



μAria

Controller for ventilation units with  
heat recovery

# Controller for ventilation units with heat recovery

Ready-to-use device for the management of air handling units in the residential and light commercial markets.

## Benefits:

- control of indoor comfort and air quality;
- one single solution for multiple applications;
- ease of use via mobile app;
- optimised device management.

Parametric controller for the management of compact ventilation units, designed to reduce times and costs from design to commissioning.

Intelligent control logic applied to the unit's components for better indoor air quality and energy savings.

Connectivity for easy system integration.



## Controller

### Main functions:

- constant pressure;
- constant flow-rate;
- temperature;
- humidity;
- indoor air quality;
- free cooling/free heating;
- defrost;
- seasonal operation;
- scheduler.

### Additional functions:

- silent mode;
- auxiliary control;
- fan coil mode;
- smoke/fire alarm;
- post-purge;
- cleaning function;
- room terminal (thTune).



### Flexibility

One single, fully-configurable controller designed to suit different unit layouts. From the simplest to the most complex.



### Plug&play

Easy setup and commissioning:

- pre-loaded configurations with customisation options;
- manual configuration of all of the unit's components.



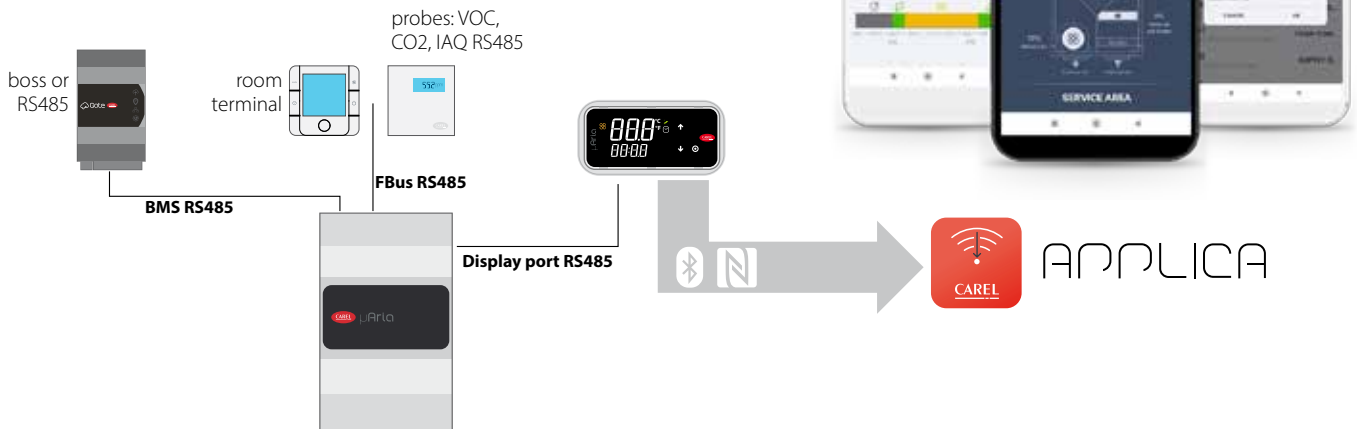
### Connectivity

- NFC and Bluetooth wireless connection via the CAREL "APPLICA" app;
- Easy integration with supervisory systems or BMS via built-in Modbus RTU RS485 serial communication.

## User interface

μAria is designed to be used via the CAREL APPLICA app. The simple interface allows quick commissioning, parameter settings and display of the devices, exploiting the built-in NFC or Bluetooth connectivity on the HMI display.

APPLICA is available for Android and iOS smartphones.



## Connections and devices

μAria allows dynamic control of the unit using ON/OFF or modulating devices.

### Analogue inputs

- Temperature (supply/room/outside/return/frost protection);
- Pressure (supply/return);
- rH/CO<sub>2</sub>/VOC sensors;
- Auxiliary probe.

### Digital inputs

- Frost protection;
- Clogged filters;
- Heater overheating;
- Fan overload;
- General alarm;
- Air flow switches;
- ON-OFF / season indicator.



### Analogue outputs

- Fans (supply/delivery);
- Electric heater (PWM);
- Bypass damper;
- Thermal wheel;
- Valve/coil control;
- Auxiliary output.

### Digital outputs

- Fans (supply/delivery);
- Bypass damper;
- Heaters/coils;
- Unit status/season.

### Technical specifications

- DIN rail mounting (4 modules);
- Operating temperature -20T60 °C, <90% rH;
- Storage temperature -40T85 °C, <90% rH;
- Power supply 115-230Vac, 50/60Hz;
- 3 RS485 ports (HMI, BMS, Fbus);
- Built-in NFC / Bluetooth on the display.



### Usability

- Seven-segment one-row LED display for more immediate information.
- Dedicated interface for quick access to variables and configurations, available for Android and iOS smartphones.



### Indoor air quality

- Indoor air quality control based on CO<sub>2</sub> and VOC set points.
- Indoor humidity control.



### Energy efficiency

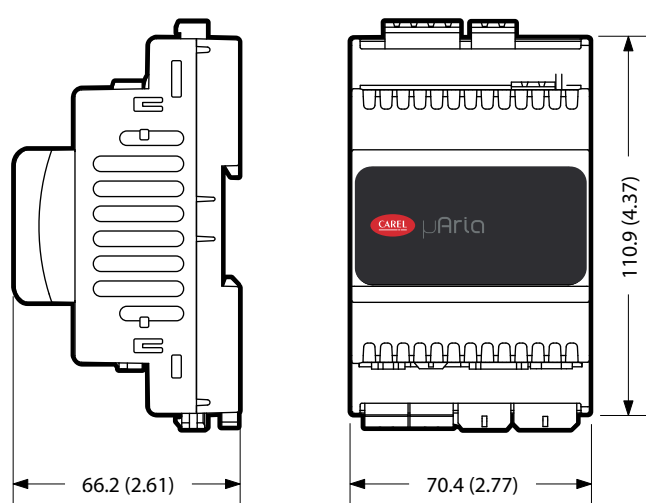
- Smart device management for minimum energy consumption.
- Freecooling and freeheating
- Heat recovery.



## Models

Inputs and outputs	<b>μAria Basic</b> UARAD00001370	<b>μAria Enhanced</b> UARADE0001320
Analogue inputs	<b>S1-S2-S3:</b> NTC / PT1000 <b>S4-S5:</b> NTC / 0-5 Vrat / 4-20 mA <b>S6:</b> NTC / PT1000 / 0-5 Vrat / 4-20 mA / 0-10 V	<b>S1-S2-S3:</b> NTC / PT1000 <b>S4-S5:</b> NTC / 0-5 Vrat / 4-20 mA <b>S6:</b> NTC / PT1000 / 0-5 Vrat / 4-20 mA / 0-10 V
Digital inputs	<b>ID1-ID3:</b> Fast DI / Voltage-free <b>ID2-ID4-ID5:</b> Voltage-free	<b>ID1-ID3:</b> Fast DI / Voltage-free <b>ID2-ID4-ID5:</b> Voltage-free
Analogue outputs	<b>Y1-Y2:</b> 0-10V / PWM	<b>Y1-Y2-Y3-Y4:</b> 0-10V / PWM
Digital outputs	<b>NO1:</b> Standard / 16A NO2: Standard / 8A <b>NO3-NO4:</b> Standard / 5A	<b>NO1-NO2-NO3-NO4-NO5:</b> Standard / 5A

## Dimensions



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