PID controller
For the control of air flows or differential pressures
For ventilation and air-conditioning, model A2G-100

Applications

For stepless control of EC fans or direct connection to a frequency inverter (FI) for the parameters
- Air flow
- Differential pressure

Special features

- All parameters can be set via the menu
- Two-line LC display for very good readability
- Simple and fast installation and commissioning
- Maintenance-free
- Maximum operating pressure 25 kPa

Description

The A2G-100 is a multi-functional PID controller for differential pressure or air flow control, specifically developed for the demands of the air-conditioning and ventilation industry.

This PID controller enables a continuous pressure control or air flow control for EC fans, variable air volume systems (VAV systems) or ventilation flaps. The air flow control is achieved through the input of the manufacturer-specific fan constant, $K_{FAN}$, in the start-up menu or through the use of the model A2G-FM measuring probe.

The $0 \ldots 10$ V or $4 \ldots 20$ mA control output is connected as control signal directly to the EC ventilation fan or frequency inverter (FI). Its two-line LC display simultaneously shows the direction of the control output and the current measured value. It provides analogue electrical output signals of $0 \ldots 10$ V or $4 \ldots 20$ mA, which can be set by the operator via a jumper within the instrument. Optionally, the instrument is available with an automatic zero point setting.
Specifications

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| Accuracy                    | 0 ... 7,000 Pa: ±2 Pa ±1.5 %  
0 ... 2,500 Pa: ±2 Pa ±1.5 %  |
| All data refer to the above mentioned pressure range. |
| Units (selectable on display) |  
- Pressure  
- Air flow  
- Rate  |
| PA, kPa, mbar, inWC, mmWC, psi  
m³/s, m³/h, cfm, l/s  
m/s, ft/min  |
| Process connection          | Connecting nozzle (ABS), lower mount, for hoses with inner diameter 4 mm or 6 mm |
| LC display                  | Line 1: Direction of the monitoring output  
Line 2: Pressure or air flow display, adjustable via menu |
| Power supply $U_B$          | AC 24 V or DC 24 V ±10 % |
| Electrical connection       | Cable gland M20  
4 spring-clip terminals  
max. 1.5 mm² |
| Output signal               | DC 0 ... 10 V, 3-wire  
4 ... 20 mA, 3-wire |
| Case                        | Plastic (ABS), cover PVC |
| Permissible temperatures    |  
- Ambient temperature  
- Operating temperature  |
| -20 ... +70 °C  
-10 ... +50 °C with automatic zero point setting (AZ) -5 ... +50 °C |
| Relative humidity           | 0 ... 95 % r. h. |
| Ingress protection          | IP54 |
| Weight                      | 150 g |

Options

- 2 duct connectors
- 2 x 2 m PVC measuring hose

Electrical connection

[Diagram of electrical connections with labels: DC 0 ... 10 V / 4 ... 20 mA for Monitoring output, Control output, Power supply $U_B$, DC 24 V / AC 24 V for GND.
Dimensions in mm

Schematic diagram

Δp → A2G-100 → Monitoring output
DC 0 ... 10 V or 4 ... 20 mA

V → Control output
DC 0 ... 10 V or 4 ... 20 mA

Fields of application

Duct design

Circular duct design
Approvals

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Certificates (option)

- 2.2 test report
- 3.1 inspection certificate

Approvals and certificates, see website

Scope of delivery

- PID controller
- 2 mounting screws

Ordering information

Model / Measuring range / Options