

# Air Quality Sensors

## Model A2G-80, air2guide VOC



WIKA Data Sheet SP 69.01

### Applications

- For the measurement of indoor air quality
- Mixed-gas sensors detect gases and vapours which can be oxidised (burned): body odours, tobacco smoke, extracts from materials (furniture, carpets, paint coatings, adhesives, etc.)
- In applications where air quality is essential, e.g. buildings, offices, class rooms, kitchens etc.

### Special Features

- The set point for the required air quality can be preset on installation
- Low consumption, reduced energy costs



Air Quality Sensor air2guide VOC, Model A2G-80

### Description

#### Measuring principle

The sensor changes its conductivity proportionally with the number of molecules of reduced gases. The associated output voltage of the measuring element is amplified accordingly from 0 ... 10 V<sub>±</sub>. The greater the output signal of the sensor (0 ... 10 V), the worse the air quality. Mixed-gas sensors are wide-band, i.e. as a result of the sensor signal neither the type of gas nor its concentration in ppm can be concluded.

The sensor cannot differentiate between pleasant and unpleasant smells, but it is the persons in the area who must ultimately decide whether they are satisfied with the air quality.

#### Design

In accordance with EN 60730-1:2002, CE conformity 2004/108/EC (electromagnetic compatibility) and 2001/95/EC (product safety)

#### Supply voltage

15 ... 24 VDC / 24 VAC ± 10 %

#### Power input

1.2 W / 2.2 VA

#### Output signal

0 ... 10 V (3-wire), min. load 10 kΩ

#### Operating temperature

Ambient: -20 ... +50 °C

#### Humidity range

Max. 85 % r.h. (non-condensing)

#### Ingress protection

IP 42 per EN 60 529 / IEC 592 (with case)

#### Weight

approx. 150 g

## Installation instructions

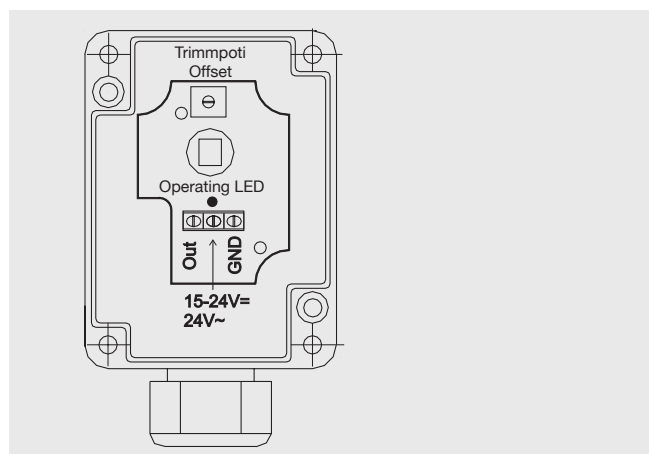
- Mount duct sensors with their air intake facing against the direction of the flow
- Prevent exposure to sunlight
- Max. airflow 10 m/s

## Commissioning

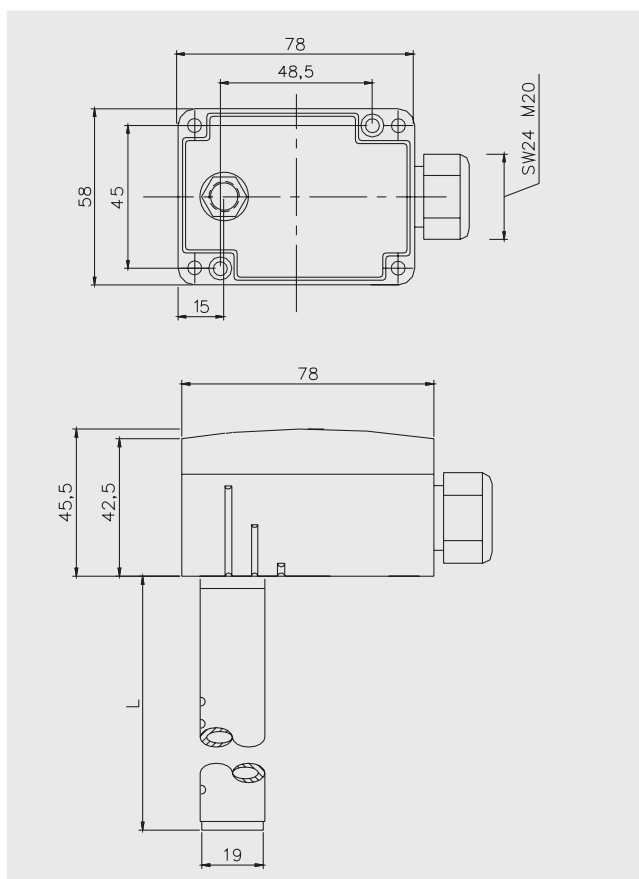
Individual adjustment of the output signal is made via a trim potentiometer on the sensor PCB. With this, the offset of the output signal is either raised or lowered:

1. Attach sensors, lock the cover, switch on the power supply
2. Make sure there are good air conditions close to the sensor
3. After running for about 30 minutes, check the output signal. The voltage should be in the range of 1 ... 3 V. With a too high/low voltage, correct the value accordingly with the trim potentiometer on the PCB:  
Turn the potentiometer to the left until the red LED just goes out. The output signal will now be approximately 0.7 V.
4. The sensor is now ready to be used - the voltage of the output signal will rise as the air quality worsens.

## Wiring details



## Dimensions in mm



## Ordering information

Model / Options

Modifications may take place and materials specified may be replaced by others without prior notice. Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing.



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