



Smart home and building solutions.  
Global. Secure. Connected.

# JOURNAL 2022



**KNX IoT**  
**Protect your KNX Installations**  
**Energy Management**  
**Main Features of ETS6**



# ETS6 PROFESSIONAL

Smart. Secure. Open.

## NEW LICENSES

	PRICE	RESTRICTIONS
ETS6 Professional	1000,00 €	
ETS6 Lite	200,00 €	maximum 20 products per project
ETS6 Home	350,00 €	1 project
ETS6 Apps	For further information please visit <a href="https://my.knx.org">https://my.knx.org</a>	

## UPGRADE LICENSES

ETS5 Professional > ETS6 Professional	350,00 €	
ETS5 Lite > ETS6 Lite	150,00 €	

## EDUCATIONAL LICENCES

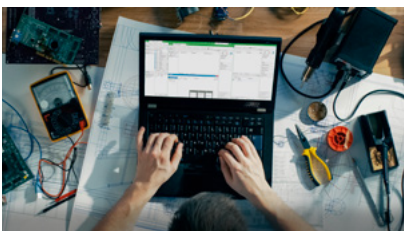
ETS6 School Starter Package	1200,00 €	1 x ETS6 Professional, 10 x ETS6 Lite
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All prices excl. VAT

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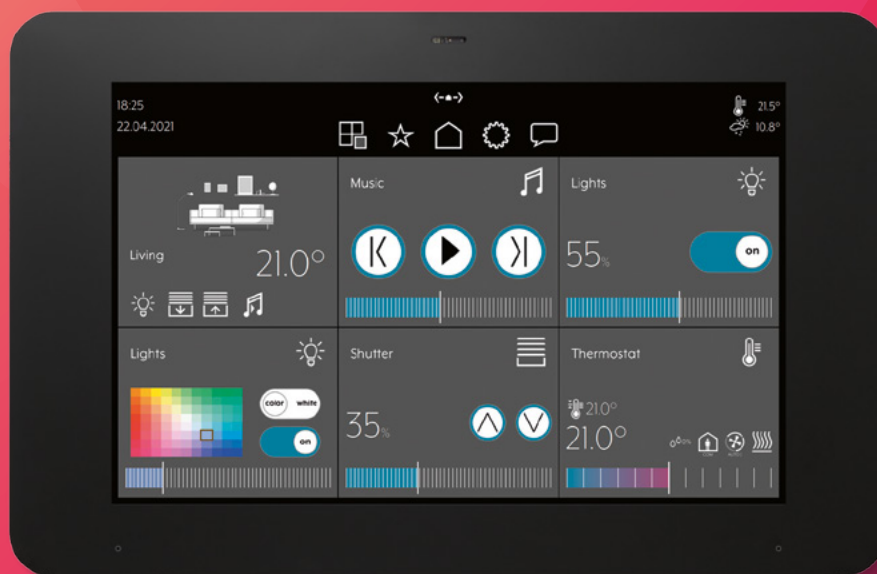
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# Smart Panel 8



203 MM SCREEN DIAGONAL

The JUNG KNX touch display Smart Panel 8 increases comfort and security in the Smart Home. It visualizes the processes in the KNX system without use of an additional server. Locally controllable via app, it is ideal for retrofitting.



# KNX goes digital - Join us!



**Heinz Lux**  
CEO, KNX Association

“It is unworthy to waste the time of excellent people with menial arithmetical work, because when a machine is used even the most simple-minded person can write down the results with certainty,” declared the polymath Gottfried Wilhelm Leibniz as early as the 1690s. He was a mastermind and stands as a pioneer by inventing the binary code, the basis of digitisation, developing a calculating machine more than 200 years before Konrad Zuse, thus laying the foundations of today’s digital culture. It has resulted in a mathematisation of thought and thus drew on Aristotle’s thesis that numbers are the essence of all things.

According to the dictionary, digitisation refers to the “capture of information in formats that are suitable for processing or storage in digital technology systems”. The possibility of information technology processing is a principle that underlies all modern manifestations of digital transformation in economic, social and working life. These functions and services did not previously exist in digital form and are now being digitally transformed. Digital is therefore the future. It is our future, too.

In building automation, it offers the possibility of both vertical and horizontal integration of different technologies, services and networks. It is the ideal way to overcome silo thinking with the goal of a

collaborative building, self-adapted, optimised and with an approach for forward-thinking maintenance and upkeep management: Buildings become IP-based technology and service providers. To this end, we are cooperating in IP-BLIS (Internet Protocol for Building & Lighting Standards). It is not a new organisation, but the worldwide marketing initiative for IP-based buildings in which leading organisations such as BACnet, CSA, DALI, KNX, Thread, OpenConnectivity cooperate with each other. This is IP-based intelligence in the IT network.

This is KNX digital with the open, worldwide accepted ISO/IEC standard, common security and communication, as multi-vendor, independent, thousandfold and worldwide proven in practice. KNX energy management makes it possible to seamlessly integrate existing separate sectors from the electrical, heating and mobility sectors into a single system. The key is harmonisation and access via the IP network as the backbone. KNX IP Secure and KNX Data Secure are important key elements for cyber security and can easily be combined with all ETS projects and installations.

“ KNX IoT makes many things possible – **Join us!** ”

# Grow with KNX as it goes IP

KNX has proven itself in self-contained installations, but as control networks expand and different trades need to cooperate, the future clearly lies in IP.



KNX was created over 30 years ago to facilitate the integration of diverse applications from different vendors of smart home and building technology, into one common project. Of the many strengths that KNX possesses, the two most visionary, that overarch everything, have to be 1) the delivery of reliable, robust and seamless interoperability between products from different manufacturers; and 2) backward compatibility between systems. In effect, they amount to the same thing – guaranteed interoperability across brands and time. In other words, as KNX strives forward, it will not abandon you. It will not leave you behind. Rather, it will support you into the future with even more possibilities for interoperability, be that within the realm of classic KNX twisted pair (TP) connections, or the wider and faster world of IP networks.

The founding members of KNX Association recognised from the outset that standardisation was key to growing the building control business. They also recognised early on that if KNX was to expand into larger computer-based networks and prepare a pathway from smart homes and buildings to smart cities, it would have to fully engage with IP. Hence the launch of KNXnet/IP in 2007, when KNX Association created a standardised KNX/IP telegram. Since then, development of the Internet of Things (IoT) has only served to accelerate matters.

## The story so far

In opening its doors to IP and the IoT, KNX Association was aware that connecting to the outside world would inevitably increase security risks. Hence the development of KNX Secure. This international standard comprises two parts: KNX IP Secure which extends the IP protocol in such a way that all transferred telegrams and data are completely encrypted; and KNX Data Secure which effectively protects user data against unauthorised access and manipulation, by means of encryption and authentication.

To further expand integration possibilities, KNX Association has launched the newly-approved standard KNX IoT Third Party API. This combines cloud integration with bidirectional communication between KNX and third parties, whereby cloud applications can subscribe to information on demand, and therefore minimise data transfer to the cloud and associated costs.

## What's next?

Meanwhile, the plethora of home and building automation solutions, be they proprietary or open protocol, combined with widespread use of the

Internet, has seen a growing requirement by the market for systems to provide a well-documented way to interact with them, using mechanisms that are state-of-the-art in the IT industry. In answer to this, the KNX Information Model has been approved as a European standard (EN50090-6-2), an ontology that is able to express relations in a KNX installation to support the following use cases to request/query data, such as:

- how is the building structured with floors, rooms and other?
- where is equipment installed in a location?
- what overall functionality is hosted on the equipment?
- which application function affects which building structure elements such as a room?
- which (data) points belong to an application function and what is the purpose of these points (thanks to semantic information tagged to it)?
- which function points (group addresses) control a specific point?

This results in better-documented projects for KNX professionals and other IT professionals wishing to connect with KNX over IP and also allows machines to better understand KNX data.

KNX Association is also developing the KNX IoT Point API, even as open-source technology to lower the hurdle for the development of devices and make it fully agile, allowing the construction of true IP networks which can integrate a scalable number of devices. 2022 will see KNX Point API supporting IPv6 field level sensor/actuator (group) communication, thus enabling installations to exchange KNX data with devices using media such as Thread or Wi-Fi. In other words, next to the trusted KNX TP and RF networks, via appropriate media couplers, KNX installations will be extendable with devices that also exchange KNX data over IPv6 networks and are also configurable by ETS and part of ETS projects.

## New business opportunities

When all of the above possibilities, such as KNX classic, KNX net/IP, KNX IoT Third Party API, and KNX IoT Point API, are combined with the semantics offered by the KNX information model, the result is a network with limitless possibilities, allowing KNX systems to readily interact with other worlds and open up so many new business opportunities.

Hence KNX Association is promoting Services with KNX, so that professionals can extend their portfolio with new services, and end-customers will be able to see all of their needs integrated through the whole project. These third-party services could include automatically alerting external carers or maintenance providers for example, or managing energy by

allowing the client's local power generating system to communicate with their regional energy supplier, or interfacing with meteorological services to optimise comfort and efficiency.

## Implementation so far

KNX over IP is already here. There is a range of KNX IP products and solutions available, from IP interfaces, routers and servers to voice assistant and visualisation systems. There are also numerous projects, both residential and public/commercial that involve IP as a transport medium.

As the above underlines: KNX never sleeps and at all times ensures full backward compatibility with every extension of the system. With KNX, you are safe AND ready for the future.



# Protect your KNX installations

Imagine you've installed one of the finest state-of-the-art building control systems and your customer calls in a panic, saying they think it's been hacked. How do you make sure this never happens?



If your installation is based on devices in distribution boards, locked away in cabinets and connected around a building using wires hidden behind walls or ceiling voids, the chances of it being tampered with are low. KNX Association has always ensured that measures can be taken in KNX Classic installations to protect them against unwanted access and tampering. However, as KNX is now being used increasingly in wireless setups, there are more opportunities for hackers to break in. In addition, if connecting an installation directly to the Internet without the use of a VPN for example, loopholes can be easily created, again allowing potential access to hackers.

The scale of the problem may not yet have reached epic proportions, but the threat is ever-present and is only likely to increase. This is why KNX Association developed a robust security solution for wired (using twisted pair (TP) cable), wireless and IP-based installations, in the form of KNX Secure. There are three areas in which KNX Secure is expected to be used. Firstly, in KNX installations that include wireless radio frequency (RF) communication. Secondly, in buildings where it is difficult to prevent physical

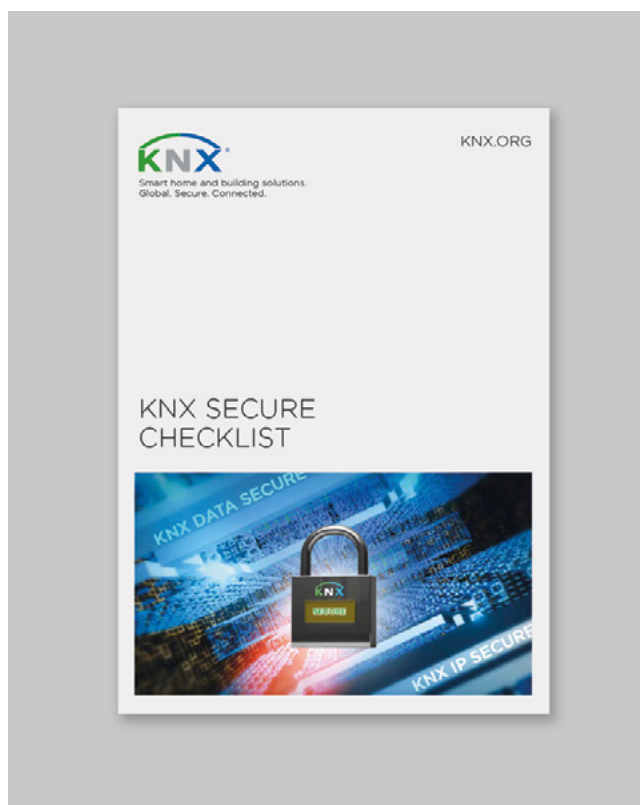
access to the installation (e.g. in public areas of public buildings). And finally, in protecting against unwanted access to an installation via IP.

KNX Secure technology is standardised according to EN 50090-3-4, which means that KNX successfully blocks hacker attacks on the digital infrastructure of networked buildings. Moreover, KNX Secure meets the highest encryption standards (according to ISO 18033-3, such as AES 128 CCM encryption). KNX Secure has been supported since version 5.5 of the KNX system programming software, ETS, and many KNX Member manufacturers have already launched KNX Secure products.

## Basic security measures

Whether or not you use KNX Secure products, there are some basic steps you can take to secure your installations. To help you with this, KNX Association has created a comprehensive checklist, which can be found at the KNX Association website.

As well as general security measures, such as ensuring



up-to-date software and firmware, this includes questions ranging from whether your hardware is locked away or mounted out of reach, through what communication medium is being used, whether couplers are involved, whether devices have been locked against reconfiguration, whether KNX Secure devices are being used, and what to do if you suspect unauthorised access is taking place.

In addition, the following are some quick tips for securing your KNX Installation:

- if an installation is linked to Internet, the use of a VPN tunnel to access it via the internet is an absolute MUST. When using a KNX Secure Tunneling interface, be sure to use the strong passwords suggested by ETS and do not replace them with weak ones.
- special attention should go to installations with public areas, i.e. where people are able to wander around without any surveillance - even a wired KNX system can be vulnerable to attack in such circumstances.
- installations using wireless communication are the number one attack target, as communication between devices is completely out in the open, compared to when devices communicate over a dedicated wire. Use of KNX Secure with RF systems is therefore highly recommended.
- if you have a KNX IP backbone and other IP networks, use a VLAN separation and allow communication between the KNX IP network and other networks only via a suitable firewall.

## When to use KNX Secure

As already mentioned, if a completely wired (TP) infrastructure is being used, with no Internet or unauthorised physical access to the bus or any devices, then the chances of the system being tampered with are low. However, with installations that use a mixture of TP and RF, and/or connection to IP, then using KNX Secure is strongly recommended.

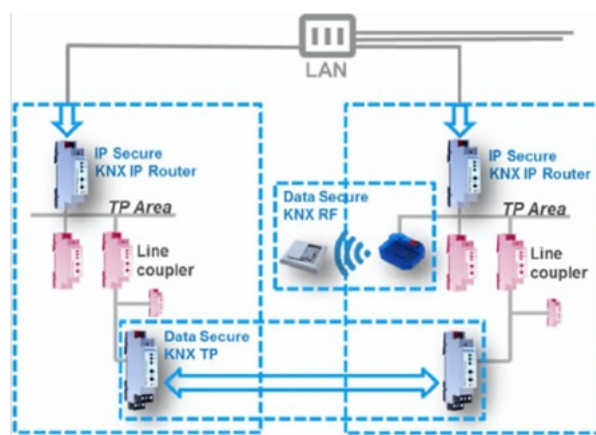
KNX Secure guarantees maximum protection by offering a double protection. It comprises KNX Data Secure (for TP and RF connections) and KNX IP Secure (for IP connections). KNX Data Secure effectively protects user data against unauthorised access and manipulation by means of encryption and authentication. KNX IP Secure extends the IP protocol in such a way that all transferred telegrams and data are completely encrypted.

## Conclusion

As smart buildings are increasingly subject to cyber-attack, it is essential to establish where the vulnerabilities of your installation lie, and how these can be overcome by using some basic security measures, such as preventing physical access and never accessing the Internet without a VPN, and/or by using KNX Secure devices.

KNX Association and its Members have provided everything you need to ensure that your installations offer the security your customers are entitled to expect. All that is required is the commitment by all parties, including building designers, systems integrators and installers, to correctly apply the security measures required.

For more information see the KNX Secure page at the KNX Association website ([secure.knx.org](https://secure.knx.org)) for access to handy tips, a KNX Secure products overview and the extremely helpful Security Checklist.



