KNX®

The worldwide STANDARD for home and building control

JOURNAL
1/2017

ETS Inside – New Tool!

OSRAM – KNX Member #400

HVAC – New Applications and Products

KNX Partners – Highest increase

Embedded

Smart

Wireless

ETS5 now available with KNX Secure functionality!

ETS5 Professional

See all ETS Apps on www.knx.org

New licenses	Price	Restrictions
ETS5 Professional	1000,00 €	
ETS5 Supplementary	150,00 €	For Notebooks, maximal 2 licenses, only together with ETS5 Professional
ETS5 Lite	200,00 €	maximal 20 products possible
ETS Inside	160,00 €	
ETS Apps	see KNX Online Shop	
Upgrade licenses		
ETS4 Professional > ETS5 Professional	350,00 €	
ETS4 Supplementary > ETS5 Supplementary	110,00 €	
ETS4 Lite > ETS5 Lite	150,00 €	
Educational licenses		
ETS5 Training Package	1.200,00 €	1 x ETS5 Professional, 10 x ETS5 Lite / 2 x Training Handbooks

All prices excl. VAT

Order at: https://my.knx.org
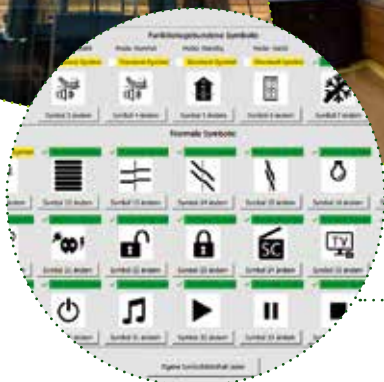
"KNX – There is more inside"

When Max Planck – who later received the Nobel Prize in physics – decided in 1874 to study physics, his professor discouraged him to do so. Until then already everything had already been discovered and he could not bring about anything new, because "in this science nearly everything had already been explored". Fortunately Max Planck did not follow this advice and developed the quantum theory in the course of his research activities, without which e. g. navigation devices, mobile phones or modern radio communication are inconceivable today. In physics, there was still "more inside" than Newton's laws.

Heinz Lux
CEO, KNX Association

It is the attitude towards our surrounding reality that creates discoverers, researchers and entrepreneurs, that leads to new frontiers and finally lets us find out, that the world is continuing on over the horizon. Our horizon is the openness, compatibility and flexibility of the professional and Windows-based ETS5.

KNX – "There is more inside" is also our attitude when convincing customers to realise more projects with KNX. So we have created for our present tool option – which already allows realising and managing installations of any size and of any functional scope – a second option, a second way to success: ETS Inside.

It is the KNX tool for the realisation of KNX installations for residential and light commercial projects. It is also the tool that supports the untrained KNX installer with an intelligent workflow and a simplified user interface and which the users themselves can control via smartphone or tablet.

True to the motto of Marcus Tullius Cicero (106 – 43 B. C.): "Exert yourself not with a view to rival others but to surpass yourself" we have developed a further way for the installer to design his KNX project and for the customer to manage his KNX installation. ETS Inside is smart, simple, safe – it is ETS installed in a KNX device. This applies also to our market presence at customers:

"There is more inside – there is KNX inside."

> **We have created [...] a second option, a second way to success: ETS Inside.**

The new ETS Inside – Smart, Simple, Safe

ETS Inside opens up exciting perspectives for the growing smart home market

The advantage of intelligent functions in the home has made its way into the minds of most people. Smart home is the phrase on everybody's lips and the market is on the edge of a breakthrough. And that's why KNX is releasing the new ETS Inside. Even installers with little experience in building automation are able to create KNX projects quickly and easily when using this tool for small- and medium-sized projects. What's more, the inhabitants will be delighted too!

They will get to experience their intelligent home by becoming personally involved, adapting functions to their own needs. That's because ETS Inside is a fixed part of the KNX installation that always stays up-to-date on site. Its user-friendly interface even runs on tablets and smartphones. With just the swipe of a finger, owners can remotely control their homes. All this is possible while the project stays protected against unauthorised access.
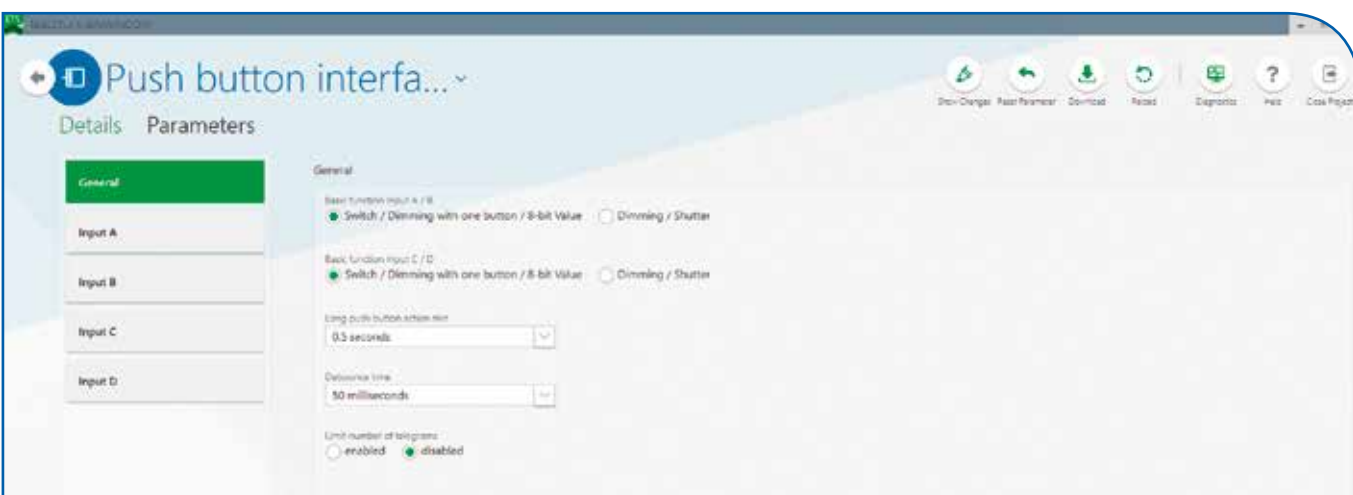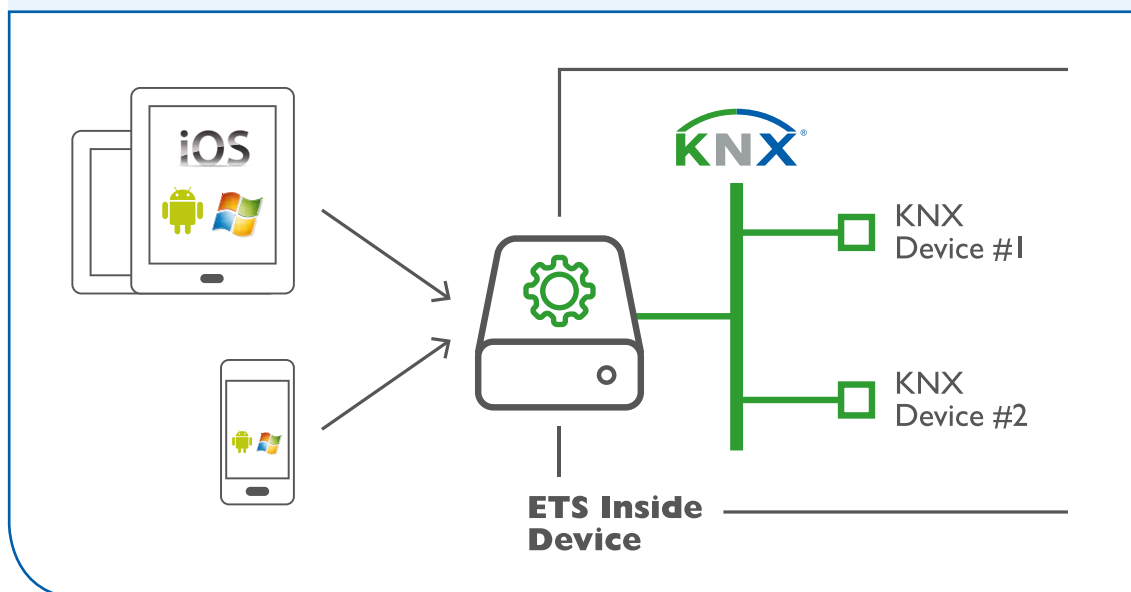
KNX has proven its sustainability over several years for countless numbers of projects. Openness, compatibility, flexibility – and, last but not least, the commonly used ETS (currently on version 5.5) – belong to the secret of its success. The tried and true ETS Professional facilitates the realisation of all KNX installations and for every project size. Certified KNX training centres provide learning opportunities, not just for knowledge, but in know-how too. However, there are also smaller projects that require less sophisticated configuration on the smart home market. That makes ETS Inside great for installers without building automation on their list of services, or who are only occasionally active in the field. ETS Inside allows the realisation of KNX projects without the need for extensive training.

Operation and ETS data decoupled

One of ETS Inside's basic principles is the decoupling of the user interface from the ETS data. This allows project editing on all common operating systems. The underlying KNX basic software is installed on the ETS Inside device that is part of the installation. This hardware also contains the KNX project and offers a web server for a decoupled user interface. Due to this new concept – in contrast to the Windows-based ETS Professional – projects can be edited on tablets and smartphones with diverse operating systems, such as iOS, Android or Windows. The range of ETS Inside's operational functionalities pairs perfectly with its different uses. It is possible to design and to commission small- and medium-sized projects. This complies

Intelligent design, minimalistic layout, understandable symbols – via the new user interface parameters can be set with a simple touch.

Basic principle of a decoupled user interface: Intelligent and simple parameterisation via tablet or smartphone. Tool and project software are located within the ETS Inside device.

with average KNX applications in residential, commercial and public buildings. All media (TP, IP, RF and PL) are supported.

Projects created with ETS Inside will be able to synchronise* with ETS Professional in future version of ETS Inside and ETS Professional. This includes for example: extension of a KNX installation with additional devices, a topology with additional lines, or device use that requires very extensive parameterisation.

Smart – Finger tap instead of mouse click

The new ETS Inside is suited to today's commonly used, user-friendly tablets and smartphones. The new minimalistic user interface has an intelligent design and is compatible with several display resolutions, including: iPad, Android tablets, and Windows tablets, etc. The flat buttons with easily understandable symbols facilitate intuitive operation. Parameterisation is a simple affair, even for smartphones, because ETS Inside is touch-sensitive.

