



PROTRONIX ADS-RH-D Duct Mounted Relative Humidity Sensor User Manual

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PROTRONIX ADS-RH-D Duct Mounted Relative Humidity Sensor User Manual



ADS-RH-D is used to control ventilation, heat recovery and air conditioning systems by measuring relative humidity in the air duct.

- relative humidity measuring
- analog voltage / current output
- output relay
- fully calibrated
- long-term stability

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Description

ADS-RH-D is a capacitive relative humidity (RH) sensor.

It is equipped with an output relay with adjustable switching level and with analog 0-10V voltage / 0- 20mA (4-20mA) current output. The measurement is performed periodically after about 8s.

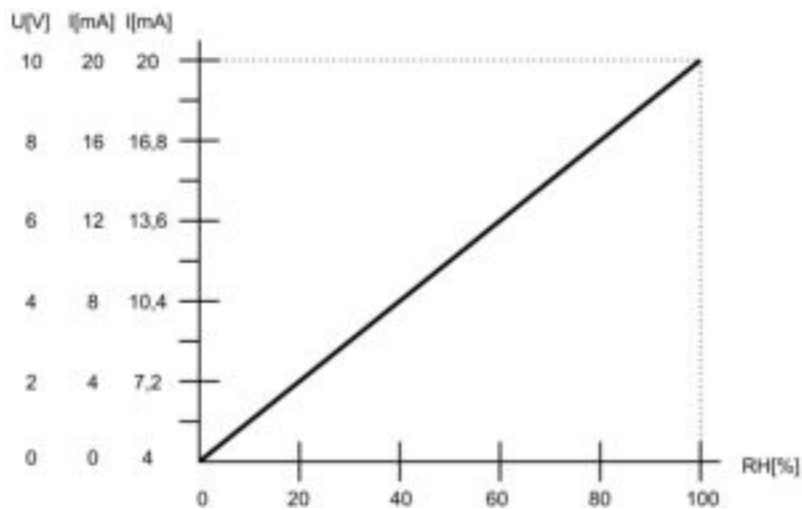
Based on these measurements it is possible to directly control the ventilation, air conditioning and heat recovery units.

Table of parameters

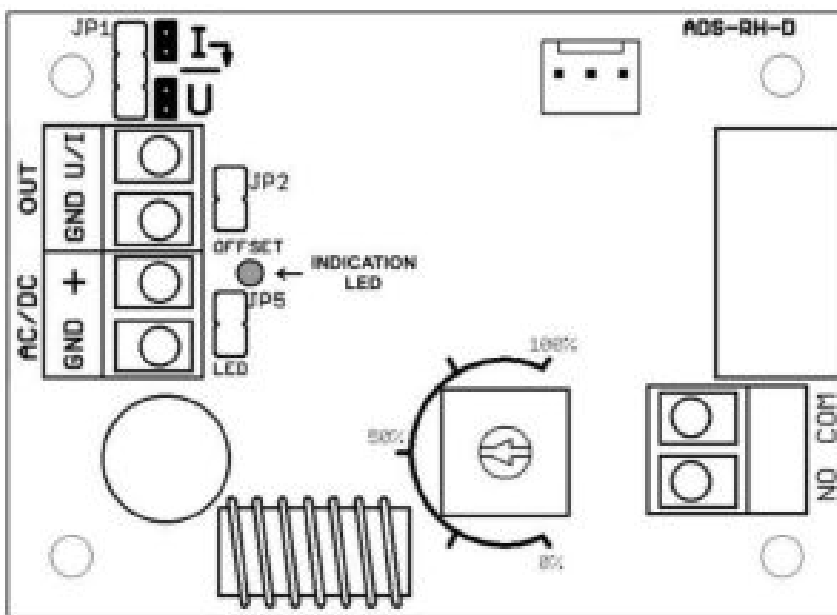
| Parameter | Value | Unit |
|------------------------|--------------------|-----------|
| Supply voltage range | 14 – 30 18 – 30 | V DC V AC |
| Power consumption | 1 | VA |
| Operating range | 0 – 100 % | RH |
| Accuracy 20 – 80 % | ±4 % | RH |
| Accuracy 0 – 100 % | ±6 % | RH |
| Measuring period | 8 | s |
| Voltage output | 0 – 10 | V DC |
| Current output 1 | 0 – 20 | mA |
| Current output 2 | 4 – 20 | mA |
| Max. switching voltage | max. 250 | V AC |
| Max. switching current | max. 5 | A |
| Working temperature | 0 to +40 | °C |
| Storage temperature | -20 to +60 | °C |
| Storage humidity | 5 to 90 % | RH |
| Protection | IP20 | – |
| Dimensions | 257x100x60 | mm |

Explanation of abbreviations and technical terms can be found on our website in the [Glossary](#) section.

Output voltage/current dependence graph



Internal layout



Relay switching level adjustment trimmer

- turn to the left to decrease the relay switching level of RH, the relay will switch at lower RH level
- turn to the right to increase the relay switching level of RH, the relay will switch at higher RH level

To avoid fast relay switching around the adjusted level the hysteresis of 15% is added automatically.

Voltage / current output petting – jumper JP1

- Jumper in position U = voltage output.



- Jumper in position I = current output.

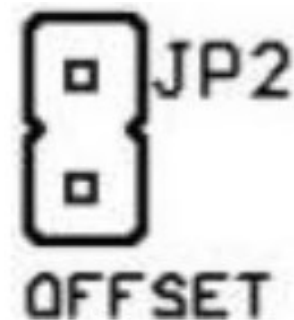


Current output petting – jumper JP2

- Jumper fitted = output 4-20mA.



- Jumper not fitted = output 0-20mA.



