

5 year warranty

RETROFIT commercial building with smart wiring



Solution diagram & how it works

A simple installation process by connecting to the original wiring without the need to replace lighting wiring.

A simple installation process of connecting to the original wiring without the need to replace the lighting wiring and by using the additionally connected necessary elements Savee Power Switch & Savee DALI Bridge. Controling lights using the DALI protocol enables digital control of light intensity, reporting on the status of individual lights and easy configuration adjustment when changing the way premises are used.

This creates a set of lights that you can control via encrypted IQRF wireless IoT network using the Savee ICUBE Gateway connected to the internal LAN. Setting up the time schedules and lighting groups is performed in the intuitive Savee application running on a local server in a web browser, which is the safest way to control lights without the need for a cloud; the remote connection and the configuration can be performed using a secure encrypted VPN.

Automated dimming and light control processes are using wireless luxmeters that monitor an ambient light intensity.

Controling of lights and its groups works auromatically based on configured time schedules and predefined events. If necessary, the lights can be controlled directly from the web application on any device or by physical buttons.

Thanks to the Savee, even the existing commercial buildings can be transformed into a smart building! Without need to replace any wiring. It is a quick transformation into a smarter building with a high level of security and huge added value.



Olympia shopping centre case study

The two most important prerequisites for a smart commercial retrofit solution from a customer's perspective:

Do not stop or restrict the normal operation of the shopping centre for the necessary lighting reconstruction.

The highest possible in-house safety of smart energy management of building lighting and immediate demonstrable savings.



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The goal was to develop the entire retrofit commercial solution for modernizing and automating an existing building with simple management and energy savings was based on requirements of our most experienced partners, which are facility managers and technical managers of the shopping centres, office buildings and industry halls.

These people take over the building for day-to-day operational management once it has been designed and built. For various reasons - often investment; or perhaps because the requirement how to run the building has changed - automation or some intelligent solution was not used right in the project phase. Many of our customers operate in buildings that have been in operation for five, ten or more years and are very difficult to reconstruct without stopping it and moving out.

Stopping the operation of a building requires considerable resources not only for technical renovation, but mainly for regaining tenants and reputation compared to completely new buildings, which already include smart management elements. The commercial solution for building retrofits -Savee; has allowed us to introduce state-of-the-art electrical wiring control elements into existing buildings. A smart lighting control system currently works, for example, at the Olympia Shopping Centre Brno (CZ), where obsolete lights had to be replaced after years of operation. On that occasion, the Savee solution was delivered and installed in the building, which now automatically controls the lights according to the time schedules and the intensity of sunlight.

Within the project, more than 450 new LED lights were installed, divided into 25 controlled groups. The same number of Savee DALI Bridges takes care of their control, including intesity regulation, in steps of 10%. The intensity is regulated on the basis of data acquired from luxmeters which sense the level of sunlight, so that there is no rapid change in the level of illumination due to clouds or shadows of aircraft and birds.

The solution is optimized to meet the needs of the technical manager of Olympia Shopping Centre, for whom it simplifies work and saves not only itme. The overal savings are also more than 50% thanks to Savee automation.

Elements of the solution

The commercial solution for modernization and automation of an existing building with smart management and energy savings. Designed for lighting fixtures, motorized windows, shading and other technologies.





Savee Power Switch

The solution designed for wireless remote switching of devices, for example: control of lights, blinds, lowering of the screen after switching on the projector, starting of suction when turning on the saw/grinder in the workshop, turning on or off the production line etc.

Savee Luxmeter

It is used to automate the control of the device depending on the level of ambient light intensity. Adjustable values of time delay (elimination of short-term fluctuations in light intensity) and adjustable ranges of light level.





Savee DALI Bridge

It transmits wireless communication to the DALI protocol and controls the light intensity.

Savee ICUBE Gateway

The gateway processes server requests in the LAN and translates them into wireless IoT communication with other network elements.

The solutions is designed primarily for existing retrofit installations in office buildings, industrial or shopping centres.



🔊 Savee

Savee Push Buttons

Switching buttons, in case of need of physical switches in the industrial design, suitable even for a harsh environment.

Savee Multi Touch Display 10"

Multi Touch display mounted on wall for office usage.



Savee HW Server + SW

A secure in-house server on the internal network. Performs scheduling, controls groups, and connects automation elements. The web application is not bound to the oprating system and can be run in any web browser.

Savee Outdoor

The outdoor variant of elements that must be placed outdoors. Where an operating temperature between -40 and +65°C and IP66 protection are required.

- Power Switch 8 A Outdoor
- Luxmeter Outdoor Power Switch 15 A - Outdoor
 ICUBE Gateway - Outdoor
- DALI Bridge Outdoor

Technical specifications

Savee Power Switch

Power voltage Standby power Maximum switching current Communication band Communication protocol Radiated power Operating temperature range Ingress protection code Dimensions

Savee Luxmeter

Power voltage Standby power Measuring range Measurement accuracy Communication band Communication protocol Radiated power Operating temperature range Ingress protection code Dimensions

Savee ICUBE Gateway

Power voltage Standby power Communication interface Communication band Communication protocol Radiated power Operating temperature range Ingress protection code Dimensions

Savee Touch Display 10"

Power voltage Standby power Communication interface Mounting Type Operation system Operating temperature range Screen size 12 V DC, 24 W PoE 20 W Ethernet, WiFi Wall-mounted Antivandal Android 0°C to 45°C 10,1" (25,6 cm)

110/230 V AC, 50/60 Hz

0,5 W

8/15 A

868 MHz

12 dBm

IP40

5 V DC

0,5 W

10 %

868 MHz

12 dBm

IP40

5 V DC

Ethernet

868 MHz

12 dBm

IP40

IQRF Mesh

-10°C to 55°C

50 x 54 x 36 mm

1 W

IQRF Mesh

0 lx to 2040 lx

-10°C to 55°C

82 x 82 x 28 mm

IQRF Mesh

-10°C to 55°C

82 x 82 x 28 mm

Savee DALI Bridge

Power voltage Standby power Maximum DALI devices Communication band Communication protocol Radiated power Operating temperature range Ingress protection code Dimensions 110/230 V AC, 50/60 Hz 1 W 16 lights 868 MHz IQRF Mesh 12 dBm -10°C to 55°C IP40 82 x 82 x 28 mm

Savee Push Buttons

Power voltage Standby power Measuring range Measurement accuracy Communication band Communication protocol Radiated power Operating temperature range Ingress protection code Dimensions

5 V DC 0,5 W 0 lx to 2040 lx 10 % 868 MHz IQRF Mesh 12 dBm -10°C to 55°C IP40 82 x 82 x 28 mm

Savee HW Server + SW

Power voltage Standby power Processor RAM Storage Communication interface Operation system Database type Access to the application 110/230 V AC, 50/60 Hz 150 W Intel Core I5 8 GB DDR3 64 GB HDD Ethernet, USB Ubuntu 20.04 LTS SQLite Web browser (Chrome)

-40°C to +65°C

IP66

Savee Outdoor

Operating temperature range Ingress protection code Outdoor components:

- Savee Power Switch 8 A outdoor
- Savee Power Switch 15 A outdoor
- Savee DALI Bridge outdoor
- Savee Luxmeter outdoor
- Savee ICUBE Gateway outdoor







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