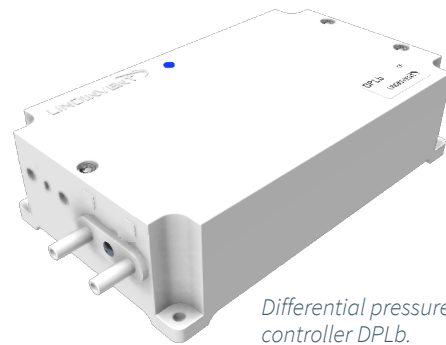


INTRODUCTION

DPLb is part of Lindinvent's series of regulators for protective ventilation and lab solutions.

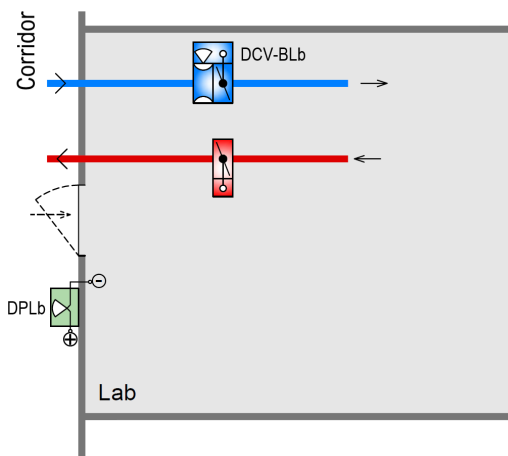


Differential pressure controller DPLb.

FUNCTIONS

The controller measures and keeps the differential pressure constant between two separable spaces. DPLb is installed as part of the safety equipment of a lab. Through fast-functioning pressure maintenance, the air directions to and from, for example a cleanroom path, can be controlled.

- Is normally operated to regulate at a constant differential pressure via measurement data from its internal pressure sensor and its damper control
- It can operate without a network connection. For cooperation with other controllers, a network connection (local CAN loop) is required
- The controller can be set to control using values from another DPLb
- DPLb can work as a slave control to another DPLb
- 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



Function diagram DPLb: DCV-BLb keeps the supply air constant. DPLb controls the extract air damper to keep the differential pressure between the lab and the corridor constant.

TECHNICAL SPECIFICATIONS

Pressure measurement and control

Pressure sensor: Digital, integrated

The sensor is connected to the two sockets on the housing. Hoses are connected to the sockets, which enable selection of the location for each measuring point.

Measurement range: -100 to +100 Pa

Tolerance: $\pm 5\%$ or a minimum of ± 2 Pa

Performance: Change within 5 s (95% within 4 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

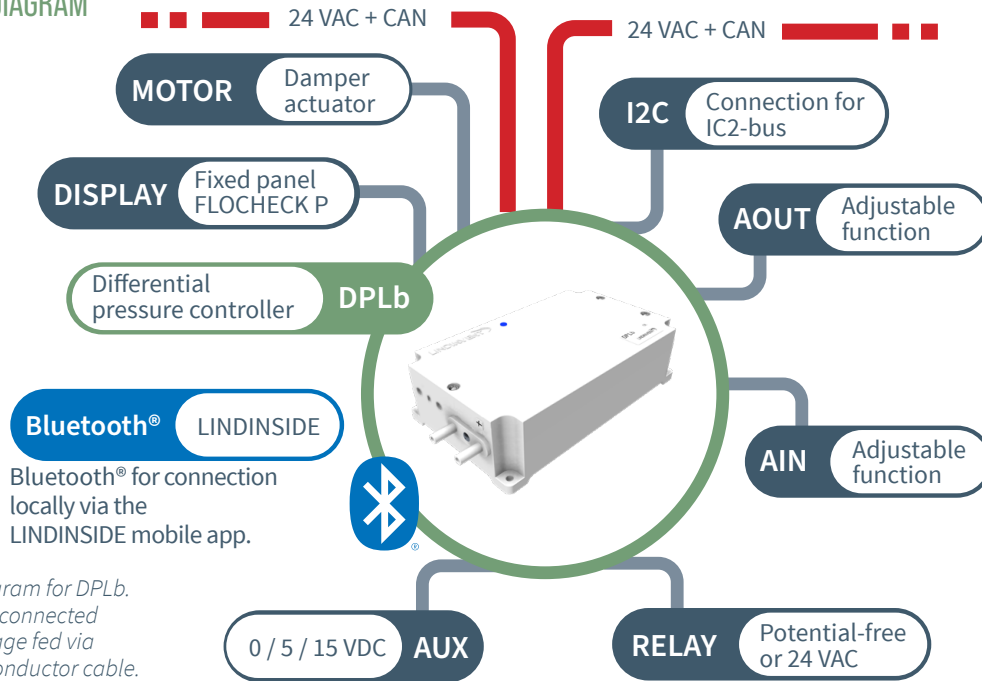
Electrical system

Supply voltage: 24 VAC

Effect: 1,5 VA

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

CONNECTION DIAGRAM



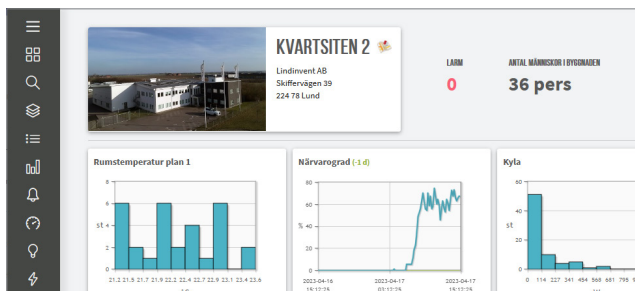
Connection diagram for DPLb.
The regulator is connected to CAN and voltage fed via Lindinvent's 4-conductor cable.

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 it's 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.

ACCESSORIES:

The following products can be ordered as accessories for DPLb.

Differential pressure guard Flocheck P

FLOCHECK P is used as user panel to DPLb.

The panel shows via plain text and LEDs the status of ongoing control. Green LED indicates normal operation: the differential pressure is within limits. A red LED indicates alarm: the differential pressure is out of bounds. A buzzer can be activated to highlight alarms.

Protective box DPB

DPB is used to hide and protect the ends of hoses. The ends would otherwise extend unprotected into the room in which the pressure is to be measured. The protective box (80x40x20 mm) is installed on the wall or ceiling where the hose end enters the room.



*Accessories to be ordered separately:
Protective box DPB.*

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 DPLb.
Environmental product declaration	Assessed by Bygghälsöversynen in Sweden.
Modbus list	Last entry in the modbus list for DPLb.
AMA-text	Available for download in pdf and word formats via the product's website.