



air humidification systems  
adiabatic humidification



## humiSonic for fan coils ensuring comfort in every environment

humiSonic is the new ultrasound humidifier developed by Carel. It was designed to regulate and keep the desired level of humidity for a specific room at a constant level.

humiSonic, installed inside the fan coils, is the ideal solution to combine ordinary temperature control (guaranteed by the fan coils) with carefully controlled humidity.

The combination and precise regulation of these two fundamental air characteristics ensure that comfort conditions are achieved and maintained in domestic and commercial environments.

Thanks to the high frequency vibrations of the piezoelectric oscillator (1.7 MHz), humiSonic is capable of producing extremely fine droplets with a diameter of

about 1-5  $\mu\text{m}$ .

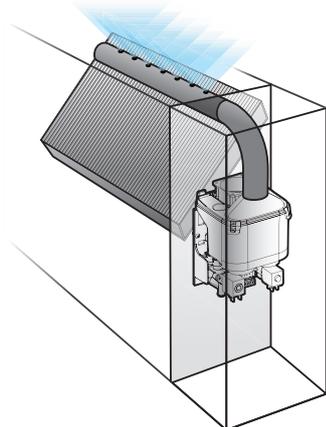
The forced channelling system installed between the battery and the air outlet nozzle easily and uniformly distributes the atomised water in the fan coil outlet channel.

Providing humiSonic with the humidity probe and flow detector (TAM) creates a complete solution capable of autonomous operation!

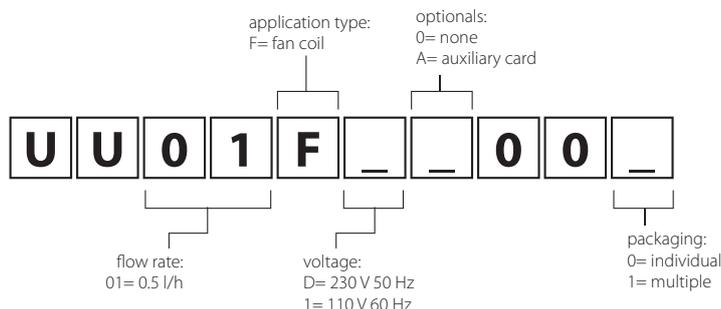
- energy savings! Ultrasound humidification requires 90% less energy in comparison to steam generation!
- it ensures comfort by controlling humidity.
- it preserves the integrity of wood finishes.

## Technical characteristics

|  | UU01F*000*  | UU01F*A00* |
|--|---|------------|
| Production of atomised water   | 0.5 kg/h - 1.1 lb/h   |            |
| Atomised water output  | Ø = 40 mm   |            |
| Water supply input   | G 1/8" F  |            |
| Water supply temperature   | from 1 to 40 °C - from 33.8 to 104 °F   |            |
| Water supply pressure  | from 0.1 to 6 bar - from 14.5 to 87 psi   |            |
| Flow rate capacity   | 0.6 l/min   |            |
| Water supply   | Demineralized (The use of mains water does not compromise the proper operation of humiSonic, however, by reducing the life of the piezoelectric actuators, ordinary maintenance operations are required more frequently). |            |
| Waste water output   | 10 mm   |            |
| Waste water flow rate  | 7 l/min   |            |
| Power (standard transformer with wiring kit)   | 40W   |            |
| Voltage supply   | mod. UU01F1* = 230 V 50 Hz, mod. UU01FD* = 115 V 60 Hz  |            |
| Electric current   | 0.5 A   |            |
| Supply cable section   | 1.5 mm <sup>2</sup>   |            |
| Dimensions   | 125x121x221 mm (4.92x4.76x8.70 inch)  |            |
| <b>Control signals</b>   |   |            |
| ON/OFF enabling  | standard  |            |
| HYHU000000 humidity probe... (to be installed from the fan coil suction line)                            | optional  |            |
| UUKTA00000 flow sensor to be connected to the neutral wire of the fan coil ventilator electrical supply. | optional  |            |
| BMS Serial (CAREL or Modbus® protocol).  | standard  |            |
| Signal from active probe   |   | standard   |
| External control signals (0...10 V, 4...20 mA)   |   | standard   |



## Machine code



### Energy savings

Ultrasound humidification requires extremely low energy consumption (40W). humiSonic is an "Energy Saving" solution on a par with current energy savings expectations.



### Hygiene

This is one of humiSonic's biggest strong points and is obtained by performing periodic washing cycles, completely emptying the tank at the end of the cycle, and due to the gradual release of silver ions contained in the tank.



### Easy installation and maintenance

humiSonic's compact size and ergonomics means that it is easily installed (both in the latest generation fan coils as well as in retrofitting already existing units) and maintained.

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