

# Daikin introduces unique automated Indoor Air Quality management system for buildings

The groundbreaking solution, seamlessly integrating Daikin's Indoor Air Quality (IAQ) Sensor with the Air Handling Unit (AHU) Modular T Series, empowers consultants, installers, facility managers, and users to further elevate indoor air quality standards in shops, gyms, schools, offices or any kind of buildings. Unique on the market, this Daikin innovation will be extended to all Daikin AHU series during 2024.

Vienna, January 2023 – "The air we breathe in usually contains a broad variety of airborne pathogens, volatile organic compounds, CO<sub>2</sub> and particulate matter. What many of us don't know is that these contaminants can have an adverse effect on our health. However, their concentration can be significantly lowered or eliminated by proper indoor air quality management, with our latest innovation enabling the full integration of the Daikin IAQ Sensor into our AHU Modular T ventilation solution", says Tanja Banay, General Manager Commercial Business at Daikin Central Europe.



Illustration: For optimal indoor air quality, Daikin's Air Handling Units Modular T can be connected via Wi-Fi with the Daikin IAO Sensor

## How does it work?

The **Daikin IAQ Sensor** leverages data collected from indoor spaces to dynamically adjust the **Air Handling Unit settings**. Consequently, this unit actively enhances indoor air quality by automatically reducing concentrations of pollutants and fine particles like volatile organic compounds (VOC), Particulate Matter (PM 10 and PM 2.5). Simultaneously, it optimizes carbon dioxide (CO<sub>2</sub>) levels,







humidity, and temperature for an overall improvement in indoor air conditions.

# **Real-time tracking and alerts** for facility managers

The **Daikin IAQ Sensor-Airsensepro+** monitors indoor air quality in **real-time** through various parameters and additionally assesses indoor environmental conditions like comfort or electromagnetic pollution through parameters such as noise and light, which also impact people's well-being.

The measured indoor air quality and comfort levels are transmitted to **Caelum – Daikin's Indoor Air** and **Environmental Quality monitoring platform** – to visualize the air quality for rooms where the sensors are installed. This online platform provides options to effortlessly generate reports, display a real-time monitoring video wall, and establish a notification system for exceeding thresholds on specific parameters. Therefore, the system is capable of sending alert messages when indoor air and environmental quality levels deteriorate, requiring immediate action from facility managers.

Daikin's IAQ Sensor ensures **stand-alone installation** and comes equipped with **12 embedded sensors, monitoring 15 different parameters**. It connects to the **Wi-Fi network**, easily configured through the dedicated **Daikin AirSense app** and can be integrated into Daikin on Site – Daikin's remote monitoring and smart maintenance solution.

# More about the **Daikin Air Handling Unit Modular T**

Available in **five different sizes**, with an **airflow range from 200 m³/h up to more than 4,000 m³/h**, the Daikin Modular T series is an exceptional decentralized ventilation solution for diverse applications, including schools, offices, gyms, and shops.

Daikin Modular T air handling units come with unbeatable advantages:

- Air purity is guaranteed, thanks to the three separate stages of filtration ensuring a safe and healthy environment with the highest air quality.
- Plug and play connection, together with the DX Coil, enables the combination with VRV or ERQ condensing units, a unique feature of Daikin providing a complete fresh air solution along with the best comfort level.
- An integral mixing damper helps optimize energy consumption and reduce running costs.







"Together with a comprehensive choice of accessories, these features make the Daikin Modular T one of the most complete and compact Air Handling Unit ranges on the market", summarizes **Banay**.

Additionally, the minimal footprint is one of the defining characteristics of the Modular T unit. With a maximum depth of 890 mm for the largest model, installation has never been simpler. Other sizes in the range are equally compact at 790 mm, while the smallest unit (size 03) is only 550 mm deep. In addition, larger models are supplied in sections for fast, easy transportation, and handling.