# Not just saving energy, but managing it.

With the rapid rise in the prevalence of buildings, their energy management has become a pivotal piece for a sustainable future.



*An interview with the CTO of KNX Association*  
**Joost Demarest**

The CTO of KNX Association, Joost Demarest, discusses the importance of buildings to start proactively managing their energy consumption and the future of the energy industry with Bob Snyder from Channel Media.

## The rapid rise of energy consumption in buildings demands a sustainable approach

According to the IEA (International Energy Agency), buildings account for nearly one-third of global final energy consumption and 55% of global electricity demand. The last 25 years saw the growth of energy needs for buildings make up 60% of the total growth in global electricity consumption. As this increasing need for energy in buildings all around the world continues, it has become even more important to look beyond just efficiency of energy consumption within a building but also making them more sustainable.

Demarest shares how KNX has moved on from the traditional approach of maximising energy efficiency in homes or buildings to now adopting the sustainable outlook that is the need of the hour. This includes practicing energy management enabled by digital technologies that have transformed the energy industry in the last decade or so. Energy management is the proactive approach to plan, monitor, and optimizing all aspects of energy, i.e., from power generation to consumption or storage.

Providing the specific example of office buildings, Demarest outlines the aforementioned transition from energy efficiency to energy management by KNX. Smart devices and advanced communication & data capabilities thanks to the digitalisation revolution have enabled buildings to even estimate their energy needs and manage it accordingly. Additionally, the rising energy prices has prompted businesses to look into producing energy locally with renewable energy sources and reduce reliance on the power from energy generation stations that are not consistent with their pricing. With smart systems, such as building energy management systems (BEMS), the energy demands of a building can be synchronized with the different energy sources to maximise energy savings. This shift towards locally-generated energy with renewable sources have given a boost to the movement of making homes and buildings more self-sustainable.

## Energy management and its possibilities

“Measuring is wisdom”, Demarest states as he underscores the importance of having a clear understanding of the energy consumption behaviour in order to really manage energy in the best way possible. Linking KNX solutions to metering and sub-metering of a building has allowed for a much richer energy management practices. In order to identify the ways in which a building can improve its energy efficiency, there needs to be a better understanding of the way the current usage of energy takes place. Smart meters are thus a crucial element for any energy management that is planned for a building.

KNX and its members have, over the years, been able to go much deeper into measuring and managing energy of buildings. As mentioned before, KNX started with a focus on energy efficiency and specialised in improving the heating, ventilation, and air condition within in specific rooms or sections of a building. But over the years, there has been a shift from energy efficiency to energy management and smart devices have enabled automation. The members of KNX have even started to develop solutions that measure the energy consumption down to the level of circuits within installations. This shows that the capabilities of energy management have both broadened and deepened. And he is certain that these possibilities will only go on to grow from here. The administrators or building owners thus can be more confident, efficient, and flexible in their energy management practices.

## KNX energy management applications and projects

There is a rising demand for energy management systems to become more sophisticated. With emergence of smart grids, smart homes or buildings coupled with independent renewable energy sources and electric car charging stations, the energy ecosystem is becoming more complex than ever before.





This is why KNX has ventured into the domain of applications for better energy management. Demarest mentions how a central intelligence unit, for example the KNX customer energy manager, is pivotal for an efficient and uninterrupted energy usage. They also make sure the storage of independently generated energy to be managed well. These applications can handle bidirectional information and energy flow between the infrastructure and the smart grid to ensure stability of smart grids or between various charging stations from different manufacturers to align and rightly optimise the charging of electric vehicles.

Demarest also shares a sneak peek into KNX's ambitious project of Al-Maktoum International airport in Dubai. The project aims to use KNX solutions as a foundation for energy efficiency and energy management for the whole airport. He is also excited about the possibilities of KNX IoT and believes it can open doors for much smarter solutions and automations that improve the current capabilities of energy management.

As for people who wish to learn more about energy management and how they can implement them with KNX solutions, Demarest urges them to check out KNX's eCampus to help them enter the world of KNX's energy management. It provides all the basic tools and knowledge for even a beginner to start practicing the implementation of energy management solutions with KNX.

## **A final word: The new reality of energy management is here**

The pace of digitalisation in the energy sector is increasing, resulting in improved safety, productivity, accessibility, and sustainability of energy systems. In addition, public awareness of living in a more sustainable world has increased in a way that it is changing markets, causing new business models to emerge. KNX is already working with this new reality, and offers an exciting range of energy management applications, devices and solutions. It is up to the businesses and organizations to make sure that the infrastructure that they rely on for their functioning and representation is a sustainable one.

You can also view the full interview on the KNX Association YouTube channel:  
<https://www.youtube.com/watch?v=3TWIhdsDX1E>

# Leading the Market: KNX ranks top in independent survey

International market study: almost two thirds of industry professionals include KNX in their smart home projects



KNX remains by far the most popular technical standard for home and building automation compared to other communication protocols. That is the central result of an industry survey carried out by the specialist magazine Hiddenwires. According to this, KNX is included in smart home projects by 62% of all industry professionals surveyed and is therefore used significantly more frequently than even Wi-Fi (53%) or Bluetooth (31%) in the automation of homes and buildings, and three times more often than technologies from direct competitors. Hiddenwires surveyed more than 8,000 industry professionals, mostly from the EMEA region, including largely system integrators (69%) but also designers, manufacturers, distributors and architects.

## 3 out of 4 industry professionals are aware of KNX

In the growing smart home market, KNX is perceived as being particularly well positioned and accordingly has the highest level of awareness among the technologies and communication protocols for smart homes. According to the Hiddenwires market study, three quarters of the industry professionals (75%) are

aware of KNX as a technology for building automation. KNX's next direct competitor, with almost 54% awareness, is far behind the world's leading standard in fourth place in the ranking.

## The variety of functions and products make KNX number 1

It is especially the wide range of products that makes KNX the most popular communication protocol in smart homes. More than 8,000 devices from numerous different manufacturers use KNX technology and are therefore compatible with each other. Industry professionals can combine products from various brands in such a way that the needs of end users in smart homes can be perfectly met. "With KNX, we deliver an open and highly secure ecosystem for smart home and building projects, combining a high degree of flexibility and simplicity with maximum comfort. We are pleased that these advantages are recognised and appreciated by industry professionals", explains Franz Kammerl, President of the KNX Association, in view of the excellent performance of KNX in the industry survey by Hiddenwires.

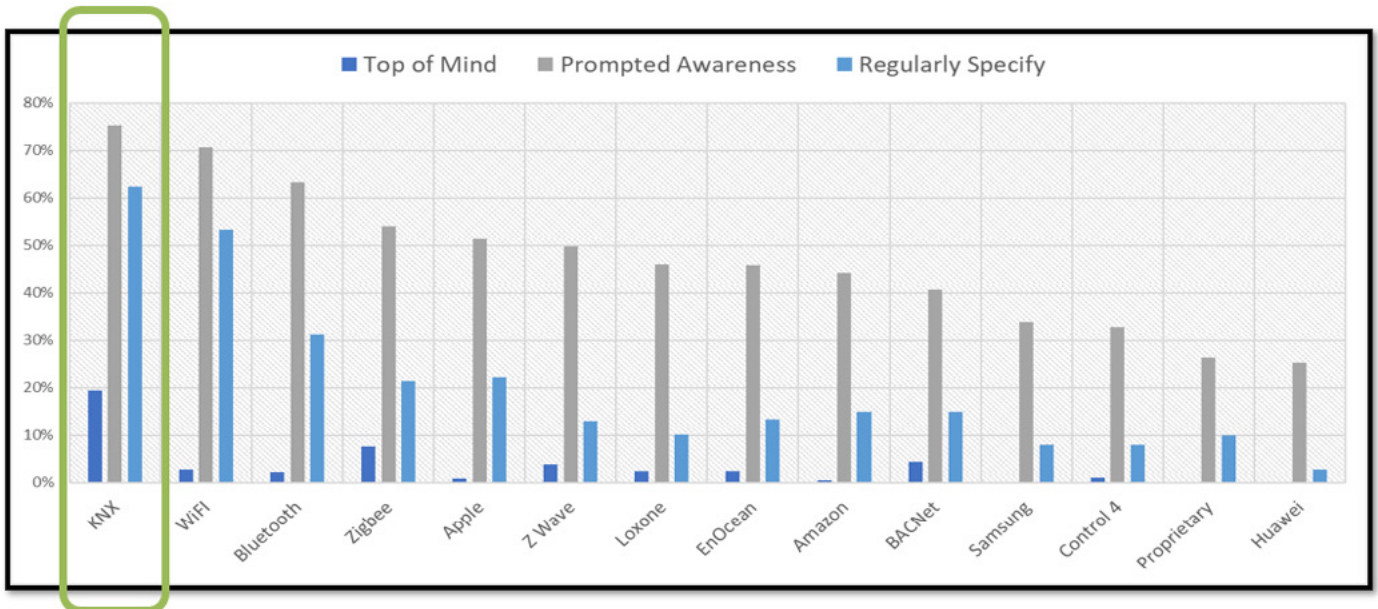


## KNX ranks first: Three times ahead of the direct competition!

No other communication protocol is integrated into smart home projects as often as KNX. 62% of the industry professionals trust KNX and have already automated homes and buildings using the technical standard. KNX thus achieved first place in the Hiddenwires rankings for smart home ecosystems and is almost three times ahead of all direct competitors, who only achieved results of 21 percent or less in this category of the industry survey. Even conventional standards such as Wi-Fi (53%) and Bluetooth (31%), in second and third place, lie well behind KNX.

## Growing interest in smart homes and energy management: A perfect match for KNX

Interest in smart homes has continued to grow in recent years, as 59% of those surveyed by Hiddenwires stated. According to an estimate of 29% of the industry professionals, the interest in their respective region has more than doubled. They see the increasing awareness of the advantages of smart home technologies (71%), higher demands on energy management (53%) and so-called “whole home” solutions (43%) as the greatest growth drivers. The latter shows how many end users are already looking for automation solutions that connect everything in their home as far as possible in order to simplify their own lives in the sense of smart living and to save energy. Numerous KNX devices and solutions for energy management were launched in 2021, and many more will follow this year.







# KNX BEST PRACTICES

Your roadmap to more customer satisfaction

When preparing and carrying out your projects, it is of great importance that your customers' expectations are met and there is no miscommunication or unpleasant surprises during the handover of the project. It doesn't matter how ingenious or technically capable you are, if you want your projects to run smoothly and you don't want the stress of unnecessary friction with your end-customer, you need to be as transparent and clear as possible about what both parties can expect. This not only applies to the scope and function of the technical installation, but to the basic running of the project. To ensure that everyone is on the same page, we now offer a downloadable form to help you and your customers of what processes to expect in a project.

## What are the KNX Best Practices?

The KNX Best Practices is a checklist of recommendations about the project preparation and handover, without being a legal binding document. This checklist is made specifically with a split view, so both parties can individually check their commitment and understanding. By signing the form with these recommendations set up by KNX Association, both parties can guarantee the best possible outcome for the handling of the KNX project.

The checklist is divided in three parts. First, all to be considered prior to the project is listed for both parties. The second part is all about the project handover, where both parties can confirm that all files and documentation have been provided and further

agreements on project handling and maintenance are stipulated. Lastly, there are some points to check by both parties, in case any other technology or non-certified devices have been used.

## Benefits for system integrators

KNX Best Practices provide clear guidelines for the best possible procedure for your KNX project. This does not only assure that the best practices are followed. Thanks to your early involvement, the result is guaranteed to be according to your customer needs. The KNX Best Practices are your roadmap to more customer satisfaction and high project quality.

## Benefits for your customers

Besides the obvious use of the best market practices, the end-customer can rest assured that the installation has been implemented to the highest standards, whereas you can secure yourself from any kind of resulting dispute. Furthermore, due to the complete transparency of the project handling, the outcome of the installation is guaranteed to be according to the agreed terms and conditions.

Applying Best Practices has never been easier. You can download and start using the KNX Best Practices checklist here: <https://bestpractices.knx.org>



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## ABB RoomTouch®

As individual as your home

**More flexibility, now and in the future: ABB RoomTouch® makes it possible.** One swipe is enough to control daily routines in smart living – from lighting, blinds, scenes, time programs to room temperature. The operating concept and function selection can be configured individually. And: Before installation users can decide if they want to install the ABB RoomTouch® landscape or portrait. [new.abb.com/low-voltage/products/building-automation](https://new.abb.com/low-voltage/products/building-automation)

**ABB**





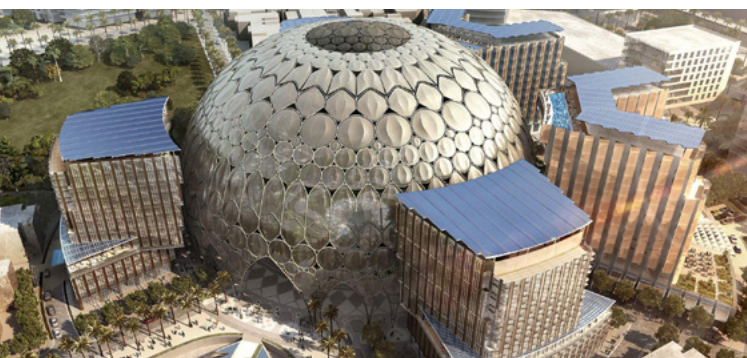
# KNX CONNECTS THE WORLD AT EXPO DUBAI

From 1 October 2021 to 31 March 2022, the world is watching Dubai. 192 countries gather here for the Expo and use their impressive pavilions to present themselves to the over 25 million expected visitors. As sustainability is one of the Expo's main focuses, KNX, the world's leading technical standard for home and building automation, plays a major role at the world exhibition.

## “Connecting Minds, Creating the Future”

Ideas, inventions and innovations, and the dialogue between the nations are the core concerns of the Expo, which is being held in the Arab region for the first time in its 170-year history. The 35th Expo focuses on sustainability, mobility and opportunity. The slogan of the world exhibition - “Connecting Minds, Creating the Future” - also fits KNX: the technology of the

future already connects entire cities, infrastructures and smart buildings, with millions of installations around the globe. So, the world's leading technical standard for home and building automation could not be left out at Expo Dubai either. KNX enhances the pavilions of numerous countries with a variety of smart functions ranging from HVAC systems to lighting solutions with human centric approach, smart presence detectors and architectural lighting with sun tracking controls, among many other solutions.



## Al Wasl Plaza: the central hub

Al Wasl Plaza, with a diameter of 150 metres, is at the heart of the Expo, equipped with a lighting and air conditioning system based on KNX. Al Wasl Plaza is the pavilion of the host nation, the United Arab Emirates, and also functions as the central hub for the world exhibition. The plaza, bearing the historical name of Dubai, is crowned by a 65-metre-high, translucent dome in the form of the Expo logo, which serves as an immersive 360-degree projection surface.



## “Opportunity Pavilion”: an interplay of light, shadow and colour

By using KNX thermostats, among other devices, the KNX system ensures the perfect climatic conditions in the “Opportunity Pavilion”, the roof of which hovers 32 metres above the ground, like a cloud. Various KNX functions also enable the impressive lighting effects of the “Opportunity Pavilion”, resulting from the interplay of transparency, light, shadow and colour.



## Belarus’ pavilion: KNX in the forest of technology

As a future technology, KNX is part of the forest of future technologies. A KNX system ensures optimal control of parts of the building in the Belarussian pavilion. The forest represents the natural heritage of Belarus with its unique European forest landscape.



## Morocco’s pavilion: under the banner of sustainability

The Moroccan pavilion focuses on sustainability. Equipped with a KNX system, it will be converted into a residential complex after the Dubai Expo, complete with swimming pool, fitness club and lounge, and will therefore continue to be used.



