

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 | |
| | | on | 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.

Warning! 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

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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 |

10.02.06; Mounting instruction CCC000_AC04_01.doc - Montageanleitung Vers. 2.0 GH preliminary

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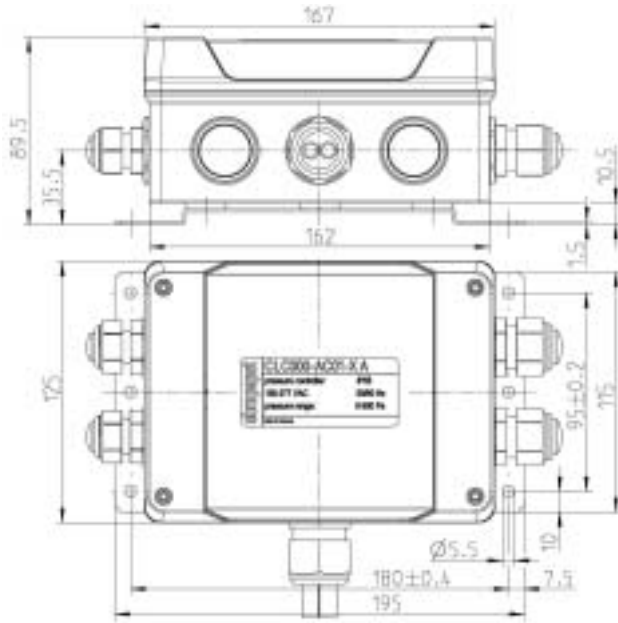
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B. Dimensions (mm)



C. Ambient conditions

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

Permissible ambient temperature: -25°C - $+60^{\circ}\text{C}$

D. Mounting positions

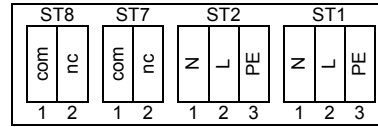
In order to make sure the pressure control unit operates properly, only two mounting positions are recommended:

- 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. Terminals and pin configuration

E1. Line potential



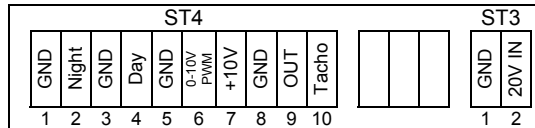
| | Pin | Name | Function |
|-----|-----|------|-------------------|
| ST8 | 1 | nc | Alarm relay "NC" |
| | 2 | com | Alarm relay "COM" |
| ST7 | 1 | nc | Alarm relay "NC" |
| | 2 | com | Alarm relay "COM" |

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

| | | | |
|-----|---|----|-------------------|
| ST2 | 3 | N | Neutral connector |
| | 2 | L | Phase |
| | 1 | PE | PE connector |
| ST1 | 3 | N | Neutral connector |
| | 2 | L | Phase |
| | 1 | PE | PE connector |

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". |
| | 2 | Night | The inputs are low-active. (see circuit examples) |
| | 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 analogous control open-loop control signal (0-10V / PWM). Input resistance 100 k Ω PWM frequency \geq 4kHz |
| | 7 | +10V | Voltage supply for potentiometer |
| | 8 | GND | Ground reference for control output |
| | 9 | OUT | 0-10 V output for open-loop control of fan |
| | 10 | Tacho | Option / not designated |

| | | | |
|-----|---|--------|--|
| ST3 | 1 | GND | Ground reference for safety extra-low voltage |
| | 2 | 20V IN | Input for supplying closed-loop control unit via safety extra-low voltage. Spec.: 20V \pm 20% 50mA |

E3. Function: selector switch input

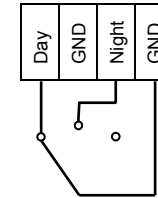
Logic operation of selector switch input:

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