Simple – A tool for installers and end users

Installers and end users benefit from ETS Inside. KNX projects can be realised simply and cost-efficiently. It will also be possible for the system integrator to design a project with ETS Professional and synchronise* it later on with the ETS Inside device. The project is then maintained for the customer by the electrical installer responsible. The ETS Inside will have another ace up its sleeve in future versions: end customers will be able to control* certain parameters so that they can personally make minor modifications whenever the need arises. In that way dimming values, schedules, lighting scenes, etc. can be modified by the user* according to personal preference: all without having to call a professional.

Safe – No unauthorised access

ETS Inside offers double protection:
- To edit projects, the login data must be entered in advance. This prevents unauthorised persons from gaining access to the ETS Inside device.
- ETS Inside supports the new KNX Secure, thereby making the KNX installation nearly invulnerable.

* Feature available from 2nd half of 2017 onwards

OSRAM joins KNX
as member 400!

OSRAM

OSRAM, a leading global lighting pioneer with a history dating back more than 100 years.

KNX, the worldwide standard for home and building control (ISO/IEC 14543), strengthens the internationalisation of this leading technology with "OSRAM Licht AG" joining the community. KNX is known for its high degree of interoperability between products of different manufacturers and different application domains, and proudly welcomes OSRAM as the 400th member.

OSRAM, based in Munich, Germany, is a leading global lighting pioneer with a history dating back more than 100 years. The portfolio ranges from high-tech applications based on semiconductor technology, such as infrared or laser lighting, to connected lighting solutions in smart buildings and smart cities. OSRAM had around 33,000 employees worldwide at the end of fiscal 2015 (30th September) and generated revenue of almost € 5.6 billion in that fiscal year. The company is listed on the stock exchanges in Frankfurt and Munich.

As a new member of the KNX Association, OSRAM will enrich the KNX product portfolio in the area of smart building control and Internet of Things on an international level.

Aninda DasGupta, Head of Strategic Marketing at "OSRAM Digital Lighting Systems", said: "OSRAM's portfolio of smart lighting components will utilise KNX technologies as part of a range of protocols that will enable our lighting control systems to interoperate with other building automation systems. We are very pleased to be able to join the KNX family of companies and co-operate with them to enhance end user experiences by integrating lighting controls with other building automation systems."

Franz Josef Kammerl, President of KNX Association commented: "We are proud to have OSRAM joining the KNX Association. OSRAM not only stands for high product quality and smart connectivity, their involvement in KNX opens a new world for further co-operation on an international scale. Therefore, we are pleasend about "OSRAM Licht AG" joining and about being able to count one of the biggest manufacturers worldwide as part of the continuously growing KNX community."

KNX – the worldwide standard for home and building control (ISO / IEC 14543).

Largest increase in certified KNX installers since the start of KNX

2016 comes to a close with more than 65,000 certified KNX installers located in nearly 160 countries

KNX Association grew by leaps and bounds

KNX Association has revealed in 2016 an unprecedented 30 % increase in certified KNX installers in 160 countries worldwide. Driving this impressive success is the KNX Association's significant investment in education which today sees 388 KNX training centres in 63 countries, delivering more KNX education supported by extra online training and the introductory eCampus online platform for those new to KNX.

From Albania to Vietnam, and in 160 countries in-between, certified KNX installers now offer comprehensive worldwide coverage for design and installation expertise using the KNX protocol. Strongest growth was reported in Germany, Spain, Austria, France and Italy whilst certified KNX installers now exist for the first time in Ivory Coast, Jersey, Madagascar, Saint Barthélemy and Tajikistan.

Franz Josef Kammerl, President of KNX Association commented: "The huge growth in certified KNX installers underlines the continued success of KNX as the worldwide standard for home and building control (ISO / IEC 14543-3). Undoubtedly, KNX training is powering this rapid expansion. Installers now have many more opportunities to learn the skills they need to work with KNX. We are delighted that they are responding in greater numbers than ever. This means more end users can enjoy the benefits of open, interoperable control in home, public and commercial building project applications."

Unstoppable growth of KNX eCampus

During the last five years the KNX Association has doubled the number of KNX Training Centres across the world to 388. In 2016 this expansion has been fuelled by delivering more delegate content with online learning. The introductory eCampus online platform is used by 2000 new KNX users from more than 100 countries worldwide every month.

More success ahead in 2017

"2016 has been a great year for KNX training but we are already building on this success for 2017," adds Franz Josef Kammerl. "We are working to make it even more convenient, informative and valuable in the future. So, we are currently designing a programme that combines webinars, eCampus and certified training to help delegates become an expert on KNX as quickly and efficiently as possible. More information on this initiative can be found at the Start@KNX microsite and on KNX eBooks which can be purchased on Amazon, currently the top-selling eBooks for their category."

Each KNX certified installer saves the world

Market confidence in KNX translates into an ever growing community. This year saw the largest annual increase in KNX Partners, i. e. those persons who invested in attending training at one of the nearly 400 KNX certified training centres worldwide. No fewer than 65,000 KNX Partners are now qualified worldwide to install KNX! In order to underpin that KNX is a technology that helps to protect our environment and instead of traditional Christmas presents, KNX last year decided to make a 1 € donation for every KNX partner that joined the community in 2016 to the Plant-for-the-Planet initiative.
see https://www.plant-for-the-planet.org/en/home

KNX at European WorldSkills Competition: Euroskills 2016

A proud partner of EuroSkills Gothenburg 2016

The European WorldSkills Competition took place from 30th November to 4th December in Gothenburg, Sweden

The popularity of conventional installation methods not using bus technology is set to decline in the near future. For this reason, it is very important that apprentices and those at the beginning of their careers are familiarised with bus technology and building control right from the start. KNX, as the only provider of a globally standardised bus technology (ISO/IEC 14543), is therefore proud that the European WorldSkills Competition, took place in Gothenburg from 30th November to 4th December in Gothenburg (Sweden) was based again on the KNX technology.

Following the general trend in home and building technology, the organisation of WorldSkills has decided to base its competition on KNX. Being chosen in 2011 for the first time, KNX has become the leading technology in many following competitions. Prominent examples are various national, as well as international competitions, such as "ASEAN Skills" in Southeast Asia, "WorldSkills Americas" in Latin America, the worldwide WorldSkills Competition as well as the "EuroSkills" competition.

"The youth of today is open to change. We are obliged to give them the opportunity in the future to get involved in the exciting sector of electro-technology and KNX. We

hope that all the participants enjoy the competition and wish them every success with KNX" said Adrian Sommer, Chief Expert of "EuroSkills 2016" in Gothenburg.

"Today's youth is adjusting quickly, which is extremely important in these fast moving times we live in. We are proud that KNX contributed significantly to Europe's biggest skills competition and underlined the importance of the international STANDARD for home and building control", said Franz Josef Kammerl, President of the KNX Association. "Understanding the importance of international standards is leading the way to a more successful future."

KNX Association, its members, as well as training centres and KNX partners, have invested a great deal to ensure that the young generation's knowledge on KNX has improved. New KNX Training Centres have been set up in many new countries, reaching a total of almost 400 KNX Training Centres in 62 countries! Already today most of the contestants and experts of all skill competitions are listed amongst the 65,000 certified KNX Partners worldwide.

For more information about EuroSkills 2016 and further upcoming competitions, visit the dedicated EuroSkills website *https://euroskills.knx.org*

The Centre of Medicine at University of Leicester is an example of efficient building technology.
Credit: University of Leicester

LARGEST
PASSIVE HOUSE
IN THE UNITED KINGDOM

University building with KNX automation requires 80 percent less energy than before

The new Medical Building at the University of Leicester in England is a showcase for energy efficiency. Britain's largest functional building in the passive house design consumes 80 % less energy than usual. KNX building system technology plays a part in this. It monitors all the energy-related functions, establishes their connection to each other and ensures maximum efficiency of energy usage via well-balanced control algorithms.

The new centre on the university campus has around 12,000 square metres at its disposal with lecture halls, classrooms, offices, research laboratories and other infrastructure facilities for more than 2,350 employees and students. The institution is famous around the world due to the research work carried out by leading academics. Such a large functional building using the passive house standard is unique in Britain and is something to be proud of. The choice fell on KNX, as all the applications such as lighting, heating, cooling, solar radiation, solar energy, CO_2 content of the air, ventilation etc. are controlled in relation to each other. The system integrator Entech based in Bredbury, names a further benefit of KNX: only one bus cable for all the functions means considerable savings in the amount of cabling required.

Solar heat is used

The reduction of the energy consumption is based on the use of LED lighting technology. Through KNX/DALI lighting control, energy-saving applications such as constant lighting control, presence detection, scene control and time scheduling are used. KNX is also coupled with the media technology in the lecture halls so that the lighting conditions can also be modified from the lectern. The automation of the shading system is based on the position and intensity of the sun, on weather data, time schedules and presence. The control generally relates to the complete façade. If rooms are occupied, the blinds and blackout blinds can be operated manually. To be able to use solar heat in the cold season to save heat energy, the control is coupled with the room temperature controller. Controllers in the heating, air conditioning and ventilation technology are likewise energy-efficient: the associated parameters are room temperature, presence and layout plans. CO_2 sensors control the air quality and activate the VAV fresh air supply based on the room occupancy.

Complex building energy management

Finally, a building energy management system was produced, in which KNX monitors the data and makes complex control decisions on this basis. Together with the monitoring of the complete system, it is visualised via the building management system using the KNX/BACnet interface. KNX also creates safety in addition to energy efficiency. The coupling with the fire alarm system enables

Comfortable learning thanks to KNX automation.
Credit: University of Leicester

automatic lighting control for escape routes in the event of an alarm. A particularly convenient feature is that the media, lighting and blind control can also be activated together as a scene via the media control in connection with KNX in the lecture halls. KNX takes on special control tasks for the cooling/irrigation of the façades at night, which is part of the passive house concept. The cooling – warming is also possible – is carried out based on the recorded room temperature, outside temperature and water temperature. A connection with humidity sensors prevents condensation from forming.

