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.

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

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

Connectivity for easy system integration.

Benefits:

- control of indoor comfort and air quality;
- one single solution for multiple applications;
- ease of use via mobile app;
- optimised management of ON/OFF or modulating devices

Main functions:
- Ventilation at constant pressure/flow-rate or fixed speed;
- Temperature/humidity/air quality control;
- Freecooling/freeheating;
- Defrost;
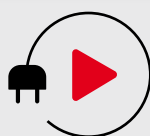- Season selection;
- Integrated scheduler.

Additional functions:
- Night mode;
- Three-speed mode;
- Smoke/fire alarm;
- Post-purge;
- Cleaning function;
- Air recirculation;
- Room terminal (thTx/thTune);
- Independent auxiliary control.

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;
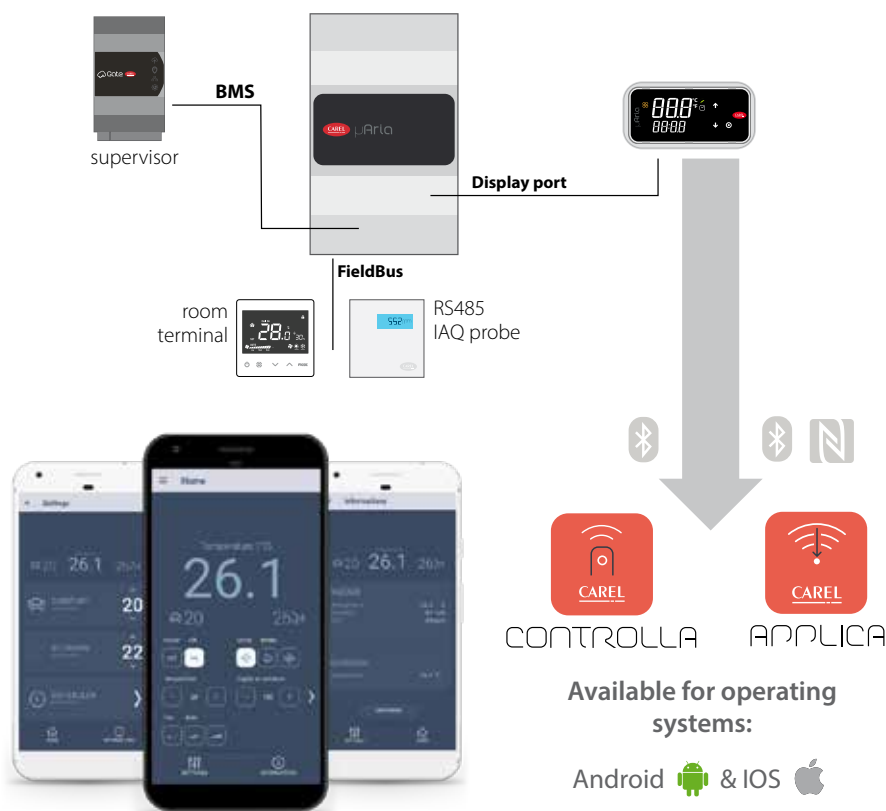- manual configuration of all of the unit's components.

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.

Connectivity and user interface

Exploiting the connectivity built into the display, µAria can be used with the CAREL APPLICA and CAREL CONTROLLA apps.

Applica: intended for installers, who via an NFC or Bluetooth connection can quickly set the parameters and configure the control devices available on the unit.

Controlla: intended for end users, who can easily manage the basic settings (temperature, scheduler, on/off etc.) via Bluetooth.

Available for operating systems:

Android & IOS

Connections and devices

Analogue inputs
- Temperature (supply/room/outside/return/frost protection);
- Pressure (supply/return);
- rH/CO$_2$/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;
- Bypass/mixing/air change/exhaust dampers;
- Thermal wheel;
- Valve control;
- Heating/cooling coil;
- Auxiliary output.

Digital outputs
- Fans (supply/delivery);
- Bypass/mixing/air change/exhaust dampers;
- Heaters/coils;
- Unit status/season.

Technical specifications

Mounting: DIN rail mounting (4 modules);
Opearting conditions:
-20T60 °C, <90% rH;
Storage conditions: -40T85 °C, <90% rH;
Power supply: 115-230 Vac, 50/60Hz;
Serail ports: 3 RS485 ports (HMI, BMS, Fbus);
Connectivity: 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 CO2 and VOC set points.
- Indoor humidity control.

Energy efficiency
- Smart device management for minimum energy consumption.
- Freecooling and freeheating
- Air recirculation.

Models

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

Dimensions

110.9 (4.37)

66.2 (2.61)   70.4 (2.77)
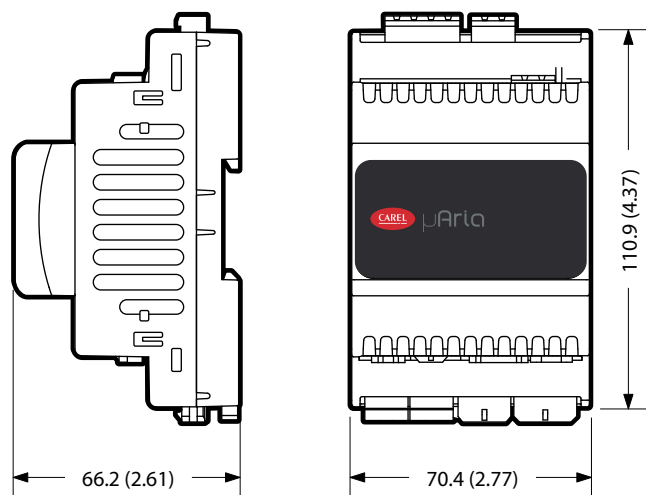
Headquarters

CAREL INDUSTRIES HQs
Via dell'Industria, 11
35020 Brugine - Padova (Italy)
carel@carel.com

Authorised distributor

Arion S.r.l.
Sede operativa:
Via Pizzo Camino, 28
24060 Chiuduno (BG) - Italy
www.arionsensors.com

C.R.C. S.r.l.
Via Selva di Pescarola 12/9
40131 Bologna - Italy
info@crc-srl.net
www.carel.com

ENGINIA S.r.l.
Viale Lombardia, 78
20056 Trezzo Sull'Adda (MI) - Italy
www.enginiasrl.com

HygroMatik GmbH
Lise-Meitner-Straße 3
24558 Henstedt-Ulzburg - Germany
www.hygromatik.com

Klingenburg GmbH
Brüsseler Str. 77
45968 Gladbeck - Germany
www.klingenburg.de

Klingenburg International Sp. z o.o.
ul. Metalowców 5
PL-58-100 Świdnica, Poland
www.klingenburg.pl

RECUPERATOR
Via Valfurva 13
20027 Rescaldina (MI) - Italy
www.recuperator.eu

Sauber
Via Don Doride Bertoldi, 51
46047 Porto Mantovano (MN) - Italy
www.sauberservizi.it

Senva
1825 NW 167th Pl, Beaverton,
OR 97006, Stati Uniti
www.senvainc.com

CAREL