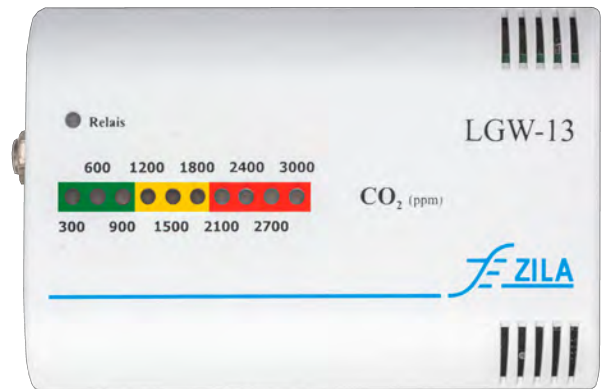


# Air Quality Guard LGW-13L | LGW-13S

## A multifunctional CO<sub>2</sub> detector, equipped with switching functions for industrial and residential applications

- ☑ Available as a tabletop unit with a power supply or as a surface/wall-mounting unit
- ☑ Air quality traffic light with 10 LEDs indicates the CO<sub>2</sub> content in detail
- ☑ Comes with an integrated alarm horn (optical and audible warning function)
- ☑ CO<sub>2</sub>-controlled switching functions and automatic control for 24V fans, dampers and window openers
- ☑ Small and compact housing



## Technical data

### Characteristics

CO <sub>2</sub> measuring range (standard)	0...3000ppm* <sup>1</sup>
CO <sub>2</sub> signal output	4-20mA and 0..10V
Operating voltage	24V DC / 150mA* <sup>2</sup>
Bar graph display	10 LEDs, 1 LED per 300ppm
CO <sub>2</sub> measuring technology	optical, NDIR* <sup>3</sup>
Housing and dimensions	polycarbonate, white, 120x80x35mm
Protection class	IP 20

### Operating conditions

Operating temperature	-10...+50°C
Storage temperature	-30...+70°C
Relative humidity	0..95% rF, non-condensing
Air pressure	900...1100 hPa

\*<sup>1</sup> Standard sensors of 3000ppm, 5000ppm, 10000ppm, 20000ppm, 50000ppm or with a measuring range of 0.3 , 0.5 , 1 , 2 or 5 per cent by volume; other ranges upon request

\*<sup>2</sup> only supported by the LGW-13L

\*<sup>3</sup> NDIR: non-dispersive infrared absorption measurement

## Display functions

### The device comes with:

- ☑ A 10-digit bar graph display, showing the CO<sub>2</sub> concentration (air quality) of the indoor air (IAQ)
- ☑ A yellow LED to signal that the adjustable CO<sub>2</sub> relay output is activated
- ☑ Separate LEDs in the ventilation slots for monitoring the CO<sub>2</sub> sensor, which light up after applying the supply voltage
- ☑ An error indication (when the LED lights turn off)

## Switching functions

- ☑ There are two switching thresholds, pre-configured at our works
- ☑ The first switching limit is potential-free or a connected 24V ventilation unit (by a jumper)
- ☑ Depending on the second set CO<sub>2</sub> limit, the alarm horn sounds. With a jumper, a lower or a higher volume level can be selected.

Technical modifications reserved

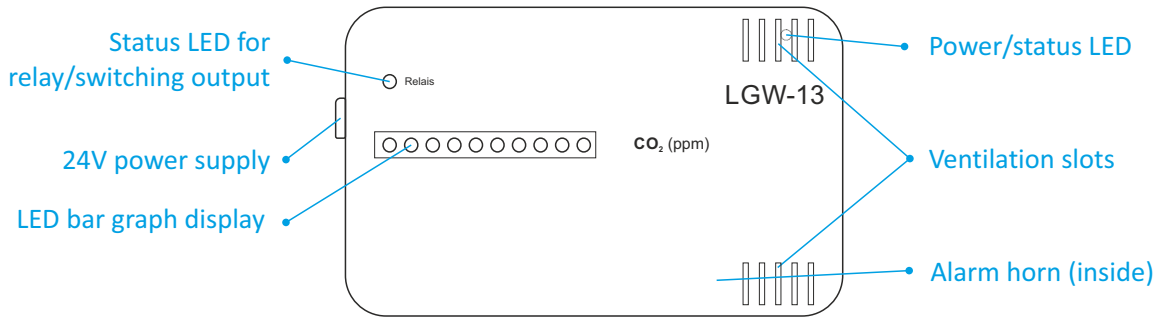
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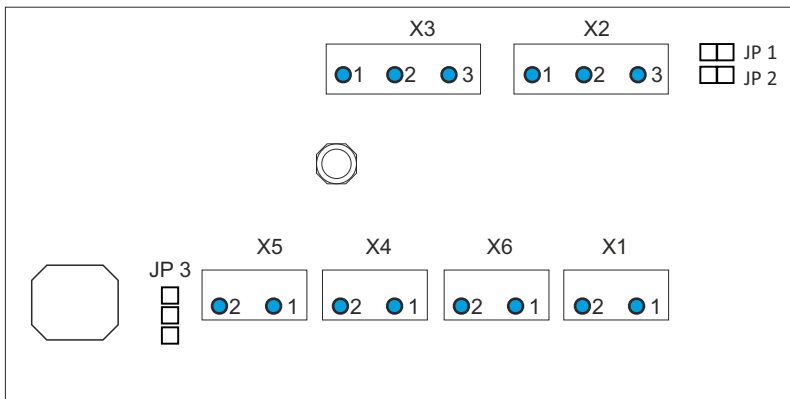
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## Housing and electronics



## Pin assignment

Looking at the PCB from above



### Connection of fans

**JP 1, JP 2 open:**  
2 x potential-free outputs

**JP 1, JP 2 closed:**  
Connection for 24VDC fans or window openers  
JP 1 closed: +24 VDC on X2-3 and X3-2  
JP 2 closed: GND on X2-2 and X3-3

### Alarm horn:

**JP 3 open:** off  
**JP 3 1-2:** high volume  
**JP 3 2-3:** low volume

Further information about the actuator connection and the signal outputs can be obtained from the mounting and operating instructions.

## Order

### Scope of delivery

Indoor Air Quality Guard LGW-13S   LGW-13L
Material for wall-mounting
Mounting and operating instructions

### Options for your order

LGW-13S
LGW-13L
Requested CO <sub>2</sub> measuring range as mentioned above
24V power supply for direct 230VAC connection

Technical modifications reserved

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