

ENGINEERING
TOMORROW

Danfoss

Case Story | NovoCon®

Perfect control of HVAC system at Katowice Business Centre

Remote

functionality is
possible via
Building
Automation
connectivity.

Katowice Business Centre is a modern office building where Danfoss hydronic balancing solutions are used; AB-QM balancing and control valves in combination with revolutionary NovoCon® actuators. Together they provide excellent indoor comfort, energy savings, simplified installation, and create a perfect connection between superior hydronic performance and Building Automation. Remote commissioning and maintenance of the heating and cooling system is possible without leaving your office.

Changing the future of HVAC today

The combination of the AB-QM valve and the new digital NovoCon® actuator gives you access to cutting-edge features

Katowice Business Centre is a building with a total area of 18,000 m². It has 7 floors, which include office spaces, conference rooms, and a restaurant. Almost 800 AB-QM valves are installed in the building, which take care of perfect control of the heating and cooling system. AB-QM valves combine the functions of an automatic balancing valve, and a control valve, independent on pressure changes. The valves guarantee optimum operation of variable flow heating and cooling systems, and a reduction of the total operation costs.

In the restaurant section, with an outside terrace overlooking the center of Katowice, the revolutionary NovoCon® actuators are connected to the AB-QM valves. During the initial phase of the building modernization, the installation contractor, together with the designer and the investor, decided to apply AB-QM valves in the fan-coil system. "After 3 years of using AB-QM valves, it is safe to say that the HVAC system works very well and the control is perfect. We can therefore recommend AB-QM valves. Based on this positive experience, we decided to replace the standard on/off actuators with the new digital NovoCon® actuators", says Arkadiusz Sobolewski from Cooling System company. Designed for use with AB-QM valves, the NovoCon® actuator connects the heating and cooling systems to the Building Automation. The actuators save time during installation, enable remote commissioning, guarantee the best-in-class accuracy when it comes to balancing and control, and provide information about system performance. They also allow for remote maintenance and error detection in the system. All activities related to system operation can be done remotely, without leaving the office, like flushing hundreds



NovoCon® actuator in combination with AB-QM valve



"After 3 years of using AB-QM valves, it is safe to say that the HVAC system works very well and the control is perfect. So, we would recommend AB-QM valves. Based on this positive experience, we decided to replace the standard on/off actuators with the new digital NovoCon® actuators".

Arkadiusz Sobolewski
from Cooling System company.



of valves with just one mouse click. Connecting the AB-QM valve with a NovoCon® actuator helps to reduce maintenance costs and ensures high efficiency of the entire HVAC system.

NovoCon® in combination with AB-QM valve

- revolutionary solution combining Building Automation with an HVAC system;
- has 4 functions in one device – actuator, BUS communication, flow indicator, and data logger;
- saves time during installation, commissioning and operation, while reducing operation costs;
- ensures perfect balancing and control of HVAC systems;
- enables remote maintenance and detection of potential errors in the system;
- provides access to valuable system data.

Indoor comfort for everyone

Comfortable conditions for all users of a modern office building

Danfoss solutions provide comfortable indoor conditions for all users in the building, regardless of the system load. "No matter what the weather conditions are, we always have the optimal indoor temperature, regardless of whether we have invited a few guests for a business lunch or many visitors for a big party; we provide our guests with comfortable temperatures", says Katarzyna Opiola, co-owner of Industrial Cafe, a restaurant located on the 7th floor of the building. It is a special place - the only restaurant in Katowice that has an outdoor terrace overlooking the city. Every day, the restaurant is used by a lot of people, which makes the place extremely demanding when it comes to indoor climate solutions. Thanks to the perfect operation of the system, the restaurant has optimal temperature conditions.

"When I was asked to modernize the Building Automation here in the Katowice facility with AB-QM valves, I also had the opportunity to install Danfoss NovoCon® actuators with a BACnet digital interface", emphasizes Tomasz



NovoCon® actuator in combination with AB-QM

Langer from IQ Controls company. Actuators connected via a BACnet with the Building Automation enables the remote commissioning and maintenance of HVAC systems. This greatly reduces time and workload associated with the operation of the system.



"When I was asked to modernize the Building Automation here in the Katowice facility with AB-QM valves, I also had the opportunity to install Danfoss NovoCon® actuators with a BACnet digital interface. I can easily recommend this solution to building managers, and installation companies"

Tomasz Langer,
from IQ Controls company.



Danfoss solutions provide trouble-free operation the water-based air conditioning systems in variable operating conditions, energy savings, as well as connection with Building Automation, and remote commissioning. Tomorrow's benefits are already possible today.



Katowice Business Centre

Project specifics:

- **Facility:**
Katowice Business Centre
- **Total area:**
18,000 m²
- **Solution used:**
AB-QM valves and NovoCon® actuators.
- **BMS HVAC installation contractor:** IQ Controls and Cooling System

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combine experience and innovation.



Danfoss A/S • Heating • Ulvehavevej 61 • DK-7100 Vejle • Denmark
Telephone +45 7488 8500 • heating@danfoss.com • www.heating.danfoss.com

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