Solar panels on the building's roof.
Credit: University of Leicester

BENEFITS OF KNX IN THIS PROJECT
- *KNX supports passive house design*
- *Complex control of all energy-related functions*
- *Savings in cabling*

TECHNICAL HIGHLIGHTS
- *Complex building energy management*
- *BMS integrates as a platform all the applications*
- *KNX / DALI LED controller*
- *Coupling of media control / KNX*
- *Coupling of BMS / KNX*
- *Façade / slab cooling*

TRADES/APPLICATIONS
- *Lighting*
- *Sun protection*
- *Heating, ventilation and air conditioning*
- *Fire alarm system*
- *Safety monitoring*
- *Remote maintenance*

COMPONENTS – EXTRACT
- *Number:* 2250
- *Brand:*
  Arcus EDS: Temperature / humidity sensor
  Theben: Cheops valve drives, presence detector,
  CO_2 sensors, weather station
  Siemens: KNX / DALI gateway
  Osram: DALI PIR presence detector
  ABB: Blind actuators

COMPANIES INVOLVED
- *Owner:*
  University Of Leicester

- *System integration:*
  Entech ltd, Bredbury, Martin Vickery,
  www.entech-ltd.com

A COMMON DENOMINATOR

Branch offices create a smart network of building management systems

The light reflectors in the 17 metre high banking hall are controlled via KNX and lowered for cleaning purposes.

To bring different elements together, you need a common denominator. That is represented in this project by KNX. The existing building systems of the two branches of "Volksbank Dortmund" in Unna and Schwerte could not be more different. Not only was one building equipped with the KNX bus system while the other was fitted with other system technology, there were also many different individual applications. The electrical installer has succeeded in incorporating all the building technologies in a single building management system that spans both locations.

There are good reasons for bringing building systems up-to-date. Rising energy costs and the associated requirement for intelligent energy-saving technology are highly topical. New safety regulations must also be implemented with new functions. Last but not least there is central monitoring of the building technology and simple operating concepts. The featured project originally lacked an integrated building management system. Device failures and the necessary repairs were also the reason for optimising the building system technology. The branch in Schwerte was built in 1998 and equipped at that time with KNX. In 2015, the company "Elektro Hering GmbH" from Fröndenberg in North Rhein-Westphalia was tasked with the development and implementation of a management system spanning both locations. Using the existing cabling, a visualisation system should be created for both centralised and decentralised control and operation.

Unna branch of Volksbank Dortmund – KNX integrates all the technical functions in a building management system spanning both locations.
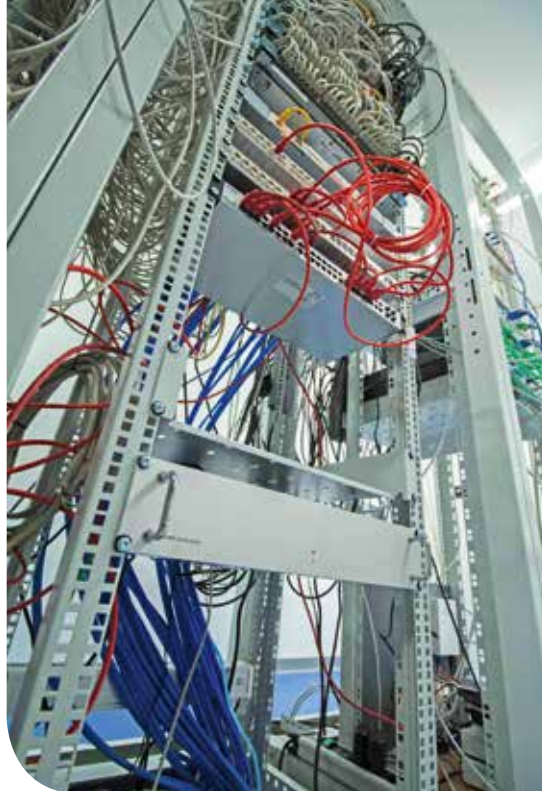
Visualising data of all the functions

KNX was an obvious choice for "Elektro Hering": the system is flexible, integrates all the existing services and systems and offers numerous functions, particularly for energy saving. The lighting control was switched to actuators with current measurement. Newly installed, project-specific LED lamps can for example be switched and controlled individually and detailed data is available for both monitoring and performance optimisation. There is the additional benefit that individual LED lamps can also be used if necessary as emergency lamps. Coupling with the CEAG CB-S emergency lighting system using KNX I/O modules was necessary for central monitoring. Emergency lamps can therefore be switched on as efficient corridor lighting outside business hours. The absolute highlight is the central building management system that has been implemented via several Gira Facility Servers. A visualisation system is therefore available for general access as well as interfaces specifically for the service engineers. Operation is carried out either via permanently installed touch-sensitive panels, mobile tablets or on the PC. The building management system integrates all the services e. g. the Siemens DESIGO HVAC system via KNX / BACnet gateways. Temperature values etc. can be visualised and evaluated. The KNX / BACnet coupling simultaneously implements existing room functions, lighting and blind control. Status and fault messages from the central fire alarm system are transferred via KNX I/O.

Energy and peak load management

The KNX installation meets the high requirements for availability of the building technology with a redundant power supply and battery backup of up to eight hours. Safety-related functions are retained even on failure of the building management system. The required energy management is implemented by a Facility Server, dependent on consumption and peak load. KNX imports the total capacity of the M-Bus energy meters via an ABB doGate automation server. The data from the actuators with current measurement per channel is simultaneously made available with the data from the HVAC control system via the corresponding I/O interface. KNX is used in a practical way in this project. A time control therefore switches off the sockets of the coffee machines outside business hours. The video images of various cameras can be retrieved via the visualisation by coupling with the ac-

KNX has been in control in the Schwerte branch for 15 years – touch-sensitive panel for central operation.

The building management system with visualisation is based on the Gira Facility Server.

cess control. If the reflectors of the lights in the 17 metre high banking hall need to be lowered for maintenance and cleaning purposes, KNX controls the lift mechanism. As KNX is linked with the fire alarm system, the affected sensors are meanwhile disabled to prevent fire alarms being triggered by mistake.

BENEFITS OF KNX IN THIS PROJECT
- *High-level building management system*
- *Lighting control*
- *Energy and peak load management*
- *Alarm and fault monitoring system*
- *Optimisation and HVAC control*
- *Integration of emergency lighting system etc.*

TECHNICAL HIGHLIGHTS
- *Redundant power supply with battery backup*
- *General and customised visualisation for service engineers*
- *Integration of HVAC system via KNX/BACnet gateways*

TRADES/APPLICATIONS
- *Lighting*
- *Shading and light direction*
- *HVAC*
- *Emergency lighting system*
- *Fire alarm system*
- *Smart metering*
- *Video monitoring*
- *Visualisation*

COMPONENTS – EXTRACT
- ***Number:*** *300*
- ***Brand:*** *Gira Facility Server, Gira touch panel with Quad Cli, KNX / BACnet gateway, I/O coupler*

COMPANIES INVOLVED
- *Elektro Hering GmbH, www.elektro-hering.de*
- *Volkmar und Hartmann MSR-Technik GmbH*
- ***System integration:*** *Microswitch GmbH, William Vent, www.microswitch.de*
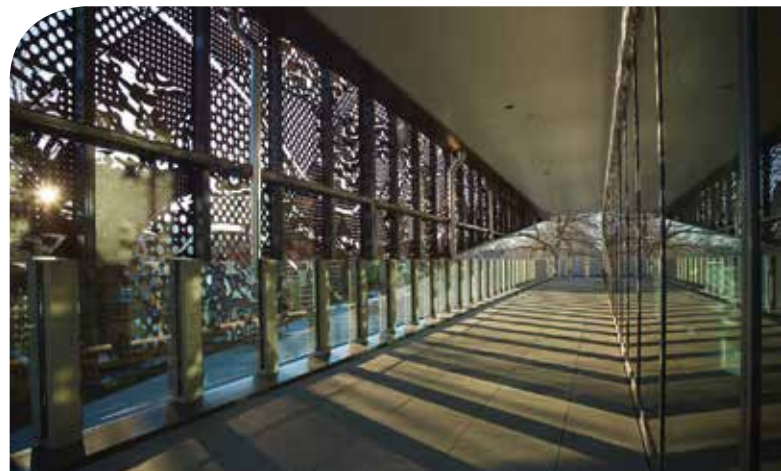
KNX AUTOMATES POLICE STATION

*Outside an important example of architecture,
inside efficient building technology
Source all photos: Leuschke Group*

Efficient lighting and energy control both day and night

The police station in Rotorua on New Zealand's North Island is not simply an administrative building. The architecture of the complex, which was inaugurated in 2014, should illustrate the role of the policy in the community. While the enormous laser cut screens point to cultural heritage, the robust palisades stand for law and justice. The building technology has also been considered very carefully. A fully up-to-date "automation and energy management system" was implemented. The choice fell on KNX, an "open system which is modern, flexible and reliable" according to the system integrator.

Usually public buildings are maintained by several engineers. KNX complies with this requirement with its open standard as well as the fact that it is not necessary to be dependent on one manufacturer when selecting devices. The prerequisite for an application-wide energy management system are a wide selection of functionality and the simple integration of other systems and protocols. The KNX system with the applications of lighting control, energy management and smart metering is seamlessly integrated into the building management system via KNX / IP according to BACnet / IP.

*Windows and reflective surfaces
bring a considerable level of daylight
into the building.*

Energy-efficient lighting control

A police station is occupied both day and night. An energy-saving, automatic lighting control system is therefore called for. During the day, the large windows and reflective surfaces bring natural light into the building. If this is not sufficient, a constant lighting control system supplements the required lux values through metered artificial light. It also promotes energy saving as presence detectors and time programs switch on the lighting when required in individual areas. An astronomical time program adapts the outside lighting perfectly according to the seasons.

Peak load management is also implemented via KNX. For optimum management of the energy use, all the usage is logged via the bus system, requirement analyses are created and the loads are controlled accordingly. If there is a potential overload, any unnecessary loads such as chillers are temporarily disconnected.

Through coupling with the HVAC via KNX / BACnet, KNX data is available for multiple use. KNX presence signals automatically activate the comfort mode or standby mode of the room temperature control dependent on the presence or absence of the staff.

Rapid remote maintenance

The building management system (BMS) makes a graphical interface (GUI) available for the visualisation. The device status, all the values and logic functions are displayed. Floor plans with the position of the installed devices provide an overview. Documented processes and loads enable optimisation to be carried out in the building automation.

The reliability of the building technology is compulsory in a police station. KNX collects fault messages, displays them via GUI and forwards them to the relevant engineers via SMS. The possibility of remote access to the KNX installation also ensures rapid maintenance. With the help of ETS tool software installed on a PC on site, it is possible to carry out diagnostics, program changes and configuration not only directly on site but also via the Internet.

Constant lighting control uses daylight

Guaranteed lighting conditions around the clock due to reliable KNX automation.

