure control and airflow measuring.



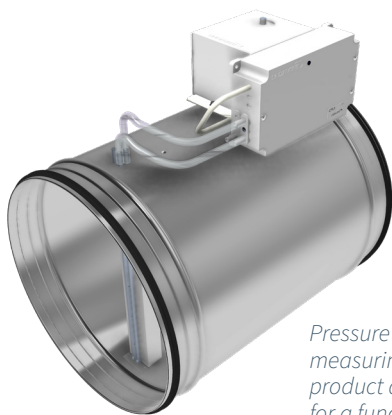
Pressure controller with airflow measuring CFLb.

FUNCTIONS

CFLb maintains a constant duct pressure through damper control. It performs in parallel an airflow measurement.

- Regulates duct pressure using its own pressure measurement and a connected damper with actuator
- Equipped for airflow measurement
- Connects via Node ID to a wire-connected local network (CAN-loop) of cooperating controllers
- Gateway NCE is connected to the local network for access and communication via a parent system
- The controller is programmable and its parameters can be read or set locally via handset or centrally over the network
- Equipped with Bluetooth® for communication via mobile application LINDINSIDE

CFLb is developed to replace pressure controller SPLb in specific applications where measurement of the airflow is required.



Pressure control unit with airflow measuring DCV-CFb. See the product description for DCV-CFb for a functional diagram.

TECHNICAL SPECIFICATIONS

Pressure measurement and control

Pressure sensor: Digital, integrated
 Measurement range: 5 to 500 Pa
 Tolerance: $\pm 5\%$ or a minimum of ± 3 Pa
 Performance: Change within 4 s (95% within 3 s)

Airflow measurement

Airflow sensor: Digital (factory calibrated)
 Recommended range: 0.5 to 6.0 m/s
 Maximum range*: 0.2 to 7.0 m/s
 *In laboratories, one should not go lower than 0.5 m/s to ensure accuracy.
 Tolerance**: $\pm 5\%$ or at least $\pm y$ l/s (where y is the duct area in dm^2) **Applies together with Lindinvent's controller.

Design features

Spacious enclosure with breakable cutouts adapted for cables ~ 4 & ~ 6 mm. The removable cover lid is clamping the cables at reassembly. External ears for attachment. LED tube for exposure of LED showing operating mode.

General

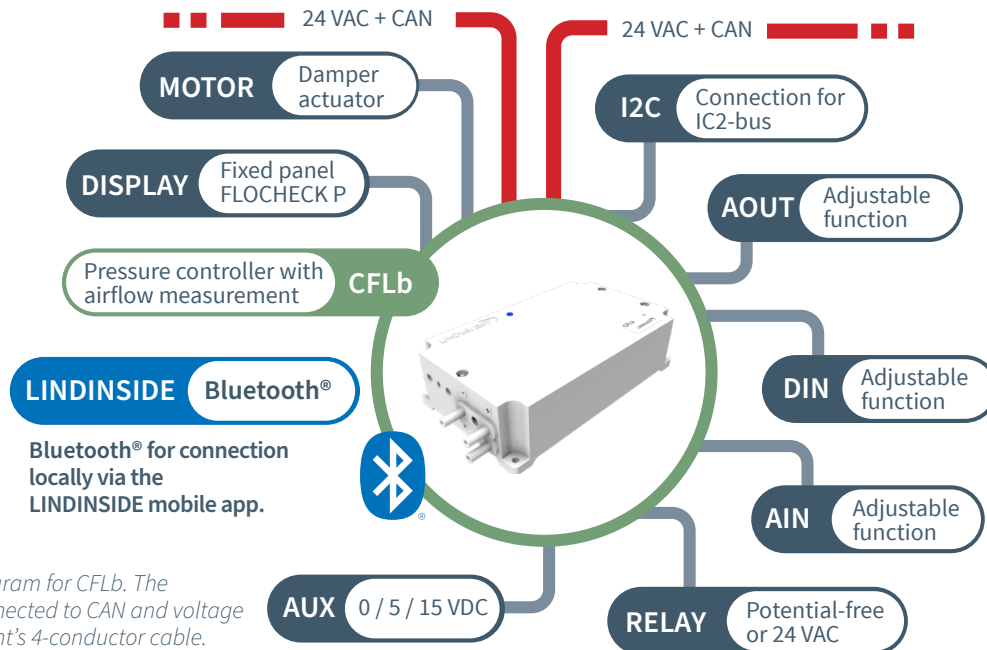
Dimensions (mm): 176 x 105 x 52 (LxBxH)
 Material: Polystyrene (enclosure)
 Nett weight: 0.3 kg
 Colour: RAL 9003
 IP-class: IP53

