

## AirGate 2.0



The AirGate 2.0 is an advanced control unit for measuring temperature, humidity, air quality (VOC), volume flow, and optionally CO<sub>2</sub> in residential ventilation systems. It is installed in air distribution boxes – the airflow can be continuously adjusted by adjusting the disc.

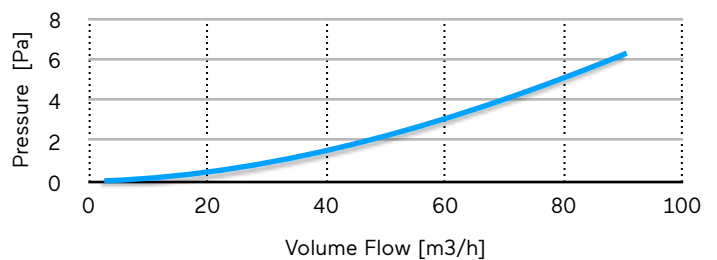
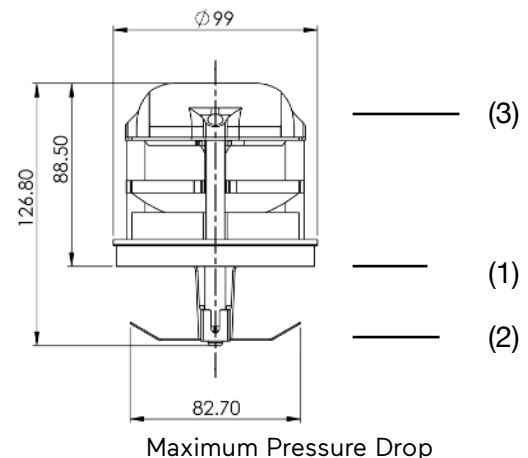
In combination with volume flow measurement, a pressure-independent control valve is created.

The AirGate can only be used in combination with a FlatMaster (power supply and control). Up to 18 AirGates can be operated in series.

### Technische Daten

Measured Quantity	Range	Accuracy
Temperature	10 ..45°C	±0.2 °C
Humidity	0...100% rF	±2% rF
Air Quality (VOC)	0...5	n.a.
CO <sub>2</sub>	600..2000 ppm	±2.0 %
Volume Flow	0..60 m <sup>3</sup> /h	±15%
Opening	0... 40 mm	±0.5 mm
Power Supply	24 V	20 mA
Pressure Drop 100% open, bei 60 m <sup>3</sup> /h		3 Pa

Communication Protocol: SAGB similar to ModBus but with automatic addressing. Sensors 1 to 4 are from Sensirion; the basic accuracy according to the datasheet applies. Note: Airflow can influence the measurement results.



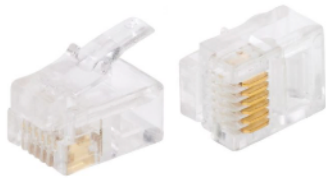
### Installation

The AirGate is inserted into the air duct in the air distribution box until the sealing lip (1) seals the access. The spring (2) engages in the ribs of the air duct (ø78-82 mm).

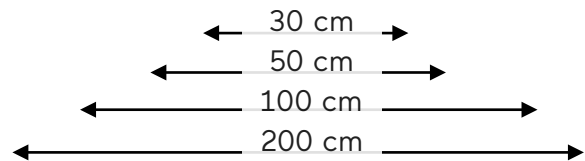
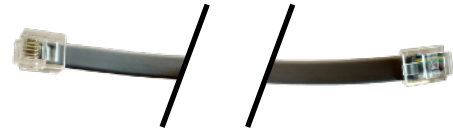
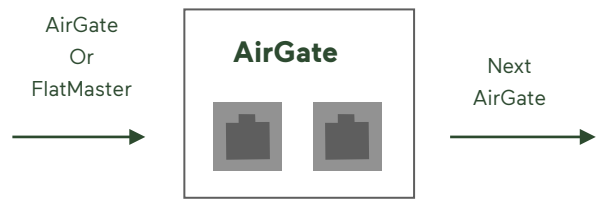
The connection cable (3) is then plugged either into the FlatMaster or into a preceding AirGate. Up to 18 devices can be connected in series.

## Connection

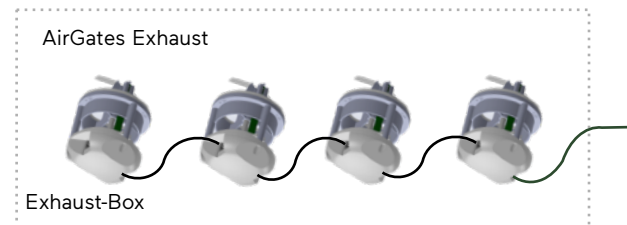
The AirGates are connected in series via a 6-pin cable, linked both to each other and to a FlatMaster. The FlatMaster provides the power supply (24V/GND) and the communication lines.



1. 24 VDC
2. GND
3. A
4. B
5. GND
6. 24 VDC



A pre-assembled cable (RJ12) of 20 cm is included for this purpose. For different installations, cable variants in the following lengths are available: 30, 50, 100 and 200 cm.