BENEFITS OF KNX IN THIS PROJECT
- *Open standard*
- *Versatile functionality*
- *Service by different companies*
- *Applications for energy efficiency*

TECHNICAL HIGHLIGHTS
- *Constant lighting control*
- *Consumption control*
- *Peak load and energy management*
- *Coupling with building management system (BMS)*

TRADES/APPLICATIONS
- *Lighting*
- *HVAC*
- *Smart metering*
- *Visualisation*

COMPONENTS – EXTRACT
- *Number:* 225
- *Brand:*
  ABB: Constant lighting control, presence sensors, consumption measurement etc.
  Siemens: KNX / IP gateway
  Loytec: BACnet / IP gateway
  Steinel: Lighting management

COMPANIES INVOLVED
- *Architect:*
  Leuschke Group Architects,
  www.leuschke.co.nz
- *HVAC contractor:*
  Aqua Vent, www.aquavent.co.nz
- *System integrator:*
  BTL, Auckland

With KNX building system technology
on the high seas –
the motor yacht "O'Pari3"
from Golden Yachts Ltd, Greece.

KNX CONQUERS
THE OCEANS

2,000 lighting circuits on the high seas

KNX building system technology has not only conquered luxury villas and hotels but has also caught on in the world of luxury boats. The motor yacht "O'Pari3" must be the most spectacular bus project on the high seas. It was designed in Greece by the Vafiadis design studio and built by the shipping company "Golden Yachts Ltd". The maiden voyage was in 2015. The system integrator, Sotirios Gratzios from Thessaloniki, decided in favour of KNX because the bus system is extremely flexible and easy to integrate.
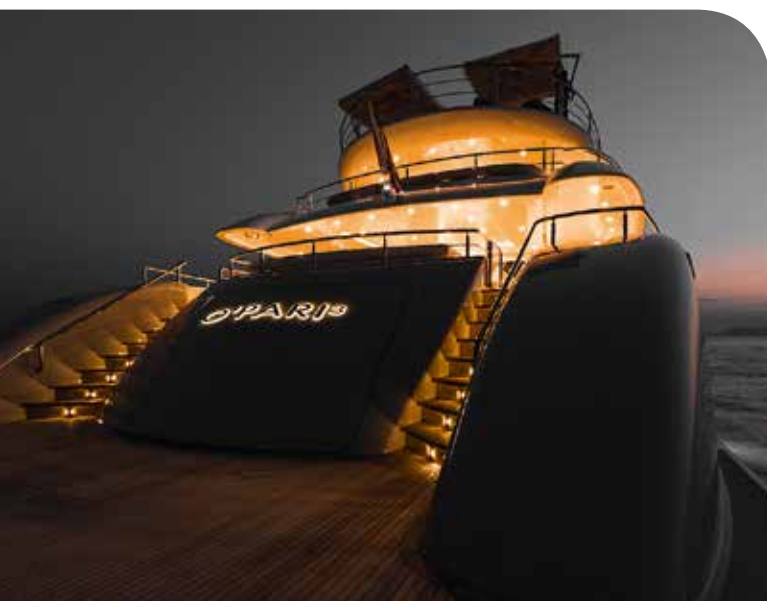
With a length of 72 metres and a width of 13 metres, the yacht is the largest charter vessel owned by the company. Luxuriously furnished suites are located on the middle and upper deck and accommodate up to 16 guests. They are pampered by a 20-man crew. The salons and sun terraces with a panoramic view are part of the glamourous life on the ocean, including restaurants, bars, fitness facilities and water sports equipment. At night, more than 2,000 light sources bring the elegance of the ship's design to the fore. The decision in favour of KNX was particularly influenced by the extensive range of lighting offered. Requirements for a centralised visualisation with clear control and simple operation could therefore be met. Finally, the shading, the audio and video system for the on-board entertainment and the iOS environment could be integrated in one operator interface. The flexibility of the KNX system has already proven to be an advantage in the building phase during the project design process.

Remote maintenance via the Internet all over the world

The ship's electrical equipment is subject to regulations in the same way as that of a building. At least two lighting circuits are required for each room with additional emergency lighting. To prevent a total breakdown, the lighting circuits must be supplied via different power generators. The lighting control was implemented with KNX / DALI on the basis of these conditions. The DALI lighting technology enables the individual control of each single lighting circuit. Decentralised operation of the lighting is carried out via KNX binary inputs with centralised control via the visualisation. Comfort and convenience is ensured through automatic dimming functions and lightscenes that can be retrieved dependent on the situation. The automation is carried out with logic functions and time programs for which a Busch Jaeger control panel is installed. Design is an important benefit of KNX in high-quality facilities. The visualisation creates an overview of the function status, documents the operating periods and displays faults in the electrical system. Even a remote connection via the Internet (VPN) is implemented. It enables remote maintenance by the system integrator all over the world.

Numerous light sources bring the elegance of the ship's design to the fore

Automatic lighting control emphasises the pure luxury – here on the main deck in the owner's suite

BENEFITS OF KNX IN THIS PROJECT
- *Central control*
- *Visualisation*
- *Integration of lighting, audio/video and shading*
- *Remote maintenance*

TECHNICAL HIGHLIGHTS
- *Cabling and local control according to shipbuilding regulations*
- *Extensive exterior lighting can be controlled centrally*
- *Automation with light scenes, time programs and logic functions*

TRADES/APPLICATIONS
- *Lighting*
- *Audio / video*
- *Remote maintenance*

COMPONENTS – EXTRACT
- *Number:* 65
- *Brand:*
  Siemens: KNX / DALI gateway
  ABB: Actuators, shutter actuators, KNX/IP gateway
  Busch Jaeger: Control panel
  Crestron: KNX / Crestron gateway

COMPANIES INVOLVED
- *GMP S. A., Thessaloniki, www.gmp-partners.gr
  Sotirios Gratzios, gratzios@gmp-partners.gr*

Villa from the "Gründerzeit" – with modern building technology

SPRINKLERS IN THE GREEN WALL

Numerous automation ideas for a luxury villa

The installation of luxurious villas is a special treat for creative system integrators. After all, it is not only about controlling the usual building technology but about finding tailored solutions together with the owner for functionality, safety, comfort and leisure. There is not a single room or area in this project which is not monitored, controlled or regulated by KNX.

Automatic watering of the green wall.

The detached house with its three floors and 1,000 square metres of outside space is an admirable building. What's more, it has an impressive garden. The path leads through to a green wall which is a particularly decorative feature. Rooms for guests and staff are located on the ground floor. The upper floors are reserved for private use. Recreational areas are situated in the cellar which also houses all the technology.

627 bus devices were installed for the KNX automation. Scene control functions are the norm instead of simple On / Off commands. A switch command can thus determine whether all the gates are raised or only one is opened. The owner can determine and modify the scene combinations himself. The system integrator has developed a special concept for this purpose. It is based on a large number of room functions, with four to twelve lighting circuits per room alone. There are even 92 lighting circuits in the garden.

Otherwise, the house is fully automated. However, the automatic functions can be immediately manually overridden when necessary.

Each time of day has its own scene

All the control types are used for the extensive lighting system. In addition to switching and dimming with KNX actuators, this includes DALI digital lighting control, DMX stage technology as well as analogue interfaces such as 1 – 10 V. The automation has been refined with movement detectors which activate specific scenes dependent on the time of day. The shading is automated depending on the position of the sun. When switching to "night mode", the status of the windows – open or closed – is queried and the current ventilation setting of the blinds is taken into account. The automation of the heating, ventilation and air conditioning system is complex. Vents in wet areas are controlled according to use and via temperature and humidity sensors. If the dome on the staircase is opened, the windows on the ground floor open so that a chimney effect comes into operation. An air conditioning system with adjustable "turbo cooling" and "turbo heating" modes is also integrated together with the Synco HVAC controller from Siemens. All the data from the solar panels and gas boiler regarding the service water and heating energy is thus available for the visualisation.

Visualisation and continuous maintenance

Household appliances are monitored via actuators with current sensors. This data is used for recording consumption but the ventilation is also controlled dependent on the use of the household appliances. An alarm system integrates all the windows, doors and gates. This includes video monitoring with 40 cameras. Among the particularly clever solutions is the KNX control of roll-up "wall paintings" in front of hidden TV sets. The watering of the green wall is also automated with KNX. The gardener can set the activation of the irrigation valves accurately via his own menu page. There is also a traffic light control system with LED lamps in the floor of the driveway – activated via movement detection by the cameras – and many other special functions.

Two visualisation systems are available: a general interface based on a Gira Homeserver with Quad Client, as well as visualisation with the AMX media control system. Via 29 touch panels throughout the house, you have access to all the KNX functions.

The building automation is continually maintained and optimised. Two system integrators thus have secure VPN channel access to the complete KNX installation and all the system controllers.

Meeting the host's requirements: this is the menu for watering the garden, with the stylistic design matching the interior

Master bedroom page: Room control menu with access to the individual functional areas.

Cabinet-type bus technology for numerous switching circuits

BENEFITS OF KNX IN THIS PROJECT
• Backbone of building automation
• Flexible system
• Automation and manual operation
• Adaptable to customer requirements
• Scene control
• Numerous special functions
• Visualisation of all the services

TECHNICAL HIGHLIGHTS
• Continuous automation
• Numerous lighting circuits for scenes
• Scenes stored in actuators
• Scenes can be combined
• KNX logic functions
• Irrigation control
• LED traffic light control

TRADES/APPLICATIONS
• Lighting • Sun protection
• HVAC and solar technology • Household appliances
• Alarm system • Safety monitoring
• Smart metering • Remote maintenance

COMPONENTS – EXTRACT
• **Number:** 627
• **Brand:**
  Gira: Actuators, DALI gateway, room controller etc.
  Bilton: LED control
  Arcus EDS: Humidity sensors
  Zennio: Current sensors
  BMS: Weather station

COMPANIES INVOLVED
• Honeder GesmbH & Co KG,
  Martin Honeder, Gars am Kamp, Austria

• **System integrator:**
  Roman Valladares
  (visualisation, graphics, user interface),
  Martin Honeder (KNX, Gira HomeServer)

KNX TECHNOLOGY
FOR COMFORTABLE HOLIDAYS

KNX installation makes a stay in a holiday villa as enjoyable as possible

Davos in the Swiss canton of Graubünden is famous for its winter sports and above all for the "World Economic Forum". Prominent guests are the norm. The most discerning find an exclusive holiday villa in Sura Davos. It offers peace and relaxation in a prime location. The view of the mountains is simply majestic. Your luxurious stay is supported by the highest quality building technology.

