

EFFICIENT AND SUSTAINABLE USE OF ENERGY IS AN URGENT NEED: BUILDINGS AND BUILDINGS CONSTRUCTION SECTORS COMBINED ARE RESPONSIBLE FOR 36% OF GLOBAL FINAL ENERGY CONSUMPTION AND NEARLY 40% OF TOTAL DIRECT AND INDIRECT CO2 EMISSIONS.

Eelectron is an Italian company that manufactures electronic devices, hardware and software on KNX and Bluetooth standard.

Its product range addresses building automation, hotel automation and home evolution sectors with a deep focus on complex environments managemenet and experience in integrated solutions.

Eelectron's philosophy of comprehensive aesthetic design and engagement in developing higly innovative devices combines with KNX interoperability and compliance with the most stringent international quality standards.

Eelectron's experience is at the user's service for demanding clients that require training activities, assistance on products and continuous development that focuses on emerging needs and applications, energy saving and achievement of simple and efficient solutions for the benefit of occupants and managers.

Today Eelectron is leading the market by following his roots and including new technologies.





Eelectron SpA is a KNX certified training center: accredited by the KNX Association for the organization of basic and advanced courses.







Shareholder of KNX Association since 2005, Eelectron is an example of technological leadership in the application of the common European standard protocol.

The EIB/KNX technology standard is now the most widely used in the field of control for buildings with service and residential uses, covering more than 10,000 devices produced by some 130 leading manufacturers in electronics / devices, and more than 12 million nodes installed worldwide.

KNX is approved by:

- European Standard (CENELEC EN 50090, CEN EN CEN 13321-1 and EN 1332-2 "KNXnet / IP")
- International Standard (ISO / IEC 14543-3)
- Chinese Standard (GB / Z 20965)
- U.S. Standard (ANSI / ASHRAE 135)

It allows to combine **Comfort** and **Savings**, with **long term investment protection**, freedom of service provision and constant **Technology Evolution**.

Thanks to the **KNX standard** technology, various integrations are available on the system; therefore, together with Eelectron's know-how, various technical requirements can be addressed.

KNX flexibility offers the possibility to add or reprogram new devices after installation and meets the needs of completion in renovations or extensions.

For more information see the Konnex website at:

www.konnex.org

OPTIMIZED OFFICE AUTOMATION

OTOMO[®] s a system composed of electronic devices and objects (table and ceiling lamp) equipped with environmental sensors.

It works by DETECTING THE PRESENCE OF A USER IN AN ENVIRONMENT and consequently managing lights, energy saving, environmental parameters.

OTOMO® is an innovative system designed to optimize a single target: the office.

It uses Bluetooth[®] technology allowing objects to exchange information over a wireless network that is entirely configured through the App, available for smartphone & tablet.



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Project funded by Regione Lombardia - bando Smart Living





WIRELESS SOLUTION

OTOMO

It's a network of Bluetooth[®] controls born to manage optimization, energy savingand office control through smartphone and mobile devices.

Through the detection of qualified presence and thanks to the integration of Bluetooth Low Energy[®] and IoT sensors, OTOMO allows - with a wireless solution - to improve the well-being of the occupants and the environmental quality.

OTOMO[®] stands out in the market with a professional proposal: easy to install, scalable and affordable, it requires minimum programming skills for its setup, providing a new relationship between simplicity and efficiency.















BLINDS/SHADES



GATES



SHUTTERS

LOCAL OR REMOTE MANAGEMENT

AUTOMATIC AND/OR PRISENCE-DEPENDENT MANAGEMENT

- lux metering
- control and constant brightness dimming through lux meters installed on the work table / ceiling
- energy savings thanks to shading control
- activation of "favorite" settings for single user / environment
- automatic zones shutdown

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OTOMO[®] of more then **20 years of Eelectron's expertise in building automation**; of a multi-annual **R&D effort** to deliver an easy way of realising complex applications using **IoT and Cloud technologies**, declined on a strong application experience.

















biodynamic light, current state of all system favorite scenarios per use



Each automated function can be immediately changed, switching to manual control using the APP [iOs or Android] which can DISPLAY room brightness and CONTROL:







gates

n elements, er / environment.