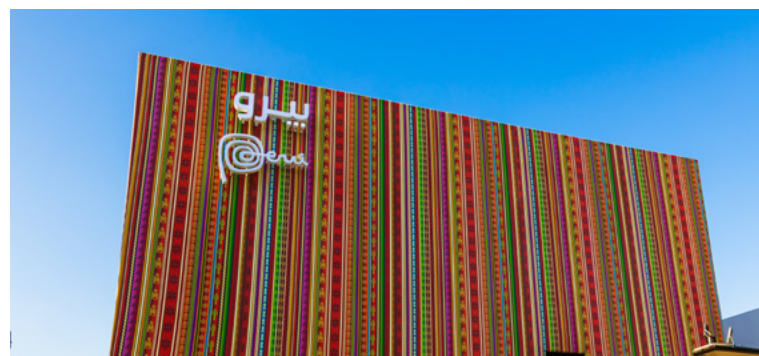
## Brazil’s pavilion: an aquatic landscape

The Brazilian pavilion with its water plaza is inspired by the aquatic landscape of the Rio Negro in the Amazon basin. KNX ensures the right interior climate here. The lighting of the entire pavilion can also be fully controlled via the KNX system, as can the image and light projectors, speakers and aroma sprinklers.



## Peru’s pavilion: on the path of change

Smart KNX applications can also be found in the Peruvian pavilion, symbolising the changes which have taken place in the history of the South American country. The outer walls of the pavilion, optically based on Peruvian weaving art, are visual highlights, as well as the huge interior walls inspired by the ruins of Kuélap.





### Luxembourg's pavilion: the infinity of the circular economy

The Luxembourg pavilion, controlled by a KNX system, is inspired by a Möbius strip, whereby a strip is twisted and folded so that it is a single surface, with no beginning and no end. This is intended to represent the circular economy. There are various projections and animations in the pavilion, showing the country and its inhabitants, while its special architecture instils the feeling of being both inside and outside at the same time.



### France's pavilion: with the power of light

Light as a source of inspiration, knowledge and creativity forms the central element of the French pavilion's architectural concept. KNX was selected as the means of controlling the complex light installations. The French pavilion aims to rethink progress, create emotions and unleash new ideas to reinvent the world.



### Belgium's pavilion: the "Green Ark"

Sustainability is not only an important concern for KNX, but also for the KNX-controlled Belgian pavilion, which is a "Green Ark" dedicated to this issue. Belgian industrial, technical and scientific know-how is exhibited here. In terms of design, the pavilion reflects a mixture of artistic Latin Romanticism and industrial Anglo-Saxon technical precision.



### Saudi Arabia's pavilion: a glimpse of the future

The Saudi Arabian pavilion is also equipped with the latest KNX technology. It offers an insight into the future of humanity based on four pillars: people, nature, heritage and opportunities.

## Impressive demonstration of KNX's versatility

"We feel greatly honoured that KNX is a part of Expo Dubai and can therefore contribute to the successful outcome of this highly regarded world exhibition. Therefore, we give special thanks to our KNX members and system integrators that made it possible. At Expo Dubai, they impressively demonstrate the versatile applications and comprehensive performance of KNX to the global public", explains Franz Kammerl, President of the KNX Association.

For more home and building automation projects realised with KNX, visit <https://projects.knx.org>



# New freedom with KNX.



As a pioneer of intelligent building technology, we are constantly striving to make things even easier. With KNX RF, for example. This wireless system enables full automation based on a 230 V installation. No new wiring and secure against tampering. Take advantage of this new freedom to turn even existing buildings into smart homes or smart buildings.



# ETS6

## THE MAIN FEATURES OF ETS6

Internet browsers are increasingly used to accomplish daily tasks. ETS6 manages this seamlessly, using a 'browser-like' User Experience (UX) with flexible tab and window handling.

### ETS6 IS SMART

#### Multiple main window instances

ETS6 offers improved window and panel handling enabling multiple window instances to be running simultaneously. This makes it easy to check and compare data within a project or between multiple projects.

#### Flexible tab handling

It's easy to maximise, drag, and drop tabs to embed or create new instances in ETS6. To create a new tab within the same ETS6 instance, simply maximise it. This new tab can then be dragged out to make a new instance or dragged and dropped into another ETS6 instance for it to become embedded in that instance.

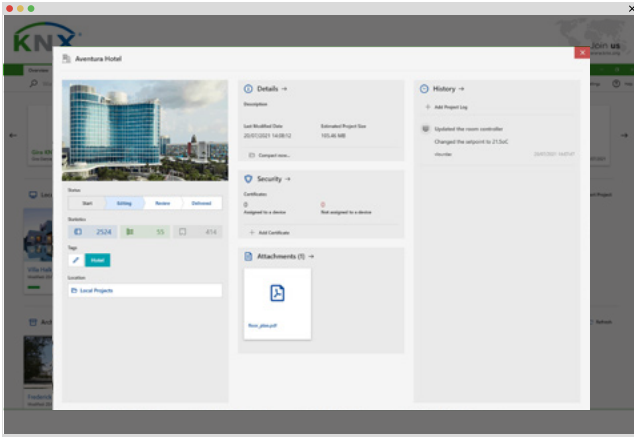
#### Cloud licensing

ETS6's new licensing model supports both cloud and dongle-based licensing. This allows you to work offline if no internet connection is available. ETS6 connects to a user's MyKNX account for licence information.



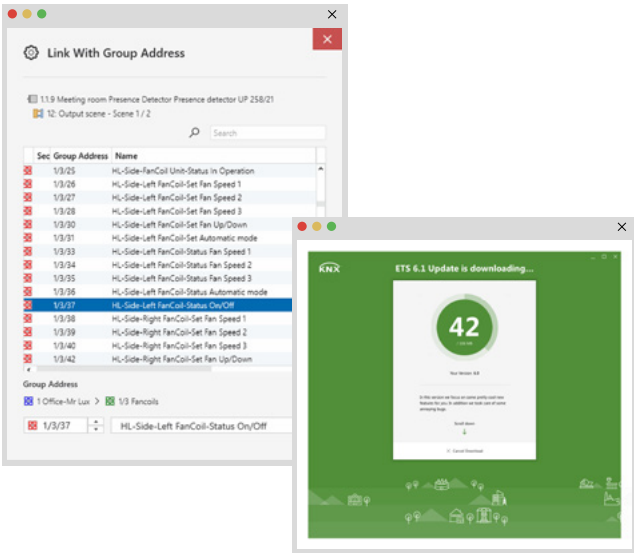
## Adaptive dashboard

ETS6 clusters and sorts projects in the adaptive and completely redesigned dashboard. It's quick and easy to find and access projects thanks to the available metadata, such as the project cover picture, project type, tags, and icons.



## Back and forth navigation

The project workplace has been redesigned making it easier than ever before to navigate between project elements thanks to the back/forth options (via the breadcrumb buttons, keyboard shortcuts, or mouse clicks). In fact, looking for an element within a KNX project in ETS6 is like using an internet browser.

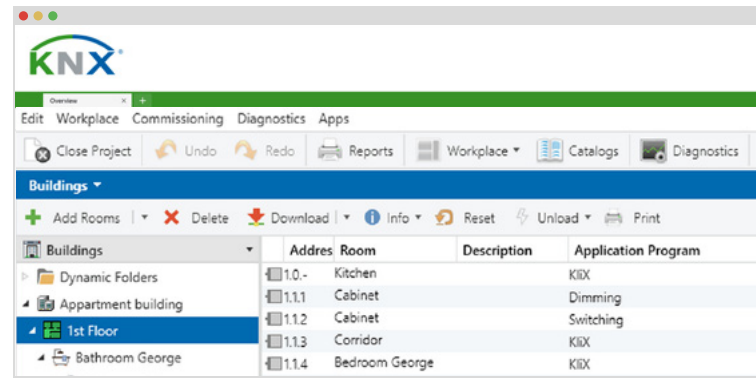
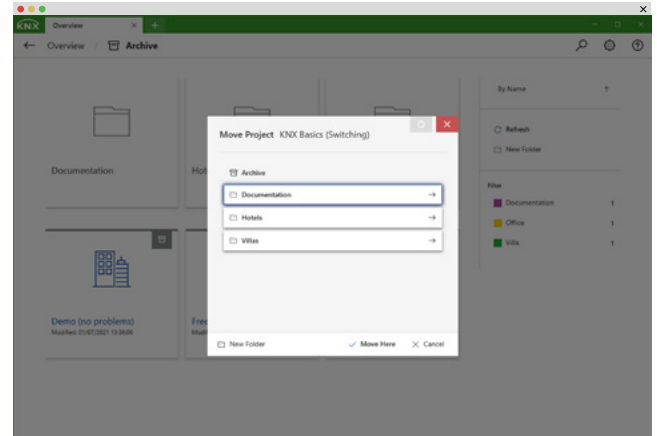


## Improved update tool

Never miss an important update again with the ETS6 intuitive update notification system. Keeping ETS6 up to date ensures continuous improvements as well as the stability of your ETS software. Release notes are available before each update, and updates can be skipped if you prefer.

## Enhanced Project Archive

Project collaboration is simplified with the enhanced Project Archive in ETS6 that offers different levels of functionality for different types of users. Normal users can use the Project Archive as a backup for their project files. And experienced users can benefit from extended collaboration features that allows multiple people to work on the same project.



## Optimised 'Link with' dialogue

In ETS6, you can link Group Addresses together much quicker thanks to the 'Link with' dialogue. Plus, the 'Create new Group Address' and 'Use existing Group Address' are now easily accessible, helping users so they don't have to remember the current Group Address structure.

ETS6 is also used to frequently link Group Objects with Group Addresses. The enhanced 'Link with' dialogue makes it easier to select both single and multiple Group Objects and/or channels on the device as the source for the link to the target(s), in order words Functions or Group Addresses for each object.

This means ETS6 supports the bulk linking of Group Objects to Group Addresses.

# ETS6 IS SECURE

ETS6 builds on and improves the functionalities offered by ETS5 Professional for dealing with KNX Data Secure and KNX IP Secure devices. Additionally, ETS6 supports the latest KNX System extensions for safer KNX installations, easier topology scaling, and a new generation of RF devices. System integrators can easily extend existing projects with new devices supporting security or RF devices thanks to ETS6 supporting Couplers with Segment Coupler and Security Proxy functionality. As well as all this, previous KNX investments are incorporated in the new software.

## KNX Segment Couplers

A Segment Coupler is an extension of a Coupler that connects line segments together, regardless of their media type.

KNX Segment Couplers are devices that extend an existing KNX TP1 Line with RF devices or TP1 devices with filtering or connect lots of small TP1 islands to KNXnet/IP with filtering.

## KNX Security Proxy

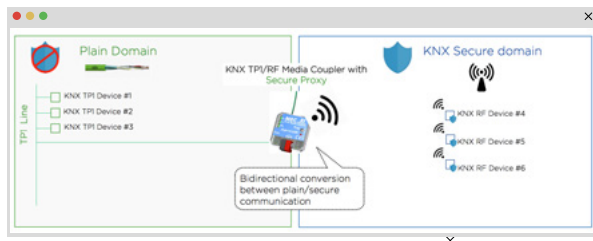
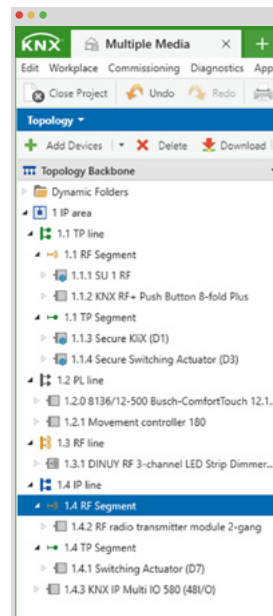
ETS6 supports the Security Proxy, a coupler extension that allows plain devices to communicate with devices that operate securely. This makes this the ideal way to have security on a newly added device when retrofitting existing installations with secure devices without having to remove all the existing plain KNX devices.

KNX Security Proxy devices secure the:

- KNX communication in open Subnetworks (KNX Data Security)
- Configuration of devices in the installation (KNX Data Security and KNX IP Secure Device Management)
- Runtime communication of certain applications (KNX Data Security)

## KNX RF Multi Devices

ETS6 Professional supports KNX RF Multi, the new generation of KNX RF. This reliable and robust wireless protocol for building control applications supports frequency agility by using five different frequencies, repeaters (re-transmitters), fast and slow modes, 'listen before talking', and fast acknowledgement from up to 64 devices (retrying if unsuccessful). RF Multi devices incorporate mandatory security support and easy configuration as all frequency settings





# ETS6 IS OPEN

are automatically set by ETS6. And the runtime capabilities come from a product entry created with the Manufacturers Tool.

KNX RF Multi Devices offer

- system mode devices (based on runtime capabilities from an ETS6 product entry)
- easy configuration as nothing needs to be done by the installer
- security with mandatory KNX Data Security
- automatic configuration of frequencies for each link (Ready, Multi-fast, and Multi-slow) by ETS6
- fast ACK activation by default
- automatic ACK slot number configuration by ETS6

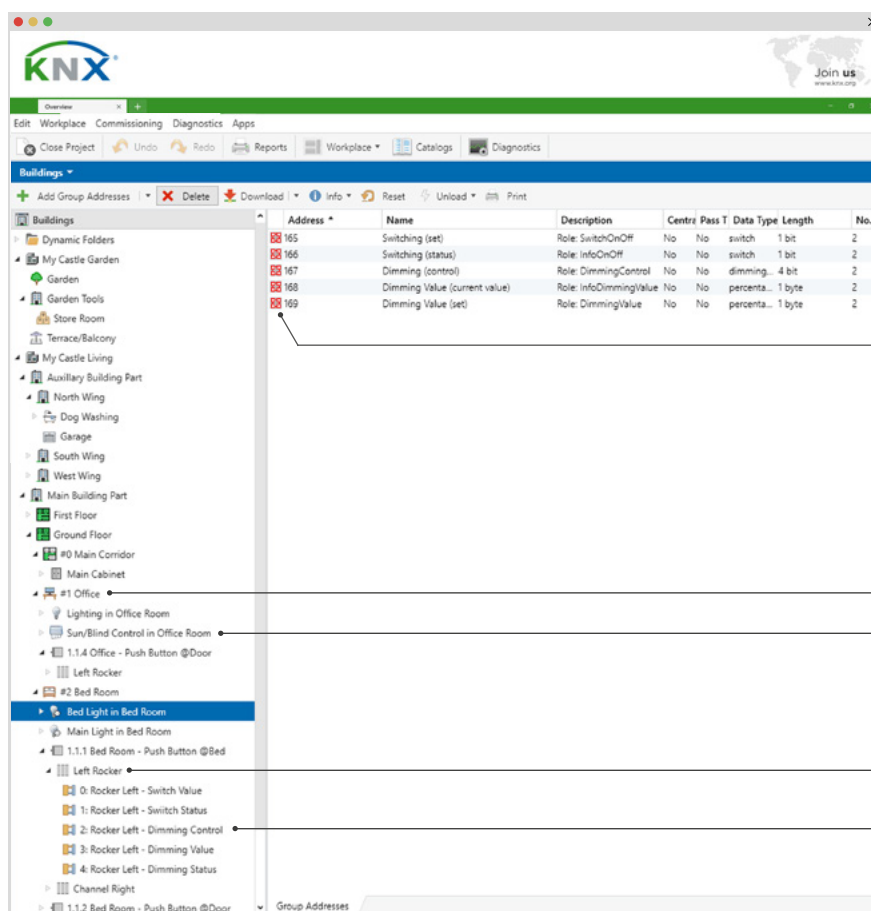
Just like KNX, ETS6 is open.

## KNX IoT System

ETS6 uses KNX IoT to connect KNX to the 'non-KNX world'. Within ETS6, it works by objects in the graphical user interface (GUI) mimicking their real-world counterparts in how they appear and/or how a user can interact with them.

By being more open to the 'non-KNX world', KNX IoT enables the implementation of semantic project information and tagging.

