

## ADS-VOC-24 | Volatile organic compounds sensor 24V

ADS-VOC-24 is used to control ventilation, air cleaners and to monitoring of the air quality in the people occupied areas like restaurants, kitchens, facilities and likewise.

- › sensitive to gaseous air pollutants
- › based on electrochemical principle
- › analog output 0 - 10V + output relay
- › built-in regulator
- › good long-term stability



Part no: 90000459

### Description:

ADS-VOC is space gaseous air pollutants sensor with analog voltage output 0-10V and output relays with adjustable levels of switching. The sensor is based on a semiconductor sensing element. It changes its conductivity in dependence on the air contamination. Built-in electronics converts the input conductivity changes to the 0-10V analog output. The sensor has a high sensitivity at low concentrations of pollutants in the air such as ammonium and hydrogen sulfide produced during decomposition of organic waste materials. It is suitable for ventilating room's contaminated gaseous substances of organic origin, cooking fumes, cigarette smoke and etc.

### Table of parameters:

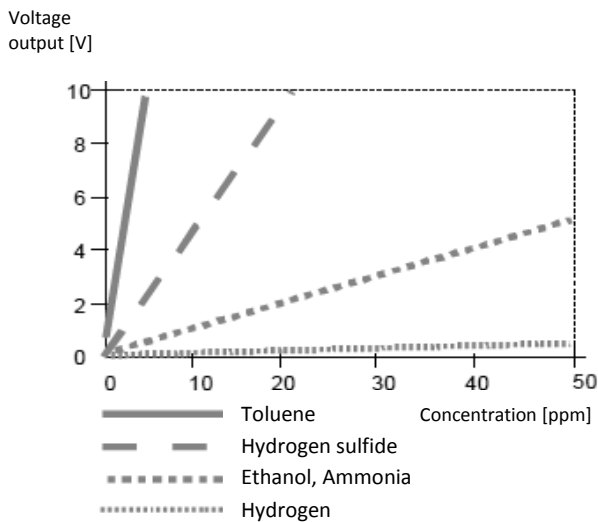
Parameter	Value	Unit
Power supply optional <sup>(1)</sup>		
AC 50/60 Hz	24	V AC
DC	14 – 24	V DC
Input	2,5	VA
Switched voltage	max. 250	VAC
Switched current	max. 16	A
Switching hysteresis	1,5	V
Voltage output	0 – 10	VDC
Current output 1	0 – 20	mA
Current output 2	4 – 20	mA
Sensor warm-up <sup>(2)</sup>	10	minutes
Working temperature	0 to +40	°C
Working humidity	5 to 95	%RH
Storage temperature	-20 to +60	°C
Dimensions	125x83x37	mm

(1) For the long term stability it is recommended to power the sensor continuously.

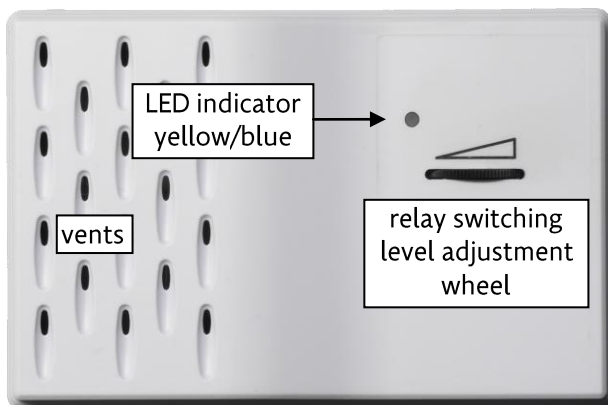
(2) Since power on to warm-up the sensor. The first 10 minutes the output will be 0V. The relay starts to switch after this interval. In the next 24 hours the sensor will stabilize.

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The approximate sensor sensitivity:



Front view:



**Relay switching level adjustment wheel:**

- turn to the left to decrease the relay switching level, the relay will switch at lower air contamination level

- turn to the right to increase the relay switching level, the relay will switch at higher air contamination level

To avoid fast relay switching around the adjusted level the hysteresis of 1,5 VDC - related to the 0-10VDC output - is automatically added and the minimal duration of one state (contacts open/closed) is 1 minute.

