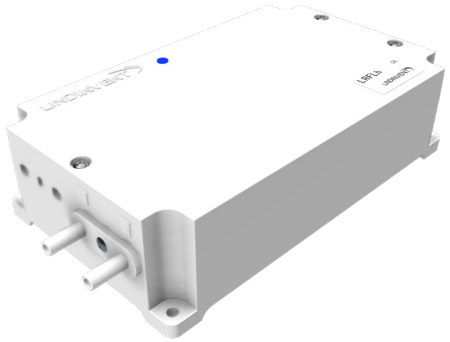
LAFLb DRAUGHT DIVERTER CONTROLLER

Version C04



Draught diverter controller LAFLb.

INTRODUCTION

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

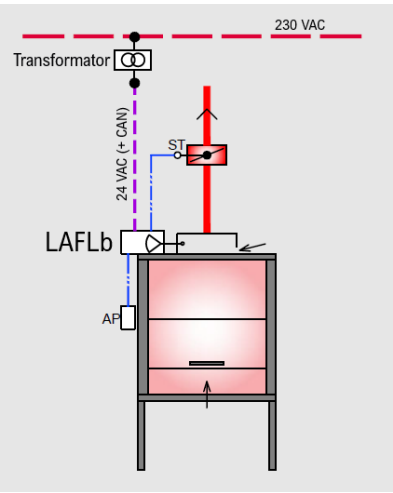
FUNCTIONS

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.



Fuctional 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: ± 5 % or a minimum of ± 1 Pa
Performance: Change within 4 s (95% within 3 s)

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

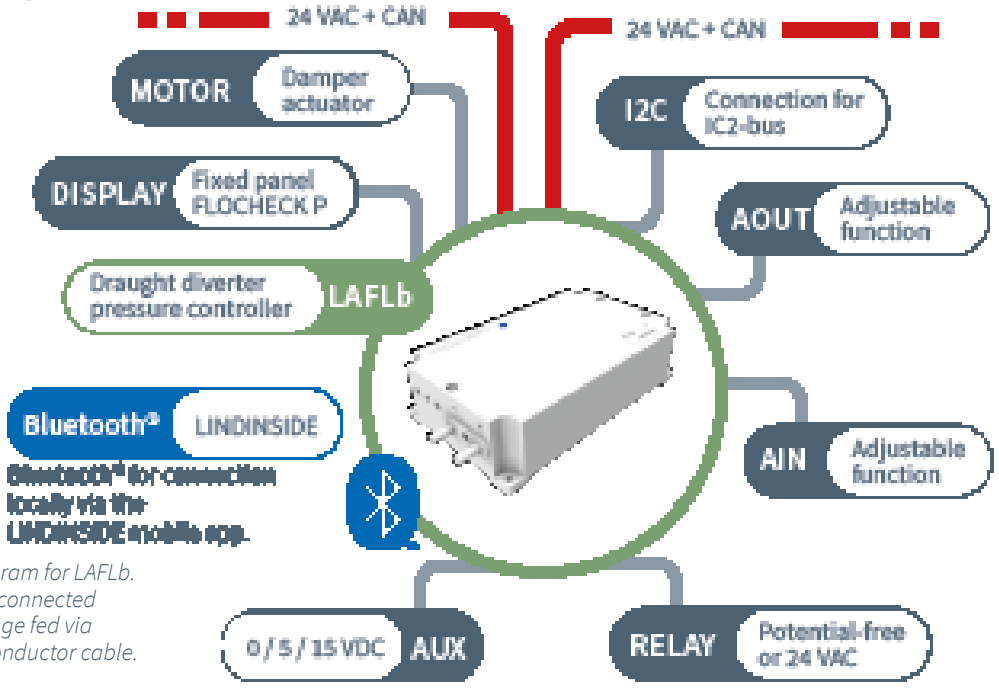
Dimensions (mm): 176 x 105 x 52 (LxBxH)
Material: Polystyrene (enclosure)
Nett weight: 0.3 kg
Colour: RAL 9003
IP-class: IP53

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



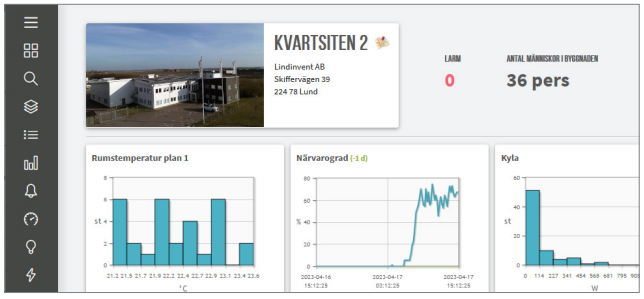
Connection diagram for LAFLb. The regulator is connected to CAN and voltage fed via Lindinvent's 4-conductor cable.

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



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 it's product description.

- Login localy 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.

COMPLEMENTARY DOCUMENTATION

Document can be viewed on the product page at 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 Byggvarubedömningen 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.