In ETS6, IoT has expanded this semantic information to cover locations, functions, function points, channels, group, objects and more.





# THE NEW KNX ETS eCAMPUS

**BECOMING AN EXPERT IN HOME AND BUILDING AUTOMATION IS EASIER THAN EVER BEFORE**

After the successful market launch of ETS6, the professional tool for automating smart homes and buildings, KNX has now presented its completely redesigned ETS eCampus. The free online learning tool for beginners provides expert knowledge on home and building automation with KNX and ETS6 and offers the opportunity to receive a certificate, as well as a discount on the first ETS6 Lite license. It is now available at <https://ecampus.knx.org> and supports 18 languages.

## **For a successful entry into the world of home and building automation**

The web based ETS eCampus was designed for beginners and is an ideal first step to get acquainted with KNX and ETS. The online learning tool teaches the most important fundamental principles of the world's leading technical standard for building automation and the ETS6 tool in a simple manner. The aim is to enable beginners to start realising their first smart home project more quickly. The expertise required for this is acquired through clearly structured and easy-to-understand interactive lessons and video training sessions – divided into different chapters. The KNX online learning concept has been tried and tested by 150,000 users from 170 countries and was developed in collaboration with the KNX training centres.

## **Learn at your own pace and by means of simulated exercises**

Participants in the ETS eCampus learn step by step, at their own learning pace, how to set up their own KNX project, from theory to practice. This covers basic

KNX concepts and functions, the handling of ETS6 and the configuration and control of smart homes and buildings. A variety of simulated exercises provides motivation and ensures that the knowledge acquired is deepened, while tests after each learning unit document and consolidate the participant's learning progress. Individual lessons can be repeated at any time.

## **Certificate of completion and a license discount following successful participation in the ETS eCampus**

Thanks to the new look and feel, users of the online learning tool will find their way around immediately and thus gain even faster entry into the KNX universe. And all participants, who have successfully completed the new ETS6 eCampus with a score of at least 85%, will also receive a certificate of completion as corresponding proof of performance, as well as a discount on their first ETS6 Lite license. After finishing the ETS eCampus, they will have an excellent base to start creating their smart home with KNX or following a basic course to become a certified KNX partner.

# NEW ETS APPS

## BJE FM-Actuator Update BUSCH-JAEGER

Area of application: The FM-actuator devices SA/U1.16.x2 und SAH/U2.16.x2 can be maintained comfortably using the ETS Service App. It is possible to download new firmware to existing devices. In addition, older firmware versions can also be transferred to existing devices (e.g. in the case of a device exchange). The programming interface of the ETS is used for a firmware programming operation. All KNX media are supported here (TP, IP, RF).

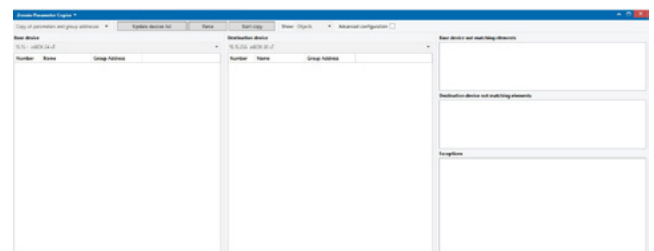
[www.busch-jaeger.com](http://www.busch-jaeger.com)



## Zennio Parameter Copier

The ETS App “Zennio Parameter Copier” is a tool which helps in the versions update process of Zennio products. This tool allows to copy parameters and group objects associations between different products versions, making the updating process faster.

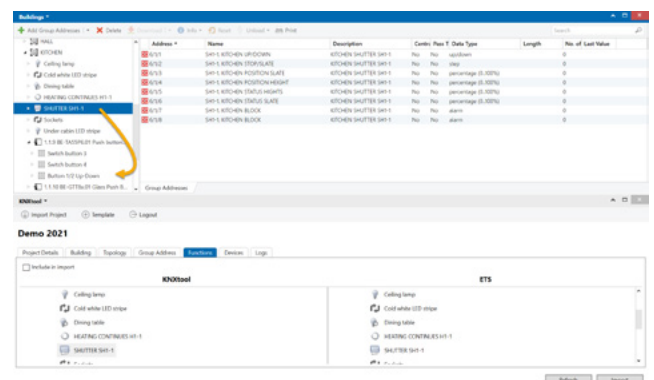
[www.zennio.com](http://www.zennio.com)



## KNXtool-App

With the KNXtool-App you can import all KNXtool project information such as your devices, building structure, topology, group addresses and functions (complete with all relevant channel text, ID's, Tags, etc.) directly into ETS. The KNXtool is a comprehensive web based KNX design and planning tool which allows you to design, plan, manage, budget and document KNX system installations using one single software. The KNXtool uses a drag-and-drop interface so you can graphically design and plan KNX projects with speed and accuracy.

[www.bemi.fi](http://www.bemi.fi)







Smart home and building solutions.  
Global. Secure. Connected.


# 500 Members in 45 Countries



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SMART	btcino	BUSCH-JAEGER	bvk	canX	CAREL	CasaTunes	CASODDA	CD	CON smart
comfort click	CONDEV	CONSOLINNO	ControlG	iKNiX	CONTROLUM	CONTROLTRONIC	COOLAUTOMATION	core	CP electronics
dc SERVICES	DEHN	DGA	HOME COCKPIT	digitalSTROM	DiNUY	DIVUS	DNAKE	Domo netio	DOMOTICA LABS
sekey	ekinex	myGEKKO	ElabNET	ELAN	elausys	ELDAT	ELECTRAK	EGi	e-controls
energiebären	enocean	EOS	ergo3		ESYLUX	EA	EUROPEAN CABLE SERVICE	eutelsat	EVN
Freedompro	frogblue	STAR-NET	逸哲明	FUJITSU	function	GARO	GDS	GePRO	GEVA automation
GreenConnect	GreenControls	GRIESSER	Laffey Electric	三维极光 Pak	NI	HOKO	OSIX	SEAWIN	SUMSIR
Helios	HELUKABEL	Herholdt Controls	HERMOS	vastwise	HMS	Intesis	Honeywell	HORMANN	Hoval
IMI	IMPOLUX	INSTA	InstaLighting	INTEGRA	IPAS	iRidi	HYPER TOUCH	AV BEYOND THE BOX	ise
KAMPDMANN	KERMI	knypress	KNX SIMULATOR	kondz	sontec	Ksenia	KTIS	LEBENOR	legrand
MAICO	MAKEL	-weishaupt-	PROLED	MBS	MDT	MW	MERCK	MESSUNG	METEL.EU
NANOTECO	Nautilus	NETX	neuberger.	Nice	niko	DOOYA		NSA	NZR
pelinindustrie	pharos	POLYCARB	ISOW	preussen	progea		PROX	Qbic	SMARVIS
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上奥龙创	iEAST	安百纳	合广测控	华远显示	兰江荣恒科技	merry	MiCHOI	NIETIAN	SUNRICHER
HH	SmartHomeKraimer	Sol Mio	somfy.	sonnen	HEOS	steinel	STIEBEL ELTRON	stiliger	ST
tense	TERMINUS	theben	thermokon	THINKA	TIS	TOTAL SOLUTION	TREBOR	zipato	TRIDIUM
VANTAGE	VELUX	VEMER	Vestamatic	viega	VIESMANN	VIMAR	VIVALDI	VIVO	VOKA
woertz	CITRON	SK	智小全	XEROPOINT	xxter	INTERRA	zehnde	Zennio	ZE
SATION	ZidaTech	ZUMTOBEL							

# NEW PRODUCTS

## Atmosphere with DALI

**ABB** now has a comprehensive range of DALI Gateways among its ABB i-bus® KNX lighting control products. Of particular note are the DALI Gateways Premium DG/S 1.64.5.1 and DG/S 2.64.5.1. The DALI Gateways Premium now include special functions such as tunable white, human centric lighting (HCL) or dim2warm. Basic and Premium versions comply to the new DALI2 standard which increases the compatibility between all DALI devices. All DALI devices received improved commissioning with the ABB i-bus® tool extension.

Contact: <https://new.abb.com>



## Aidoo KNX Controller

**Airzone** - The Aidoo KNX controller integrates the inverter/VRF system into KNX with the simplest communication gateway while maintaining all inverter/VRF features. With its direct connection, 2-way communication, flexible unit control and customisable KNX scenes, the ETS configurable Aidoo KNX Controller provides easy and fully interoperable integration. As a Plug&Play product, there is no need for adaptors or an external power supply. It is connected to the inverter/VRF unit in a matter of minutes. With Aidoo KNX, you can also control your inverter/VRF AC unit through as many communication options as required to implement in your KNX system with ultimate flexibility.

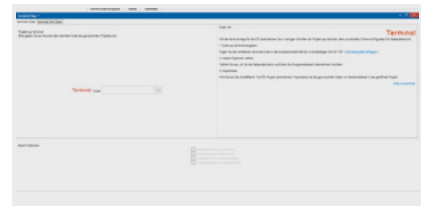
Contact: [https://www.airzonecontrol.com/control\\_solutions/aidoo/knx](https://www.airzonecontrol.com/control_solutions/aidoo/knx)



## New: Update for Terminal app

**Alexander Bürkle GmbH & Co. KG** - The new Terminal app version 1.0.0.2 is now available to download in the KNX app store. The Terminal configurator is an online planning tool with which you can easily pre-plan your KNX project. With the update, you can now easily export all group addresses to ETS with one mouse click. All functions of the group addresses are imported into ETS via an online project code. The new version is also compatible with ETS6. Changes to function names and additions in Terminal can be transferred to ETS by means of a further synchronisation. In addition, you can download your preliminary design as an XML export and also insert it offline at the construction site.

Contact: <https://abuerkle.link/ETS-Terminal-App>



## KNX Motion Detector IP55

**AUREX INDUSTRIES INC.** - The OS-360i-KNX motion detector is designed with a 360 degree viewing angle and a 32m diameter detection range. It provides all-round surveillance without blind spots and is suitable for both lighting and HVAC automation control applications. Furthermore, its IP55 rating for environmental protection works with both external and internal humidity and it can be mounted either on the wall or on the ceiling. Moreover, all the control parameters for the detector can be programmed by the IR-11KNX Infrared remote control to make installation easier and quicker.

Contact: [www.aurex.com.tw](http://www.aurex.com.tw)

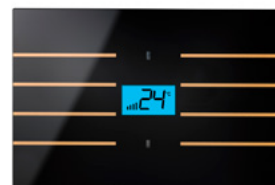




## Qubik Collection - KNX Glass Capacitive Thermostat

**Blumotix srl** - The Qubik thermostat is equipped with a level of KNX touch control technology that is truly state-of-the-art. The technological innovation is represented by the possibility of customisable programming of the device's functions based on the needs of the end user. Keys are configured with ETS. White or black base; up to 8 capacitive keys; equipped with 2 RGB LEDs. Dimensions: 80X80 mm or 120X80 mm; LCD display; integrated temperature sensor; bus line connection via KNX terminal; button and programming LED on the back; flush-mounted on round, rectangular or square box; protection IP20.

Contact: [www.blumotix.it/en](http://www.blumotix.it/en)



## New Jigsaw KNX Server

**ComfortClick** has launched a new version of Jigsaw KNX servers for controlling KNX-based smart buildings. The new Jigsaw comes with hardware and software improvements. Now with more processing power and an integrated Modbus / BACnet gateway. The new ComfortClick bOS software now also supports KNX Secure, MQTT, Denon Heos, Fibaro Lite and GSM modem. All the previously supported systems are also still there: Google Assistant, Amazon Alexa, Satel and Paradox alarms, Sonos, Philips Hue, IP cameras, Global Caché, IRTrans and TCP/IP devices, etc. bOS enables the design of a custom user interface, logical operations, scenes and schedules.

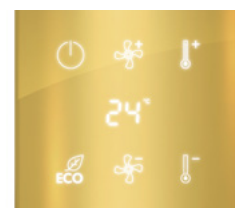
Contact: [www.comfortclick.com](http://www.comfortclick.com)



## KNX Glass Touch Sensor and Room Thermostat

**CONTROLtronic** - The Glass Touch Sensor and Room Thermostat from the CONTROLtronic Glass Touch series Living Emotions® offers innovative technology and superior design: real glass cover in different colours and finishes, individual symbols for the 6 sensor fields, display for temperature and humidity indication, colour LED illumination RGBW for the symbols, proximity detection, temperature and air humidity sensor, extremely flush wall mounting. The support of KNX Data Secure makes it possible to set up a secure and protected KNX installation.

Contact: [www.controltronic.com](http://www.controltronic.com)



## Multisensor KNX - All in One

**Creative-North-Solution GmbH** - Automation creates well-being, comfort and reduces the risk of illness and infection by precisely adjusting the indoor climate. The detectorline KNX multisensors provide the necessary information in one device. Presence-dependent control of lighting systems - contactless and hygienic with additional measurement of ambient brightness, temperature, relative humidity and volatile organic compounds (VOC). An additional acoustic sensor provides optimal, expandable area coverage. In the modular system as 4-fold mounting - flush-mounted, surface-mounted, recessed and flush with the ceiling; simply universally applicable.

Contact: [www.detectorline.com/en](http://www.detectorline.com/en)



## DiMast Controller – “All In One” Switching & Dimming Actuator

**DINUY S.A.** - The new KNX Room Master Controller has been designed to be installed in different building systems: residential, offices or hotel rooms. It covers most of the control requirements for this type of installation and offers several functions which are freely configurable: switching of up to 4 lights or electrical loads, control of up to 2 blind/roller shutter drives, control of 1 fan coil with 2 pipes, dimming of up to 4 x 8A LED strips. Incorporates up to 12 Inputs, 8 of them are long distance binary inputs (up to 200m) and 4 are binary or analogue (temperature probe) inputs. Also includes LED status display for each channel along with manual operation even without bus connection.

Contact: [www.dinuy.com/en/](http://www.dinuy.com/en/)



## EAE’s Mona Hotel - GRMS Series

**EAE Technology** - The Mona product family consists of glass touch panels with unlimited configuration options. DND-MUR panels (with IP65, horizontal or vertical placement options), thermostats, switches, card holders and sockets (EU, BS, modular) can be used as single units as well as combined monoblock panels in modules of 2-gang, 3-gang, 4-gang or more. Thermostats have 0 to 8 buttons, switches have 1 to 12 buttons, card holders have 0 to 6 button options. All of the buttons and thermostat LCDs are RGB and have long-short-double press functions. Products can be customised in the desired colours. The web configurator from Mona allows system integrators to configure the product easily online.

Contact: <https://www.eaetechnology.com/en/mona-product-families/>



## Eelectron IPSBA01KNX - KNX Bridge with IP interface and KNX+AUX power supply 640mA

**Eelectron SpA** - The IPSBA01KNX integrates, in a compact size of 4 DIN modules, a KNX power supply with aux. output at 30V DC with a total current of 640mA and an IP interface allowing KNX installations to be implemented quickly and efficiently. It can be linked to a Cloud platform, through MQTT protocol, and can thus share relevant data from connected devices. The KNX IP interface enables the connection of a KNX network to an IP backbone. The device uses KNX Data Secure protocol and is configurable with ETS. Logic blocks are available for simple or complex expressions with conditional operators. It integrates the “Virtual Holder Logic” for hotel applications deducing the presence of people in the room using dedicated sensors.

