

## Control panel with integrated room sensor Model A2G-200

WIKA data sheet SP 69.12



### Applications

For the measurement of the temperature, carbon dioxide (CO<sub>2</sub>) and relative humidity of room air

### Special features

- Various versions for the highest user flexibility
  - Parameters of relative humidity and temperature
  - Parameters of CO<sub>2</sub> and temperature
  - Parameters of CO<sub>2</sub>, temperature and relative humidity
- Output signal can be set between 0 ... 10 V or 4 ... 20 mA
- Available as Modbus<sup>®</sup> version
- Touchscreen (option)
- Integrated switching output (option)

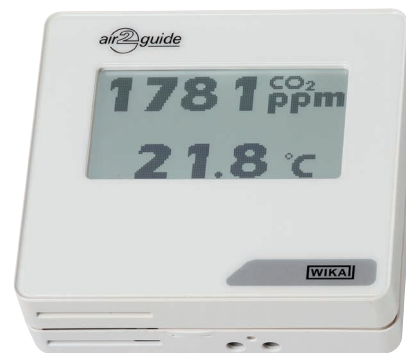


Fig. top: with display  
Fig. bottom: without display

### Description

The model A2G-200 control panel with integrated room sensor was developed specifically for requirements in the ventilation and air-conditioning industry. Different versions measure the key parameters of relative humidity, room air temperature and carbon dioxide (CO<sub>2</sub>).

The large touchscreen display (option) makes the operation and readability easy and clear. The integrated switching output (option) enables a direct control command to higher-level systems or can be used for the direct switching on of a ventilation/air-conditioning unit or fan. For this, the switch relay can be configured with all three parameters (relative humidity, ambient air temperature and CO<sub>2</sub>).

The measuring results are transmitted with an analogue output signal (0 ... 10 V or 4 ... 20 mA) or Modbus<sup>®</sup>.

To prevent incorrect operation or manipulation, the LC display can be locked via setting a jumper on the PCB and then only has the function of a display and measuring instrument.

## Specifications

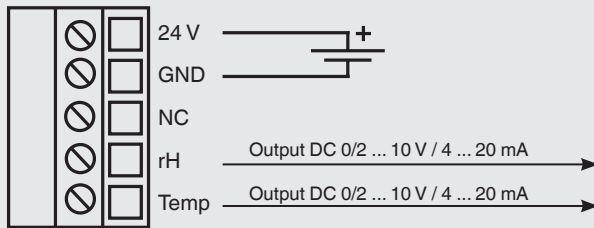
Control panel with integrated room sensor, model A2G-200			
	Parameter		
	CO <sub>2</sub>	Temperature	Relative humidity
<b>Measuring element</b>	Non-dispersive infrared (NDIR)	Pt1000	Capacitive thermosetting polymer sensor element
<b>Measuring range</b>	400 ... 2,000 ppm	0 ... 50 °C	0 ... 90 %
<b>Accuracy</b>	±40 ppm + 2 % of reading value	< 0.5 °C	max. ±4 %
<b>Units</b>	ppm	5 °C	±4 % r. h.
<b>Output signal</b>	0 ... 10 V, R >1 kΩ 2 ... 10 V, R >1 kΩ 4 ... 20 mA, R <500 Ω	0 ... 10 V, R >1 kΩ 2 ... 10 V, R >1 kΩ 4 ... 20 mA, R <500 Ω	0 ... 10 V, R >1 kΩ 2 ... 10 V, R >1 kΩ 4 ... 20 mA, R <500 Ω
<b>LC display (option)</b>	Touchscreen, size: 77.4 x 52.4 mm		
<b>Electrical connection</b>	Cable gland M20 4 spring-clip terminals max. 1.5 mm <sup>2</sup>		
<b>Case</b>	Plastic (ABS)		
<b>Permissible temperatures</b>	<ul style="list-style-type: none"> <li>■ Ambient temperature -20 ... +70 °C</li> <li>■ Operating temperature (at sensor) 0 ... 50 °C</li> <li>■ Relative humidity 0 ... 95 %, non-condensing</li> </ul>		
<b>Ingress protection</b>	IP20		
<b>Weight</b>	150 g		

## Modbus® version (option)

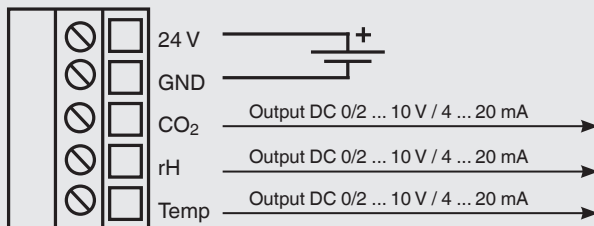
Modbus® communication	
<b>Protocol</b>	RTU mode, RS 485 An additional analogue output for a selected measured value 0 ... 10 V, 2 ... 10 V, R > 1 kΩ 4 ... 20 mA, R < 500 Ω
<b>Transmission mode</b>	RTU
<b>Interface</b>	RS-485
<b>Switching output</b>	SPDT relay, 250 ... 30 V, 6 A 3 screw terminals (NC, COM, NO)
<b>Power supply U<sub>B</sub></b>	AC 24 V or DC 24 V ±10 %
<b>Modbus® addresses</b>	1 ... 247 addresses selectable in the configuration menu