The building stands like a monolith on a hill with an underground cable car leading up to it. The journey alone is already a high-tech experience. Once you have reached the top, there are a further five floors. On an area spanning 1,000 square metres, with five suites and two single bedrooms, there is space for up to 20 guests. The living and sleeping areas are complemented by a lounge, spa area, home cinema and kitchen. The architecture with its clear lines and high-quality materials is top class. Likewise the building technology which seeks to make your stay as enjoyable as possible. At the heart of the KNX installation, which has been implemented by the system integrator "Eibrom GmbH" based in Dietikon, Switzerland, is the visualisation based on a Gira Homeserver. The host, who resides on the upper floors, can access the visualisation via a large touch-sensitive panel. A scaled-down version is available for his iPhone. The guests can likewise operate their area via a tablet (iPad) depending on authorisation.

Spa area: specially customised, the KNX room control devices are flush-mounted into the walls.

Sense of well-being: Individual lightscenes can be retrieved in the living spaces

Straightforward operation

Guest-friendly, smooth and simple operation forms part of the concept. This is implemented by the exclusive Busch-priOn® room control units. The room control is complex and offers the highest level of comfort with efficient use of energy. The space heating is inhibited via window contacts. The room temperature in turn also influences the shading. To keep the sun's heat in the room during the winter, the blinds are only lowered when the setpoint value is reached. The shading is carried out sector by sector dependent on the azimuth and elevation of the sun.

The single-room control ensures efficient use of energy for space heating. The room ventilation brings fresh mountain air into the house. The HVAC system is coupled with the KNX installation and can likewise be monitored and influenced via the visualisation.

Scenes simplify the operation and can simply be adapted to individual requirements.

Functions for connoisseurs

Access control, video monitoring and an alarm system ensure safety. The systems are coupled with KNX via gateways so that status information is available. Sensor signals from window and door contacts and movement sensors are available for multiple use. Fault signals are automatically routed to the responsible service via email. A door locking system and badge reading system are also coupled for enabling and disabling.

The luxurious home cinema is also a highlight. The guests can enjoy the facilities with simple operation via a special cinema control system (RTI) combined with KNX functions. The 36 music zones of a multi-room system can also be activated via KNX. The station selection and associated volume can be saved as a scene.

In the spa area, KNX also controls for example the water supply for the outdoor jacuzzi, regulates the water temperature and even opens the drainage valve.

To guarantee optimum and smooth operation, the KNX installation is very easy to service. ETS remote maintenance is possible for example at any time via VPN.

Visualisation menu for blinds and windows

BENEFITS OF KNX IN THIS PROJECT
- Simple operation
- Visualisation
- Scene control
- Safety and comfort
- Flush-mounted bus buttons
- Flexible and adaptable to guest requirements

TECHNICAL HIGHLIGHTS
- Coupling of lift control and KNX
- Full control of the spa area

TRADES/APPLICATIONS
- Lighting • Sun protection
- Alarm system / video monitoring
- Technical monitoring
- Media technology / cinema system
- Visualisation

COMPONENTS – EXTRACT
- **Number:** 227
- **Brand:**
  Gira: Visualisation with Homeserver
  ABB: KNX / DALI gateways, actuators, weather station,
  Busch-priOn® room control unit
  Hager: LED dimmers
  Theben: Movement detector
  etc.

COMPANIES INVOLVED
- **Owner:**
  Sura Davos, www.sura-davos.ch
- **Electrical installer:**
  Caviezel AG, 7270 Davos Platz, www.caviezel-ag.ch
- **System integrator:**
  EIBROM GmbH, 8853 Dietikon, Albert Elsener, www.eibrom.ch
- **Multimedia partner:**
  Erzinger AG, 6340 Baar, www.erzingerag.ch

Popular with prominent guests and holidaymakers – the Grand Hotel Huis ter Duin situated on the famous North Sea beach in Noordwijk

LIGHT SCENES AMONGST THE SAND DUNES

Building technology in historic luxury hotel made more efficient

The Grand Hotel "Huis ter Duin" located on the famous North Sea beach in the town of Noordwijk in the Netherlands, has an eventful history. With its opening in 1885, the former fishing village began to develop into a fashionable beach resort. Both royal guests and other high-ranking visitors have frequented the hotel. The luxurious hospitality among the dunes is also in demand today. The American President Barack Obama stayed here in 2014. Building technology with KNX has become popular in modern times.

The five star hotel has 230 rooms, 20 suites, four penthouses, conference rooms, spa facilities, an award-winning restaurant – and a breathtaking view of the North Sea. The stylish interior conveys an ambience that stimulates a sense of well-being. Luxury and safety but also the efficiency of administrative processes and energy usage have been supported since 2015 by the automation of the building technology with KNX.

A standardised operating system platform should enable efficient maintenance of the building technology by engineers and staff. KNX has proven itself suitable for the integration of a wide variety of systems, particularly in the hotel industry. The visualisation of the KNX project with approximately 1,200 bus devices is carried out with eVision, a software program provided by the system integrator "InstaVer" from Nieuw Vannep in the Netherlands. By coupling the visualisation for example with the hotel management system, efficient administrative tasks have become possible for hotel reservations, access control, cleaning service and room monitoring.

The visualisation enables technicians to have an optimum overview of all the functions of building technology

Supports safety and comfort

Safety has the highest priority in hotel projects. The central fire alarm system works independently. Via the KNX/OPC coupling, detailed alarm data can be visualised. Emergency calls from KNX panic buttons in the rooms can be rapidly located.

Engineers and other employees have access to databases for fault messages, facility services and risk analysis. Alarms and fault signals can be routed via all media such as email, smartphone, touch-sensitive screens or announcements.

Comfortable lighting combined with the classic interior creates a certain atmosphere. The lighting control is carried out directly via KNX, in combination with DALI digital lighting control or DMX event technology. Lighting moods can be stored in scenes and retrieved for special occasions. The stylish beach house is made enchanting with colourful lighting moods via an RGB LED controller.

A further benefit is that KNX is also leading-edge in design. The selected LS design range from Jung in classic or antique brass is harmoniously integrated into the classic interior.

Transparent energy use

The sun protection system is automated via a weather station. Curtains or blinds can be operated manually inside the room via push buttons. The monitoring of the minibar doors to register their use is another one of the room functions. Energy loss is prevented when the window is open due to the window contacts being inhibited by the air conditioning system. The link to the air conditioning system (HVAC) is created by the coupling of KNX / Synco. Transparent energy usage can also be achieved with KNX. The loads in the rooms can be monitored and analysed using activation times and room temperatures relating to window contact status and room occupancy periods. Data for optimisation of the energy consumption is therefore available. The central off functions via the hotel key card are also energy-efficient. KNX is also involved in the sound produced by the audio system by enabling the various sound zones to be operated via the visualisation by coupling with the Bose system.

An RGB LED controller creates an enchanting effect in the restaurant

Hotel luxury – Lighting functions and automatic shading support the feel-good atmosphere
Source all photos: Grand Hotel Huis Ter Duin

BENEFITS OF KNX IN THIS PROJECT
- *Control platform*
- *Integration of other systems*
- *Efficient management*
- *Energy saving*
- *Safety and control*
- *Lighting moods*
- *Design*

TECHNICAL HIGHLIGHTS
- *Visualisation of the central fire alarm system*
- *Visualisation of the building technology*
- *Coupling with hotel management system*
- *Database for fault signals, facility management and HACCP*

TRADES/APPLICATIONS
- *Lighting*
- *Sun protection*
- *Air conditioning technology*
- *Central fire alarm system*
- *Safety monitoring*

COMPONENTS – EXTRACT
- *Number: 1200*
- *Brand:*
  Gira: Homeserver
  Instaver: eVizion
  Jung: Actuators, push buttons
  and LS design room controller
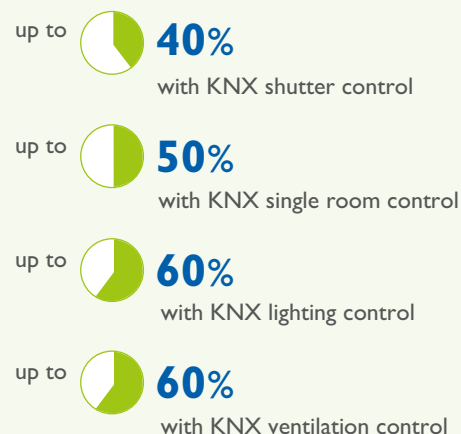
COMPANIES INVOLVED
- *Instaver, NL 2153 PH Nieuw-Vannep,*
  Mark Honsbeek, mhonspeek@instaber.nl
  www.instaver.eu

Heating, Cooling, Ventilation with KNX

Solutions and Products

Considering that home and building automation accounts for 40 % of the total energy consumption, energy efficiency is paramount as well as an increase in comfort. The energy efficiency of buildings as well as the influence of building automation is described in the European standard EN 15232. The methods described there evaluate the influence of the building automation and the technical building management on the energy consumption. The standard classifies building automation and control systems into four energy efficiency classes A to D. While efficiency class C only requires the minimum legal standard without energy-saving automation, the networking

of energy-efficient room automation functions is necessary for all applications (heating, cooling, ventilation, lighting and sun protection) and demand-oriented control to achieve class A. KNX offers not only the technical requirement for the integration and communication of the different applications and products but has already shown in a variety of studies and projects that savings of 50 % to 60 % can be achieved through individual room control and ventilation control alone. The integration of the heating, ventilation and air conditioning technology in the home and building automation has long been part of the standard KNX applications. Currently over 70

up to **40**% with KNX shutter control

up to **50**% with KNX single room control

up to **60**% with KNX lighting control

up to **60**% with KNX ventilation control

manufacturers have registered KNX products with heating, ventilation and air conditioning applications with the KNX Association.

Individual room temperature control

Individual room temperature control offers the possibility of regulating the room temperature of a single room regardless of the temperature in other rooms. To do so, it is however necessary for the temperature in each room to be measured separately. The current controllers are mainly complete, aesthetically sophisticated room controllers which are not only used to measure the temperature and to set values but also to control all the other functions in a room. Some of the current controllers can also measure the CO_2 content and air humidity as well as support the heating and / or cooling operating modes. Via the networking of sensors and actuators in the room, the individual room temperature control also offers the option of including the status of presence detectors and window contacts and controlling the room temperature automatically dependent on the respective conditions. In projects that have already been implemented, energy savings of up to 50 % could be achieved with individual room temperature control based on KNX.

