

VAV / FCU Solutions

Individual Zone Controllers

The goal of any HVAC system is to maintain the air in terms of temperature, humidity and quality within a space or zone in the most comfortable manner for the people inside. When the space is large, such as an auditorium or open factory space, the HVAC system delivers conditioned supply air based on single setpoints and space conditions like temperature or CO₂ level.

However, when the system has to maintain the comfort level in several zones the requirements become more complex. For example, an office area system must maintain a comfortable temperature based on multiple setpoints in individual rooms. This complex problem is often solved by installing a system of variable air volume controllers on the supply air ducts.

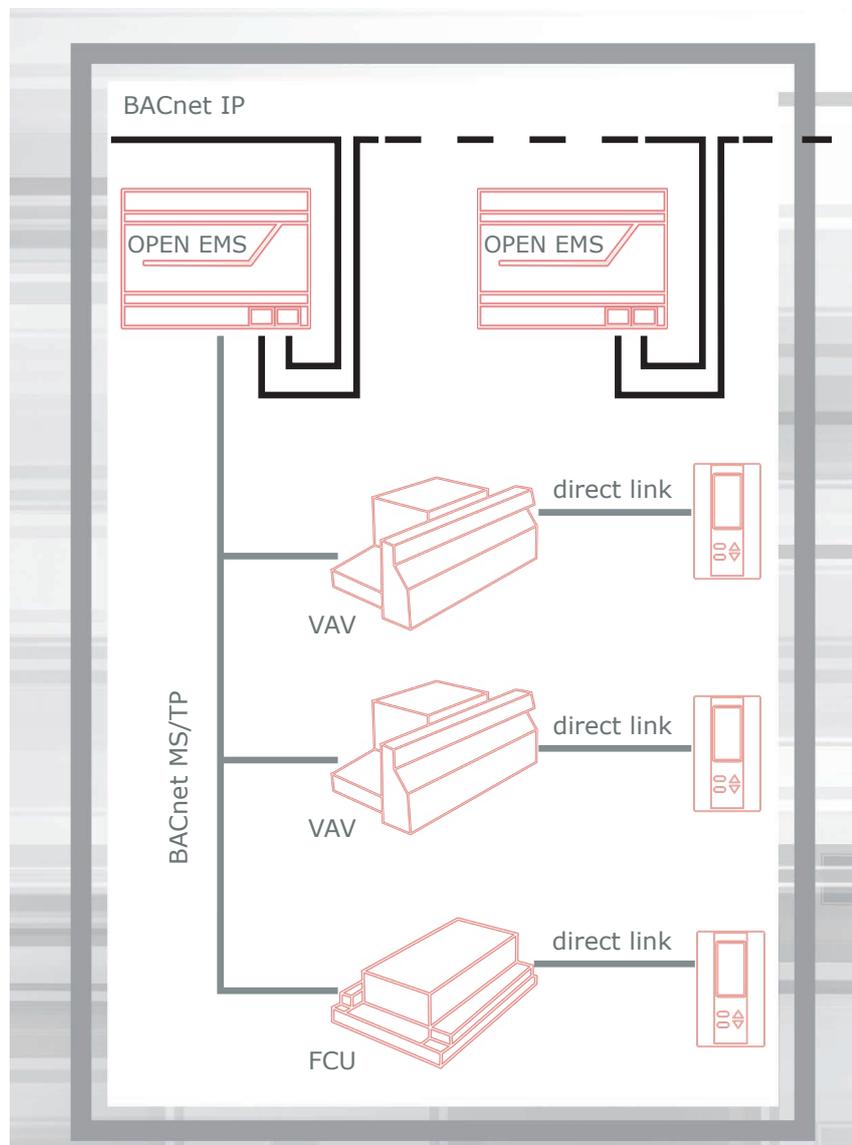
The DEOS solutions open a new era to program, install and commission such systems. It doesn't matter if there are only VAV / FCU applications or both of them mixed up in a building.

The intelligent system will identify the specific controller on the BACnet MS/TP or MODBUS network automatically and integrate it to the system.

Thanks to the pre-installed graphics it's nearly a plug and play system which can be extended with several functions on the management level such as alarming or trending. This advanced technology will generate you enormous time benefits during the programming, installing and commissioning. The whole system works on a native BACnet platform.

Our solutions at a glance!

