

## A spectacular space for the art of air-conditioning, too: the Paul Klee Centre in Bern.



Having designed the Beyeler Museum in Basle, prominent architect Renzo Piano has created his second exhibition premises in Switzerland, a building that cost 125 million Swiss francs to construct. Its spectacular architectural appearance suggests a trio of waves embedded in the landscape. Inside the building, high demands – especially with regard to the air-conditioning system – were placed on the handling and care of the 4000 works of the world-famous artist.

A view of the main façade gives a clear idea of the dimensions: the largest of the waves is 19 metres high, while the glass frontage facing the highway is over 150 metres long. The roofs cast heavy shadows on the façade with its expansive window blinds set deep behind the eaves.

### Holistic building engineering concept

“Co-ordinating all the technical installations was a fascinating and demanding task that led to an interesting holistic solution”, says Thomas Balmer, general manager at Luco Ingenieure und Planer AG in Berne. His company was appointed to do the project planning for the ventilation and air-conditioning equipment. Energy efficiency was considered a major factor in the museum’s operation – to the point where this huge new building complies with the

'minergie' standard, even with exhibition spaces that require highly precise climate control.

The air-conditioning system is fully concealed in the building structure, where visitors barely notice it. Air is fed in through slotted vents in the parquet flooring, and exits via ceiling-mounted extractors. This ensures the necessary air circulation, and keeps the critical area around the artworks within the specified parameters. There were also some safety problems – such as smoke extraction – to resolve in the auditorium and the corridors.

### Sauter components everywhere on the field level

Leicom AG in Winterthur, Switzerland was the system house involved with the climate control aspects of the building management system. The company has been a Sauter OEM customer for some time, and used Sauter components throughout on the field level. These included stem, cable and room sensors, humidity sensors, CO<sup>2</sup> transducers, pressure differential switches/sensors, anti-icing thermostats, regulating units with SUT drives and butterfly valves. There are also nine smoke clearance systems, also supplied by Sauter.

The Paul Klee Centre thus provides ample space for 20th-century artwork, as well as 21st-century air-conditioning craftsmanship.

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