1 Iddero: KNX 4.3" Touch Panel **2** Berker: KNX room controller with TFT display
3 Vitrum: Vitrum Clima Control **4** Basalte: Deseo temperature controller

5 Elsner Elektronik: Cala KNX Room Controller **6** MDT Technologies: Glass push button Smart II
7 ABB: ABB i-bus KNX Logic Controller ABA/S 1.2.1

8 Sauter: Room Controller ecos504/505 **9** Bleu Comm Azur: realKNX Server
10 Siemens: Synco IC **11** Sinapsi: M-Bus / W.M-Bus Web Server

Radiator and underfloor heating, cooling ceilings

In radiator and underfloor heating, the centrally generated energy is transported with water to the required locations in the building via pumps and piping. Valves control the rate of flow in the individual heating circuits and thus the heat emission. Cooling ceilings function according to the same principle, the only difference being that cooled water is transported through the pipes and heat is extracted from the room via the cooling elements.

The triggering of the valves is normally carried out via analogue thermoelectric or motor valve drives. Thermoelectric drives are connected cost-effectively to special KNX actuators which usually have multiple channels. Motor valve drives with an integrated KNX interface on the other hand have the benefit that the valves can be very precisely positioned and mostly have additional intelligence and diagnostic functions. Through bidirectional communication, it is furthermore possible to transfer both the current valve position and error messages via KNX.

12 Insta Elektro: KNX valve drive 1B
13 Ekinex by SBS: KNX mixing actuator
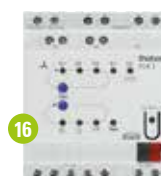**14** MDT Technologies: Heating actuator

Fan coil controllers

The term "fan coil" means a convector fan which is typically used for cooling rooms. Applications are also possible in which the fan coil unit is used for heating or ventilation. Traditionally, a fan coil unit comprises a fan and a heating or cooling register (coil). The centrally produced cooling or heating capacity is routed through the building via the piping system and retrieved by each unit as required. As a general rule, one fan coil unit is installed per room. A benefit of fan coil control is the rapid availability of thermal energy or cooling capacity. It is therefore widely used in hotels and office buildings.

It is possible via KNX to separate the unit and the operation cost-effectively in terms of rooms. The control of the fan and the heating or cooling register is carried out via special KNX fan coil actuators in the unit while the operation is usually carried out via KNX room thermostats with extended functions and setting options.

15 Jung:
    KNX Fan Coil Controller
16 Theben:
    Fan Coil Actuator FCA 2 KNX

Interfaces to energy generation and distribution systems

With interfaces to energy generation systems such as condensing boilers (oil, gas, zeolite), heat pumps as well as solar thermal and photovoltaic systems, system operators have the option of finding out about the current state of their heating system using the KNX visualisation system, predefining setpoint values and setting operating modes. Fault signals are automatically transmitted to KNX and displayed so that the appropriate measures can be taken before any damage occurs. As the current heat requirement in the rooms can be communicated in most cases via the KNX gateway to the heating controllers, the heat generation must be precisely matched to the current demand.

Ethernet/KNX interface

Ethernet

ISM8 - eBus/Ethernet-interface

17 ISE Individuelle Software-Entwicklung: ise smart connect KNX Vaillant   **18** Viessmann: Vitogate 200
19 Stiebel Eltron: Internet-Service-Gateway (ISG)   **20** Bosch: Bosch Gateway KNX 10   **21** Wolf: Wolf KNX interface kit

Variable volume flow controller

With the variable volume flow controller (VAV), a centrally produced air flow is routed to the rooms and areas in which the air conditioning is regulated. The control of the amount of air and heat is carried out via flaps in the piping system. In most cases, the variable volume flow controller is decentralised and installed separately for each room so that only the required amount of energy is used to maintain the respective indoor room climate. Based on the recorded room conditions and the current air requirement, energetically intelligent and demand-controlled systems can be set up with KNX. A central control unit permanently monitors the flap positions of the individual VAV boxes via KNX. If the flaps destroy excessive inlet pressure, this is reduced. It is the aim to operate the system with the lowest possible pressure loss.

22 Belimo Automation:
VAV controller and actuators
23 Maico:
KNX ventilation units with HR

Room air control and interfaces to ventilation systems

To minimise the energy losses, new buildings are built increasingly airtight. If the natural ventilation no longer exists due to the design, monitored ventilation and extraction is required as otherwise consequential damage to people and buildings may arise and the occurrence of mould, spores and bacteria may be encouraged. When using automated ventilation, additional parameters such as the maintenance of limit values for the CO_2 content, the air humidity and the room temperature are taken into account. With active monitored ventilation and extraction, a central ventilation unit blows fresh air into the building/rooms. On the room side, the "consumed" air is extracted and discharged. With the optional heat recovery, the thermal energy is extracted from the discharged air e.g. via a cross-flow heat exchanger in order to warm up the "fresh" air with it. With this process, heat exchangers inside a building such as lighting, computers etc. can also be used for heating which contributes to an increase in energy savings. In addition to the baseline values, the values for the room temperature, air humidity and carbon dioxide content measured by the KNX individual room controllers and air quality sensors can be transferred via the KNX interfaces to the ventilation system and taken into account during the control. In the other direction, the ventilation system transfers status signals to KNX which for example signal the necessary replacement of ventilation filters.

24 arcus-eds: KNX LUNOS-CONTROL4
25 Busch-Jaeger: KNX room temperature controller with CO_2 senor
26 Hugo Müller: KNX air quality sensor
27 Vallox: VALLOX MV KNX bus module

Interfaces to distributed air conditioning systems

Distributed air conditioning systems with split or monobloc devices form an individual concept for flexible room usage. In the case of split devices, the compression of the refrigerant is carried out outside while the air delivery, filtering and temperature control is carried out in the room that is to be cooled. In the case of monobloc devices, all the components are located in a single device indoors. The interfaces to the air conditioning systems are versatile. In addition to a few standardised interfaces, the manufacturers use a variety of proprietary hardware and protocol solutions. In spite of the variety of interfaces, special KNX gateways enable the integration of almost all the air conditioning devices into KNX.

28 Weinzierl Engineering: KNX Modbus Gateway 886
29 Astrum: VFACE – Ultimate VRF Interface
30 Pulsar: THINKNX BRICKBOX
31 Intesis: IntesisBox Universal KNX AC Gateway

Summary

As regards products, planners and installers can choose from over 7,000 certified KNX products which cover all the applications of heating, ventilation and air conditioning. The KNX worldwide standard thus offers the best requirements to improve the energy efficiency of buildings. In particular, the integral networking of energy-efficiency room automation functions of all the trades and demand-based control contribute significantly to energy savings in buildings.

ETS Inside – Getting Started

Get your installation up and running in 8 easy steps

The ETS Inside is a powerful and simple tool for running your KNX installation. Simply follow the 8 steps described and give the building what it deserves – a fully functional KNX installation.

1 Integrate ETS Inside with your installation

A special feature of this new tool is that ETS Inside is part of the installation. It's a tool that comes in handy for KNX devices. Simply install the KNX ETS Inside-enabled device of your choosing in your project and you are ready to start operations.
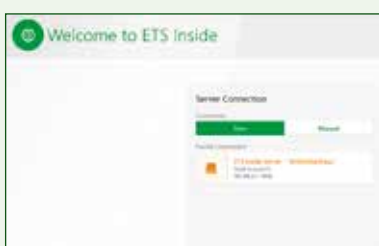
Alternatively, you can use a mini-computer (e. g. Raspberry Pi, Intel NUC, etc.). Install ETS Inside on this computer and connect it to your installation via USB or KNX/IP.

2 Install the ETS Inside (client version) on your mobile phone or tablet

ETS Inside is available for Android, iOS and Windows. The ETS Inside app can be downloaded free of charge at Google Play Store, Apple App Store or the Windows Store. Once installed, you can get started with commissioning your installation.

3 Link your mobile phone or tablet to the installation using the ETS Inside device

Once you have both successfully installed your KNX installation with ETS Inside and installed your smartphone or tablet with the ETS Inside client, you can establish a connection between your mobile device and the KNX installation. The recommended route is to:
• set the connection to Auto
• choose the project connection you would like to establish to start or continue commissioning the KNX installation
Alternatively, you can also connect to the installation manually.

4 Set the ETS Inside password

After you have connected your mobile device with the relevant project, you will be asked to enter a password. This password secures the installation from unauthorised entry. Once you have defined your password, you can proceed with the full commissioning of the installation without any restrictions to functionality.

5 Create your project

Give your ETS Inside project a name, choose the project's status and add comments to your project. Proceed to the Project Overview by either tapping on the highlighted project or by tapping on the "Open project" button.
Add building elements to your project – You can now proceed to add building elements to your project, such as "Cabinets", "Floors", "Corridors", "Rooms", etc.
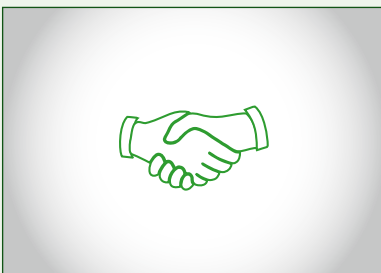
6 Add devices from the KNX Online Catalog

Once the project and the building structure have been set, you can begin adding devices to each of your rooms. For this purpose you can use the KNX Online Catalog, which contains all ETS Inside-compatible certified KNX devices.

7 Parameterise, link and download

Since all devices have now been properly allocated, you can now get started linking channels or objects to functions. You can also use ETS Inside to adjust parameters during initial commissioning or after the project has been finalised. And once everything has been set up, you can download the settings to your KNX devices!

8 Project handover to the end user

Once done with your project, press the "Delivery" button on the project details tab. After the customer has logged in, the ETS Inside dashboard screen will be shown in "Ownership" mode and the installer password will become invalid. In ownership mode, the end user will be able to make small personal modifications, which have been enabled in advance by the installer – just one more new and revolutionary function of the ETS Inside*.
Has the project been created by the end user? If so, it goes without saying that the user is free to remain in "installer" mode and make desired changes to the installation with full functionality.

* Function available from 2nd half of 2017 onwards.

