

# PID controller

## For the control of air flows or differential pressures

### For ventilation and air-conditioning, model A2G-100

WIKA data sheet SP 69.11



for further approvals  
see page 4



#### 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



PID controller, model A2G-100

#### 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 ... 10 V or 4 ... 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 ... 10 V or 4 ... 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.

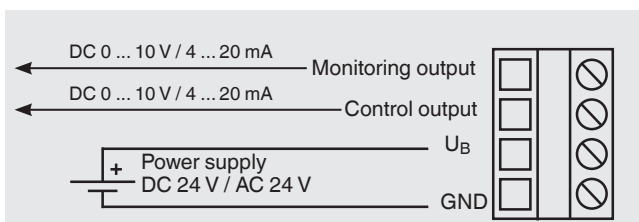
## Specifications

PID controller, model A2G-100	
Measuring element	Piezo measuring cell
Measuring range	0 ... 2,500 Pa and 0 ... 7,000 Pa
Max. pressure	25 kPa
Accuracy	0 ... 7,000 Pa: $\pm 2 \text{ Pa} \pm 1.5 \%$ 0 ... 2,500 Pa: $\pm 2 \text{ Pa} \pm 1.5 \%$  All data refer to the above mentioned pressure range.
Units (selectable on display)	<ul style="list-style-type: none"> <li>■ Pressure PA, kPa, mbar, inWC, mmWC, psi</li> <li>■ Air flow <math>\text{m}^3/\text{s}</math>, <math>\text{m}^3/\text{h}</math>, cfm, l/s</li> <li>■ Rate <math>\text{m}/\text{s}</math>, ft/min</li> </ul>
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 $\pm 10 \%$
Electrical connection	Cable gland M20 4 spring-clip terminals max. 1.5 mm <sup>2</sup>
Output signal	DC 0 ... 10 V, 3-wire 4 ... 20 mA, 3-wire
Case	Plastic (ABS), cover PVC
Permissible temperatures	<ul style="list-style-type: none"> <li>■ Ambient temperature -20 ... +70 °C</li> <li>■ Operating temperature -10 ... +50 °C with automatic zero point setting (AZ) -5 ... +50 °C</li> </ul>
Relative humidity	0 ... 95 % r. h.
Ingress protection	IP54
Weight	150 g

