



# Space Mounting Air Quality Sensor

## Selectable Output 0/10Vdc or 4-20mA

### RLQ

#### Description:

The self-calibrating microprocessor-controlled space air quality sensor is used to determine the air quality on basis of a mixed gas sensor/VOC sensor.

It is used to measure the air quality for quantitative evaluation of room air pollution with contaminating gases.

The air quality sensor does not trace concentrations of individual gases, but assesses the mixed gas concentration.

Detectable gases: mixed gas, vapors of VOCs, cigarette smoke, automobile exhaust gases, human exhalation, combustion smoke (from wood, paper, plastics).

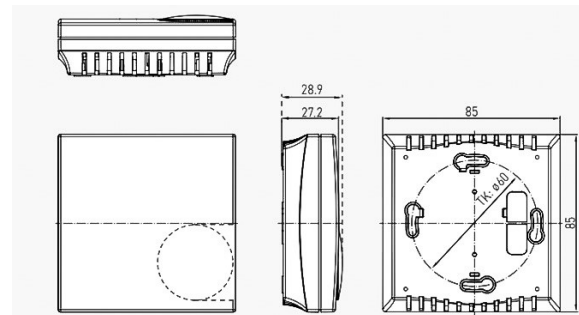
The sensor's lifetime depends on the type of burden and gas concentration.

#### Technical Specification:

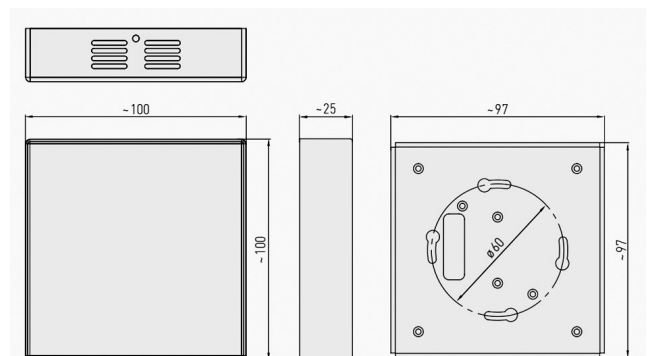
<b>Power Supply:</b>	24V AC / DC ( $\pm 10\%$ )
<b>Power Consumption:</b>	< 1.5W / 24V DC typical < 2.9VA / 24V AC typical Peak Current 200mA
<b>Sensor:</b>	VOC sensor (metal oxide), with automatic self-calibration (VOC = volatile organic compounds)
<b>Measuring Range:</b>	0...100% air quality; referred to calibrating gas; multi-range switching (selectable via DIP switches) VOC sensibility low, medium, high
<b>Output:</b>	0 – 10V (OV = clean air, 10V = contaminated air) or 4...20mA (selectable via DIP switches; switch point adjustable from 0...100% of output signal).
<b>Measuring Accuracy:</b>	$\pm 20\%$ of final value (referred to calibrating gas)
<b>Service Life:</b>	> 60 months
<b>Gas Exchange:</b>	By diffusion
<b>Warm-up Time:</b>	Approx. 1 hour
<b>Ambient Temperature:</b>	0...+50°C
<b>Response Time:</b>	Approx. 1 minute
<b>Electrical Connection:</b>	0.14 – 1.5mm <sup>2</sup> , via terminals
<b>Enclosure:</b>	Plastic, material ABS, colour pure white (similar to RAL 9010), stainless steel enclosure optional to order
<b>Dimensions:</b>	85 x 85 x 27mm (Baldur 1) 100 x 100 x 25mm (Stainless Steel)
<b>Installation:</b>	Wall mounting or on in-wall flush box, $\varnothing 55$ mm, base with 4-hole for mounting on vertically or horizontally installed in-wall flush boxes for cable entry from the back, with predetermined breaking point for on-wall cable entry from top / bottom in case of plain on-wall installation.
<b>Protection Class:</b>	III (according to EN 60730)
<b>Protection Type:</b>	IP30 (according to EN 60529)
<b>Standards:</b>	CE conformity, electromagnetic compatibility according to EN 61326, EMC Directive 2014 / 30 / EU, Low Voltage Directive 2014 / 35 / EU



#### Dimensions for Baldur 1 Enclosure:



#### Dimensions for Stainless Steel Enclosure:



#### Order Code:

**RLQ** Space Mounting Air Quality Sensor  
0/10Vdc or 4-20mA Output

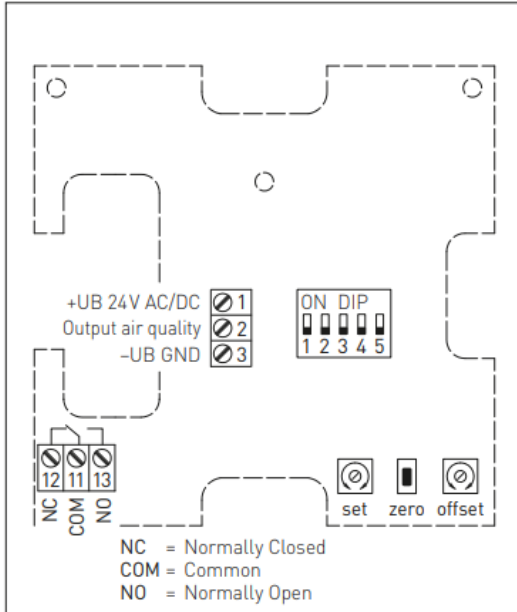
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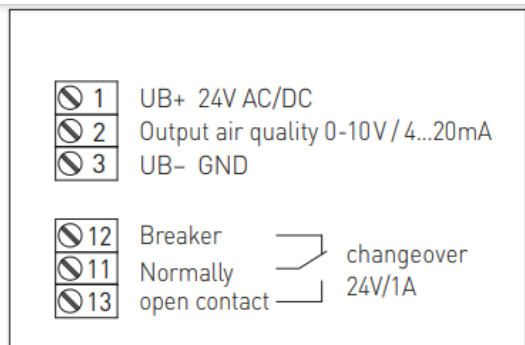
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### Schematic Diagram:



DIP Switches	RLQ	
VOC sensitivity	DIP 1	DIP 2
LOW	OFF	OFF
MEDIUM (default)	ON	OFF
HIGH	OFF	ON
VOC automatic zero point	DIP 3	
Deactivated	OFF	
Activated (default)	ON	
Output	DIP 4	
Voltage 0 - 10V (default)	OFF	
Current 4...20mA	ON	

### Connecting Diagram:



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