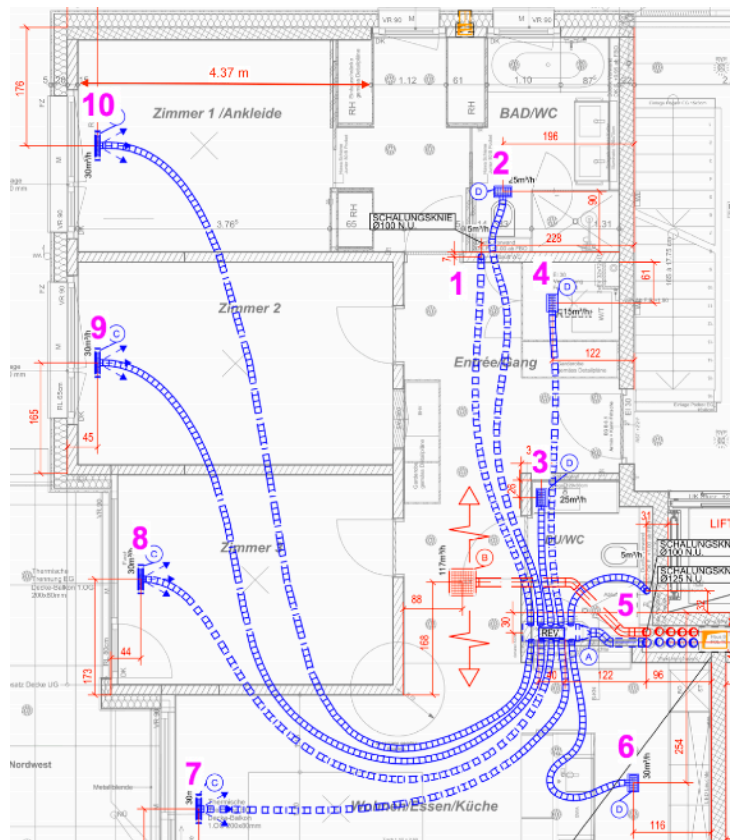


The maximum length of a direct RJ12 connection should not exceed 10 m. For longer distances, we recommend using a 4-wire line and appropriate terminal adapters.

## Commissioning

The AirGate is commissioned by Climeo-Solutions via the FlatMaster and corresponding applications.

It is only necessary to specify which AirGate (number) is connected to which room (name). In addition, general information such as minimum and maximum air volumes per room and total air



Projects / Obstgarten OG A

← **Obstgarten OG A** device1178

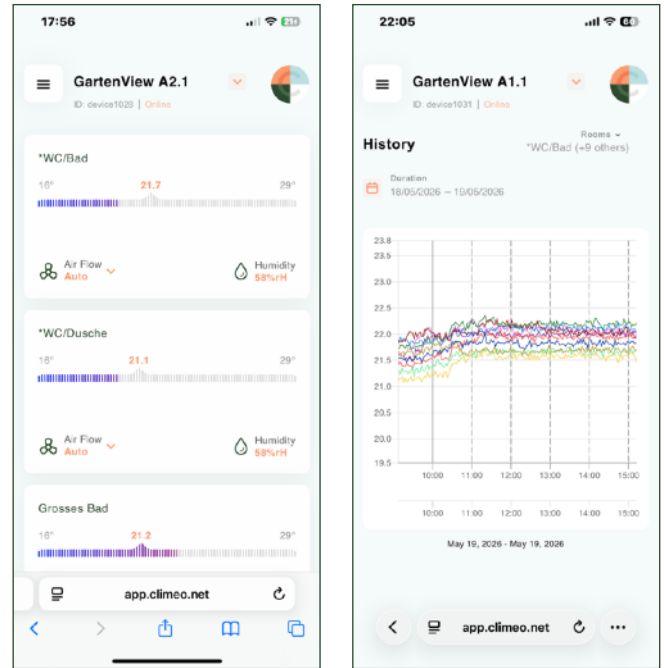
Room	Air Flow (m <sup>3</sup> /h)	Water Flow (l/h)
EG Essen	25	1
EG Gäste WC		
EG Küche		
EG Pantry		
EG Wohnen		

- General not assigned
- Rooms not assigned 10
- FlatMaster not assigned 1
- AGE not assigned 10
- AGS not assigned 0
- TGA not assigned 11
- Advanced not assigned

## Operation

During operation, settings are configured via a web interface made available to the user.

For the administrator, there is a higher-level application (Support Tool) that allows access to all apartments in a property.



Über das Web-Interface können alle Ist-Werte abgelesen und Soll-Werte eingestellt werden.

The RoomMaster allows all values to be read and set - with or without internet, and is easy to understand.

Our dedicated service technicians are equipped with a diverse range of diagnostic tools, enabling them to perform remote assessments and troubleshooting with precision. This remote diagnostic capability allows us to guarantee optimal support, minimizing downtime and resolving issues efficiently. Furthermore, we continuously strive to improve our software through regular updates and enhancements. These adjustments, ranging from minor tweaks to significant overhauls, are implemented based on user feedback and evolving needs, ensuring that all users benefit from a constantly improving and optimized software experience. We are committed to providing a robust and adaptable software solution that meets the ever-changing demands of our customers.

