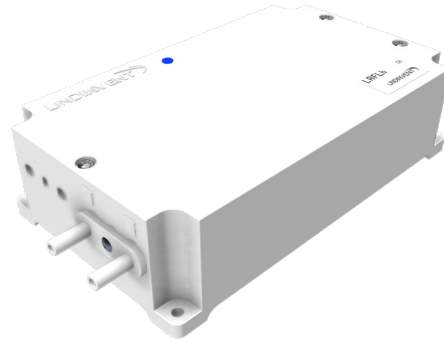


### INTRODUCTION

LAFLb is part of Lindinvent's series of controllers for protective ventilation and lab solutions.



*Draught diverter controller LAFLb.*

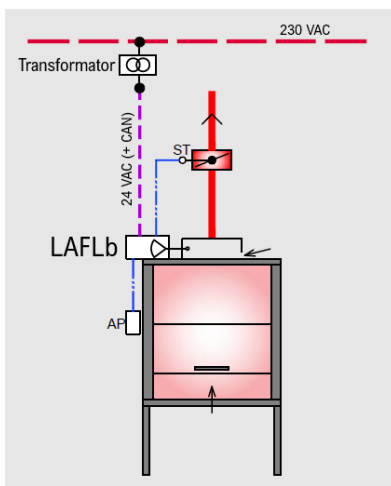
### FUNCTIONS

LAFLb maintains a constant negative pressure in the LAF bench's draft diverter. The controller together with the user panel FLOCHECK P is installed as part of the safety equipment for a LAF bench.

- Regulates the pressure in the draft diverter by a connected damper with a damper actuator on the extract air duct
- Equipped with an internal pressure sensor
- 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

### REFERENCE PRESSURE

Air movements in the surroundings can affect the controller's ability to measure stably. LAFLb has therefore been equipped with a hose that allows the point for reference pressure measurement to be chosen as favorably as possible. As a rule, the hose mouth is placed facing the wall behind the LAF bench.



*Functional chart: LAF-bench with LAFL and LAF-bench guard FLOCHECK P (AP).*

### TECHNICAL SPECIFICATIONS

#### Pressure measurement and control

Pressure sensor: Digital, integrated

The sensor is connected to the two sockets on the housing. One socket is used to connect the draught diverter compartment. The other socket, which is also equipped with a hose, is positioned for pressure measurement against a stable reference point.

Measurement range: 0 to 25 Pa

Tolerance:  $\pm 5\%$  or a minimum of  $\pm 1$  Pa

Performance: Change within 4 s (95% within 3 s)

#### Design features

Spacious enclosure with breakable cutouts adapted for cables  $\sim 4$  &  $\sim 6$  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:  $10^{\circ}\text{C}$  to  $40^{\circ}\text{C}$ ;  $<85\%$  RF

Storage:  $-20^{\circ}\text{C}$  to  $50^{\circ}\text{C}$ ;  $<90\%$  RF

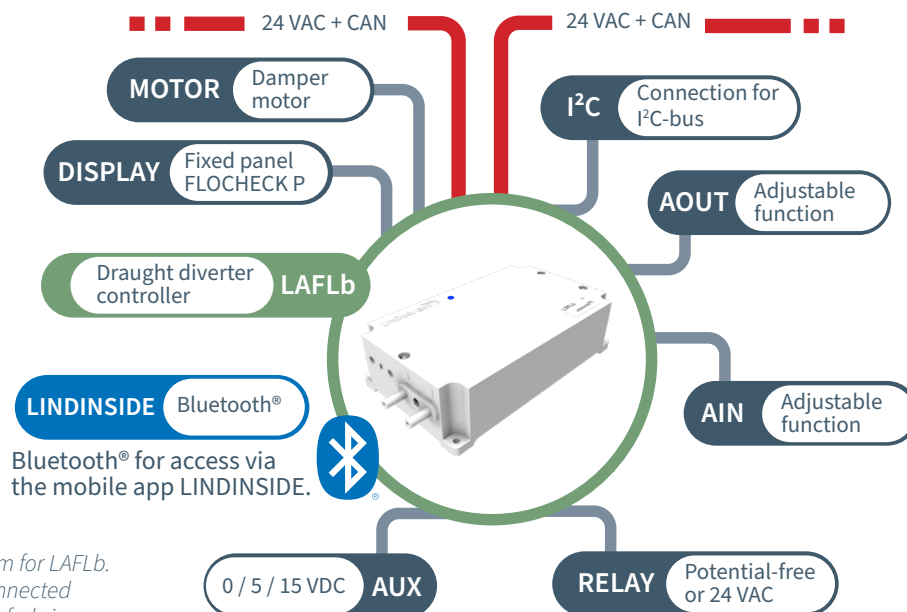
#### Electrical system

Supply voltage: 24 VAC

Effect: 1,5 VA

CE-marking: Complies with EMC and the low voltage directive

## CONNECTION DIAGRAM



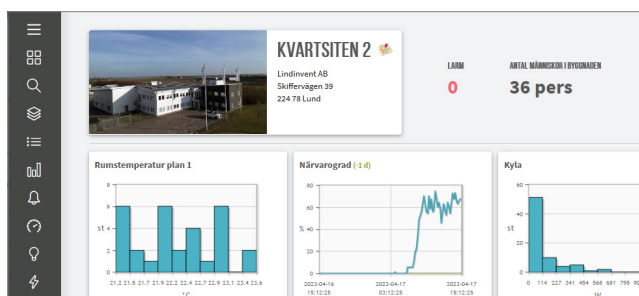
Connection diagram for LAFLb.  
The regulator is connected  
to CAN and voltage fed via  
Lindinvent's 4-conductor cable.

## 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
- 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.



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

## 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 LAFLb

## 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.

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## COMPLEMENTARY DOCUMENTATION

Document can be viewed on the product page at [www.lindinvent.com](http://www.lindinvent.com)

| Document                          | Comments                                                                            |
|-----------------------------------|-------------------------------------------------------------------------------------|
| Installation instructions         | Mounting and 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 LAFLb.                         |
| Environmental product declaration | For assessment at Byggarubedömningen in Sweden.                                     |
| Modbus list                       | Last entry in the modbus list for LAFLb.                                            |
| AMA-text                          | Available for download in pdf and word formats via the product's website.           |