



FUSION INTELLIGENT BUILDING SERVICES

- Lighting control • Energy management • Blind, window and shutter control • Heating, ventilation & air conditioning control • Security and safety • Operation • Visualisation
- Automation • Remote access • Emergency testing • Monitoring

FUSION

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• MECHANICAL • ELECTRICAL & INSTRUMENTATION • SMART HOMES



INTEGRATED CONTROL AND
INTELLIGENT BUILDING SOLUTIONS



WE MAKE THE COMPLEX **SIMPLE**

INTRODUCING INTELLIGENT BUILDINGS

An intelligent building uses integrated technology to control a number of different functions, such as air-conditioning, lighting and access control systems, at the touch of a button or fully automated. While the convenience and versatility on offer are certainly beneficial, its capacity to cut energy consumption is why this approved technology for over 20 years, is becoming increasingly important.



Such a smart technology implies more wiring, high design and installation costs as well as an increased fire risk, but there is a system that addresses all problems associated with isolated devices by ensuring all components communicate via one common language. This system is known as KNX and it is the worldwide standard for building control.

As one of the first companies in Ireland to become a certified and official partner of KNX, FUSION is equipped to provide a new generation of building control and automation on an open platform. Qualified to custom design, install and maintain integrated building control solutions, whether HVAC, lighting, blinds or windows, we can bring all of these systems together seamlessly in a single head-end visualisation package.

FUSION is one of the founding members of the KNX Association of Ireland, a national group supported by Konnex, promoting the KNX Standard in Ireland.

FUSION, WITH THE KNX TECHNOLOGY, CAN INSTALL ALL OF THE FOLLOWING SYSTEMS AND SOLUTIONS:

1. Lighting control

Our lighting control solution uses two key technologies - KNX and DALI (Digitable Addressable Lighting Interface). Both offer a robust and simple-to-install configuration that makes electrical installation simple while reducing energy consumption and carbon emissions. Features include:

- Switching & dimming
- Automatic lighting
- Constant light control
- Timed control
- Light scenes
- Real-time emergency test & monitoring
- Lamp & ECG status feedback

2. Energy management

Using KNX and DALI technologies, FUSION can significantly reduce the energy consumption in both new and existing buildings. Because KNX is open standard, all energy sources can be examined as a whole. Also, our integrated solutions, which range from cutting-edge lighting control to external solar control, can cut your lighting, heating, cooling and ventilation consumption while maintaining a comfortable working environment. Features include:

- Peak demand monitoring
- Current detection
- Network monitoring
- Load shedding
- Metering
- Energy pulse counting
- Data logging
- Visualisation

3. Blind, window and shutter control

Blind, window and shutter control offers convenience but also reduces energy consumption. With the KNX system, windows can be programmed to automatically open if carbon dioxide levels rise above a certain threshold or the air quality drops, while night-time cooling can naturally reduce the internal building temperature. Blinds can be opened and closed at the touch of a button or programmed to automatically adjust in order to optimise natural light or reduce glare. Features include:

- Group & central control
- Preset positioning
- Sun tracing
- Automatic programs
- Climate enhancement
- Wind and rain protection
- Safety modes
- SMI Gateway

4. Heating, ventilation & air conditioning control

With KNX, all functions in a building can be delivered using a single bus system including HVAC. Room temperature control can be integrated with the light switch, and each room can be adjusted locally, globally or both. HVAC features include:

- Individual room control
- Central & automatic control
- Timed operation modes
- Safety programs
- Valve drive control
- Floor heating
- Fan coil units
- Electrical heating

5. Security and safety

The KNX system uses preventative technology and can automatically control lights and blinds to simulate a security presence even when there's no one in the building. The building can also be checked at any time by phone or online, and several functions, such as power sockets and light switches, can be controlled remotely. The KNX security system can also detect:

- Intrusion
- Smoke
- Technical faults
- Door access
- Faults



6. Operation, visualisation, automation and remote access

The KNX system can use pc visualisation, web servers, IR remote control, WAP and PDA to provide central operation, scheduled and remote control of the entire building through a single visualisation solution. For instance, it can highlight:

- Temperature
- Lighting status
- Occupancy status
- Position of windows & blinds

WHAT WILL IT ALL COST?

The cost of an integrated system really does depend on the number of components installed, but because each technology is future-proof as well as energy efficient, over time there is return on investment. The KNX system is also open standard which means you're not limited to a sole manufacturer and this drives costs down. Finally, you can always start by putting a basic system in place and then add to it as you see fit, or as your budget permits.

FOR A NO-OBLIGATION QUOTE,
CALL **021 491 7234** AND WE'LL TAKE IT FROM THERE.