- Top to bottom BACnet solution
- Daisy chain wiring of OPEN EMS
- Auto identification of BACnet objects
- Automatically generated graphics
- Cloning function
- Online trending and alarming functions



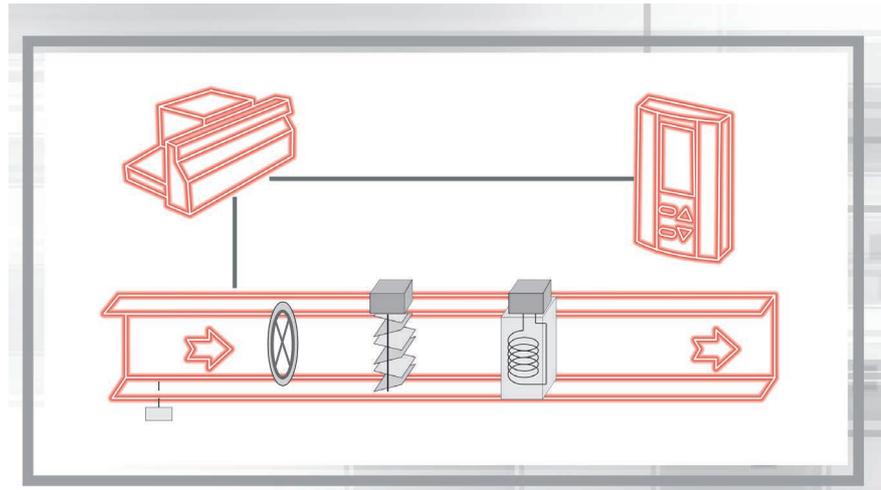
VAV Solution

In Variable Air Volume (VAV) systems, the supply air is directly linked to the conditions of the air in the room or zone. The calculated supply air volume increases in case of higher loads and decreases in case of lower loads. Thus, VAV-systems are one of the energy efficient systems for controlling the conditions in a room. Comparable Constant Air Volume (CAV) systems have an up to 60% higher air volume and lead to higher energy consumptions.

The new DEOS VAV controllers - either wall mounted or equipped with a built-in actuator - are setting a new standard when it comes to integrability of new or existing systems. The in- and outputs of the controller will cover the whole range of VAV applications and help you to respond flexibly on changes and special needs.

You will find typical VAV applications in buildings like office towers, hospitals, hotels, schools, malls, industrial buildings and many more.

- Fully configurable application specific controller
- Native BACnet MS/TP or MODBUS (selectable)
- Connect to room thermostat via 3 wires
- Up to 4 inputs and 6 outputs
- Optional auto pressure mode detection



FCU Solution

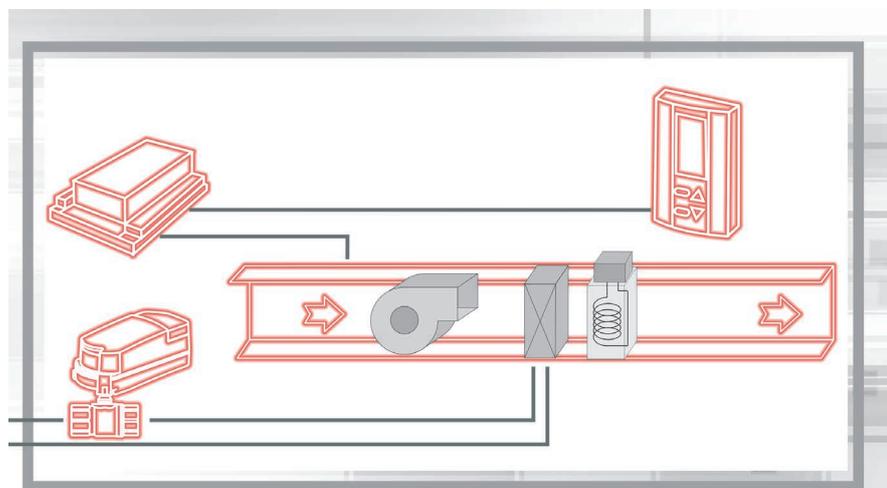
Fan Coil Units (FCU) consist in the simplest way of a 3-speed fan, a cooling coil and a thermostat to control the room condition. The latest models are equipped with energy efficient EC fans and modulating valves to minimize the power consumption of the system.

The new DEOS FCU controllers are available as wall-mounted version (thermostat with in-built controller) as well as dedicated controller with external room thermostat.

Due to the easy integrability and the flexibility of the controller it is possible to program, install and commission a system with the lowest effort. Several in- and outputs on the controller guarantee enough space for future changes and special requirements.

The most common FCU applications can be found in hotels and office buildings. But due to the wide scope of installation options such controls also apply to any other building.

- Fully configurable application specific controller
- Native BACnet MS/TP or MODBUS (selectable)
- 24, 120 or 240 VAC operation
- Up to 10 inputs and 15 outputs
- Optional humidification and dehumidification sequences



About us

Since 1967 DEOS AG, with headquarters in Rheine, develops and distributes forward-looking intelligent building automation systems which connect energy efficiency, cost transparency and comfort into a perfect balance.

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