Temperature limits:
 Operation: 10°C to 40°C ; $<85\%$ RF
 Storage: -20°C to 50°C ; $<90\%$ RF

Electrical system

Supply voltage: 24 VAC
 Effect: 1,5 VA
 CE-marking: Complies with EMC and the low voltage directive

CONNECTION DIAGRAM



Connection diagram for CFLb. The regulator is connected to CAN and voltage fed via Lindinvent's 4-conductor cable.

CONNECTIONS

- Two terminals for 24 VAC + CAN
- Terminal for 0-10 VDC AIN and AOUT (dedicated for the damper actuator)
- Terminal for AIN2 and AOUT2, General 0-10 VDC
- Terminal for DIN1 (PULL-UP 5V or 0 - 5 VDC)
- DUT1 (Relay) for either potential-free switch or 24 VAC
- Terminal for generic power supply (AUX: 0, 5, 15 VDC)
- Terminal for I2C-bus
- Module for Bluetooth®
- Terminal for user panel (FLOCHECK P version B02)

VISUALIZATION WITH LINDINSPECT®

LINDINSPECT® is a powerful web-based tool that is part of the system software that enables a central and coordinated optimization, administration and visualization of everything from control units to supplementary systems for comfort and sustainable energy use in buildings.

USER INTERFACE

Look for details via the product name and its product description.

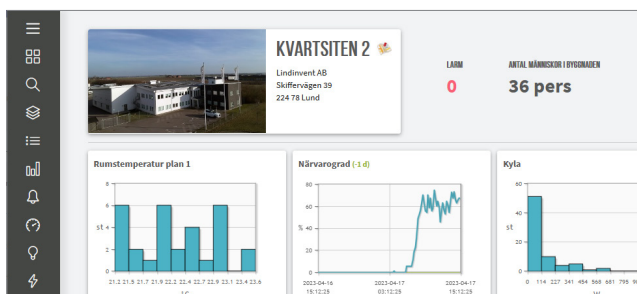
- Login locally directly to the controller via mobile phone with the LINDINSIDE app
- Networking over Gateway NCE and Lindinvent's central unit with LINDINSPECT®
- Other parent system via Gateway NCE and ModbusRTU or ModbusTCP
- Fixed panel FLOCHECK P, wired directly to SPLb

TROUBLESHOOTING AND ALARM NOTIFICATION

Systems with LINDINSPECT® log and set alarm flags in case of deviations. Alarms can also be indicated both acoustically and optically by connecting user panel FLOCHECK P to the controller.

EASY COMMISSIONING

All of Lindinvent's controllers are delivered factory-calibrated. Only a few selected settings are required in connection with commissioning.



Detail from the start page in LINDINSPECT® from which the climate control can be visualized and administered.

COMPLEMENTARY DOCUMENTATION

Document can be viewed on the product page at www.lindinvent.com

Document	Comments
Installation instructions	Combined installation instructions for DCV-CFb and controller CFLb (mounting + connection).
Operation instructions	Instructions for handling the mobile application LINDINSIDE for setting the Node ID
Maintenance instructions	Considered maintenance free.
External connection diagram	Shows how conductors from equipment are connected to CFLb.
Environmental product declaration	Assessed by Byggarubedömningen.
Modbus list	Last entry in the modbus list for CFLb.
AMA-text	Available for download in pdf and word formats via the product's website.