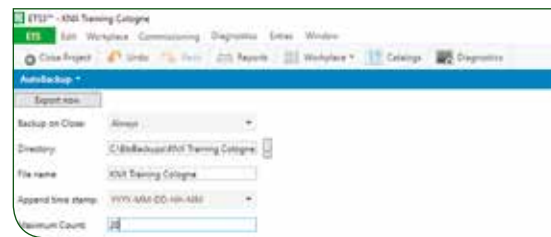*Please visit the ETS Inside website for more information about how to use features, benefits, guidelines, FAQs, etc. at http://etsinside.knx.org.*

New ETS Apps

You can find all ETS Apps at
www.knx.org ▶ Software ▶ ETS Apps ▶ Features
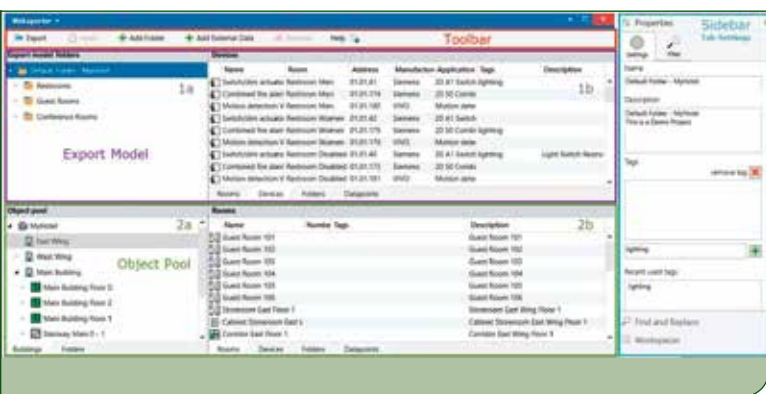
terminal-App

ALEXANDER BÜRKLE GMBH & CO. KG With this app, you can import KNX projects from terminal, the universal online configurator. In addition to the requirement specification generated by the terminal, you can import floors, rooms and group addresses directly into your ETS project. *Contact: www.terminal-konfigurator.de*

AutoBackup

IT GMBH This App will automatically create a snapshot of your ETS project (as knxproj) in a specified, project-specific location. This is useful if you are working with several projects and want to: include versions of the projects in a backup solution; synchronise the versions with a cloud service (e. g. Dropbox®); deploy the project to a location accessible by other persons or tools. ETS5 has a similar facility named "recovery points". *Contact: www.it-gmbh.de*

Web Service Exporter

KNX ASSOCIATION The Web Service Exporter app by KNX Association allows you to create an XML file with the KNX information model of an ETS project. The exported project can be used with the KNX web service gateway demo. *Contact: www.knx.org*
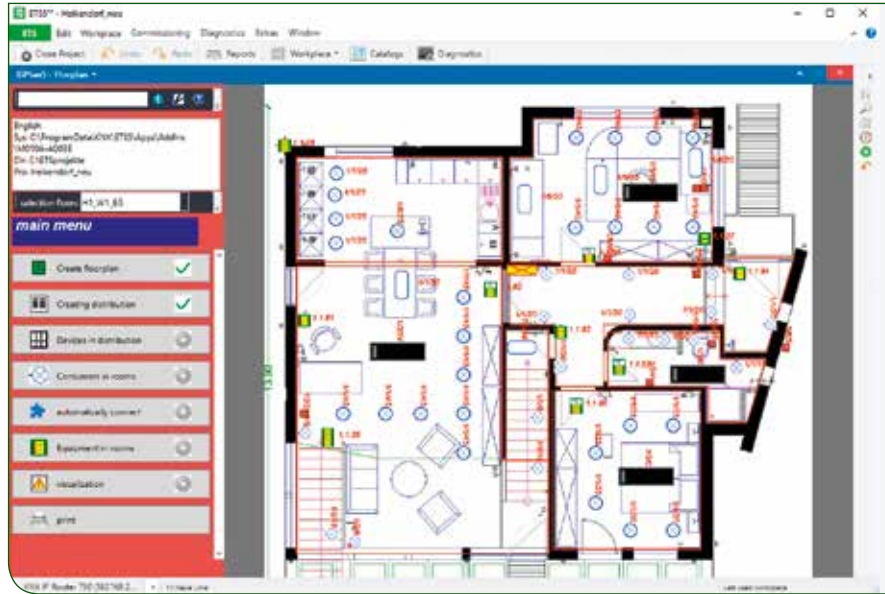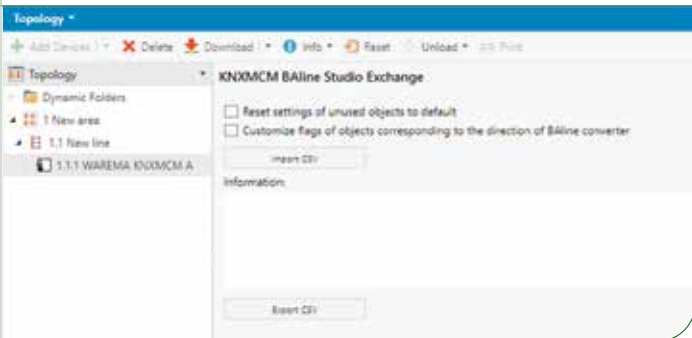
MDT Glass Push Button Smart

MDT TECHNOLOGIES With this new ETS App from the member company MDT Technologies, you can load and change the symbols in the MDT glass push button Smart II. This works for both the product versions with and without a temperature sensor. *Contact: www.mdt.de*

New versions of the ETS Apps

NAUTIBUS ENGINEERING The two Nautibus ETS apps EiPlan and EiDoc are now equipped with the new Easy-Assist user interface, and they have been reworked and extended. EiPlan is used to create new ETS projects. It can store parameterised sample devices across the entire project, has a user-definable Group Address scheme and extended options for floor plan processing. Ei-Doc now has a post-processing assistant with which old projects can be subsequently documented and supplemented with ground plans. EiDoc is therefore suitable for documentation of all ETS projects. The ETS Apps are available in the Shop of MyKNX and their updates are for free! *Contact: www.nautibus.de*
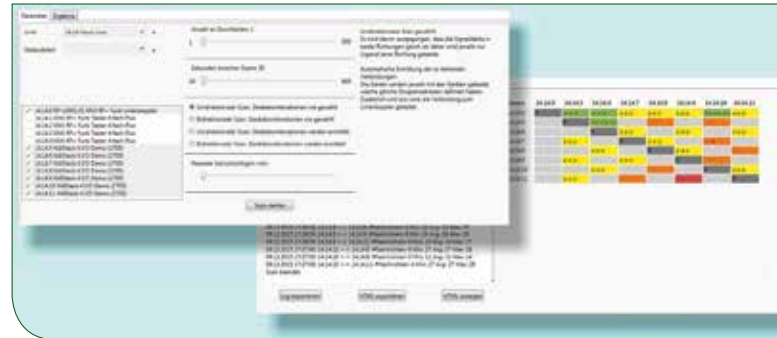

KNXMCM BAline Studio Exchange

WAREMA RENKHOFF SE With the "KNXMCM BAline Studio Exchange" app for ETS, CSV files that were previously generated in BAline Studio can be imported into ETS. These files contain information about names and types of objects and the direction of data flow, which have been set in BAline Studio projects. With "KNXMCM BAline Studio Exchange", the settings on KNX devices can be easily made so that the corresponding BAline Studio project can run perfectly on these devices. "KNXMCM BAline Studio Exchange" can only be run for one device at a time. If reception monitoring has been set up for Group Objects in BAline Studio, a message appears in the "Information" field. *Contact: www.warema.de*

KNX RF Field Strength Analyzer App for ETS

TAPKO TECHNOLOGIES GMBH The ETS App "KNX RF Field Strength Analyzer" KNX RF FSA gets a grip on the innate uncertainty of KNX RF installations. Detecting signal strength indicators (RSSI) of all user-selected RF devices and displaying them by a colored matrix makes testing and debugging of KNX RF device connections easier than ever before. Faults of a KNX RF installation are easy to identify by observation of device RSSIs. The app is also able to measure the area coverage of all activated repeaters to avoid future problems. TAPKO's KNX RF Field Strength Analyzer app is all one needs to successfully commission a KNX RF installation. KNX RF FSA is available in the Shop of MyKNX.

Contact: www.tapko.com

New Members

Astrum Teknoloji Ltd. Sti.

TURKEY Astrum is a company that produces innovative smart interfaces and controllers for home and building automation. They are constantly striving to redefine and improve people's living spaces. They specialise in developing embedded hardware and software. Astrum's products make homes and buildings smarter and more energy-efficient. Astrum's innovation goes beyond simple interfaces. Their free-thinking engineers develop flexible hardware and software solutions which allows SDK level access and end-user customisable devices. Astrum brings together the concepts of affordability, energy efficiency and stylish design in an innovative approach to home and building automation. Their solutions are designed using an integrated, whole-system approach.

Contact: www.astrum.com.tr

Atrina Building Automation

IRAN Atrina Building Automation was established by an experienced group of experts and engineers with the goal of optimising design, formulating a native standard in the field and providing services to all consulting companies and companies related to BMS. Their experienced group of engineers gives them the potential to provide solutions based on the KNX standard and they are perfectly aware of the requirements of building projects. The Atrina company has already achieved co-operation with the company Germacs, published the first book about building management systems based on KNX standards in Iran and is also a KNX partner. Atrina has four departments of expert engineers: engineering design, technical supervision, marketing and sales, education and research.