OTOMO

OPTIMIZED OFFICE AUTOMATION

A simplified set of well centred components:

- table lamp with lux/temp metering
- DALI Bluetooth Low Energy®controller
- relè Bluetooth Low Energy[®] modules
- switch Bluetooth Low Energy[®] interface module
- lux / temperature meter accessory
- lighting fixtures **OTOMO[®] enabled**
- gateway: OTOMO-KNX | OTOMO-IP | OTOMO-ModBus
- beacons for user detection









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WIRELESS SOLUTION



OTOM



IO14A01BLE

DALI Module 2 channels x 8 ECG Broadcast -Integrated Circadian Cycle Power supply 230Vac

The brightness of the DALI lamps is driven by BT01A01OTO SENSOR connected to the IO42A01BLE device or from the brightness sensor integrated in the Jackie IoT lamp.

IO42A01BLE

IO42 Module (4 IN + 2 OUT) Power supply 230Vac

2 Digital INPUTs can be configured as: 2 single channels (e.g. On-Off command, excluding light dimming) directly connected to 2 lights / loads or 1 coupled channel driving **1** remotely installed blind / load using a 2 way switch

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IO41A01BLE

IO41 Module (4 IN + 1 OUT) Power supply 230Vac

2 Digital INPUTs can be configured as: 1 single channels (e.g. On-Off command, excluding light dimming) directly connected to 2 lights / loads or 1 coupled channel driving **1** remotely installed blind / load using a 2 way switch

Inputs

1 digital INPUT (drv contact) e.g. to connect a conventional presence

Outputs

2 OUTs - 16A relays to drive 1 blind / 2 on-off lights / generic loads 2 channels x 8 ECG Broadcast

Inputs

2 digital INPUTS / 2 analog INPUTS for BT01A01OTO SENSOR (temperature and brightness)

Outputs

2 OUTs - 10A RELAYs to drive 1 blind / 2 on-off lights / generic loads

Inputs

2 digital INPUTS / 2 analog INPUTS for BT01A01OTO SENSOR (temperature and brightness)

Outputs

1 OUT - 10A RELAY to drive 1 on-off light / generic load





IO40A01BLE

IO40 Module (4 IN + 0 OUT) Power supply 230Vac

2 Digital INPUTs can be configured as: 2 single channels (e.g. On-Off command, excluding light dimming) directly connected to 2 lights / loads or 1 coupled channel driving **1** remotely installed blind / load using a 2 way switch

Inputs

2 digital INPUTS / 2 analog INPUTS for BT01A01OTO SENSOR (temperature and brightness)

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BT01A01OTO SENSOR

Brightness & Temperature Sensor

OTOMO brightness and temperature sensor provides the measurement of temperature and illuminance (lux) that are visible on OTOMO APP. OTOMO sensor in an accessory of IO42A01BLE and is used to manage and dimming DALI lamps.





PD02X01CON PRESENCE SENSOR

Presence & light sensor 2 channels Inwall mounting

is a ceiling flush mount PIR detector. The load will be switched on automatically when the movement is detected and the ambient light level is below the Lux setting value. Until there is no movement detected and the pre-set delay time has been expired, load will be switched off automatically.





BE01AXXACC BEACON



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IN00A01BLE

OTOMO-KNX Gateway

Commands forwarding from OTOMO to the KNX bus and vice versa, activating - for example - KNX scenarios triggered by the presence / absence of a user detected by OTOMO.

Transfer of brightness and temperature information detected by OTOMO devices, for example Jackie_IoT, to the KNX network avoiding the installation of new sensors.

Extension of complex functions and scenarios (e.g. weekly or monthly schedules) in the OTOMO network thanks to the integration of devices already installed in the KNX system.

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OTOMO-IP Gateway

System remote control via cloud: ability to control the devices even if not in the detectable Bluetooth® area

Display of analytics on a web portal directly on the mobile device (e.g. the switch-on time of a specific light point, average temperatures).

Interfacing of the OTOMO system with the Modbus / TCP world.









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DTU – DANISH TECHNICAL UNIVERSITY LYNGBY - (DENMARK)















LORIS KESSEL AUTO SA LUGANO - (SWITZERLAND)

MILANO - (ITALIA)

CAMPUS MONNERET

Ferrar















LS PLATOU CLARKSON OFFICES OSLO - (NORWAY)

BUILDING REFERENCES



PARTE BASSA VIALE STAZIONE BELLINZONA - (SWITZERLAND)





AERMACCHI HEADQUARTER VENEGONO - (VA) (ITALIA)