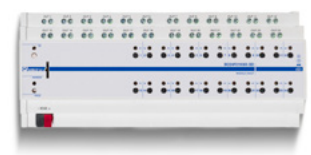
Contact: [www.eelectron.com](http://www.eelectron.com)

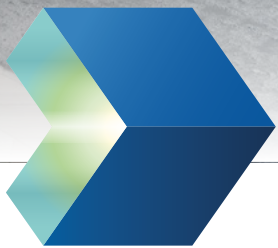


## Eelectron BO24F01KNX - Universal DLN module 24 out plus

**Eelectron SpA** - The device BO24F01KNX is a DIN rail EIB / KNX actuator with 24x16A - 230V AC relay outputs. You can take advantage of the abilities of the BO24F01KNX module and configure via ETS a mix of applications: lighting, loads, blinds, shutters, fan coils, thermostatic valves, motorised valves. The outputs can be configured as: 24 outputs for light / load control, 24 channels for valve in PWM, 12 channels for roller shutter / venetian control, 12 channels for 3-point valve control, 6 x 2-pipe fan coil actuators, 4 x 4-pipe fan coil actuators. It is also possible to combine 3, 4 or 5 relays for up to 4-pipe / 3-speed fan coil control or combine groups of relays for special functions using logic interlock.

Contact: [www.eelectron.com](http://www.eelectron.com)





**MDT – your KNXpert**

# Function and design



BE-GBZW.01

### Glass Central Control Unit Smart

The heart of your KNX system with 20 operating functions and included timer switch



BE-GT20W.01

### Glass Push Button II Smart

The first choice for rooms with a wide range of functions and active colour display



BE-GTL1TW.01

### Glass Push Button II Light

Different functions for multiple touches, available in the neutral design or with symbols

Discover our product range ➤





System integrators and installers bring greater

# CONNECTIVITY

to home and building automation with  
SpaceLogic KNX solutions from Schneider Electric

Add state-of-the-art functionality and ease of use to your home and building automation projects with our NEW SpaceLogic KNX innovations:

- SpaceLogic KNX BMS IP Gateway
- KNX Hybrid solution
- 7" IP Smartscreen
- eConfigure KNX Commissioning software
- KNX 3<sup>rd</sup> party IoT API
- KNX Push-buttons and control devices



eConfigure KNX

Wiser KNX app

KNX Multitouch Pro

SpaceLogic KNX Actuators

#WhatsYourBoldIdea

[se.com](https://www.se.com)

## VS Series - Virtual Switch

**Ekinex SpA** - The Virtual Switch is a KNX S-Mode device with a user interface organised in expandable graphical pages for on/off control of consumers, dimming of luminaires, control of motorised drives or other programmable control functions. The integrated temperature sensor also enables it to be used as a controller, allowing manual selection of the temperature and operating mode for the climate zone in which it is installed. The elegant interface is housed in a 2.63" borderless colour display, perfectly integrated with the Ekinex finish.

Contact: <https://www.ekinex.com/en/>



## Timberwolf Server 3500

**ElabNET** - Multiprotocol, Logic and Visu Server for 12 protocols with RS-485, RS-232, 1-Wire, 4 x Input, KNX, Gigabit and USB. KNX up to 8,000 objects, KNXnet/IP interface (25 tunnels), KNX logging and bus monitor up to 1 billion telegrams, time sync KNX/NTP, multi-world coupling for any number of locations. VPN and reverse proxy for remote access. Logic engine with simulation and persistence (extreme flash with 100 trillion cycles). Visualisation with CometVisu and Grafana. Includes gateway to Modbus RTU, Modbus TCP, MQTT, HTTP/REST API, 1-Wire, IFTTT, Philips HUE, ekey home & multi. Time series for each data point with graphical analysis. Arbitrary extension with APPs and Docker Container.

Contact: <https://timberwolf.io/en>



## KNX Gateway for Solar Inverters

**ELAUSYS** - The KNX gateway for solar panel inverters provides a simple solution to transfer all relevant data from inverters to KNX. It is compatible with inverters from the brands SMA, SolarEdge, Fronius and Huawei. It allows integrators to take benefit from a fully integrated solar panel inverter for energy management. Data can be used to optimise energy consumption, monitoring, trending or to trigger specific actions in the KNX installation. The device is DIN-rail mounted and connects to the inverter over the local Ethernet network.

Contact: <https://elausys.be>



## The perfect KNX power supply

**ELEK** has started its successful line of 640 mA KNX bus power supplies. The ELKPS640 was newly developed under the most modern technical viewpoint and impresses with its optimised internal structure. Aspects such as quality and reliability were considered first with an additional unchoked voltage, a bus reset button and LED display of operating states.

Contact: [www.elek-eg.com](http://www.elek-eg.com)



## Weather station Windancer KNX

**Elsner Elektronik GmbH** - With brightness, wind speed, precipitation and temperature, Windancer KNX-GPS provides the most important weather data for the KNX system. Additionally, the weather station controls the shading on up to eight façades according to the current position of the sun, which is calculated from GPS data. The building is shaded in an energy-efficient manner and at the same time the technology is protected from wind, rain and frost. In addition, there are timer functions and logic modules in the KNX application. Windancer KNX is also available without GPS module, i.e. time and sun position functions.



Contact: [www.elsner-elektronik.de](http://www.elsner-elektronik.de)

## Controller for Fan Coil

**Elsner Elektronik GmbH** - KNX eTR 102 FC is a room controller for fan coil air conditioning systems from the eTR series by Elsner Elektronik. The heating/cooling unit and fan coil are controlled separately as required. The automatic room temperature control is preset in the KNX application. Not only the fan coil system, but also another heating and cooling stage can be controlled, for example an electric or water-operated floor or wall heating system. For manual control, KNX eTR 102 has touch surfaces with symbols and LEDs for three-stage switching of the fan, automatic and on/off.



Contact: [www.elsner-elektronik.de](http://www.elsner-elektronik.de)

## Enertex® ENA<sup>2</sup>

**Enertex Bayern GmbH** - The ENA<sup>2</sup> offers remote access without “Cloud”. The device is configured only with your Web browser. The optional “Relay server” forwards your VPN connections to be independent of the internet connection type (IPv4, IPv6, DS-Lite) and router configuration without lowering security. VPN data still can only be decrypted by the user. The ENA<sup>2</sup> can manage a “Protected Network” to prevent “Cloud” IoT devices from accessing the building automation. All KNX telegrams are stored into an integrated database. The device website visualises telegram data in time-value-charts and offers error analysis.



Contact: [www.enertex.de](http://www.enertex.de)

## Finder Type 18.5K PRO

**Finder SpA** - The new KNX presence and movement detector Type 18.5K PRO allows the detection of occupancy using an optimised Fresnel lens and a powerful pyroelectric sensor, detecting a maximum area of 64 square meters. The brand-new software is intended to control lights with up to 5 different outputs so you can manage different groups of lamps, even in different ways. It is possible to perform fine-tuned dynamic light regulation (even movement-independent), dynamic switching, simple detection and master-slave structures. There are also logic functions that allow you to perform specific configurations without using external devices such as logic gates, delays and conversions.



Contact: [www.findernet.com](http://www.findernet.com)



## Thermo ICE KNX

**Gewiss** - Thermo ICE KNX is the thermostat for the management of heating/cooling systems in 2- or 4-way systems, using two-point, proportional-integral and fan coil control algorithms. Thermo ICE KNX in technopolymer has integrated proximity, temperature and humidity sensors (allowing you to directly manage a humidification/dehumidification system), an external temperature NTC sensor input (such as floor heating protection) and supports the KNX Secure implementation. The glass variant can be combined with an external humidity sensor, has an integrated temperature and proximity sensor and two inputs for potential-free contacts.

Contact: [www.gewiss.com](http://www.gewiss.com)



## KNX RF: new freedom with KNX

**Gira Giersiepen GmbH & Co. KG** - The new highlight in intelligent building control is the wireless Gira KNX RF technology. Many smart home functions can be automated in an existing 230 V installation in combination with the Gira System 3000 and the new KNX RF operating top units – all tamper-proof, of course, thanks to KNX Secure. If the Gira X1 is also integrated, operation can be carried out via smartphone. It also lets users make their own adjustments to the functions. By integrating the Gira S1, all the functions are also available remotely. With the Gira KNX range, existing buildings can now be easily connected or upgraded with KNX – which means it is no longer a system exclusively for new buildings.

Contact: <https://partner.gira.com/>



## TANTRON 4" KNX Touch Panel

**Guangzhou Tantron Electronics CO., Ltd** - The TANTRON 4" Touch Panel integrates scenes, switches, dimming, RGB and curtains. It can support up to 10 air conditioners (VRV/FANCOIL), HVAC, air quality, music, fresh air function, timing, logic and page jump. It not only has a built-in temperature and humidity sensor, but also supports an external temperature and humidity sensor. Based on more than 20 years of project experience, for better application in actual scenes and to extend the life of the screen, they have innovatively built-in laser distance detection so that you can implement energy-saving screensavers and other functions. The 480\*480 resolution screen supports brightness adjustment.

Contact: [www.tantron.com.cn](http://www.tantron.com.cn)



## KNX WALTZ Touch+ Pad

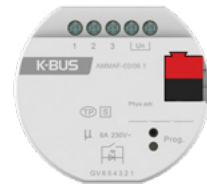
**Guangzhou Video-Star Intelligent Corp, Ltd** - The KNX WALTZ Touch+ Pad is the latest cutting-edge smart KNX pad presented by GVS. The smart pad supports not only full touch panel functions from its 3" screen but also in its THREE pairs of mechanical push buttons. Typical KNX functions like switching, dimming, curtain/blind control, scene control, room temperature adjustment, HVAC control, audio control, RGB and RGBW dimming, etc., are all supported by the device. The button cases can be either metal or plastic, with options for laser printing or curved icons. In addition, the pad is also equipped with built-in temperature and humidity sensors with two external input interfaces.

Contact: [www.gvssmart.com](http://www.gvssmart.com)



## Multifunctional Actuator, 3-Fold, 6A, Flush-Mounted

**Guangzhou Video-Star Intelligent Corp., Ltd** - The multifunctional actuator, 3-fold, 6A, flush-mounted is a module that integrates multiple relay output functions, including switch output, curtain output, fan output or valve output, in addition to dry contact input and LED output indication functions. The corresponding output function can be configured according to actual application requirements. This module is compact and small in design, flush-mounted, and can be installed in a conventional 80 mm or 86 mm wiring box. The output uses screw terminals to implement the electrical connection and the bus connection is directly connected via the KNX terminal. The additional power supply is not required except for KNX bus.



Contact: <https://www.gvssmart.com/article/436.html>

## KNX Tile Display

**HDL Automation Co., Ltd** - Multifunctional Actuator, 3-Fold, 6A, Flush-Mounted. The KNX Tile Display is a multifunctional control panel for home automation. With a 3.5-inch LCD screen and full screen touch control, it is convenient for the users to control lights, curtains, scenes, AC/FCU, underfloor heating, music and fresh air in an intuitive way.



Contact: [www.hdlautomation.com](http://www.hdlautomation.com)

## LG VRF Multi-Indoor Unit integration into KNX, improved with the new Intesis interface

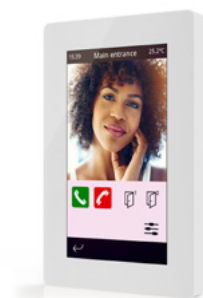
**HMS INDUSTRIAL NETWORKS S.L.U** - Intesis is launching new LG VRF interfaces that enable full control and monitoring of up to 16 or 64 Indoor units from any KNX device or system. Also compatible with all LG controllers, they keep the KNX system permanently updated with the latest parameters. Developed in collaboration with the AC manufacturer, LG VRF to KNX MIU are compatible with air conditioning, ventilation and air to water systems. With direct access to the outdoor unit signals, they provide energy efficiency and effective preventive maintenance. These interfaces are configured with MAPS, the powerful tool for easy commissioning with VRF scan function and diagnostics capabilities.



Contact: <https://www.intesis.com/products/ac-interfaces/lg-gateways/lg-vrf-systems-knx>

## VERSO/INDOOR

**Iddero** - The new VERSO/INDOOR is the latest addition to the Iddero Verso family of 4.3" KNX capacitive touch panels. This model retains the elegant design, attractive visualisation and advanced functionality from the Iddero Verso series (including remote control from smartphones and tablets through the Iddero mobile app), supports 96 controls organised in 12 pages and also doubles as an indoor monitor for SIP-based door intercom systems. VERSO/INDOOR is fully compatible with SIP door stations from main door intercom manufacturers right out of the box and provides exceptional image quality and full-duplex audio with acoustic echo cancellation. A perfect solution for your next KNX project.



Contact: [www.iddero.com](http://www.iddero.com)

# Beautiful facades. With a lot behind them.

Perfect networking with KNX connect & secure

*Der SonnenLichtManager*



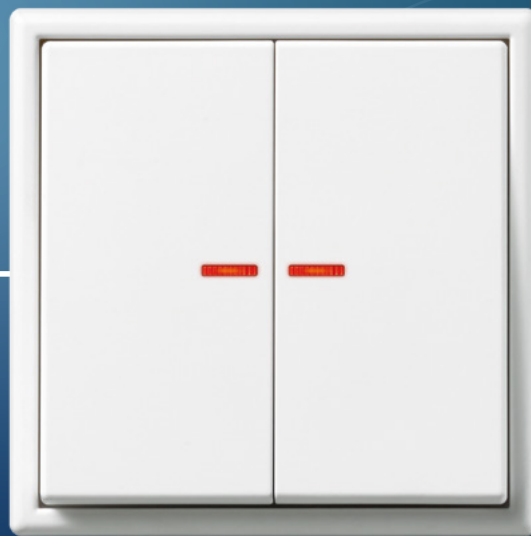
	KNX SA	<b>NEU!</b> KNX connect & secure
Mounting type	DIN rail-mounted, Surface-mounted	DIN rail-mounted, Surface-mounted
Maximum number of sun shading drivers	4 x 24 V DC 8 x 230 V AC 16 x SMI	4 x 24 V DC 8 x 230 V AC
Test and diagnostic via smartphone	☑	☑
Integrated binary inputs	up to 16 (Surface-mounted)	up to 16 (Surface-mounted) up to 8 (DIN rail-mounted)
ETS DCA App for SMI commissioning	☑	
Interchangeable miniature fuses	☑	☑
Logic/timer functions		☑
KNX secure encryption		☑
Automatic run time detection		☑ (pro-Version)
Update function via the bus line		☑

Find out more [www.warema.com/knx-secure](http://www.warema.com/knx-secure)



# KNX simply extended

CONVENTIONAL  
INSTALLATION



KNX RF

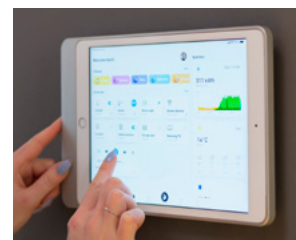
KNX RF PUSH-BUTTON

The JUNG KNX RF push-buttons connect classic electrical installations with KNX – wireless and encrypted with KNX Data Secure. The operating covers are plugged onto the JUNG system inserts which serve as actuators and thus create a variety of control options. The ideal retrofitting of the KNX system, without additional bus wiring.

## Interoperability and data for smart buildings

**iHaus AG** - The iHaus platform integrates building systems technologies such as KNX, DALI, Zigbee and ModBus IP. The iHaus Pro server is the enterprise solution for building automation in residential and commercial properties. It serves as a firmly installed 24/7 basis for the iHaus platform. A certified KNX IP gateway or a KNX IP router establishes the connection to the KNX. The associated iHaus app serves as the user interface and will be customisable for residential, office as well as retail spaces. Building data allows operating procedures to be optimised and enables new digital services.

Contact: <https://ihaus.com/smart-building-platform>



## X1: The All In One Solution

**Ilevia S.r.l.** - The X1 server is a compact device to implement visualisation and control systems for KNX standard systems, for mobile devices (iOS and Android) and Mac/PC. Through a dedicated configuration software, it is possible to manage the control of lights, climate, blinds, shutters and energy of a modern KNX standard building which can be integrated with multimedia systems, video surveillance, intrusion detection and much more. The visualisation environment, accessible with the dedicated app, can be fully customised according to your taste, both in the graphics and in the layout of the intelligent system control interface. It is also possible to control via voice commands given to the Amazon and Google assistants.

