ADS-SMOKE-230 | Smoke sensor 230V

ADS-SMOKE-230 is used to control ventilation, air quality monitoring in the people occupied areas like restaurants, shops, offices, households, flats and likewise.

- sensitive to cigarette smoke
- based on electrochemical principle
- analog output 0 - 10V + output relay
- built-in regulator
- long-life

Description:

ADS-SMOKE is an indoor air quality sensor with analog voltage output 0-10 V and an output relay with adjustable switching level. The sensor has a high sensitivity to low concentrations of pollutant gasses in the air. For example carbon monoxide and hydrogen, those are contained in the cigarette smoke. Therefore is the ADS-SMOKE appropriate for use in areas polluted by cigarette smoke. Monitoring of the air pollution allows very economical controlling of ventilation systems. The sensor is also suitable for tentative detection of alcohol vapors, methane/propane-butane/natural gas leak. It can also detect organic vapors in restrooms, vapors from cleaning products and cosmetics (deodorants, perfumes, etc.).

The sensor is based on a semiconductor sensing element. It increases its conductivity in dependence on the smoke in the air concentration. Built-in electronics converts the input conductivity changes to the 0-10V analog output. If you ventilate only when it is really needed, then is it possible to keep the power consumption at a minimum.

Explanation of abbreviations and technical terms can be found on our website in the Glossary section.

Table of parameters:

Parameter	Value	Unit
Power supply	230	V AC
Input	2,5	VA
Voltage output	0 – 10	V DC
Current output 1	0 – 20	mA
Current output 2	4 – 20	mA
Switched voltage	max. 250	V AC
Switched current	max. 16	A
Switching hysteresis	1,5	V
Working temperature	0 to +40	°C
Working humidity	5 to 95 %	RH
Storage temperature	-20 to +60	°C
Dimensions	125x83x37	mm

- For the long term stability it is recommended to power the sensor continuously.
- 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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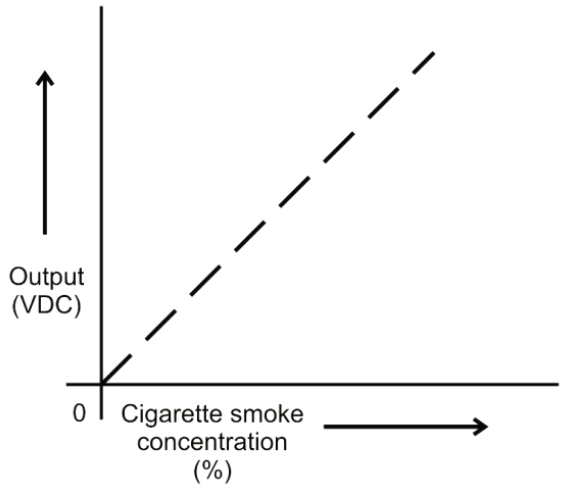
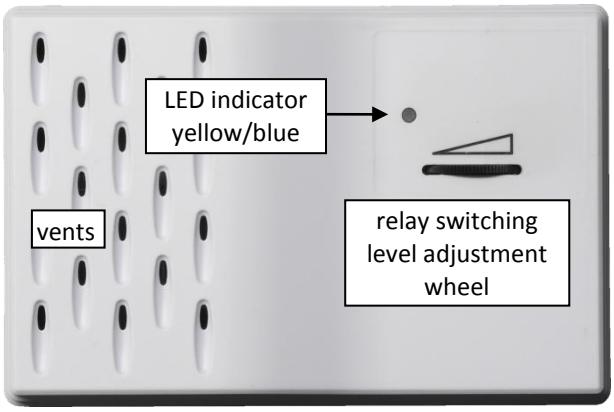
Indicative sensitivity characteristics:



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:

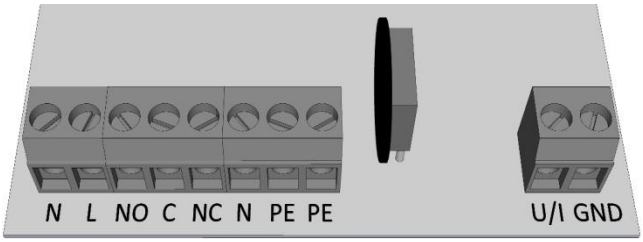
Blue

- 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 = to set the standard air quality.
- Continuous light - if you turn the wheel to right = less frequent relay switching.

