

ten

REASONS

FOR AUTOMATING
A BUILDING

There are various approaches to home & building automation. In this document we aim to provide an overview of the tasks that building automation can accomplish and should be of interest to those who wish to understand the benefits of an intelligent building to support the quality of life of the people who live, work or, more generally, spend time in it.

one	8
two	9
three	10
four	12
five	13
six	14
seven	16
eight	17
nine	19
ten	20
contacts	22



Why Choosing Home Automation?

Ekinex suggests 10 good reasons why it is worthwhile to automate a building and make it modern, efficient and safe.

one

Automation and control make the building modern, innovative and prestigious.



Today it is unthinkable to construct a building without an open, future-oriented automation and control system. In this way, the building is by its nature innovative and safe, maintains value and commercial attractiveness over time and contributes to the indispensable environmental sustainability.

two

Enhanced quality of life thanks to increased visual and thermal comfort in the environment, ease of use of all integrated functions.



All functions can be managed through the use of a single device with simple and intuitive gestures. The operation of each household adapts flexibly to individual needs and requirements, thanks to the possibility of extensive customisation.



The house offers great active and passive security. The intrusion control is supported by the simulation of presence with lighting on and off when you are away from home, video surveillance with remote control, detection of gas leaks and the danger of flooding with relevant alarm notification.



The lighting control is complete: power on and off, dimming, choice of colour combinations for RGB LED sources. The concept of "dynamic light" becomes reality: brightness and colour warmth that vary throughout the day according to human needs to ensure visual comfort, well-being, concentration and a correct impact on biological rhythms.



The control of the audio and video equipment is fully integrated with the other domotics functions. You can emulate the remote controls of multimedia devices such as TVs, video projectors or DVD and stereo players, using a single user interface on smartphones or tablets.



The management of blinds and shutters is automated: in combination with weather stations, it is possible to limit or exploit the solar intake (depending on the season) and thus achieve significant savings in heating and cooling energy. In case of precipitation or frost, awnings and shutters can be placed in a safe position to avoid damage.



The most energy-intensive appliances are actively managed (oven, induction plates, washing machines) with non-priority load's disconnection, avoiding the intervention of the main switches. Loads are continuously monitored to increase awareness of their energy behaviour, verify which appliances determine the highest consumption and in which time slots.



An ideal setting for heating, ventilation and air conditioning of rooms. Changing set points, selecting the conduction mode and setting fan speeds are easy. Controlling relative humidity and air quality (CO2 and TVOC) increases well-being. Simple daily and weekly programming of time slots.



Scenarios allow to delegate the repetitive everyday gestures, reset the system according to the different housing needs (outside the house - inside the house, summer-winter, exit-entrance, night-day, weekdays - holidays, children at home - outside the house, guest scenery, relaxation, etc.) and recall the programmed automations.

three

Scalability and modularity of the system.



Simplicity in system design and requirements definition. Suitable for new construction and renovation. Ready-to-plan with BIM methodology.



The system equipment and the consequent number of functions managed can increase gradually over time. In order for this to be possible, it is necessary to structure the system properly and then to design and prepare it correctly. It is possible to initially set it up with the minimum necessary (at a very low cost) and then gradually develop it according to real needs.



Maximum freedom and flexibility in programming devices to achieve the desired functions.



Easy re-adaptation of the system following structural changes or needs that change over time (even after a long time has passed since its creation).

The wiring of the system is much simpler than the traditional solution due to a smaller number of cables installed.



four

Control and interaction with the system from anywhere, locally or remotely and at any time.



This function is made possible by the availability of latest generation phones and tablets with large displays, friendly and intuitive interfaces with the possibility of adding tools and functions with Apps. Increasingly high-performance network services make it possible to interact with great reliability and very short response times. Each control task can therefore also be carried out remotely via an Internet connection.



Intrusion control with presence simulation by switching lights on and off when away from home, remote-controlled video surveillance, gas leak and pipe breakage control with alarm notification.



Innovative voice control using Amazon, Apple and Google home speakers with voice assistants provides an incomparable user experience and control convenience.

five

System safety and reliability.



Control panels connected at very low safety voltage (absence of mains voltage 230V). Greater safety of use, lower risk of electric shock, reduction of electromagnetic pollution in the home.



The installation, also thanks to the technology with which it is made, is very reliable and consequently the risk of malfunction or disservice is almost non-existent.



The system, due to its intrinsic reliability, is free from maintenance and periodic intervention.



Simplicity in the design of the system and definition of requirements. Suitable for new construction and renovation.

six

Maintenance and increase in value of the property over time.



Revaluation of the property in case of renovation, increase and maintenance of value over time (estimated at about 5%) in case of new construction. In the United States and the United Kingdom, more than half of Real Estate Agencies have already granted added value to properties with Home Automation solutions, and new buildings are designed or already equipped with numerous automation devices.



Increase of the value and commercial attractiveness of the building with higher energy class thanks to the home automation equipment (according to UNI EN 15232, to be certified by UNI/TS 11651).



Enhancement of the building value by achieving the system's performance level 3 by means of advanced home automation functions (according to IEC 64-8, Chapter 37).





The word Savings already justifies every action.... but do we want to quantify? With a boiler combined with an intelligent thermostat, the average saving reaches 30% without any compromise on comfort, guaranteed by the perfect integration of weather station, smart thermostatic valves, sensors on openings and presence detectors. Exploitation or limitation of sunlight.



The home automation system is the ideal infrastructure for transmitting and displaying consumption data from smart meters inside the building. Only thanks to the timely and frequent monitoring and visibility of energy and water consumption on home automation displays or Apps for smartphones does the user become aware of their behaviour and can change them virtuously.



Thermoregulation for individual rooms or zones and hourly programming to reduce energy consumption, guaranteeing the high level of comfort of modern buildings. Each degree of reduction in temperature corresponds to a saving of about 6% in energy.



Home automation technology contributes significantly to the achievement of the European Union's objectives on "near zero energy" buildings (nZEB according to Directive 2010/31/EU and L.D. 4 June 2013, n. 63).

seven

Resource savings through increased energy efficiency and the exploitation of free supplies from renewable sources.



Detection of presence and movement to activate lighting and air conditioning only where and when really needed.



Home and building automation offers an effective tool for achieving environmental sustainability strategies and building certification (according to LEED - Leadership in Energy and Environmental Design).



Exploiting the solar contribution or limiting it through coordinated and automated management of shading.



Smart homes and buildings are designed for future connection to a smart grid and, more generally, to be an active part of a smart city. The automatic management of the building's energy demand will make it possible to implement the concept of "demand response", for example by shifting some consumption in response to the current electricity price.



By dimming the light sources it is possible to reduce energy consumption and adapt the intensity of the lighting to the various situations and needs.

eight

Tax deduction and exploitation of incentives.

-65%

Possibility of benefitting tax deduction's schemes (e.g. Stability Law 2016, Art. 1 paragraph 88) linked to the equipment of the home automation system.



nine

Very small difference in the costs of system realisation compared to traditional technology.



The modest difference in cost between the traditional system solution and the automation solution is caused by the need for certain devices to build the automation system (estimated at about 20%). This difference is largely absorbed by the lower cost of installation time (which is reduced) and by the lower cost of some installation materials (e.g. cables, pipes).

ten

Protection of investment over time.



The KNX standard guarantees the durability and availability of the technology over time and thus the certainty of source of spare parts and replacement products in the future.



The spread of KNX and standardised training ensures that expert technicians and competent system integrators are available everywhere.



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Print: Tipolitografia Testori snc