#### More information

| Modular T  |           |         | ATB03*A*    | ATB04*A* | ATB05*A* | ATB06*A* | ATB07*A* |
|--|-----------|---------|-------------|----------|----------|----------|----------|
| Size <sup>1</sup>                                |           | 03      | 04          | 05       | 06       | 07       |          |
| Airflow m³/h                                     |           | 800     | 1.650       | 2.300    | 2.700    | 3.900    |          |
| Heat exchanger thermal efficiency <sup>2</sup> % |           | 89,3    | 88,3        | 85,1     | 85,5     | 90,8     |          |
| External static pressure Pa                      |           | Pa      | 100         |          |          |          |          |
| Current  |           | Α       | 1,70        | 3,39     | 4,61     | 5,17     | 7,87     |
| Power input                                      |           | kW      | 0,39        | 0,78     | 1,06     | 1,19     | 1,81     |
| SFPv 5   |           | kW/m³/s | 1,47        | 1,5      | 1,49     | 1,41     | 1,5      |
| Electrical supply                                | Phase     | ph      | 1           |          |          |          |          |
|  | Frequency | Hz      | 50/60       |          |          |          |          |
|  | Voltage   | V       | 220/240 Vac |          |          |          |          |
| Main unit dimensions                             | Width     | mm      | 550         | 790      | 790      | 790      | 890      |
|  | Heigth    | mm³     | 1.600       |          | 1.900    | 1.850    | 2.050    |
|  | Length    | mm      | 1.580       | 1.650    | 2.1704   | 2.620⁵   | 2.950⁵   |
| Circular duct flange                             | Diameter  | mm      | 255         | 315      | 355      | 400      | 500      |
| Unit sound power level                           |           | dBA     | 57          | 52 55    |          | 58       |          |
| Unit sound pressure level 6 dB                   |           | dBA     | 50          | 45       | 48       |          | 51       |
| Weight Unit                                      |           | Kg      | 200         | 250      | 400      | 500      | 620      |

<sup>1.</sup> All size available in Smart or Pro version and right or left handing | 2. Outdoor condition: -5°C, 90% Indoor condition: 25°C, 50% | 3. Including feet and duct connections | 4. Size 05 is provided in two sections 5. Size 06 and 07 are provided in three sections | 6. Simple source reference value at 1 meter, directivity factor Q=4 (quarter sphere) and non-reverberant field. Allowances on declared values: +/- 3dB

Recent press release: <u>Daikin's new Modular T series delivers safe and healthy fresh air for shops, gyms, kindergartens or schools</u> | <u>Daikin (daikin-ce.com)</u>

Daikin IAQ Sensor: <u>IAQ Sensor | Daikin (daikin-ce.com)</u>

Daikin Air Handling Units Modular T- ATB: ATB | Daikin (daikin-ce.com)

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**About** 

Daikin Industries Ltd.

Daikin Industries was founded in 1924, in Osaka, Japan. The global group employs over 96,000 people worldwide and is the market leader for heat pump and air conditioning systems, as well as air filtration. It is the only manufacturer in the world that develops and manufactures heating, ventilation, air conditioning and refrigeration equipment, as well as refrigerants in-house. The company achieved € 28.2 billion sales turnover in fiscal year 2022 (1 April 2022 – 31 March 2023).







## Daikin Europe N.V.

Daikin Europe N.V. is a subsidiary of the global group Daikin Industries, and the leading provider of heating, cooling, ventilation, air purification and refrigeration (HVAC&R) technology in Europe, Middle East and Africa. Daikin designs, manufactures, and brings to market a broad portfolio of products, maintenance services as well as turnkey solutions for residential, commercial, and industrial purposes. To date Daikin Europe has over 13,700 employees across more than 57 consolidated subsidiaries. It has 14 manufacturing facilities based in Belgium, the Czech Republic, Germany, Italy, Spain, Austria, the United Kingdom, Turkey, the United Arab Emirates, and the Kingdom of Saudi Arabia. The headquarters of the Daikin Europe group are in Ostend, Belgium. The company was established in 1972, production in Europe started in 1973.

## **Daikin Airconditioning Central Europe**

Daikin Airconditioning Central Europe was founded in 1999 with headquarters in Vienna, Austria, as a subsidiary of Daikin Europe N.V. The company's portfolio comprises products and solutions for heating, cooling, ventilation, air purification and refrigeration. More than 700 employees and 2,500 partners are responsible for sales and service activities in 16 countries in Central and Eastern Europe (Austria, Albania, Bosnia Herzegovina, Bulgaria, Croatia, Czech Republic, Hungary, Kosovo, Montenegro, Moldova, North Macedonia, Poland, Romania, Serbia, Slovakia and Slovenia). With Your Daikin World at the Vienna headquarters, the HVAC-R industry and the construction sector have access to a modern experience center for co-creating tailor-made solutions for hotels, retail, offices, and large commercial applications. It also includes one out of nine training centers in the region of Daikin Central Europe.

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