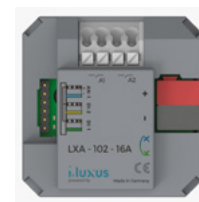
Contact: [www.ilevia.com](http://www.ilevia.com)



## Flush-mounted actuator

**iLuxus** - The device is a modular installation device (MDRC) which is used in home and building automation systems. It is intended for installation in a standard electrical box. Physical address assignment and parametrisation are carried out with ETS. The device is powered by the I-LUXUS KNX bus and requires no additional auxiliary voltage supply. Flush-mounted actuator with superior capability, despite its small dimensions. 2 relay outputs, an analogue input (PT1000) and 2 digital inputs. The device is especially suited to retrofit projects. (LXA-102-16A). Relay: 16A 102A inrush current 230VAC @50-60 Hz. Size: 42 x 42 x 22 mm (LxWxH) 34 g.

Contact: <https://i-luxus.de>



## VIIP10 - Screen + SIP intercom

**Ingenium - BES KNX** - VIIP10 is a new touch screen with integrated web server and native connection to KNX, in addition to having support for SIP communication that allows the screen to act as a video intercom offering call forwarding to mobiles when connected to a network with a third-party SIP outdoor unit. The touch screen has a 10.1 TFT, and it is possible to visualise KNX projects by plans or by rooms (fully configurable by the user). The web server is built in for remote control from iOS/Android apps. It also provides features like yearly timings, technical alarms and push notifications as well as Python programming support for advanced user scripting.

Contact: <https://besknx.com/website/en/products/viip10/>



## CUBIK-TLR

**Ingenium - BES KNX** - CUBIK-TLR is a vertical touch button with built-in thermostat. It includes a capacitive touch panel with 8 customisable buttons and additional thermostat controls for setpoint through a circular slider with LED indicators, function mode and fan speed. It is also possible to switch the thermostat on/off with a dedicated button. Thanks to the built-in humidity sensor, it is also possible to define dew point measurement according to relative humidity and temperature. Like the rest of the CUBIK push button and thermostat family, it is also possible to fully customise the frontal glass, having the option to define icons, labels, logos, etc. via the online tool <https://cubik.besknx.com/>.

Contact: <https://besknx.com/website/en/products/cubik-tlr/>



## DaliControl e64 Pro

**IPAS GmbH** - The DaliControl e64 Pro expands the family of KNX-DALI gateways designed by IPAS: it supports KNX Secure and, as the first fully DALI-2-capable gateway, allows the integration of motion detectors, light sensors and other DALI-2 input devices in addition to lighting control. The additional Ethernet connection offers direct and secure communication with the gateway. When commissioning the DaliControl e64 Pro, you have the choice of using the integrated web server, the control panel with display or the ETS app. From the simple execution of switching and dimming functions to complex colour light controls and human centric lighting (HCL), the DaliControl e64 Pro offers a complete range of functionality.

Contact: <https://www.ipas-products.com/en/>



## KNX Home Server

**iRidium mobile** - The KNX Home Server is a controller, a cloud and visualisation app for the fast creation of a smart system for managing apartments, offices and houses based on KNX. It includes the essential functions of KNX smart home: connection to the bus via TP1 and setting devices from ETS, integration of SIP intercoms, IP cameras, Samsung TV sets, Sonos and Bluesound, schedules, routines, timers, notifications, secure remote and voice control and fast interface creation. The control project can be created right in the mobile app in just an hour! And you do not have to visit the site - a configuration can be downloaded to the server from the cloud using a mobile app on iOS, Android or Windows PC.

Contact: <https://iridi.com/>



## SMART CONNECT KNX Remote Access

**ise INDIVIDUELLE SOFTWARE UND ELEKTRONIK GMBH** - With update V6.1, the SMART CONNECT KNX Remote Access, the secure gateway for remote maintenance, remote access and remote diagnostics, gets an extensive VPN feature. The Remote Access serves as a VPN server. This allows you to work in the remote network without needing to make complicated router settings. Also, you can maintain not only KNX systems remotely, but any other systems. This offers new possibilities for remote maintenance and remote access via VPN. Additionally the SMART CONNECT KNX Remote Access version 6.1 and higher also supports KNX Secure. You can update the gateway free of charge using the integrated function on the device web page.

Contact: <https://www.ise.de/en/products/smart-connect-series/remote-access>





## LC-PBTM4.8 - New 4/8 Metal Push Button

**Light Control** - The smart panel has 4 buttons with 8 functions i.e. it supports switch/scene/lighting value/curtain control through press/hold operation on the button. It provides 2 I/O input ports suitable for connection with the sensor, the contact module, the reset switch, etc.

Contact: <https://www.lightcontrol-knx.com>



## MDT Blind Push Button Smart

**MDT technologies GmbH** - Fitting 55mm systems/ranges, the MDT KNX Blind Push Button Smart shows all the information about the shading to the user. On the active colour display, the function and status indication (altitude, slat and wind/rain/frost alarm) of the blinds can be shown. A highlight of the push button is the integrated time switch with eight switching times and power reserve. It offers daily/weekly/astro switching functions without requiring additional KNX components. Height and slat can be controlled via a timer. With the automatic holiday calculation, shifted switching times can be programmed very easily.

Contact: <https://www.mdt.de/en/>



## KNX 200W Data Secure PWM Output LED Driver

**MEAN WELL** - The PWM-200KN series is a constant voltage driver with PWM style output, which is able to maintain the colour temperature and the brightness homogeneity when driving all types of LED strips. With the built-in KNX interface with Data Secure function, it avoids using the complicated KNX-DALI gateway. It operates from 100-305VAC and offers 4 output voltage models: 12V, 24V, 36V and 48V. Thanks to the high efficiency of up to 94%, with the fanless design, the entire series can operate at -40°C-85°C case temperature under free air convection. The minimal dimming level down to 0.01% is suitable for low light level applications, e.g. cinema.

Contact: <https://building.meanwell.com/>



## Next Generation of KNX Push Buttons from Merten System D

**Merten** - The new Merten KNX Push Button offers maximum flexibility while providing high efficiency for installers. Flexible adjustment of the number of rockers with up to 16 different combinations means customisation has never been so easy - with changes possible even in the last second of a project. With eConfigure KNX, commissioning is even faster and less complicated. The display for dynamic labelling allows installers to adapt the device to the user's needs, such as individual icons for each button and freely adaptable text. Haptic buttons, an integrated temperature sensor and a modern design perfectly in tune with Merten System D aesthetic frames, will make it a highlight of your KNX projects.

Contact: <https://www.merten.de>



## “Wiser for KNX” 3rd Party IoT API

**Merten** - The “Wiser for KNX” IoT controller offers the full potential of the IoT world! With its integration of the KNX IoT 3rd party API, Merten offers non-KNX certified partners an easy, secure and standardised way to communicate with a traditional KNX installation. Any company or system integrator can develop a solution to interface different systems to a KNX installation such as customised mobile apps, connection to cloud services, integration into the company’s systems, ... With the “Wiser for KNX” 3rd party IoT API, the possibilities are endless.

Contact: <https://www.merten.de>



## mySmartSuite App - BYOD solution for hotel projects

**NETxAutomation Software GmbH** - This extension for the NETx BMS platform provides a sophisticated, modern solution for hospitality projects with the support of KNX devices. Hotel guests can access the hotel’s GRMS control system by simply scanning a QR code at check-in. Guests can control all room functions on their smartphone such as lighting, air conditioning, shutters/blinds, DND/MUR. The user interface is fully customisable so that each hotel can provide its own corporate identity within the app. The QR code for access to the rooms is automatically renewed each time the guest checks in. The secure web-based visualisation includes e.g. SSL/TLS for iPhone and Android Mobile.

Contact: <https://www.netxautomation.com>



## Onework Master

**onework** - The onework Master is a virtual room controller for improving the quality of the workplace and increasing the energy efficiency of buildings, which can be fully configured via ETS as a certified KNX device. It offers the user a variety of intelligent automation functions, which essentially control lights, blinds and windows with the inclusion of outdoor and room sensors. The user can manually override the automation at any time. The intelligent automation functions include human centric lighting (HCL), energy harvesting, glare protection and summer heat protection as well as the inspiration, concentration and presentation mode.

Contact: [www.onework.de](http://www.onework.de)



## New in YOUVI: Door communication and multiroom sound

**PEAKnx GmbH** - The new version of the KNX software YOUVI integrates all SIP door stations with video transmission directly into the visualisation. Thus, the PEAKnx panels can be used as an intercom station with door opener function. In addition, multiroom control with Sonos and trivium sound systems are possible via the KNX touch panels with the update. The YOUVI software package covers all common smart home functions and more – from voice control to the integration of IP cameras and logics.

Contact: [www.peaknx.com](http://www.peaknx.com)



## ARAGON as a Lifesaver

**ProKNX SAS** - The passive emergency call in the car is almost a matter of course. However, most accidents happen in the home. The newly launched voice assistant “ARAGON Companion” supports the anomaly detection with the help of ML and enables both the “active” and the “passive call for help”. The learning process for daily actions takes place on the device. KNX motion detectors, actuators and door contacts are transmitting events to ARAGON. In case of abnormalities (e.g. long stay in the bathroom), the resident is asked whether help should be called. ARAGON can easily be retrofitted in all types of KNX installations.

Contact: <https://proknx.com/en/product/aragon-base-wl-en/>



## SpaceLogic KNX BMS IP Gateway

**Schneider Electric** - The new BACnet (B-ASC profile) certified SpaceLogic KNX BMS IP Gateway, allows the control of up to 4000 BACnet points to digitise the automation of your KNX installation into Schneider Electric’s EcoStruxure™ for Building and any other building management systems. Additionally, it offers a built-in KNX choke (320mA) to power up to 32 KNX devices and can be used as a KNX IP router or IP interface. Simple and fast commissioning, thanks to the modern web-based embedded tool.

Contact: [www.se.com](http://www.se.com)



## Wiser KNX Hybrid Solution

**Schneider Electric** - Wiser KNX Hybrid Solution is the combination of a new app “Wiser KNX” and a catalogue of wireless devices that you can connect to a KNX installation. “Wiser KNX” is the new user experience to make your home smarter, more sustainable, resilient and efficient: get your home to work harder for you while optimising your home resources, making it smart and sustainable. The new wireless product catalogue allows you to extend and enrich any KNX installation: control your wired and wireless devices from wherever you are, create scenes, get notifications, unlock the full potential of your home’s efficiency, security and safety, making your home experience more comfortable than ever.

Contact: [www.se.com](http://www.se.com)



## Smart façades: Schüco BSC

**Schüco International KG** - The Schüco Building Skin Control (BSC) system platform is the solution for integrating and controlling Schüco building envelope units. Up to 30 connected Schüco aluminium windows and sliding units equipped with Schüco TipTronic or Schüco DriveTec drive technology can be intelligently networked. Schüco BSC can be connected to the building management system with a KNX gateway or integrated into a KNX-controlled smart home. User-defined specifications are configured individually: automatic window closing when it rains, time-controlled ventilation or convenient night-time cooling are easy to regulate via sensors.

Contact: <https://www.schueco.com/de-en/electrical-partners/products/building-automation/building-skin-control/bsc>





## New KNX binary inputs N 262 and N 263

**SIEMENS AG** - The N 262 and N 263 binary inputs are the newest addition to the Siemens DIN-rail mounted device portfolio. The devices are available in the sizes 4 MU and 8 MU in potential-free or potential-loaded versions. The easy-to-install and intuitively operable devices boast a uniform appearance and a wide range of application options. They also provide all the benefits of the current generation of DIN-rail mounted devices, such as maintenance-free terminals and direct operating level. In addition to switching, dimming and controlling, access control by means of differential pulse counting is possible by using two devices to determine the number of people in indoor rooms.

Contact: [www.siemens.com/knx](http://www.siemens.com/knx)



## Extremely high resolution

**Steinel Vertrieb GmbH** - The IR Quattro HD-2 KNX PIR presence detector from STEINEL is ideal for use both in offices and classrooms with predominantly sedentary activities and in high-ceilinged rooms such as sports halls, meeting or conference rooms. 5,200 switching zones provide maximum detection quality. Its square lens enables room-typical detection at a maximum mounting height of 12 m. The true presence area covers 81 sqm (9 x 9 m). With tangential detection, it has a range of 576 sqm (24 x 24 m). Its detection is digitally adjustable. As a KNX presence detector, it also detects the temperature and humidity of a room.

Contact: [www.steinel.de](http://www.steinel.de)



## Smart room operation

**TCI GmbH** - The smart switch solo offers residents an excellent room operation in a classic square design. It fits like a conventional KNX switch into the standard flush-mounted box but offers many more options. Light, shading, climate, entertainment or physical access control – solo can be individually configured to suit the installation in the room and allows intuitive operation. The integrated temperature sensor makes a separate room thermostat unnecessary. The frameless real glass front underlines the elegant design. This particularly comes into its own when installed flush to the wall with the optional housing – whether in a smart home, in an office, in a hotel room or a conference room.

Contact: <https://info.tci.de/en/solo>

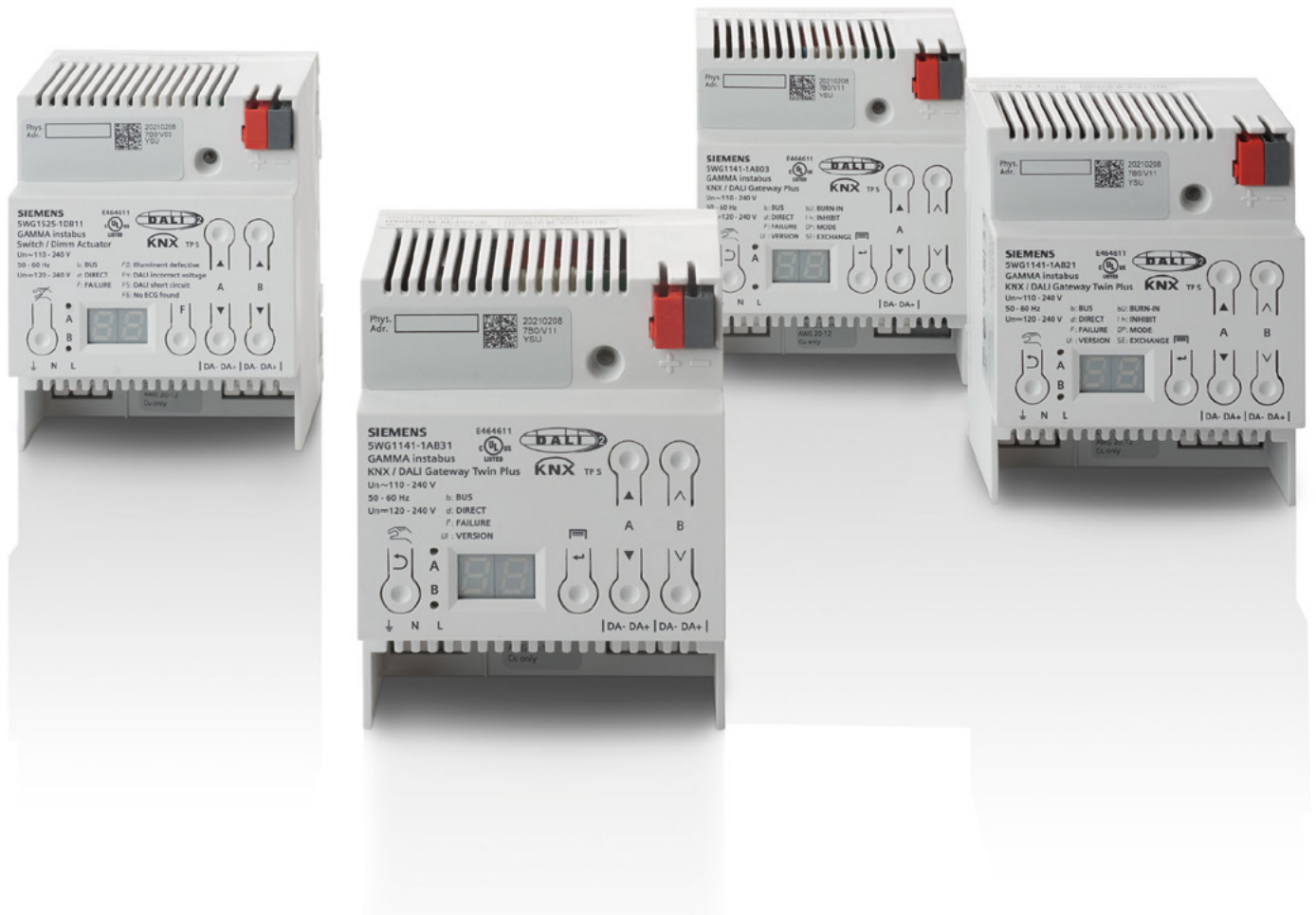


## Let's talk detectors. Motivity Line

**Tense** - As a manufacturer of high-end designer KNX switching gear, they have an elaborate product range with invisible switches, elegant sockets and minimalistic detectors. Tense detectors range from indoor to outdoor and from minimalistic discs to ultraminimal 18mm domes. To complete this range, they have now developed the Motivity Line, a line detector, where the small rectangular head is visible, similar to their Motivity Ceiling device. Simply drill a hole, connect the KNX cable and plug in place. The Motivity Line is a motion detector with integrated lux and temperature sensor. This gem is available in black or white, suiting any mounting surface, and is perfect for hallways, bedsides or staircases.

