

The Design Museum uses light to create the splendour of an exhibition

The Design Museum is a Finnish specialist museum, established in 1873 as a research collection of industrial arts. The Museum is situated in the heart of Helsinki, in a building designed by architect Gustaf Nyström in 1894. The building is owned and managed by Senate Properties.

The Design Museum collects and preserves a design collection and organises exhibitions focused on both contemporary and historical perspectives. The easily alterable lighting and lighting control system have an essential role in the display of the Design Museum's exhibitions and in the creation of desired atmospheres.



Starting points for renewing the lighting control

The Design Museum's old lighting control system was technically outdated. The institution's lighting control needed a solution which would fulfil modern demands, with expandable and modifiable characteristics envisioned to last far into the future.

"We were using a Helvar-manufactured dimming system from the 1990s which had reached the end of its life-cycle. Senate Properties gave us the green light for modernising the lighting control system," says **Pekka Nissinen**, who is in charge of the Design Museum's support systems.

"The starting point for the renewal was that the new solution should serve the museum's purposes well. The new system is versatile, flexible and user-friendly. Our most central concerns were to keep the project's budget and schedule under control and to have a user happy with the end result," says **Antti Kuronen**, a building services specialist of Senate Properties.



The technical demands of the new lighting control system were investigated by **Markus Hyypä**, a project manager of Tuomi Yhtiöt Oy, the project's construction management consultant. The solution's design is the outcome of Helvar and Sähköarina Helsinki's collaboration.

"The lighting control selected is of the kind that one need not be a museum caretaker to understand how it works. Senate Properties commissioned the project according to a turn-key principle with a tight schedule. Helvar submitted a fine proposal for a competitive price. The lighting control system is clear and easy to use," says Mr. Hyypä.

Implementation successful beyond expectations

"The cooperation between the Design Museum and Helvar progressed very smoothly. The project's special dimension was an old system and its equipment, which needed to be dismantled. The existing Ethernet technology was repurposed for the demands of the new lighting control system. We had an excellent team of workers involved in the project," says **Kalervo Vaattovaara**, a technical manager of Sähköarina Helsinki.

"The most challenging aspect was that the museum was open to the public throughout the entire project. The dismantling work and the removal of old equipment was scheduled for Mondays, when the museum is closed. Our scheduling worked perfectly. Thanks to a highly competent team, a cooperative customer and a professional project management consultant, the project ran smoothly," says Mr. Vaattovaara.



"This project went as well as any project really can. There were no surprises and the project did not disrupt the operations of the museum which remained functional throughout the entire work. On top of that, the work was completed ahead of schedule," says Mr. Nissinen.

The Design Museum's lighting control system

The museum's overall area is 3,725 square metres of which approximately 2,500 square metres is useful area. The gallery spaces are located on three floors. The lighting control allows the individual adjustment of lighting and floor sockets on each floor. It also facilitates the work of the museum technicians, since all lighting can be controlled with one panel.

"We have several delicate textiles, large gobelin tapestries and paintings which have defined, lux-based thresholds for the intensity of lighting. The colours of the textiles are susceptible to fading if the UV light is too intense. The novelty is that we can adjust the level of lighting ourselves. We can dim the lighting continuously from 100 to 10 per cent. The versatility improved a great deal.

Exhibitions are extremely challenging, as some spaces require bright lights while a painting in the same room, for instance, needs soft lighting. The basic settings are programmed into the system. We are left with programming the more finely tuned levels that suit our needs with the help of the Designer software," says Mr. Nissinen.



The essential benefits of lighting control

The Design Museum also lets out exhibition space to external exhibitors. The lighting control allows adjusting the lighting according to each exhibitor's individual needs.

"I am very happy with Helvar's lighting control solution. It has fulfilled our expectations and does not necessitate extra work except in special circumstances. For example, we can make adjustments to the time control for the purposes of a particular event. Adjustments are also necessary in connection to touring exhibitions," says Nissinen.

The collections and items on display pose various demands for the lighting. The correct adjustment of UV levels is also an important feature in protecting the exhibit items. Time controls do not leave lights on unnecessarily and thus increase energy efficiency. The electricity consumption rates have declined, thanks to the new system. The new lighting control centres are quiet compared to old ones.

"Our core operations focus on exhibitions. The lighting control system is easy to use – with a little instruction, everyone can do it. The adjustable features allow us to make an exhibition glow. Good lighting is like dotting the i's. Helvar's lighting control solution is an excellent application for a museum environment," says Nissinen.

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