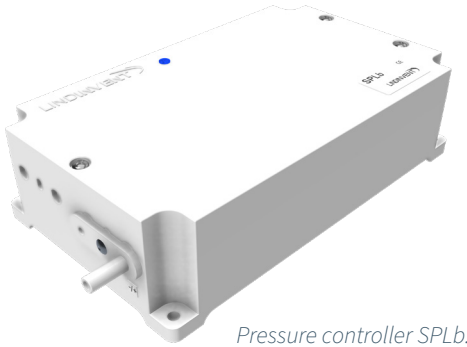
SPLb PRESSURE CONTROLLER

Version C04



Pressure controller SPLb.

INTRODUCTION

Pressure controller SPLb is used in lab solutions as well as in comfort ventilation. The controller is part of pressure control unit DCV-SPb, which is part of Lindinvent's series of smart dampers and measurement units.

FUNCTIONS

SPLb maintains continuously a constant pressure in a duct section through damper control and pressure measurement. Pressure maintenance using SPLb means that subsequent units are protected from varying pressures. The effect is increased lifespan of equipment and possible elimination of self-oscillation in the system.

- Regulates pressure using an externally obtained measurement
- The controller can be used as a pressure gauge. The measured pressure is sent to the zone
- Can be commissioned for slave functionality where the damper angle is set by a pressure controller that acts as a master
- Used to find the lowest possible duct pressure and thus sound level in the associated diffusers
- SPL contributes to the lowest possible energy use through pressure optimization of aggregates
- 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

TECHNICAL SPECIFICATIONS

Pressure control

Pressure sensor: Digital, integrated
Measurement range: 5 to 500 Pa
Tolerance: ± 5 % or a minimum of ± 3 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

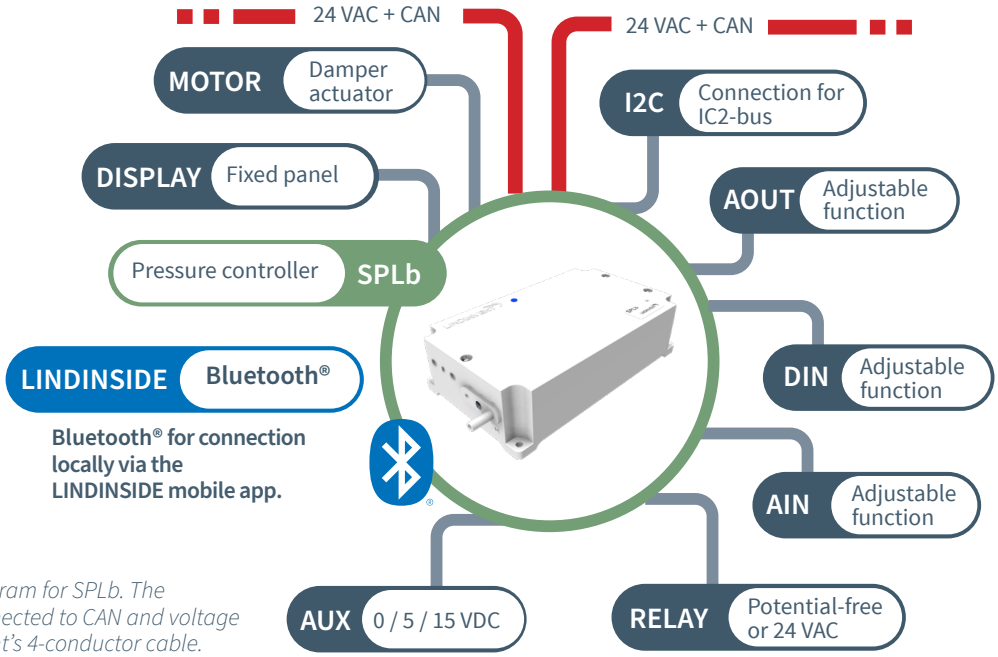
Temperature limits:
Operation: 10°C to 40°C; <85% RF
Storage: -20°C to 50°C; <90% RF

Electrical system

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

Pressure control unit DCV-SPb. See the product description for DCV-SPb for an example of a functional diagram.

CONNECTION DIAGRAM



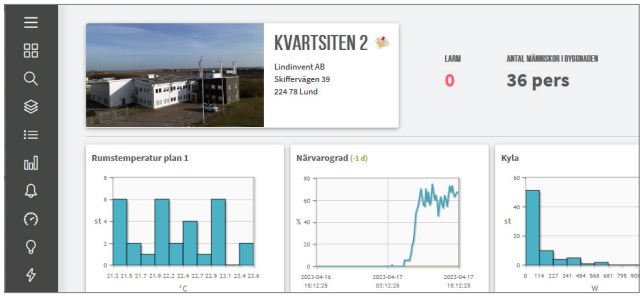
Connection diagram for SPLb. The regulator is connected to CAN and voltage fed via Lindinvent's 4-conductor cable.

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)
- Terminal for relay function (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 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 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 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	Combined installation instructions for DCV-SPb and controller SPLb (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 SPLb.
Environmental product declaration	Assessed by Byggvarubedömningen.
Modbus list	Last entry in the modbus list for SPLb.
AMA-text	Available for download in pdf and word formats via the product's website.