

Product description

LAFL – Draught diverter controller for LAF bench

LAFL Version B03

Introduction LAFL

Controller LAFL helps to ensure a safe working environment by maintaining a negative pressure in the draught diverter.

Function

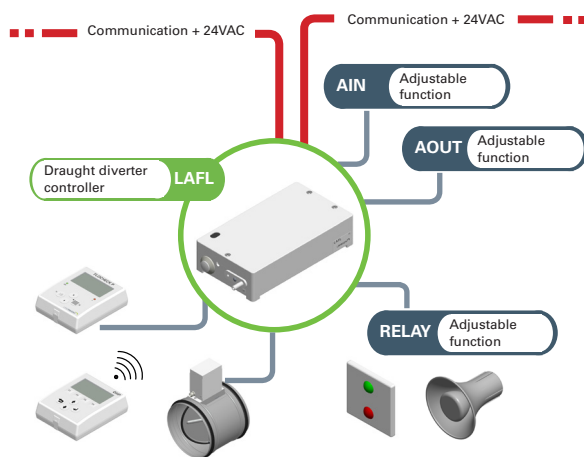
- Maintains a constant negative pressure in the draught diverter by controlling a damper in the extract duct.
- The LAF bench works constantly in the operating mode in which LAFL controls and maintains the desired negative pressure in the draught diverter. An acoustic and/or optical alarm is activate when the negative pressure achieved is no longer within predefined limits.
- Can be connected via node ID to a communication loop (CAN) for access to and communication with other concurrent nodes or systems via LINDINTELL or Gateway NCE with Modbus TCP/RTU.
- The controller has parameters that can be read and controlled from LINDINTELL/LINDINSPECT via the communication loop (CAN).

Reference Pressure

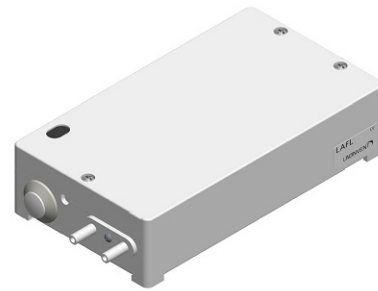
Disturbing air movements in the environment where LAFL is mounted can affect the regulator's ability to measure steadily. LAFL has therefore been equipped with a hose which allows the point of reference pressure measurement to be selected as favorably as possible, usually with the hose end openig directed towards the wall behind the bench.

Connections for input and output

Many types of equipment/functions can be connected to the controller. If no exchange to a superior system is possible via Modbus, a number of functions can instead be defined for the controller's inputs and outputs.



Connection diagram LAFL. The controller can be connected to a voltage feed and communication loop via Lindinvent's standard cable with two conductors for voltage feed and two twisted-pair conductors for communication. The same cable is also used for connection of other accessories.



LAFL – Draught diverter controller.

User interface

- Server with LINDINTELL/LINDINSPECT via communication loop (CAN).
- Direct login on the controller via hand unit for DHP (IR or wired communication)
- Fixed wall panel FLOCHECK P (Direct wired communication with LAFL)

LINDINTELL/LINDINSPECT

LINDINTELL is the software package that is installed on a central server and coordinates all optimisation and monitoring functions in Lindinvent's system designs for climate control and protective ventilation. LINDINTELL has, among other things, functions for optimisation, oversteering and free programming.

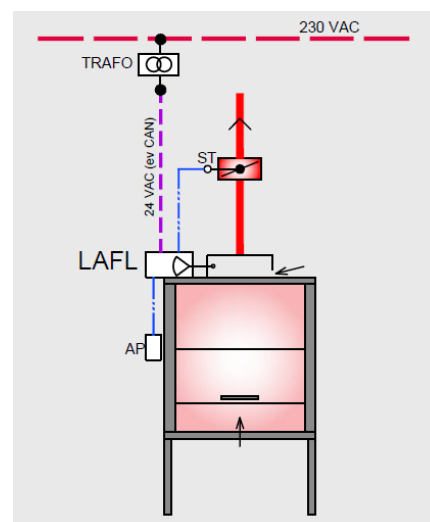
LINDINSPECT is a web interface that has been developed to be used with LINDINTELL.

Control and alarm

Systems with LINDINTELL/LINDINSPECT can log pressure continually and set an alarm flag in the event of any deviations. By mounting FLOCHECK P as fixed panel, an alarm can be indicated acoustically and/or optically.

Calibration

LAFL is supplied factory calibrated.



Operating card: LAF bench with draught diverter controller LAFL with Flocheck P as operator panel (AP).

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Technical specifications

General

Dimension

176 x 100 x 44 mm (LxWxH)

Temperature limits

Operation: 10°C to 40°C; <85% RF

Storage: -20°C to 50°C; <90% RF

Material

Polystyrene encapsulation

Net weight

0.3 kg

Colour

RAL 9003

IP class

Covering complies with IP53

Electrical system

Supply voltage

24 VAC

Capacity

1.5 VA

CE marking

Complies with EMC and the Low Voltage Directive

Pressure control

Pressure sensor

LAFL is equipped with a pressure sensor, integrated in the controller.

Interval

Measurement range: 0-25 Pa

Tolerance

± 5 % or a minimum of ± 1 Pa

Performance

Change regulated within 4 s (95 % within 3 s)

Connections

- 2 x 24 VAC + communication loop (CAN)
- 1 x 0-10 VDC analogue out for damper actuator
- 1 x 0-10 VDC analogue in for feedback from damper actuator
- 1 x general 0-10 VDC analogue in
- 1 x general 0-10 VDC analogue out
- 1 x relay (24VAC or switch function)
- 1 x IR port
- 1 x modular jack RJ45 - for connection of user panel DHP or FLOCHECK P.

Additional product documentation LAFL

Table 1: additional documentation for LAFL can be obtained via links on the product's website under Products at www.lindinvent.se

Document	Available	Not available	Comments
Installation Instruction	●		Shows installation on the LAF bench (Mounting+connection).
Start-up instruction	●		Describes the complete menu structure with settings.
Maintenance instruction		●	Regarded as maintenance-free.
External connection diagram	●		Shows connections on circuit board.
Environmental product declaration	●		To be assessed by Byggarbetsinspektionen.
User information	●		User panel DHP and FLOCHECK P.
Modbus list	●		Draught diverter controller LAFL .
AMA text	●		

Product documentation can be downloaded via www.lindinvent.se/produkter/



Contact

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Lindinvent – Smarter indoor climate. Greener buildings.

The company offers products and systems for controlling ventilation, lighting, solar shading and local utilization. Equipment and climate solutions are being developed for offices, schools, hospitals, laboratories and similar working environments. Lindinvent's systems work together to provide high indoor comfort and the lowest possible energy use.