



Light management of a large office building

Control of energy consumption and easy reallocation

Customer case

The facility manager wants to automate the lighting of a large office building, while keeping the possibility of local control, energy consumption management and luminaire maintenance.

He also needs to adapt the lighting according to a timer program, the presence of people and the level of natural light based on several areas.

In addition, he wants to perform override control of lighting by area, and rapidly reallocate a work area.

Our recommendation

The choice to make is a KNX type Building Management System, connected to a "Canalis KBB" busbar trunking architecture with 1 or 2 electrical network, DALI-compatible, performing lighting management, measuring and monitoring.

KNX presence detectors located in each area maintain a constant luminosity level in the presence of employees, for optimal working conditions.

Override setting of the lighting for each area is performed by KNX switches, and fault information is sent by the ballasts via the DALI communication network.

In case of rearrangement, it is easy to allocate new monitoring points for an office or group of luminaires.

* DALI: Digital Addressable Lighting Interface.

Benefits

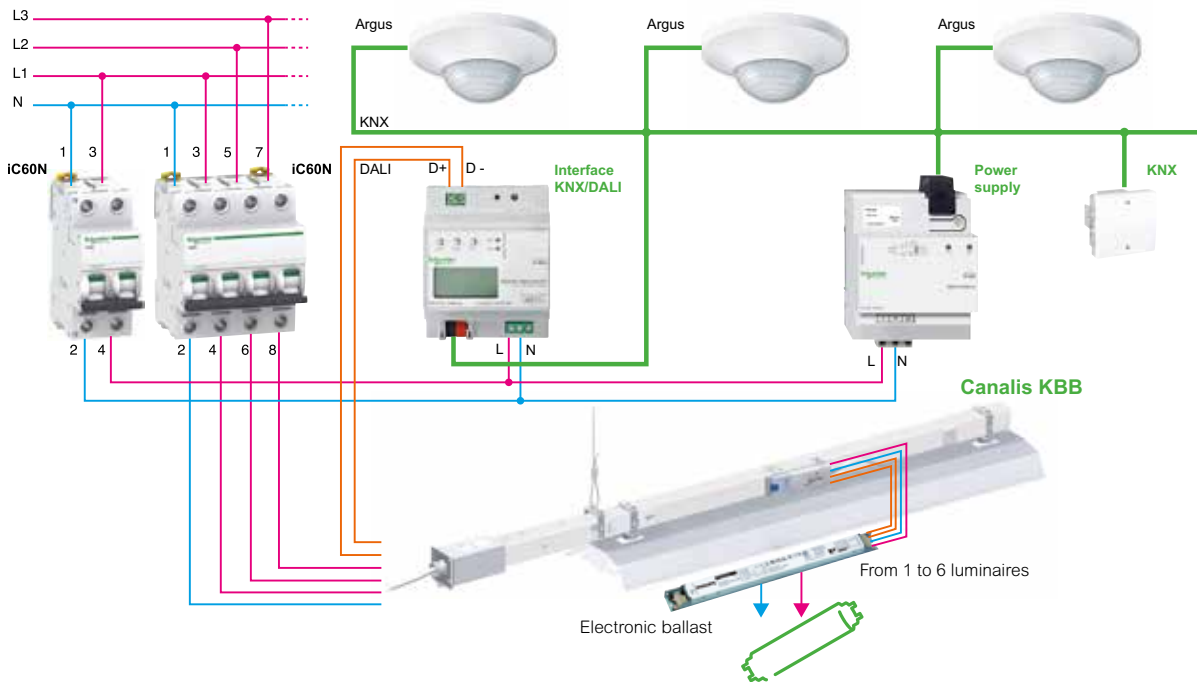
- **Fast installation:** Canalis busbar trunking, formed of prefabricated elements, can be installed rapidly and with protection. Connections require no tools and are designed to prevent any risk of incorrect connection.
- **Flexibility:** reallocation of the various offices is made easy.
- **Simplified maintenance:** no preventive maintenance campaign (renewal of the lamps according to their service life).
- **Efficiency:** simple lighting management and cost optimization scenarios.

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Solution Diagram



Specifications

- The lighting management system has to be a decentralized distribution system incorporating a DALI communication bus connected to the Building Management System. It should perform control of the luminaires by area, and allow the creation of lighting scenarios according to the occupants' hours of presence and the extinguishing of unoccupied areas.
- The solution should be based on prefabricated elements with tap-offs, being completely scalable.
- The connections should be done without tools.

Products used			
Product	Function	Quantity	Reference
Canalis KBB	40 A straight element (with communication bus)	-	KBB40ED4303TW, KBB40ED44305TW
Canalis KBB	40 A power supply box	1	KBB40ABG4TW, KBB40ABG44TW
Canalis busbar trunking	Fasteners	-	KBA40ZFUW
Canalis busbar trunking	Tap-off connectors	-	KBC16DCB21 + KBC16ZT1
KNX Push Button	Push button	1	NU553018
KNX power supply	Power supply	1	MTN684064, MTN684032
KNX DALI-Gateway	Communication gateway	1	MTN6725-0001
KNX Argus	Presence detector	3	MTN630919
Acti9 iC60N	MCB 1P+N	1	Depend on rating
Acti9 iC60N	MCB 3P+N	1	Depend on rating

More about
Canalis KBB



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