**LED indicator:**

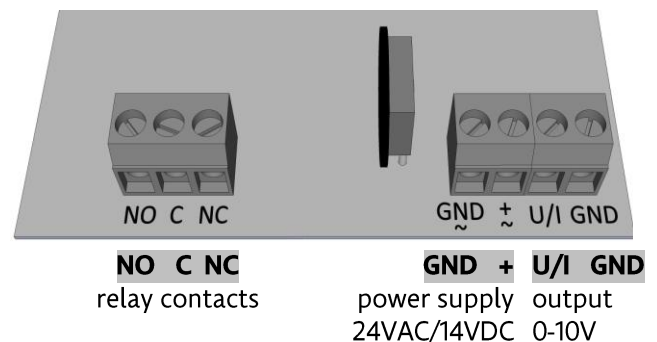
*Blue*

- continuous light = relay contacts closed
- blinking = relay contacts opened

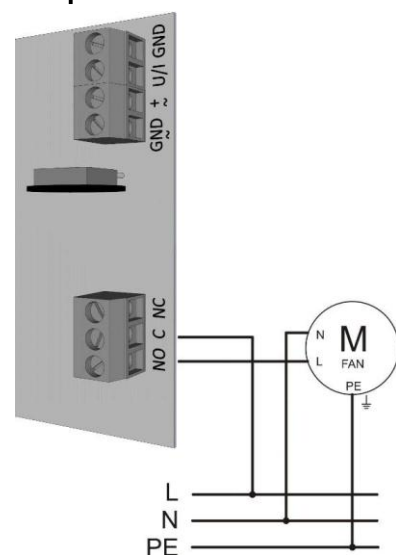
*Yellow*

- Indicates only when you turn the adjustment wheel. After finishing the adjustment it indicates further 10s, after that the indication turns off.
- Slow blinking - if you turn the wheel to left = more frequent relay switching.
- Fast blinking - if you turn the wheel around the middle.
- Continuous light - if you turn the wheel to right = less frequent relay switching.

**Terminals:**



**Connection example:**



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### Jumper JP8 settings:

- 1   *Auto point* - If fitted, the current measured value will be saved as the calibration value. The new value will be saved **ONLY** when it is better (cleaner air) then the old value.
- 2
- 3
- 4

- 1   *LED enable* - if fitted, the blue LED indication is enabled.
- 2
- 3
- 4

Positions no. 3 and 4 aren't intended for user settings - don't change settings on these positions!

### Jumper JP1 voltage/current output setting:

Jumper in position 1-2 = voltage output.  
 Jumper in position 2-3 = current output.

### Jumper JP2 current output setting:

JP2 fitted = output current range 4-20mA.  
 JP2 not fitted = output current range 0-20mA.

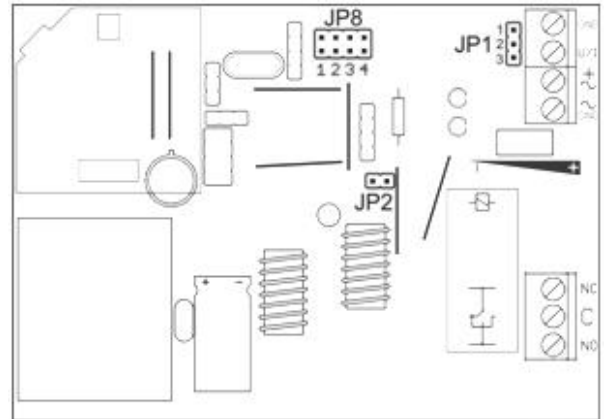
### Way to use

The product is intended for indoor use only.

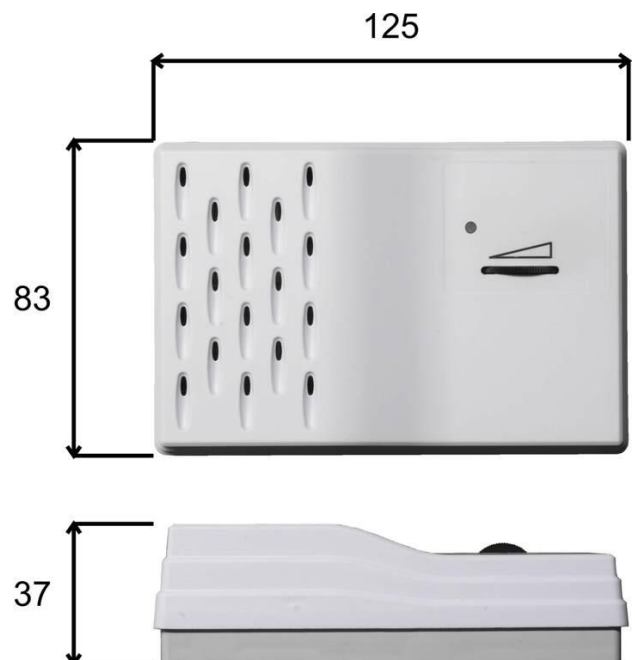
### What to do at the end of lifetime of this product

Discard the product in according to the electronic waste law and the EU directives.

### On the PCB jumpers location:



### Dimensions:



*The producer reserves the right of technical changes in order to product improvements its properties and functions without previous notice.*