Product description

SPL – Pressure controller
SPL Version B03
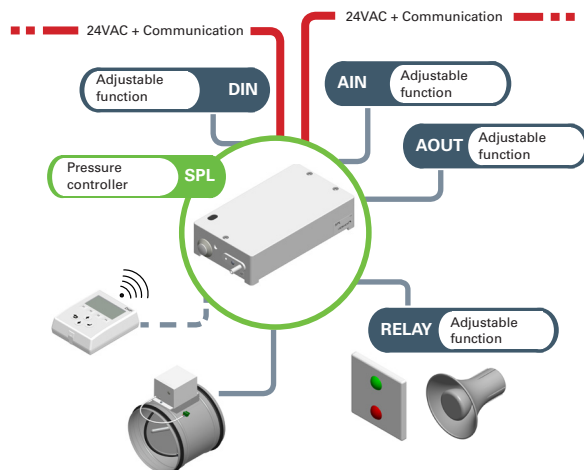
Introduction SPL Version B03

Pressure controller SPL ensures that the desired pressure is maintained in a ventilation duct. The controller is included in Lindinvent's smart damper and airflow measuring unit for pressure control DCV-SP.

SPL – Pressure controller.

Function

- Can compensate for pressure changes and hereby maintain static pressure in ventilation ducts.
- Can be pressure-optimised via LINDINTELL to obtain the lowest pressure and noise level in associated supply air diffusers.
- Can pressure optimise air handling units using LINDINTELL for lowest energy consumption.
- Protects following units from varying pressure, which increases service life and avoids self-oscillation.
- 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 a great number of parameters that can be read and controlled from LINDINTELL/LINDINSPECT via CAN.

Connections for input and output signals

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 SPL. The controller is 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 used for connection of damper actuator and other accessories.

User interface

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

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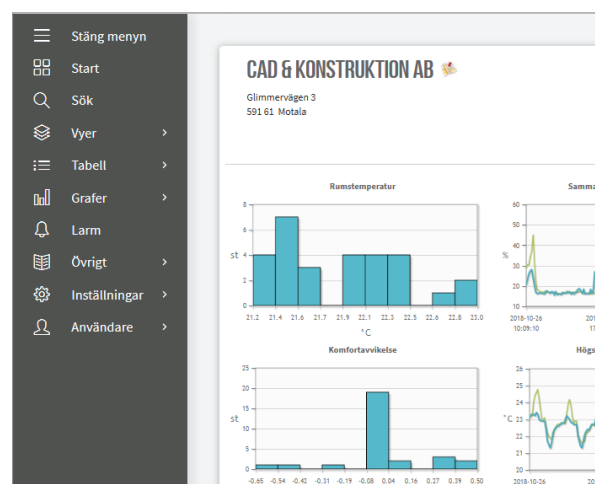
LINDINSPECT is a Web interface that has been developed to be used with LINDINTELL.

Control and alarm

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

Calibration

SPL is supplied factory calibrated.

In systems based on a server solution with LINDINTELL, SPL and other connected nodes can be monitored and administered via the web interface, LINDINSPECT.

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Technical specifications SPL

General

Dimension
176 x 100 x 44 mm (LxWxH, excluding couplings)

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

Material
Polystyrene encapsulation

Net weight
0.3 kg

Paint 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
SPL is equipped with a digital pressure sensor, integrated in the controller.

Range
Measurement range: 5-500 Pa

Tolerance
± 5 % or a minimum of ± 3 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 general digital in
- 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 SPL

Table 1: Additional documentation for DCV-SP can be obtained via links on the product's website under Products at www.lindinvent.se

Document	Available	Not available	Comments
Installation Instruction	●		Combined installation instruction with DCV-SP (Assembly + 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	●		Assesed by Byggvarubedömningen.
User information		●	Not applicable.
Modbus list	●		Pressure controller SPL.
AMA text	●		

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

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.