



RLU/A

Flush mounted air quality sensor for mixed gas (VOC)

Measuring size: VOC

Output: 0-10 V, NOC

Highlights: discrete flush mounting



Description

The RLU/A flush mounted sensor for mixed gas registers the air quality in the range of 0...100% with respect to the calibration gas and converts this measured value into a linear output signal 0-10 V. The air quality that is defined as normal for the environment can be specified on initial start-up by manual calibration on the device (zero point balance). The air quality sensor performs an automatic calibration at regular intervals, long-term drifts and the operational wear of the sensor element are thus totally eliminated. For the device version with a closer the threshold value for the alarm/closing contact can be specified using a 270° potentiometer.

Technical Specifications

Measurement range VOC	0-100% (good / bad air quality, referring to the calibration gas)
Accuracy	±15% FS
Running-in time	1 h
Response time (t90)	max. 60 s
Long term stability	< 15% FS/year at norm load
Sensor	metal oxide VOC-sensor
Sensor protection	mounted inside housing
Supply voltage	24 V AC/DC (±5%)
Current consumption	max. 60 mA
Analogue output 0-10 V	3-wire connection, min. load resistance 100 kOhm
Alarm output	potential-free normally open contact, threshold can be defined by 270° potentiometer
Switching Hysteresis Relay	2% FS (without Display), 0,5...5% FS adjustable (with Display)
Electrical connection	push terminals max. 1,5 mm ²
Light switch program	GIRA Standard 55, pure white satin (other on request)
Cable gland	bottom side
Weight	ca. 100 g
Protection type	IP30
Protection class	III
Working range r.H.	0...98% r.H. in contaminant-free, non-condensing air
Working temperature	0...+50°C



Storage temperature	-20...+50°C
Initial operation	After switch-on of the device follows a self-test and the tempering, which takes ca. 1 h depending on the environmental conditions. At this time the analogue output drifts from the actual measurement value.
Automatic calibration	The automatic VOC calibration takes place every 7 days, this compensates for any drifts and achieves excellent long-term stability. To ensure this function, the device must be supplied with power for at least 7 days without interruption and ventilated with fresh air once for approx. 10 minutes within this period. The automatic calibration can be deactivated if necessary and performed manually.
Manual calibration	The manual VOC calibration of the output signal to 1V (zero point) is started by pressing the button on the circuit board (hold down for approx. 5 seconds until the LED flashes). Before that, continuous operation of min. 2 hours with air defined as normal air quality. The LED is deactivated after successful calibration.
Installation	into in-wall junction box, diameter 55 mm
Approvals	CE, EAC, RoHS

Variants

Article Number		
Supply voltage	Output VOC	Light switch program
RLU/A-U-G01		
24 V AC/DC	0-10 V	GIRA Standard 55, pure white satin
RLU/A-UC-G01		
24 V AC/DC	0-10 V, normally open contact	GIRA Standard 55, pure white satin



Dimensional Drawing

