

Control panel with integrated room sensor

Model A2G-200

WIKA data sheet SP 69.12



Applications

For the measurement of the temperature, carbon dioxide (CO₂) and relative humidity of room air and in ventilation systems

Special features

- Electrical output signal, DC 0 ... 10 V, 4 ... 20 mA or Modbus®
- Touchscreen
- Integrated switching output

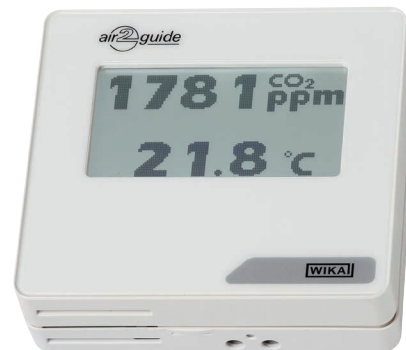


Fig. top: with display

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 (CO₂).

The large touch LC display makes the operation and readability easy and clear. The integrated switching output 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 CO₂).

The measuring results are transmitted with an analogue output signal (0 ... 10 V or 4 ... 20 mA) or digitally via Modbus® output.

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

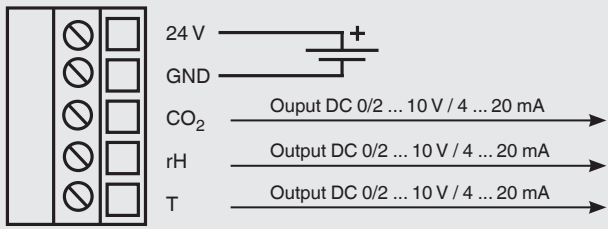
Control panel with integrated room sensor, model A2G-200			
	Parameter		
	CO ₂	Temperature	Relative humidity
Version	<ul style="list-style-type: none"> ■ With LC display ■ Without LC display ■ With LC display and switching output 		
Measuring element	Non-dispersive infrared (NDIR)	Pt1000	Capacitive thermosetting polymer sensor element
Measuring range	400 ... 2,000 ppm	0 ... 50 °C [32 ... 122 °F]	0 ... 90 %
Accuracy	±40 ppm + 2 % of reading value	< 0.5 °C [0.9 °F]	max. ±4 %
Units	ppm	5 °C	±4 % r. h.
Output signal	<ul style="list-style-type: none"> ■ 0/2 ... 10 V, R >1 kΩ ■ 4 ... 20 mA, R <500 Ω ■ Modbus® 		
Electrical connection	5 screw terminals (24 V, GND, CO ₂ , rH, T) Cable gland M20 Max. 1.5 mm ²		
Supply voltage U _B / Current consumption	AC/DC 24 V, ±10 % 90 mA, +10 mA for each voltage output / +20 mA for each current output		
LC display	77.4 x 52.4 mm [3.0 x 2.1 in]		
Case	Plastic (ABS)		
Permissible temperatures			
Ambient	-20 ... +70 °C [-4 ... 158 °F]		
Operating	0 ... 50 °C [32 ... 122 °F]		
Relative humidity	0 ... 95 %, non-condensing		
Ingress protection per IEC/EN 60529	IP20		
Mounting	Via three screw holes (slotted screws) with Ø 3.8 mm [0.2 in]		
Weight	150 g		

Modbus® version

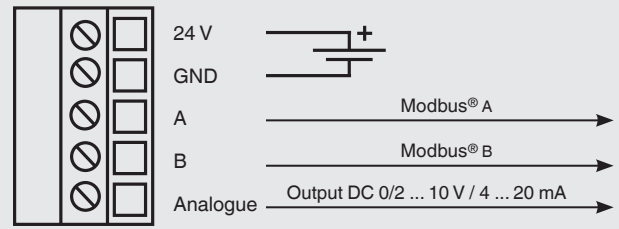
Modbus® communication	
Protocol	RTU mode, RS 485 An additional analogue output for a selected measured value 0 ... 10 V, 2 ... 10 V, R > 1 kΩ 4 ... 20 mA, R < 500 Ω
Transmission mode	RTU
Interface	RS-485
Switching output	SPDT relay, 250 ... 30 V, 6 A 3 screw terminals (NC, COM, NO)
Power supply U _B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

Electrical connection

Analogue output



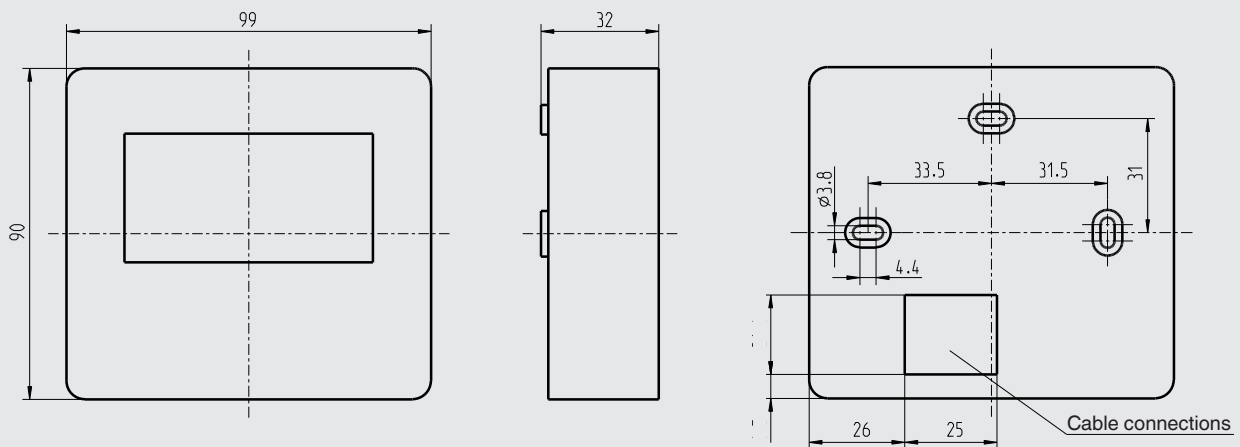
Digital Modbus® output



Switching output




Dimensions in mm



40405597.01

Approvals

Logo	Description	Country
	EC declaration of conformity	European Union
	EMC directive	
	Low voltage directive	
	RoHS conformity	
	WEEE directive	

Certificates (option)

2.2 test report

Approvals and certificates, see website

Ordering information

Model / Version / Measuring range / Options

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