G. Setting and parameters

Via potentiometer P1 and P2, two reference values can be set which can then be called up via selector switch input.

Via DIP-switch, the closed-loop parameters can be set.
Those DIP-switches are numbered 1-4 beginning at the PCB rim.
The view given above shows the DIP switch switched on to the left and switched off to the right.
A green LCD indicates the unit being ready for operation.

Switch No.	Function	Switch position		Consequence
1 + 2	P-Factor	1	2	
		off	off	6.25%
		off	on	50%
		on	off	200%
		on	on	1000%
3	I-Factor	off		6.25%
		on		0%
4	Effective principle	off		heating
		on		cooling

When delivered, all DIP switches are in off-mode.
As a result, the state-of-delivery setting is as follows:

Effective principle: positive (heating)
I-Factor: 6.25%
P-Factor: 6.25%

This setting is the recommended one for pressure control with constant as well as with variable air flow.

H. Safety warnings

Warning! The unit may only be connected or opened by qualified and trained staff. Only use copper leads approved for 60/75°C. Only use leads of quality class 1.

Warning! Do not operate unit in explosive atmosphere.

Warnung! When connecting unit to the mains, dangerous voltages occur. Unit may only be opened 5 minutes after all-pole voltage switch-off.

Warning! Settings on potentiometers and DIP-switches may only be effected in a voltage-free state, as no sufficient protection against accidental contact with respect to line potential is given once the housing is open.

Warning! Even with the unit switched off, dangerous external voltages may sit on terminals ST7 and ST8.

Warning! Terminals ST7 and ST8 are base-insulated with respect to the line potential to allow the alarm signal to be looped through. No SELV circuit can be looped through via these terminal.

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CCC000-AC04-01* Pressure control with integrated pressure sensor

Make sure to familiarise yourself with this installation instruction before starting to work on the unit.

Not paying attention to the warnings and instructions contained in here may result in malfunctions or defects and may even cause personal harm to staff.

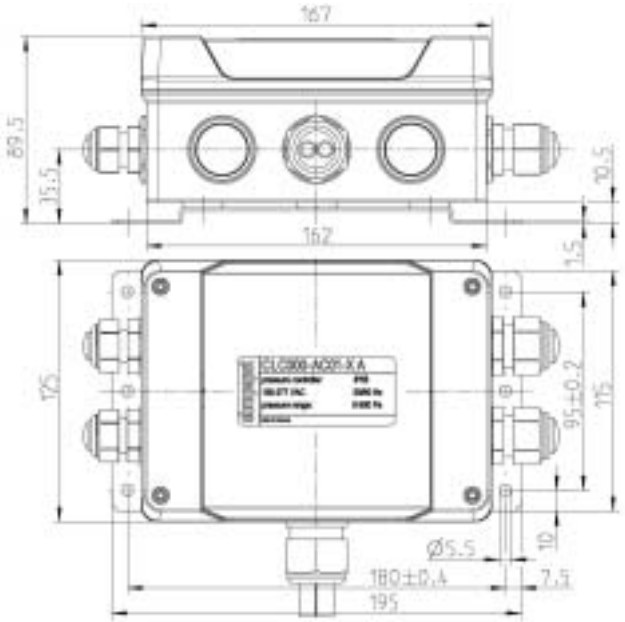
*Subject to alterations

Contents:

A. Technical data

	CCC000-AC04-01
Rated voltage:	100 – 277V AC
Line frequency:	50 / 60Hz
Max. input power P_1:	3W
Control range:	50 – 500Pa
Maximum pressure	200mBar
Medium	Air, neutral gases
Interference emission:	EN50081-1
Interference immunity:	EN61000-6-4
Leakage current:	< 3.5mA
Type of protection:	IP55

B. Dimensions (mm)



C. Ambient conditions

Protection of control unit: IP55 acc. to DIN EN 60529

Permissible ambient temperature: –25°C - +60°C

D. Mounting positions

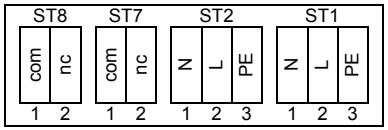
In order to make sure the pressure control unit operates properly, only two mounting positions are recommended:

- Horizontal installation with mounting angle facing down.
- Vertical installation with pressure terminals facing down.

Any other mounting positions result in inconsistencies and irregularities when measuring pressure.

E. Terminls and pin configuration

E1. Line potential



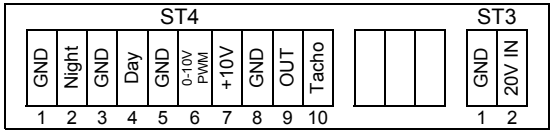
	Pin	Name	Function
ST8	1	nc	Alarm relay “NC“
	2	com	Alarm relay “COM“
ST7	1	nc	Alarm relay “NC“
	2	com	Alarm relay “COM“

ST7 and ST8 are linked internally to loop the alarm signal from the fan on to the system control.

ST2	3	N	Neutral
	2	L	Phase
	1	PE	PE
ST1	3	N	Neutral
	2	L	Phase
	1	PE	PE

ST1 and ST2 are linked internally to loop line supply on to fan.

E2. Safety extra-low voltage (SELV acc. to EN50178)



	Pin	Name	Function
ST4	1	GND	Selector input to activate the pre-set setpoints “Day“ and “Night“. The inputs are low-active. (see circuit examples)
	2	Night	
	3	GND	
	4	Day	
	5	GND	Ground reference for linear input
	6	0-10V PWM	Linear input for setting of reference values via potentiometer or analoguous control signal (0-10V / PWM). Input impedanz 100 kΩ PWM frequeny ≥ 4kHz
	7	+10V	Voltage supply for potentiometer (10 mA)
	8	GND	Ground reference for control output
	9	OUT	0-10 V control output to fan
	10	Tacho	Option / not designated

ST3	1	GND	Ground reference for safety extra-low voltage
	2	20V IN	Input for supplying controller via safety extra-low voltage. Spec.: 20V±20% 50mA

E3. Function: selector switch input

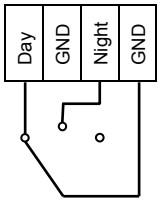
Logic operation of selector switch input:

1 = Input open or high Ohm

0 = Input connected against GND

Day	Night	Setpoint used
1	1	Linear input
1	0	Poti Night
0	1	Poti Day
0	0	Stand By

Circuit example:



Day / Night / Linear
switch via
change-over contact (3-step switch)

E4. Connection of pressure sensor pipes

In order to measure differential pressure, two pneumatic pipes are brought out of the housing.
Top grey: **+** (higher pressure level)
Bottom blue: **-** (lower pressure level)

max. absolute resp. differential pressure 200mBar

F. Setting characteristics for setpoints

Setting of the reference values via linear input