

# Air quality sensor VOC Model A2G-80

WIKA data sheet SP 69.01



## Applications

- For measuring the 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, classrooms, kitchens etc.

## Special features

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

## Description

### Measuring principle

The sensor changes its conductivity in proportion to the number of molecules of reduced gases. The associated output voltage of the measuring element is correspondingly increased from DC 0 ... 10 V. The greater the output signal of the sensor (0 ... 10 V), the worse the air quality. Mixed gas sensors are wide band, i.e. the sensor signal does neither show the type of gas nor the concentration in ppm. The sensor cannot distinguish pleasant from unpleasant smells, but in the end it is the persons living or working in the room who have to judge whether the air quality is satisfactory or not.

### Design

CE conformity:  
2004/108/EC electromagnetic compatibility  
Product safety: 2001/95/EC product safety  
EMC: EN 607301:2002  
Product safety: EN 607301:2002



Air quality sensor VOC model A2G-80

### Voltage supply

DC 15 ... 24 V / AC 24 V  $\pm$ 10 %

### Power consumption

1.2 W / 2.2 VA

### Output signal

0 ... 10 V (3-wire), load min. 10 k $\Omega$

### Permissible temperature

Ambient: -20 ... +50 °C

### Humidity range

Max. 85 % rH (non-condensing)

### Ingress protection

IP 20 per EN 60529 / IEC 592

### Weight

approx. 150 g

## Installation instructions

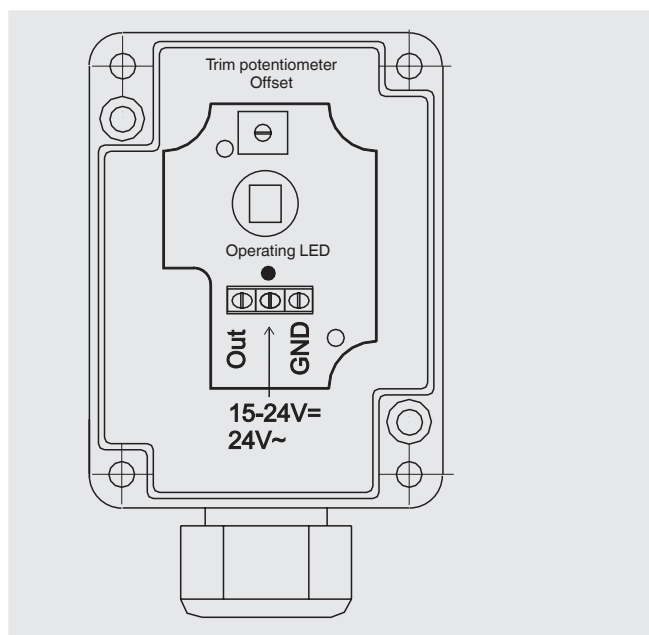
- Mount duct sensors with their air intake facing the direction of the flow
- Prevent exposure to sunlight
- Max. air draught 10 m/s

## Commissioning

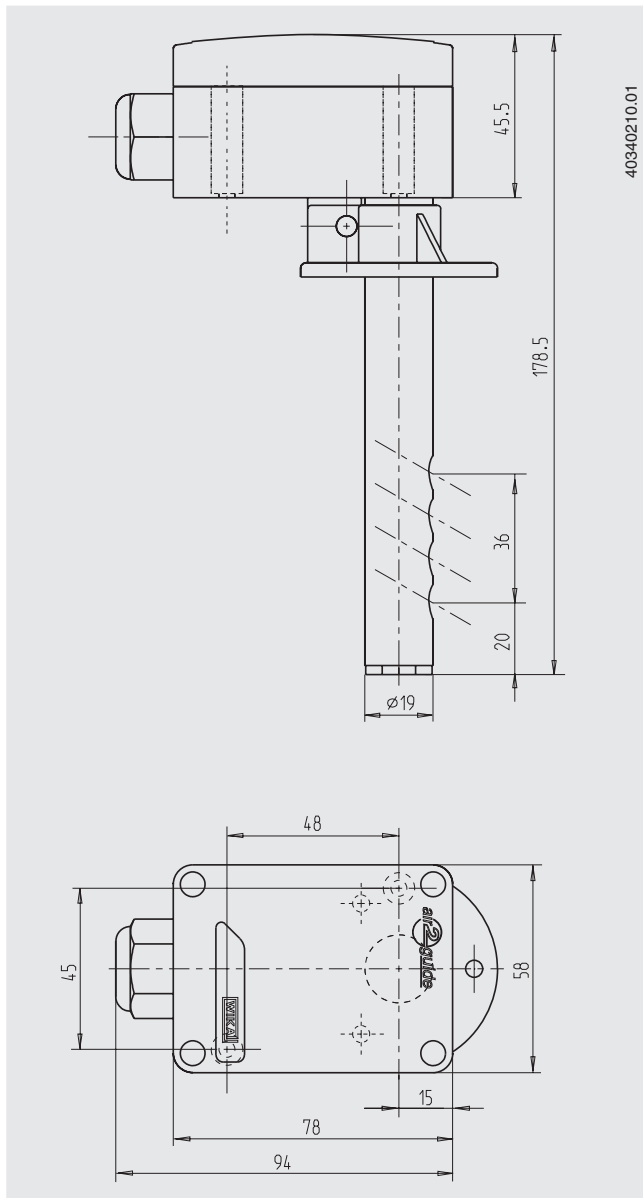
Individual adjustment of the output signal is made via a trim potentiometer on the sensor PCB. With this, the offset of the output signal is either raised or lowered:

1. Attach sensors, lock the cover, switch on the operating voltage
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.

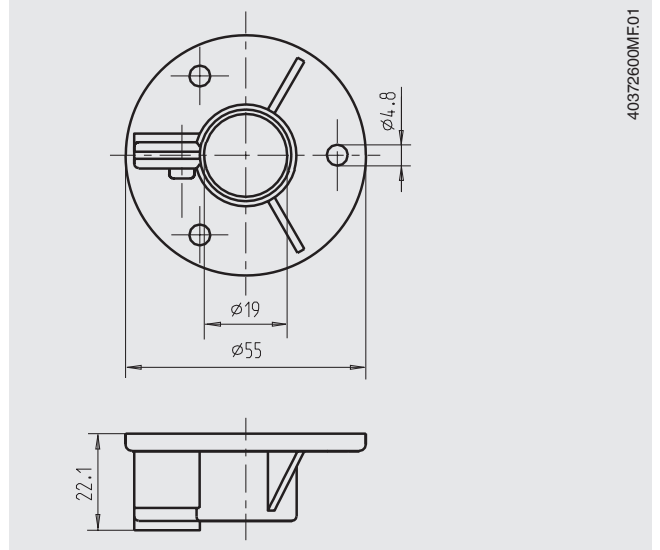
## Electrical connection



## Dimensions in mm



## Mounting flange MF19-PA



## Ordering information

### Model / Options

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The specifications given in this document represent the state of engineering at the time of publishing.  
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