Control panel with integrated room sensor Model A2G-200

Applications

For the measurement of the temperature, carbon dioxide (CO_2) and relative humidity of room air

Special features

- Various versions for the highest user flexibility
  - Parameters of relative humidity and temperature
  - Parameters of CO_2 and temperature
  - Parameters of CO_2, temperature and relative humidity
- Output signal can be set between 0 … 10 V or 4 … 20 mA
- Avaialble as Modbus® 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_2).

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_2).

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

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

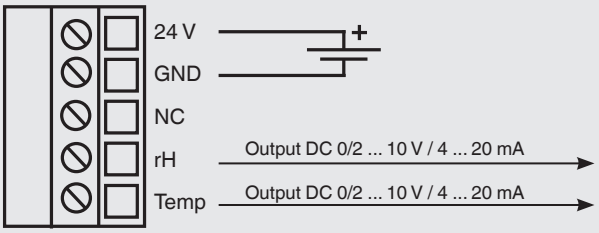
Control panel with integrated room sensor, model A2G-200			
	Parameter		
	CO_2	Temperature	Relative humidity
Measuring element	Non-dispersive infrared (NDIR)	Pt1000	Capacitive thermosetting polymer sensor element
Measuring range	400 … 2,000 ppm	0 … 50 °C	0 ... 90 %
Accuracy	±40 ppm + 2 % of reading value	< 0.5 °C	max. ±4 %
Units	ppm	5 °C	±4 % r. h.
Output signal	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
LC display (option)	Touchscreen, size: 77.4 x 52.4 mm		
Electrical connection	Cable gland M20 4 spring-clip terminals max. 1.5 mm²		
Case	Plastic (ABS)		
Permissible temperatures ■ Ambient temperature ■ Operating temperature (at sensor) ■ Relative humidity	 -20 … +70 °C 0 … 50 °C 0 ... 95 %, non-condensing		
Ingress protection	IP20		
Weight	150 g		

Modbus® version (option)

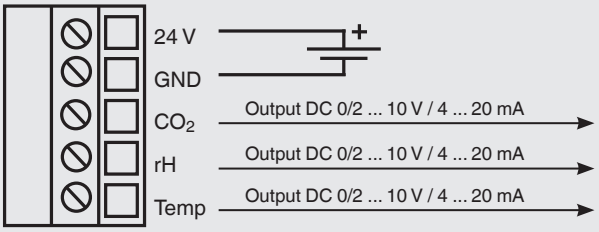
Modbus® communication	
Protocol	RTU mode, RS 485 An additional analogue output for a selected measured value 0 ... 10 V, 2 … 10 V, R > 1 kΩ 4 … 20 mA, R < 500 Ω
Transmission mode	RTU
Interface	RS-485
Switching output	SPDT relay, 250 … 30 V, 6 A 3 screw terminals (NC, COM, NO)
Power supply U_B	AC 24 V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

Electrical connection

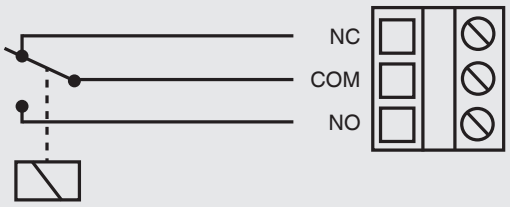
Variants: Temperature and relative humidity



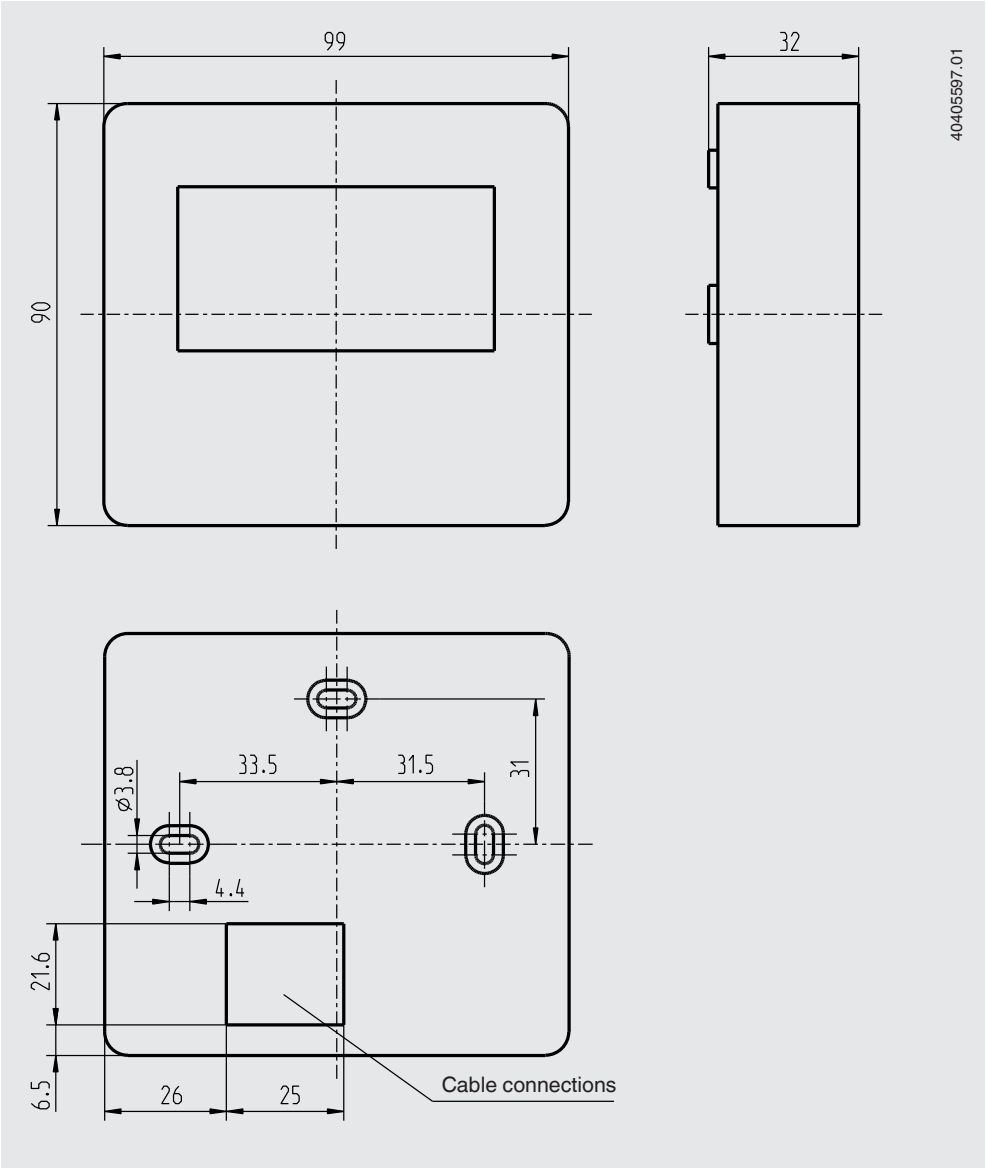
Variants: CO_2, temperature and relative humidity



Switching output (option)



Dimensions in mm



Approvals

Logo	Description	Country
CE	**EC declaration of conformity** 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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