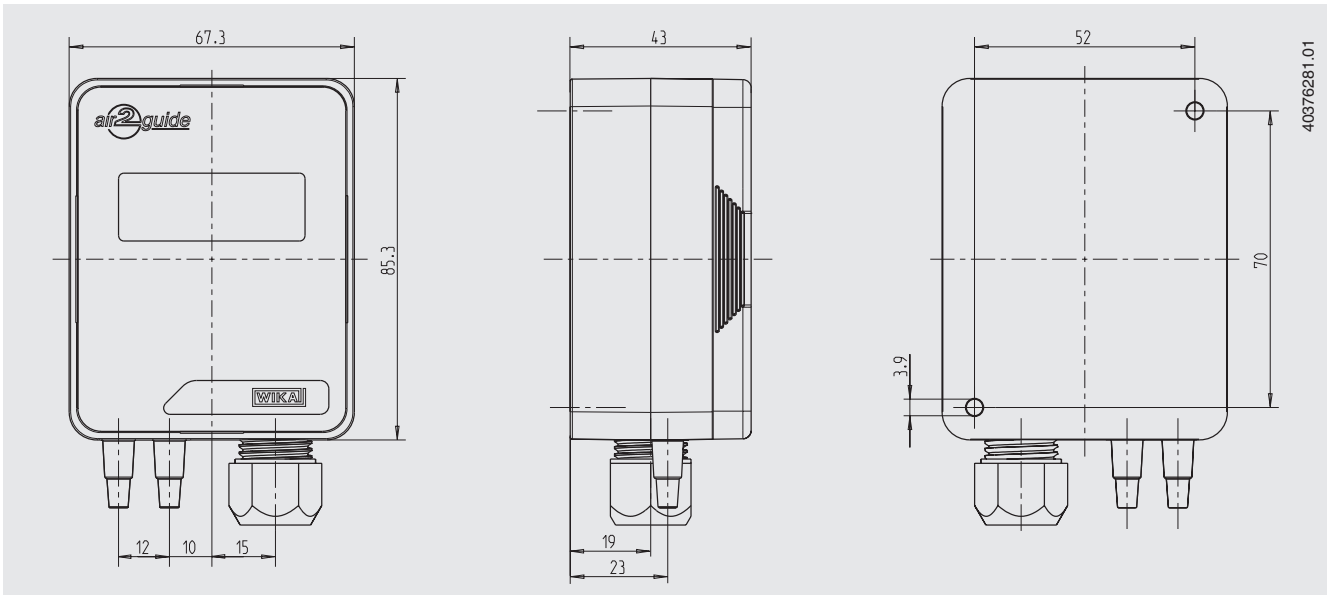
## Options

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

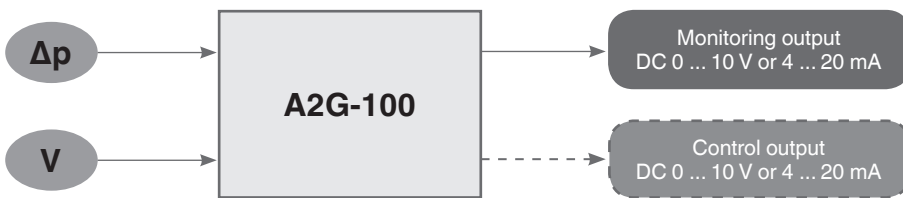
## Electrical connection



## Dimensions in mm

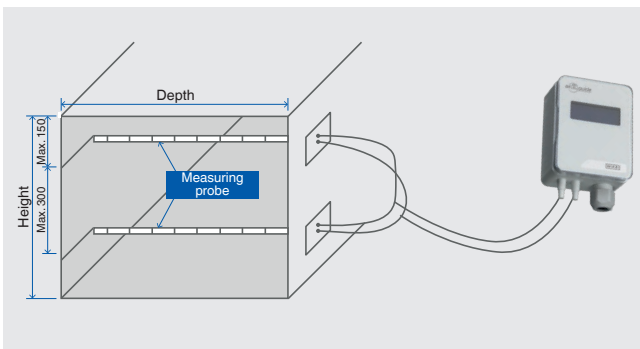


## Schematic diagram

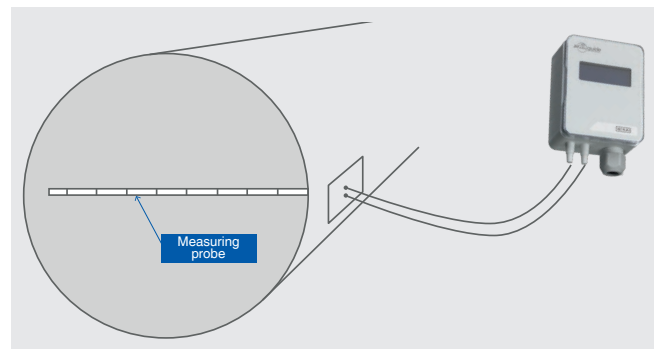


## Fields of application




### Duct design



### Circular duct design



## Approvals

Logo	Description	Country
	<b>EU declaration of conformity</b> <ul style="list-style-type: none"><li>■ EMC directive</li><li>■ RoHS directive</li></ul>	European Union
	<b>EAC (option)</b> EMC directive	Eurasian Economic Community
	<b>KazInMetr (option)</b> Metrology, measurement technology	Kazakhstan
-	<b>MTSCHS (option)</b> Permission for commissioning	Kazakhstan

## 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

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