Contact: [www.tense.be](http://www.tense.be)





# Spot on.

Do you want to promote concentration, creativity or calmness?

With the KNX/DALI Gateways N 141/xx and the Switch/dim actuator N 525D11, you can. The combination of KNX and DALI enables highly efficient individual light customization with Tunable White for Human Centric Lighting applications with the option to use effects and schedules with the plus versions of the gateways.

The KNX/DALI Gateways are DALI-2 certified devices. They have successfully completed the DALI-2 certification process operated by DiiA, ensuring even more the interoperability to other certified devices. Let your rooms shine in a different light with KNX/DALI devices from Siemens.

[siemens.com/knx](https://www.siemens.com/knx)

**SIEMENS**

## DALI-2 Gateway DM 4 DALI KNX

**Theben AG** - With the DALI-2 certified DM 4 DALI KNX gateway, up to 30 DALI operating devices per channel can be controlled via broadcast commands. Broadcast communication does not require DALI addressing or grouping and considerably simplifies commissioning and maintenance. The 4-channel gateway also supports the control of the colour and colour temperature of devices according to DALI Device Type 8 (DT8) in a KNX building automation system: For example, the working atmosphere in offices and meeting rooms can be made more pleasant with colder or warmer light. The DM 4 DALI KNX supports KNX Data Secure.



Contact: [www.theben.co.uk](http://www.theben.co.uk)

## theMura S and P 180 KNX

**Theben HTS AG** - With theMura KNX, high-quality design and comprehensive functionality go hand in hand: the integrated button can be freely parameterised and enables manual switching - regardless of whether it is a motion detector (S) or a presence detector (P). Orientation light, integrated temperature measurement and acoustic function, logic channels and flexible day and night switching offer significant added value for building automation. theMura supports KNX Data Secure. Subsequent updates to the KNX firmware are possible. With optional accessories, theMura can be integrated into many common switch ranges.



Contact: [www.theben.co.uk](http://www.theben.co.uk)

## CompactDIN Server

**THINKNX** - Thinknx introduces CompactDIN, the 9-module DIN rail mounting server that offers an advanced management of the KNX automation plant. Designed to achieve high performance, it does not have any limitations on the configurable systems. In an elegant case made of aluminum, it is equipped with an extended set of I/O, two serial ports and a 1.54" screen that enables the monitoring of the IP address and control of the inputs/outputs, as well as the monitoring of the server status and network setup. The USB ports allow the communication with the local storage for data collecting and logs. It supports connections with anti-theft and multimedia systems; everything can be integrated following the chosen logic.



Contact: [www.thinknx.com](http://www.thinknx.com)

## Listen to music in 4 rooms

**Trivum technologies GmbH** - The RP341v2 is a complete multiroom sound system for 4 rooms. 4 streamers, 1 DAB+/FM tuner, AUX input and 4 stereo power amplifiers with 2x30 watts each are integrated. The RP341v2 is completely integrated in KNX. It can be controlled via KNX buttons, G1/X1, visualisations (e.g. HomeServer), via the free trivum app or via any web browser. The RP341v2 can be combined with other trivum devices. This means that music from internet radio, Spotify, Deezer, Qobuz, Tidal, AirPlay, NAS or AUX can be heard in up to 64 rooms.



Contact: [www.trivum.com](http://www.trivum.com)



## Turn 2

**Tyba** - Turn 2 provides convenient room control from a single beautifully designed interface. You can control lights, climate, shades and audio using the rotary ring and touch display.

Contact: <https://www.tybahome.com/turn-2>



## KNX Secure dial thermostat

**Vimar Spa** - This simple yet striking device combines easy controls with a clear display. In addition to the ring with backlighting and customisable colours, it has four push buttons: temperature measurement unit (°C /°F), fan speed selection, ON/OFF and customisable button. The “mid season” function is designed to best exploit heating and cooling systems. Produced in two colours - grey and white - it is available for the Eikon, Arké, Plana and Idea wiring series. All versions offer a security level guaranteed by the KNX Data Secure protocol.

Contact: <https://www.vimar.com/en/int/smart-thermostats-for-temperature-control-16183132.html>



## WAREMA KNX Secure 4M230.8I AP pro

**WAREMA Renkhoff SE** - The new KNX surface-mounted actuator from WAREMA offers reliable control of up to four 230 V sun shading drives and excels with simple, safe installation thanks to manual operation via Bluetooth, replaceable miniature fuses and spring terminals. Furthermore, with the new “connect & secure” series you benefit from the highest encryption standard KNX Secure and an intelligent update function via the bus line. And best of all, the Pro version enables even faster commissioning thanks to automatic runtime detection.

Contact: [www.warema.com](http://www.warema.com)



## Wireless IP Interface for KNX

**Weinzierl Engineering GmbH** - Weinzierl Engineering GmbH presents the KNX IP Interface 740.1 wireless as a new edition of the successful KNX Interface 740 based on WLAN. It can be used by ETS5 or ETS6 as a programming interface. On the laptop, the user simply has to establish the connection via WLAN and ETS will detect the device automatically in the connection manager. Power is supplied from the KNX bus without an external power supply. The wireless bus access allows the installer to move freely in the building. The KNX IP Interface 740.1 wireless is therefore a tool that should not be missing from the laptop bag of a professional KNX installer.

Contact: <https://www.weinzierl.de/en/products/740.1>



# Multisensor Aerosol KNX

A sensor that detects whether the air is clean.



brightness



temperature



humidity



CO<sub>2</sub>



VOC



air pressure



Risk of infection

Healthy indoor air is becoming increasingly important in intelligent buildings. STEINEL multisensors provide the KNX system with right tools to detect potential risk of infection.

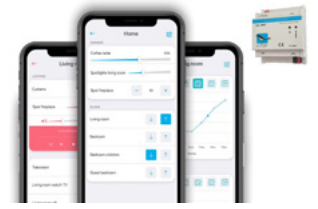
**Helping you stay one-step ahead**

**[www.steinel.de/multisensorik](http://www.steinel.de/multisensorik)**

## xxter controller with app

**xxter** makes life easier. The xxter controller is the central module in a building, enabling you to automate and operate all (KNX) functions with their free app. xxter offers many extra functionalities such as the presence simulation, scene module, planner and extensive scripts and triggers. The visualisation in the app is entirely adjustable. xxter offers you maximum ease of use with a high-standard professional quality. The controller supports KNX IP-secure. The built-in group monitor will allow you, as installer, to easily record all group telegrams for analysis in your own time, in case of a KNX installation issue. You don't need to be continually connected to ETS or be on-site to find the issue.

Contact: <https://www.xxter.com/en/productinfo/>



## Tecla 55 - Capacitive Switch

**Zennio** - Tecla is Zennio's newest range of polycarbonate capacitive touch switches. Tecla 55 can be combined with Zennio's ZS55 frames and electrical accessories, but also with many other standard 55x55 frames to match any design and produce unique combinations. 1, 2, 4 and 6-button versions of the Tecla 55 are available, with each button configurable either individually or as part of a pair (e.g. for blinds or dimming control) and each individually backlit. Backlighting can be configured to respond to the proximity and luminosity sensor and adjust automatically. Tecla 55 also has an input to connect a temperature probe that can be used with the built-in thermostat or solely to send temperature readings to the KNX bus.

Contact: <https://www.zennio.com/products/capacitive-switch/tecla-55>





We welcome the following companies to our KNX Community

# NEW KNX MEMBERS



**2N Telekomunikace**  
Czech Republic  
[www.2n.cz/en\\_GB](http://www.2n.cz/en_GB)



**Accordia**  
Greece  
[www.accordia.gr](http://www.accordia.gr)



**Alientech SRL**  
Italy  
[www.lilitech.com](http://www.lilitech.com)



**Alten SW GmbH**  
Germany  
[www.alten-germany.de](http://www.alten-germany.de)



**Ampio Sp. zo.o**  
Poland  
[www.ampio.pl](http://www.ampio.pl)



**Armiti Trading (L.L.C)**  
United Arab Emirates  
[www.armiti.ae](http://www.armiti.ae)



**Bosch(Shanghai) Smart Life Technology Ltd.**  
China  
[www.bosch-smartlife.com](http://www.bosch-smartlife.com)



**Can'nX**  
France  
<https://can-nx.com>



**Cascoda**  
United Kingdom  
[www.cascoda.com](http://www.cascoda.com)



**ChengDu Anlips Technology Co., Ltd**  
China  
[www.anlips.cn](http://www.anlips.cn)



**Chengdu Mingxing Wisdom Network Technology Co., Ltd.**  
China  
<http://mignxingzh.cn>



**Chongqing Yixun Smart Home Ltd.**  
China  
[www.nvc-international.com](http://www.nvc-international.com)



**Consolinno Energy GmbH**  
Germany  
[www.consolinno.de](http://www.consolinno.de)



**Durandal Smart Technology GmbH**  
Germany  
[www.durandalsmart.de](http://www.durandalsmart.de)



**Earth Goodness Intelligence ltd**  
Israel  
<http://egi.co.il>



**Elek-Egypt**  
Egypt  
[www.elek-eg.com](http://www.elek-eg.com)



**Embedded Automation Equipment (shanghai) A Limited.**  
China  
[www.stammkon.com](http://www.stammkon.com)



**Fasel GmbH Elektronik**  
Germany  
[www.fasel-gmbh.de](http://www.fasel-gmbh.de)



**Fredon**  
Australia  
[www.fredon.com.au](http://www.fredon.com.au)



**Fujian yizheming Technology Co., Ltd**  
China  
[www.youngcheer.com](http://www.youngcheer.com)



**Goldmedal Electricals Pvt. Ltd.,**  
India  
[www.goldmedalindia.com](http://www.goldmedalindia.com)



**Guangdong Pak corporation co., ltd**  
China  
[www.pak.com.cn](http://www.pak.com.cn)



**Guangzhou ForwardlargeTech co.ltd**  
China  
[www.inliwose.com](http://www.inliwose.com)



**Helukabel (Thailand) Co.,Ltd.**  
Thailand  
[www.helukabel.co.th](http://www.helukabel.co.th)



**HMS Industrial Networks GmbH**

Germany  
[www.intesis.com/de](http://www.intesis.com/de)

**HYPERTOUCH**

**Iris Ceramica Group**

Italy  
[www.irisceramicagroup.com](http://www.irisceramicagroup.com)

**TDS**

**Jinan Tian Da Sheng Information Technology Co., Ltd.**

China  
[www.jntds.cn](http://www.jntds.cn)

**Ksenia**  
 security innovation

**Ksenia Security SpA**

Italy  
[www.kseniasecurity.com](http://www.kseniasecurity.com)



**MEX Electric Technology (Shanghai) Co., Ltd**

China  
[www.mex-tech.cn](http://www.mex-tech.cn)

**MWAY**

**MWAY GROUP GmbH**

Germany  
[www.mway.io](http://www.mway.io)



**NVC lighting**

China  
[www.nvc-lighting.com.cn](http://www.nvc-lighting.com.cn)

**onework**

**Onework**

Germany  
[www.onework.de](http://www.onework.de)



**Orbis tecnologia electrica**

Spain  
[www.orbis.es](http://www.orbis.es)

**pellini industrie**

**Pellini SpA**

Italy  
[www.pellini.net](http://www.pellini.net)

**ISOW**

**Power Link (Guangdong) Electric Co., Ltd.**

China  
[www.baidu.com](http://www.baidu.com)



**QbicTechnology**

Taiwan  
[www.qbictechnology.com](http://www.qbictechnology.com)



**Rehau AG + Co.**

Germany  
[www.rehau.com](http://www.rehau.com)



**Shanghai Shangcheng Security Control Information Technology Co., Ltd.**

China  
[www.sh-scgroup.com](http://www.sh-scgroup.com)

**安百纳® ANBAINA**

**Shenzhen Abene Intelligent Industry Co., Ltd.**

China  
[www.a-bene.com](http://www.a-bene.com)



**SmartHomeKraimer GmbH**

Austria  
[www.smarthomekraimer.at](http://www.smarthomekraimer.at)



**Solomio srl**

Italy  
<https://solomio.cloud>



**STV Electronic GmbH**

Germany  
<http://www.stv-electronic.de>



**Sumamo co., ltd**

Japan  
<https://sumamo.co.jp/>

**tecget**

**tecget GmbH**

Germany  
[www.tecget.de](http://www.tecget.de)

**TERMINUS 特斯联**

**Terminus Group**

China  
[www.terminusgroup.com](http://www.terminusgroup.com)



**V.Y.C. srl**

Italy  
[www.alphaplate.it](http://www.alphaplate.it)



**Xiamen Zhixiaojin Intelligent Technology Co., Ltd**

China  
[www.goldenhome-smart.com](http://www.goldenhome-smart.com)



**Zuhai Ace Technology Co., Ltd.**

China  
[www.sation.com.cn](http://www.sation.com.cn)

# NEW KNX TRAINING CENTRES



**ABB Niessen**

Spain  
<https://new.abb.com/es>  
 xabier.pena@es.abb.com



**AMSID Latvija SIA**

Latvia  
[www.mcmagnum.lv](http://www.mcmagnum.lv)  
 andris@ak-studija.lv



**Atert-Lycée Redange**

Luxembourg  
<https://alr.lu>  
 paul.felten@education.lu



**Ceramica Stil srl**

Romania  
[www.domotec.ro](http://www.domotec.ro)  
 ceramicastil@gmail.com



**Discabos Com Imp Exp ACESS Eletr Ltda**

Brazil  
[www.discabos.com.br](http://www.discabos.com.br)  
 cristiano@discabos.com.br



**Domo Dz Eurl**

Algeria  
[www.jung.de/fr/](http://www.jung.de/fr/)  
 zakaria.bereksi@live.fr



**Ecole d'Architecture d'Abidjan**

Cote d'Ivoire  
<https://eaa.ci/>  
 blaise.mempou@arpedac.org



**Ekinex Australia**

Australia  
[www.ekinex.com.au](http://www.ekinex.com.au)  
 trent@ekinex.com.au

**Domotica Systems**

**Electric Service srl**

Country: Italy  
[www.domotica.systems](http://www.domotica.systems)  
 info@electricsservice.it



