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New HVAC system for comfort and optimum energy usage

Cultural Center Südpol, Lucerne/Switzerland

In addition to public cultural activities, the Cultural Center Südpol is home to the School of Music of the City of Lucerne, the Lucerne Theatre, the Lucerne Symphony Orchestra, and the Brassband Bürgermusik Lucerne. The various use groups place different requirements on room temperature and indoor air quality. HVAC controls from Siemens satisfy all of these needs and ensure an ideal room climate at all times.

Cultural Center Südpol accommodates different institutions under one roof all of which use the building with their own rooms but share the same infrastructure.

The building of the Cultural Center is located on the former grounds of the Kriens slaughter house on the outskirts of Lucerne. Only the shed hall, which was integrated into the new cubical building, reminds of the old slaughter house. Four rooms of different size are available for the various events.

The largest of them offers space for up to 600 people. The old shed hall with bistro, bar, and restaurant can also be used for certain events or public functions.

With an unconventional program, Cultural Center Südpol tries to focus on new lines. In addition to music, dance, theatre, and mixed forms of them, the program includes visual art, literature, street and digital art.

Answers for infrastructure.



Cultural Center Südpol, Lucerne

When the new building was conceived, the customer emphasized that ease of operation of the HVAC system and efficient energy usage were of prime importance.

Enhanced comfort for visitors and users made possible by Synco™

Today, four ventilation systems ensure that – depending on demand – heat or cooling energy as well as adequate amounts of outside air are supplied to the rooms. Ventilation, heating, and cooling are controlled by the modular Synco 700 HVAC control system from Siemens. Thanks to preprogrammed and proven standard applications, Synco 700 is extremely easy to configure and operate. Peter Göhler, the technical manager, is very pleased: "Before, when I wanted to change the system settings, I had to climb up to the roof where the control panel was located. Today it is much more convenient. A Web server was installed, enabling me to operate and monitor the entire plant via the Internet from any PC." Hence, the OZW Web server affords even more efficient plant operation.

Energy efficiency due to heating and cooling with ground water

Efficient energy usage is made possible by heat exchangers that get their water from two ground water wells. The ground water is used not only for heating but for cooling also. Energy-optimized operation of plant is also supported by preprogrammed energy saving functions and SED2 variable speed drives. This ensures efficient use of energy.

KNX communication for smooth operation

The Synco 700 controllers communicate with each other via the KNX bus system which conforms to international standards, therefore ensuring that all processes are automatically matched at all times.

Excellent climate

The customer is very satisfied with the products supplied by Siemens. They ensure an excellent room climate matching the exciting cultural climate in the Cultural Center.

Highlights

- Ease of operation thanks to preprogrammed and tested standard applications
- Maximum comfort for visitors and users
- More flexibility due to remote access via Web server
- Efficient energy usage thanks to preprogrammed energy saving functions
- KNX communication, enabling all processes in the plant to be optimally matched
- The right room climate at any time