

## Product description

# CFL – Pressure controller with airflow measuring

CFL Version B03

## Introduction CFL

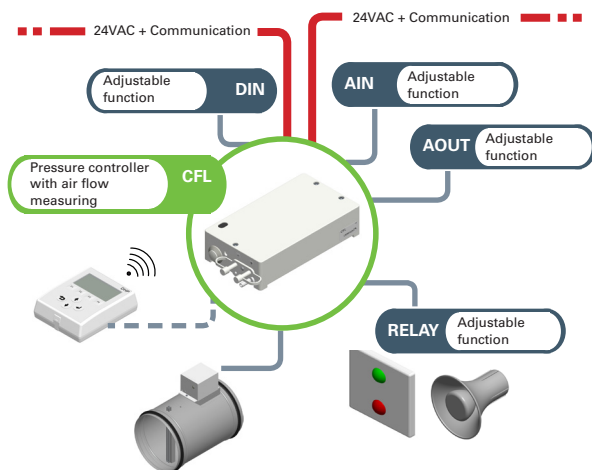
Pressure controller CFL with airflow measuring is factory calibrated and included in Lindinvent's smart damper and measuring unit DCV-CF.

## Function

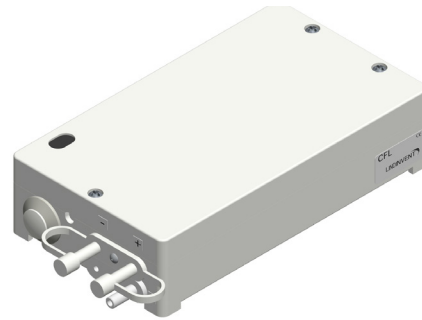
- Can maintain constant pressure in ventilation ducts.
- Can measure airflow.
- Can be pressure-optimised via LINDINTELL so as to obtain the lowest pressure and noise level in associated supply air diffusers.
- Can pressure optimise air handling units using LINDINTELL for lowest energy consumption.
- 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 ModbusTCP/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 exchange to a superior system is desired but is not possible via Modbus, a number of functions can instead be defined for the controller's inputs and outputs.



Connection diagram CFL. 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.



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## User interface

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

## LINDINTELL/LINDINSPECT

LINDINTELL is the software package that is installed on a central server. The software coordinates all optimisation and monitoring functions in Lindinvent's system for climate control and protective ventilation. LINDINTELL has 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 flows continually and set an alarm flag in the event of any deviations. By mounting FLOCHECK P as fixed panel, an alarm can be indicated both acoustically and optically.

## Simplified start-up

CFL is supplied factory calibrated. A simplified start-up process is available. If you stay with the default settings the required remaining inputs are: Duct diameter (or the C-factor) and location on either the supply or extract air channel.

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## Technical specifications CFL

### General

#### Dimensions

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 classification

IP53 encapsulation

### Electrical system

#### Supply voltage

24 VAC

#### Output

1.5 VA

#### CE marking

Complies with EMC and the Low Voltage Directive

### Pressure measurement

#### Pressure sensor

CFL is equipped with an internal pressure sensor

#### Interval

Recommended interval: 5-500 Pa

#### Tolerance

± 5 % or a minimum of ± 3 Pa

#### Performance

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

### Airflow measuring

#### Airflow sensor

CFL is equipped with an internal airflow sensor.

#### Interval

Recommended interval: 0.5–6.0 m/s

Maximum interval: 0.2 - 7.0 m/s

Note: In laboratories, you should not go lower than 0.5 m/s

#### Tolerance

±5 % or minimum ± x l/s (x = the duct area in dm<sup>2</sup>)

### 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 CFL

Table 1: Additional documentation for CFL can be obtained via the product's website under Products at [www.lindinvent.se](http://www.lindinvent.se)

Document	Available	Not available	Comments
Installation Instruction	●		Combined installation instruction for DCV-CF and CFL (Assembly + connection)
Start-up instruction	●		Describes the complete menu structure with settings
Maintenance instruction		●	Regarded as maintenance-free
External connection diagram	●		
Environmental product declaration	●		Assessed by Byggarubedömningen
User information		●	Not applicable
Modbus list	●		
AMA text	●		

Product documentation can be downloaded via [www.lindinvent.se/produkter/](http://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.