**Elitio SA**

Switzerland  
[www.knxti.ch](http://www.knxti.ch)  
 marco@praderio.it



**ENFAP FVG**

Italy  
[www.enfap.fvg.it](http://www.enfap.fvg.it)  
 benfattopi@gmail.com



**Function Products AS**

Norway  
[www.function.no](http://www.function.no)  
 beg@function.no



**German Malaysian Institute**

Malaysia  
[www.gmi.edu.my](http://www.gmi.edu.my)  
 knxtc.gmi@gmail.com



**Gira Giersiepen**

Germany  
<https://akademie.gira.de>  
 knx.training@gira.de



**Gira Iberica s.l.**

Spain  
[www.gira.com/es](http://www.gira.com/es)  
 esteban.callejon@gira.com



**Handwerkskammer der Pfalz, BTZ Ludwigshafen**

Germany  
[www.hwk-pfalz.de](http://www.hwk-pfalz.de)  
 dimakreker@web.de



**Handwerkskammer Lübeck Berufsbildungsstätte Travemünde**

Germany  
[www.hwk-luebeck.de](http://www.hwk-luebeck.de)  
 slueck@hwk-luebeck.de



**Institut Kemahiran Mara Kuala Lumpur**

Malaysia  
<http://kualalumpur.ikm.edu.my>  
 rushdi@mara.gov.my



**JE Smart Solutions**










Germany  
[www.je-smartsolutions.com](http://www.je-smartsolutions.com)  
 joerg.eschke@je-smartsolutions.de



**Kianik Smart Building**








Iran  
<https://kianikco.ir>  
 sina.kianzad@kianikco.ir



 <p><b>KNX Finland ry</b></p> <p>Finland  <a href="http://www.knx.fi">www.knx.fi</a>          knx@knx.fi</p>	 <p><b>KNX Schulung Kaider</b></p> <p>Austria  <a href="http://www.kaider.at">www.kaider.at</a>          andreas@kaider.at</p>	<p><b>KNX24.com</b>          умные решения для дома и офиса</p> <p><b>KNX24.com by Inttechno</b></p> <p>Russia  <a href="http://www.knx24.com">www.knx24.com</a>          ulyan_r13-04@mail.ru</p>	 <p><b>Konnect Training</b></p> <p>Ireland  <a href="http://www.konnectresource.ie">www.konnectresource.ie</a>          gerardgalligan@me.com</p>
 <p><b>Mercantec</b></p> <p>Denmark  <a href="https://Mercantec.dk">https://Mercantec.dk</a>          kigu@mercantec.dk</p>	 <p><b>Ohmega Progettazioni di Alessio Vannuzzi</b></p> <p>Italy  <a href="http://www.ohmegaprogettazioni.com/formazione/">www.ohmegaprogettazioni.com/formazione/</a>          info@ohmegaprogettazioni.com</p>	 <p><b>Proliance Automation &amp; Training Solutions</b></p> <p>United Arab Emirates  <a href="http://www.prolianceautomation.com">www.prolianceautomation.com</a>          jaleel71@gmail.com</p>	 <p><b>Smartfabrik GmbH &amp; Co. KG</b></p> <p>Germany  <a href="https://smartfabrik.de">https://smartfabrik.de</a>          s.gehmlich@smartfabrik.de</p>
 <p><b>Syntra-Bizz</b></p> <p>Belgium  <a href="http://www.syntra-bizz.be">www.syntra-bizz.be</a>          jan.leys@syntra-bizz.be</p>	 <p><b>Total Solution GmbH</b></p> <p>Germany  <a href="http://www.totalsolution.com">www.totalsolution.com</a>          a.babelly@totalsolution.com</p>	<p><b>walltin building control</b></p> <p><b>Walltin Building Control AB</b></p> <p>Sweden  <a href="http://www.walltin.se">www.walltin.se</a>          info@walltin.se</p>	

## NEW KNX SCIENTIFIC PARTNERS



 <p><b>Albstadt-Sigmaringen University</b></p> <p>Germany  <a href="http://www.hs-albsig.de">www.hs-albsig.de</a>          heinze@hs-albsig.de</p>	 <p><b>BME Department of Electric Power Engineering</b></p> <p>Hungary  <a href="https://vet.bme.hu/ivancsy">https://vet.bme.hu/ivancsy</a>          tamas@vet.bme.hu</p>	 <p><b>Ecole d'Architecture d'Abidjan</b></p> <p>Cote d'Ivoire  <a href="https://eaa.ci/">https://eaa.ci/</a>          blaise.mempouo@arpedac.org</p>	 <p><b>Formazione professionale superiore e continua nel ramo elettrico FPSE</b></p> <p>Switzerland  <a href="http://www.corsi-fpse.ch">www.corsi-fpse.ch</a>          giorgio.delorenzi@corsi-fpse.ch</p>
 <p><b>Salesians Sarrià (Escola Professional Salesiana I.P.)</b></p> <p>Spain  <a href="http://www.salesianssarria.com">www.salesianssarria.com</a>          titular@sarria.salesians.cat</p>	 <p><b>Technická univerzita v Liberci</b></p> <p>Czech Republic  <a href="http://www.tul.cz">www.tul.cz</a>          milos.hernych@tul.cz</p>	 <p><b>Join us</b>  <a href="http://www.knx.org">www.knx.org</a></p>	

# KNX NATIONAL GROUPS



KNX Days - online event in Argentina



KNXperience by KNX Australia



ETS6 Days Live Stream - Austria



KNX Technology Event - Belgium



Brazilian Edition of the KNX Days



Roadshow by KNX China



Colombian KNX Community Hosting KNX Days



Czech ETS6 Days Event



ETS6 Days Webinar by KNX Denmark



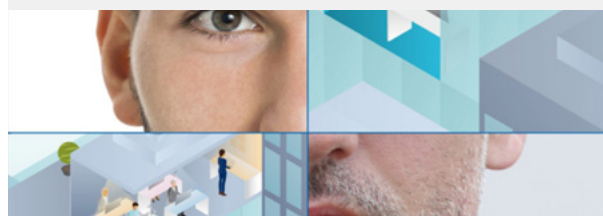
Active Year by KNX Finland



KNX France at various Fairs 2021

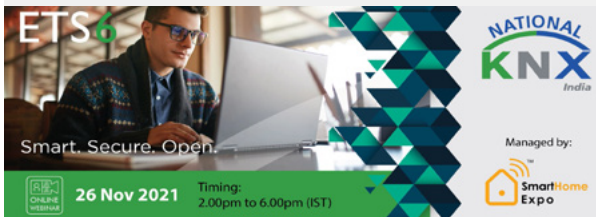


KNX Germany at ZVEI Kolloquium





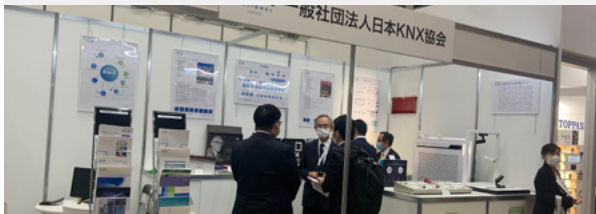
### KNX India Celebrating the Release of ETS6



### Italian KNX Days Celebrating ETS6 and KNX Secure



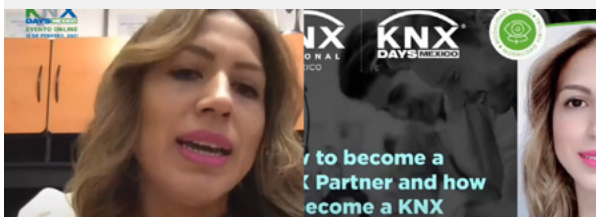
### KNX Japan at Smart Home Expo



### Online Activities by KNX Korea Dominating 2021



### KNX Mexico Hosting the ETS6 Days



### KNX Netherlands Inviting to the ETS6 Days



### KNX Poland Gathering the KNX Community from all over the country



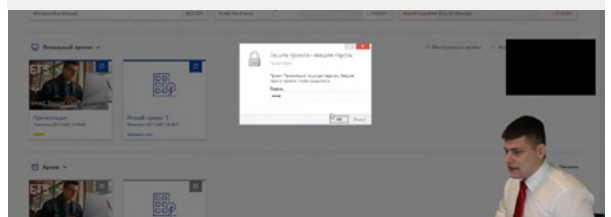
### Conferences and Events - Busy Year for KNX Portugal



### KNX Days All Over Romania a Great Success



### Live-Stream of ETS6 Days a Great Success - Russia



### Putting the Spotlight on the ETS6 at the ETS6 Days - Spain



### New KNX Sweden Handbook Available Now



### Successful Integrator and Planner Day - Swiss





# KNX USERCLUBS / PROFESSIONALS



KNX Belgium Award Winners



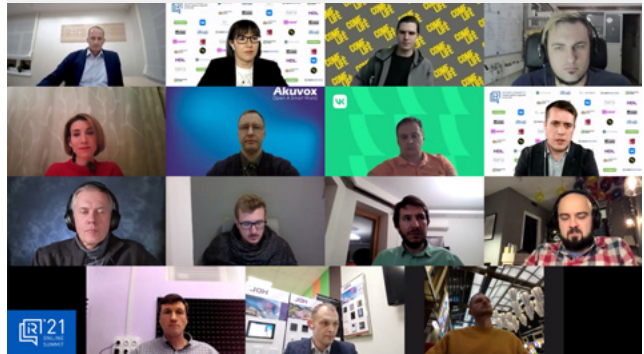
KNX Professionals Germany Meeting in Lübeck



KNX Championship in Poland



Russian online Smart Homes and Building Conference



Professionals Spain at Design Week Marbella



Live-Studio Event for ETS6 Days in Sweden



# UPCOMING EVENTS

	Stockholm SWEDEN	NORDBYGG	April 26-29	HVAC and construction fair.	<a href="https://www.nordbygg.se/">https://www.nordbygg.se/</a>
	Odense DENMARK	EL & TEKNIK	May 3-5	The Largest Electro Technical Trade Fair In Denmark.	<a href="https://www.elogteknikmessen.dk/">https://www.elogteknikmessen.dk/</a>
	Barcelona SPAIN	ISE 2022	May 10-13	The world's leading AV and systems integration exhibition	<a href="https://iseurope.org">https://iseurope.org</a>
	Lissabon PORTUGAL	TEKTONICA	May 12-15	The largest Portuguese Building and Construction Fair	<a href="https://tektionica.fil.pt/">https://tektionica.fil.pt/</a>
	Lillestrom NORWAY	ELIADEN	May 31 - June 6	The industrial event where the entire electrical engineering industry will meet up.	<a href="https://eliaden.no/">https://eliaden.no/</a>
	Guangzhou CHINA	GEBT	June 9-12	Asia's premier platform for the electrical engineering, building and home automation markets.	<a href="https://guangzhou-electrical-building-technology.hk.messefrankfurt.com/guangzhou/en.html">https://guangzhou-electrical-building-technology.hk.messefrankfurt.com/guangzhou/en.html</a>
	Las vegas USA	LIGHTFAIR	June 19-23	World's largest annual architectural and commercial lighting trade show and conference.	<a href="https://www.lightfair.com/">https://www.lightfair.com/</a>
	Auckland NEW ZEALAND	FACILITIES INTEGRATE	June 29-30	The NZ trade exhibition for the facilities management and system integration industries.	<a href="https://www.facilitiesintegrate.nz/">https://www.facilitiesintegrate.nz/</a>
	Bielsko-Biala POLAND	ENERGETAB	September 13-15	The largest energy fair in central Europe.	<a href="https://energetab.pl/">https://energetab.pl/</a>
	Moscow RUSSIA	INTERLIGHT	September 19-22	International Trade Fair for Decorative and Technical Lighting, Electrical Engineering, Home and Building Automation.	<a href="https://interlight-moscow.ru.messefrankfurt.com/moscow/en.html">https://interlight-moscow.ru.messefrankfurt.com/moscow/en.html</a>
ON-LINE		KNX AWARDS	September 27	Celebrations of the smartest home and building projects realized with KNX	<a href="https://awards.knx.org">https://awards.knx.org</a>
	Frankfurt GERMANY	LIGHT+ BUILDING	October 2-6	The world's leading trade fair for lighting and building services technology.	<a href="https://light-building.messefrankfurt.com/">https://light-building.messefrankfurt.com/</a>
	Stockholm SWEDEN	ELMÄSSAN STOCKHOLM	October 19-20	Elmässan is an industry event that many look forward to and plan their product news releases along.	<a href="https://www.elmassanstockholm.se/sv/">https://www.elmassanstockholm.se/sv/</a>
	Lissabon PORTUGAL	DECOR HOTEL	October 27-29	Decor Hotel presents news related to hotels, design, services for hotels and restaurants and decoration.	<a href="http://exposalao.pt/en/feira/decor_hotel">http://exposalao.pt/en/feira/decor_hotel</a>
	Berlin GERMANY	BELEKTRO	November 8-10	Trade Fair for electronics and lighting.	<a href="https://www.belektro.de/">https://www.belektro.de/</a>
	Paris FRANCE	IBS	November 8-9	IBS is one of the leading fairs with focus on the city, intelligent networks and sustainable mobility.	<a href="https://www.ibs-event.com/">https://www.ibs-event.com/</a>
	Madrid SPAIN	MATELEC	November 15-18	Decor Hotel presents news related to hotels, design, services for hotels and restaurants and decoration.	<a href="https://www.ifema.es/en/matelec">https://www.ifema.es/en/matelec</a>
	Hamburg GERMANY	GETNORD	November 17-19	Trade Fair for electronics and lighting.	<a href="https://www.get-nord.de/">https://www.get-nord.de/</a>
	Tokyo JAPAN	SMART BUILDING	December 5-7	Specialised Show for Building Development & Management.	<a href="https://www.japan-build.jp/en-gb/about/tokyo/smart-building.html">https://www.japan-build.jp/en-gb/about/tokyo/smart-building.html</a>

# VIDEOS & WEBINARS

In this section we highlight some of the most interesting recent videos from KNX association's YouTube channel.



## No Longer Enough to Just “Save” Energy: Why Buildings Must Manage Energy

In this interview, CTO Joost Demarest explains how the KNX range of energy management applications, devices and solutions offer a new opportunity for more sustainable buildings for work, industry and home.

<https://youtu.be/3TWlhdsDX1E>



## Main New Features of ETS6

Find out in this video what makes ETS6 even more Smart, Secure and Open than its predecessor.

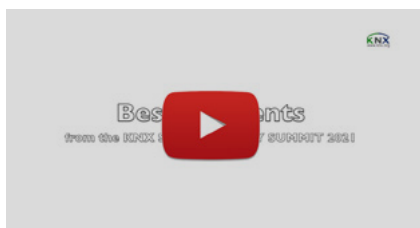
<https://youtu.be/yuEb4luKEfU>



## KNX IoT is taking shape

This webinar contains a detailed technical explanation of the KNX IoT Specifications and the KNX IoT roadmap.

<https://youtu.be/XpWCmc-AtSc>



## The Best of Energy Summit

If you missed the KNX Smart Energy Summit and still want to watch the highlights, enjoy this video!

<https://youtu.be/n6QLWRPDhA>



## Why KNX and AV are the Perfect Match

In this experienced panel discussion on KNX for AV control, we present an overview of the KNX AV integration process, providing hints for better integration.

[https://youtu.be/k\\_jw-csV7jU](https://youtu.be/k_jw-csV7jU)



## The future landscape of HVAC integration with KNX

This webinar explains important concepts such as KNX IoT, Services with KNX, and KNX Energy Management, to show the evolution of HVAC as well as how its future landscape will be.

<https://youtu.be/v4MYmv0WZeQ>





#### **Imprint**

KNX JOURNAL INTERNATIONAL

The KNX Journal is the international magazine for home and building control based on KNX technology. Experts, practitioners and professionals show the way in applying and developing the KNX standard - from home and building control trends to devices and application projects; from the KNX members and partners to useful information on event stands and publications. Special attention is given to members and activities of the KNX Association International and their national groups.

#### **Distribution**

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