PROTRONIX
SENSE & EASY

Datasheet

NL-ECO-RH-BA | Room relative humidity sensor with BOOST regime and alarm

Room sensor NL-ECO-RH-BA serves for continuous air quality monitoring inside buildings and for effective ventilation (HVAC) systems control according to actual level of air pollution. Sensor continuously monitors relative humidity (RH) in air. It can be effectively used in offices, schools, classrooms, shopping centers, homes, restaurants, fitness centers, commercial buildings, etc.

- measures relative humidity in air
- LED indication with automatic turn off according to ambient light (at night)
- sound signalization – alarm
- BOOST regime
- analog voltage output 0-10V
- output relay NO/C
- maintenance or calibration not required during operation
- long-term stability
- expected lifetime >10 years

Measurement of the relative humidity is based on the principle of capacitive polymer sensor.

The sensor has one analog output for the actual concentration of RH.
Ventilation, air conditioning and heat recovery units can be directly controlled based on the output signal of the sensor in very efficient way.

The trigger level of RH output relay can be set by a rotary element in the entire measuring range. Relay switching can be indicated by a short (1,5s) sound signal 1x per minute, if the function is allowed. BOOST regime allows you to manually set the ventilation to maximum power. Detailed description of functions can be found further in this manual. Current air quality can be easily checked by three LED indicators. When ambient light is dimmed, the indicators turn off automatically to not disturb you when falling asleep.

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

Parameter	Value	Unit
Supply voltage range	12 – 35 12 – 24	V DC V AC
Consumption	max 1,5	W
RH measuring range	0 – 100 %	RH
RH accuracy 0 – 90 %	± 5 %	RH
RH accuracy 90 – 100 %	± 6 %	RH
RH switching hysteresis	5 %	RH
Voltage output	0 – 10	V DC
Max. switching voltage	250/30	V AC / V DC
Max. switching current	5/5	A AC / A DC
Working humidity non condensing	0 – 90 %	RH
Working temperature	0 to +50	°C
Storage temperature	-20 to +60	°C
Expected lifetime	10	years
Ingress protection	IP20	
Dimensions	90x80x31	mm