Terminals:

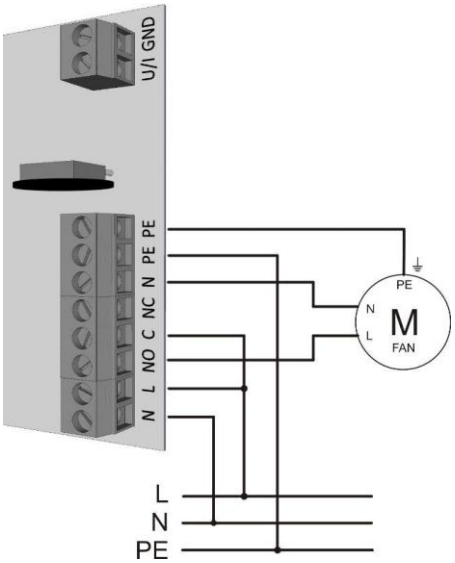


N L power supply

NO C NC relay contacts

U/I GND output 0-10V

Connection example:



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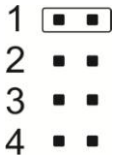
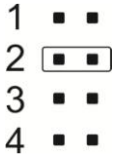
Jumper JP8 settings:



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.



LED enable - if fitted, the blue LED indication is enabled.

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.

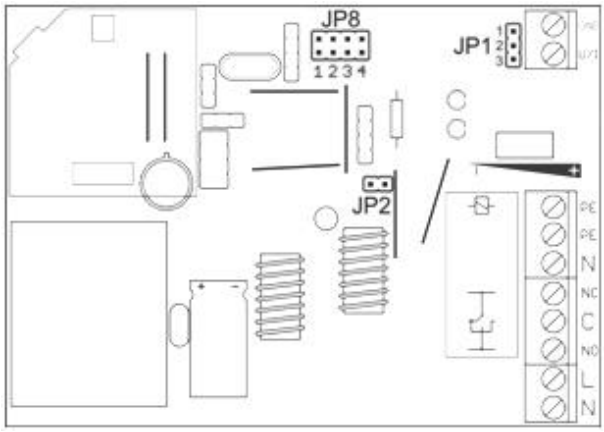
Way to use

The product is intended for indoor use only. You can read the recommendations for sensor placement on our web pages.

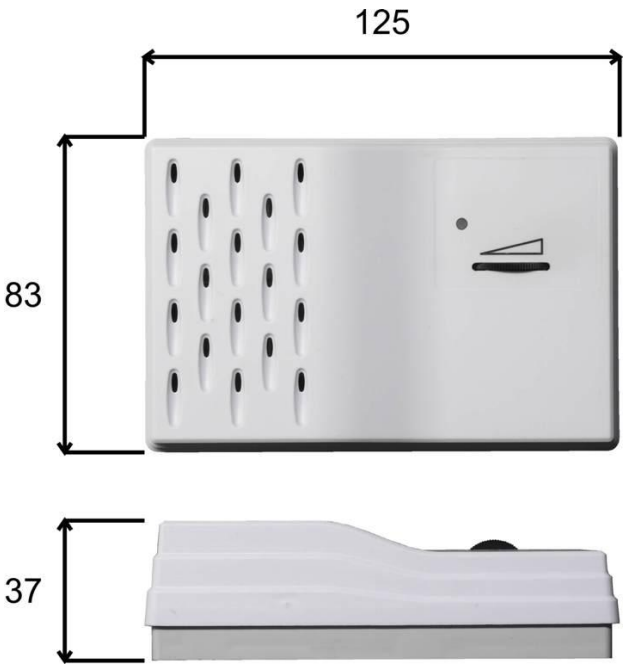
What to do at the end of lifetime of this product

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

On the PCB jumpers location:



Dimensions (mm):



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