LED indication

Blue

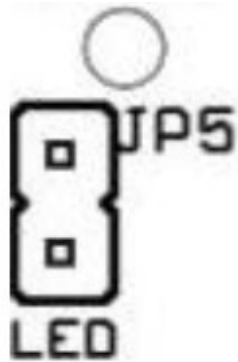
- relay contacts closed = indication is on
- relay contacts opened = indication is off

LED indication setting – jumper JP5:

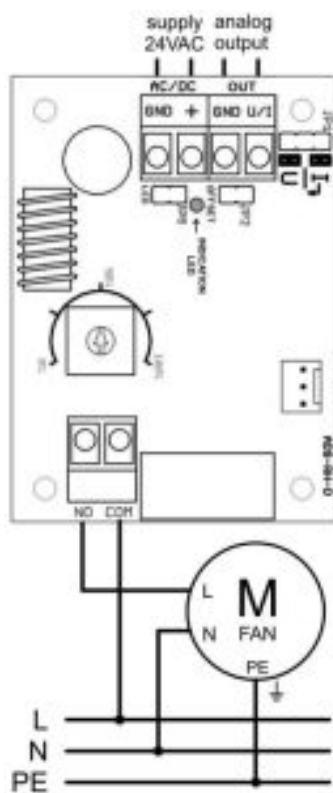
- Jumper fitted = LED enabled.



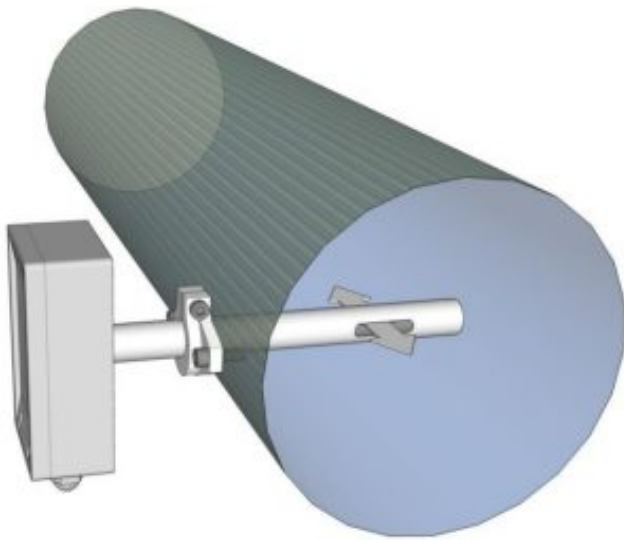
- Jumper not fitted = LED disabled.



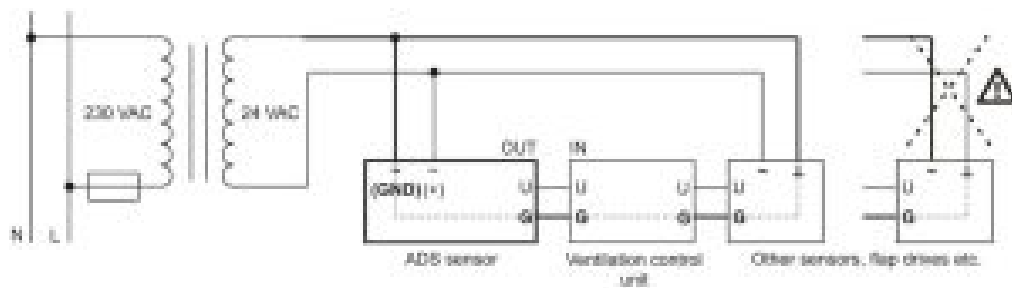
Connection example



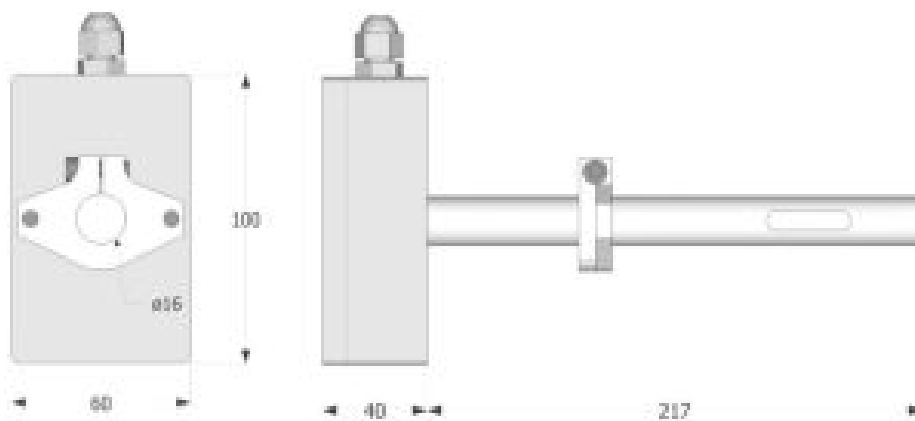
Installation



If you connect other devices to the same AC power source as the ADS sensor, it is necessary to meet GND wiring of all analog inputs and outputs, as well as power wires.



Dimensions (mm)



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.

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

Support

Protronix s.r.o., Pardubická 177, Chrudim 537 01, Czech Republic www.protronix.cz/en/
www.careforair.eu/en/

Documents / Resources

The thumbnail shows the cover of the Protronix ADS-RH-D User Manual. It features the Protronix logo at the top left, a small image of the sensor unit, and a table of contents in the center. The text on the cover includes 'ADS-RH-D - Duct mounted relative humidity sensor' and 'User Manual'.

[PROTRONIX ADS-RH-D Duct Mounted Relative Humidity Sensor](#) [pdf] User Manual

ADS-RH-D, Duct Mounted Relative Humidity Sensor