## Electrical connection

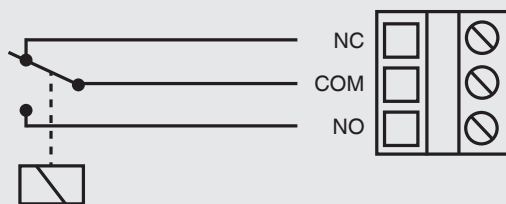
### Variants: Temperature and relative humidity



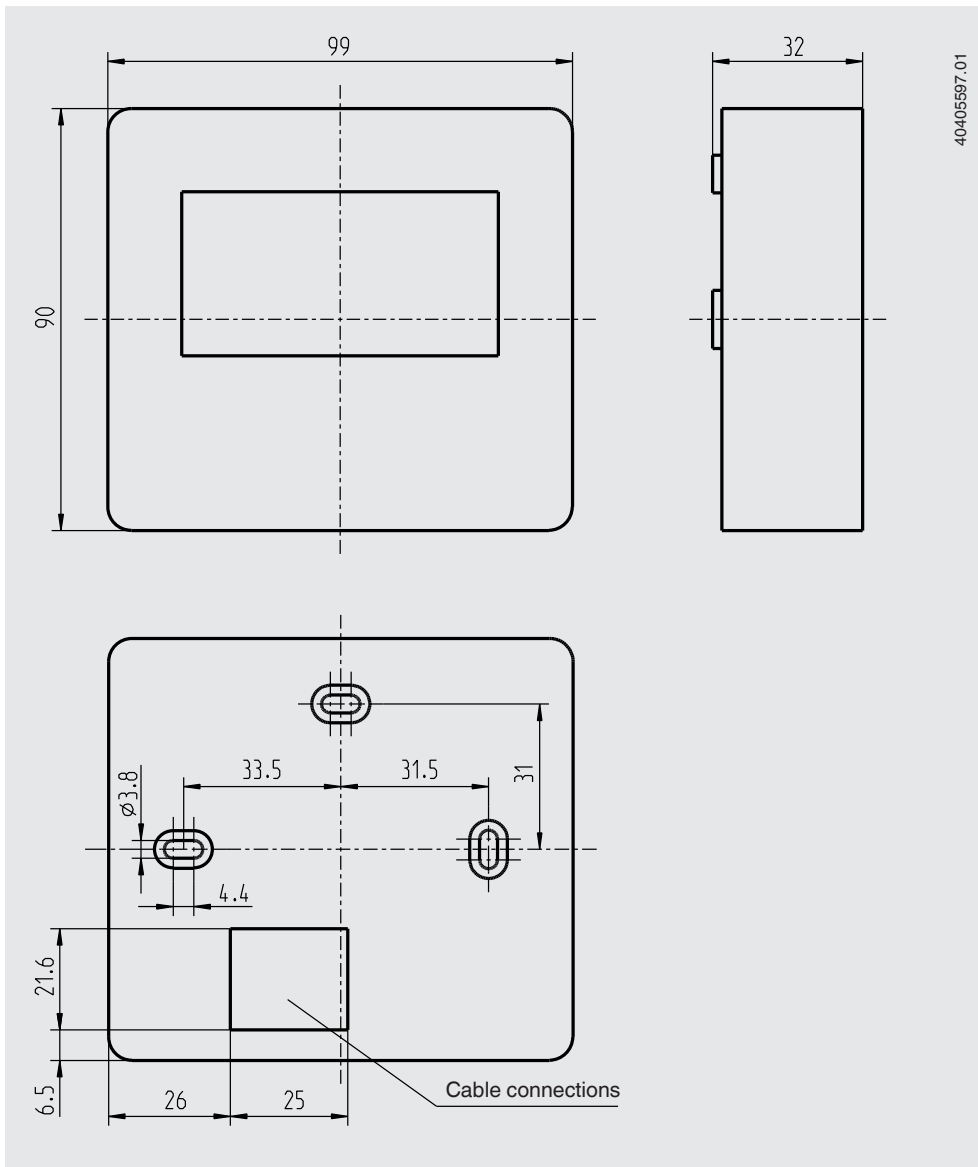
### Variants: CO<sub>2</sub>, temperature and relative humidity



### Switching output (option)



# Dimensions in mm



## Approvals

Logo	Description	Country
	<b>EC declaration of conformity</b> EMC directive RoHS conformity WEEE directive	European Community

## Certificates (option)

- 2.2 test report
- 3.1 inspection certificate

Approvals and certificates, see website

## Scope of delivery

- Control panel
- Mounting screws

## Ordering information

Model / Measuring range / Options

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