Contact: www.atrinaco.com

B.s Systems

ISRAEL Bsmart is one of the leading companies in Israel, specialising in the KNX standard since 2007. As a versatile venture, they are involved in the field of home and building automation on multiple levels, both as a training centre that educates students as well as a professional automation company. They carry out the sales, import, manufacturing and marketing of KNX products. As an integrator, they specialise in home automation projects and audio / video projects. *Contact:* www.Bs-Systems.co.il

Brumberg Leuchten GmbH & Co. KG

GERMANY The family-owned company, founded in 1873 by Hermann Josef Brumberg under the same name in Sundern – known since 1985 under the name Brumberg Leuchten GmbH & Co. KG – has established itself as a professional lighting manufacturer in the high-quality, smart lighting technology sector. Brumberg is among the leading suppliers and offers professional lighting solutions for almost all application areas. In its portfolio, there is a broad spectrum of LED lights and lighting fixtures with conventional light sources in various designs and power ratings. The company, family-run for five generations, is headed by the brothers Johannes and Benedikt Brumberg. In 2015, Brumberg became a partner of "eNet-Allianz with Gira / Jung" as well as of "Feelsmart". In 2016, Brumberg joined the strong brand alliance "Connected Comfort" as well as the "Initiative Elektromarken. Starke Partner." *Contact: www.brumberg.com*

ELAUSYS

BELGIUM ELAUSYS develop innovative solutions and products in the field of electronics, automation and IoT. They design and manufacture their own products for home and building automation based on the worldwide standard KNX. From binary inputs with built-in temperature sensors, to modular actuator systems with extension modules or alarm system gateways. Their products cover all needs for a modular and cost-effective automation system. Located in Belgium, their goal is also to support their clients with expertise by providing customised and OEM products. Depending on your requirements, they offer global engineering services, consulting or training services as well as your own product range. *Contact: www.elausys.be*

FMS Hospitality Pte Ltd

SINGAPORE FMS Hospitality Pte Ltd is a home-grown Singapore SME that specialises in energy management solutions. Their products are designed to provide simple guest room controls to maximise guest comfort while meeting environmentally-friendly policies and maintaining energy-efficient controls for hotel operations. More than 20 years of experience have given them deep insight into the hotelier's need to balance energy saving and guest comfort. *Contact: www.flecon.com.sg*

Great Empire International Group Co.,Ltd

THAILAND Great Empire wants to create healthy, safe, colourful and wonderful lives for their customers, with an excellent social reputation, while devoting itself to the environment protection industry. They are part of a group of four companies and mainly specialise in the research, development, production and trade of smart home and technological industry products. Great Empire regards innovation as its soul and specialisation as its goal. The product line "i-bechamp" consists of a wide array of smart home products and has met advanced international standards. *Contact: www.geigcl.com*

Impolux GmbH

GERMANY Since 2008, Impolux operates from Germany as a manufacturer and distributor of LED products and accessories with a consistently market-oriented mindset. They are a well-established company that continues to grow. Their team consists of selected employees who continually develop to always offer their customers the latest technology. The strong team spirit between experienced and young colleagues guarantees their customers both decades of experience in electronics and LED technology as well as revolutionary new ideas and approaches. They have also set up a customer-oriented service network of trained representatives in other European countries. With their entry into KNX technology, they combine the outstanding features of LED lighting with the versatile options of KNX control. Impolux will develop the new generation of smart LED lights with their vision of functionality. *Contact: www.impolux.de*

Johnson Controls International

UNITED ARAB EMIRATES Johnson Controls is a global technology and industrial leader serving customers in more than 150 countries. Since their invention of the first electric room thermostat in 1885, they've been committed to delivering innovative products that help the world run smoothly, smartly, simply and safely. We've grown tremendously during the past 130 years, both in size and market share. They believe in going above and beyond to deliver value to their shareholders, help their customers succeed and be a good corporate citizen. The Johnson Controls guest room management system offers a smart, secure and interactive solution that is specifically designed to meet the growing needs of the hospitality industry. JCI GRMS is designed to ensure an exemplary and gratifying experience for the guests. JCI GRMS integrates seamlessly with BAS through KNX or IP, giving visibility to all aspects of the hotel's operation.
Contact: www.johnsoncontrols.com

Kavoshpishro Asia

IRAN Kavoshpishro Asia was founded in 2011 in Iran. In the last two years, the R&D company team gained experience in the design and production of several projects, such as tablet-based development boards for use in video door phone systems. Recently, they started the development of end products using the KNX protocol, such as smart home appliances. *Contact: www.kavoshpishroasia.com*

Lebenor Technológíes Pvt Ltd

INDIA Lebenor is a company with the business objective to design, develop and manufacture KNX products in India. The founders of the company are engineering professionals with more than 20 years' experience in the field of embedded product development and system integration. The company is currently in the final development stages of a KNX home server and an intuitive visualisation app. *Contact: www.lebenor.com*

Manic

CHINA Manic is a company focused on electrical engineering and building automation in Nanjing, China. Its product line covers active power filters, static var generators, low voltage devices, intelligent lighting, etc. They provide overall solutions and technical support and consultancy to their customers. They are now designing and developing KNX devices and software with high quality, and believe that being a member of KNX, the worldwide standard for home and building control, will offer a bright future.

Contact: www.mnc-nj.com

Sabiana SpA

ITALY Sabiana is the Italian company that has been designing, producing and selling innovative heating and air conditioning products for over 80 years. All of the products use the best existing natural liquid that has always stood side-by-side with people in all of their activities: water. By heating and cooling water, they can in fact control the air conditioning in any space with maximum precision and comfort. The main product lines are radiant panels, unit heaters, fan coil, air handling units, stainless steel flues, indoor air quality. Since 1 July 2014, Sabiana has been a member of AFG Group, Arbonia-Forster-Holding AG, an international group which is a technological leader in the production of construction materials. Today, Sabiana directly employs more than 180 people, with three factories near Milan with an overall 50,000 m^2 of surface area and turnover of more than 80 million euros, over 50 % of which is in the foreign market. *Contact: www.sabiana.it*

Sauter AG

SWITZERLAND As a leading provider of solutions for building automation technology in green buildings, Sauter provides pleasant conditions and a sense of well-being in sustainable environments. Sauter is a specialist in developing, producing and marketing products and systems for energy-efficient total solutions and offers a comprehensive range of services to ensure the energy-optimised operation of buildings. Their products, solutions and services enable high energy efficiency throughout the entire lifecycle of a building, from planning and construction through to operation, in office and administrative buildings, research and educational facilities, hospitals, industrial buildings and laboratories, airports, leisure facilities, hotels and data centres. With over 100 years' experience and a track record of technological expertise, Sauter is a proven system integrator with quality and innovation. *Contact: www.sauter-controls.com*

V2 SpA

ITALY V2 is a leading brand active in home and building automation. With seven locations in the world, they are a multinational company that since 1985 has designed integrated solutions for automation. A company in continuous expansion, which defines the concept of technological innovation in all its forms, from automated systems for gates to those for garages and windows, to the safety devices. Their solutions, perfect for both residential and industrial use, combine technology, innovation, research, to make daily movements simpler and safer. Their products add value to the life of the people who use them and to the work of the professionals who choose them every day.

Contact: www.v2home.com

New Products

ABB i-bus® KNX Logic controller ABA/S 1.2.1

ABB STOTZ-KONTAKT GMBH Smart Buildings under control? With the new ABB Logic Controller ABA/S 1.2.1, system integrators can quickly and flexibly deal with the most challenging project requirements – with a maximum level of freedom in design. That is because the logic controller can easily and reliably accommodate altered or extended functionality requests during the construction or usage of buildings. *Contact: www.new.abb.com*

KNX Communication Module

ALGODUE ELETTRONICA The modules, designed and built entirely in Italy, are optimal for energy metering, power and power swings in home automation, civil and industrial plants and photovoltaic systems. The compact size also makes it an ideal product for installation in narrow spaces. Each KNX module can be combined with Algodue UEC single- and three-phase counters, and can also be used in the event of product replacements. Algodue Elettronica, thanks to decades of experience in the field of industrial customisation (OEM), also offers versions designed and manufactured based on the customer's specific needs. *Contact: www.algodue.it/eng*

New Apricum RF Media Coupler

APRICUM D.O.O. The Apricum RF media coupler MECrf connects the RF media to the KNX TP bus system. With the MECrf, it is easily possible to suppress the configuration of devices from the RF subline to the TP main line. Filtering of messages can be temporarily suspended by a single push button action. The push button can be configured by the user and the period of suspension can be set with an ETS parameter. Other KNX lines can thus be accessed even without downloading from the ETS. This simplifies the commissioning of every KNX system. The MECrf supports long frames and enables telegram filtering according to Individual and Group Addresses. In addition, all faulty communication on the KNX bus is accurately indicated by the dual LED display.

Contact: www.apricum.com

The thermal energy calculator CALEC® ST II now also supports KNX

AQUAMETRO AG Thermal energy calculators are an integral part of modern energy management systems. CALEC® ST II is characterised by its high accuracy and the multi-bus capability. It is recently also available with a KNX interface. It calculates the energy consumption on the basis of parameters, which can be transferred to a central monitoring system. CALEC ST® II is even more versatile thanks to KNX and it additionally offers BACnet MS / TP, M-Bus and interfaces for other technologies.. The regular energy reading can for example be performed with a conventional system and at the same time the energy and temperature values of CALEC® ST II can be integrated into the KNX system.

Contact: www.aquametro.com

VFace – Ultimate VRF Interface

ASTRUM TECHNOLOGY LTD VFace is an easy configurable VRV / VRF gateway for KNX projects, supports most of the existing brands and provides end users with full control of all indoor units via KNX or web interface. Easy integration of VRF without any other equipment directly to KNX and simple configuration of all settings via the web interface. It can also be used remotely by web interface to control and monitor indoor units or to create timing scenes for indoor units. Moreover, VFace has a 7" touch screen option that can be used as a central remote controller. *Contact:* www.astrum.com.tr

FHD Player

AV STUMPFL GMBH Wherever you need professional media playout solutions to be integrated with effective KNX workflows, AV Stumpfl can offer both fully compatible software and hardware solutions. Using our Avio Manager software toolkit, building automation projects featuring audio visual displays can be easily set up using node point connections. The FHD Player hardware combines high quality and interactive media playout and natively integrates into KNX bus networks. Potential applications range from museums to corporate digital signage. You can maximise efficiency and remove compatibility issues when integrating AV displays by using AV Stumpfl products in this way.

Contact: www.avstumpfl.com/en

KNX occupancy detector
for intelligent building automation

B.E.G. BRÜCK ELECTRONIC GMBH The new PD2N-KNX is available in three different functional variants: BA (simple requirements), ST (common requirements) und DX (demanding applications). Innovative functions such as short presence, i. e. reduced follow-up time after only a short period of presence or offset via three light zones enable perfect lighting control. Thanks to birectional remote control, the parameters can be read out easily at any time. Due to an internal and external light sensor and an additional brightness object as well as the possibility to connect an external light sensor via infrared, light measurement is optimised. *Contact:* www.beg-luxomat.com

AUDIO AMP for KNX audio devices

BAB TECHNOLOGIE GMBH AUDIO AMP, a powerful amplifier with a power output of 2 x 50 watts, is the perfect supplement for the AUDIO MODULE KNX line. As a DIN rail mounted device, it is ideally suited for discrete and tamper-proof installations. An efficient class D amplifier and the integrated DSP chip (192 kHz / 24 bit sample rate) provide excellent sound quality, while the auto standby feature ensures a particularly low power consumption. With its 3.5 mm phone jack, the AUDIO AMP offers a flexible and convenient input. Volume and mute can additionally be controlled by floating contacts.

Contact: www.bab-tec.de

Basalte introduces new Deseo temperature controller

BASALTE At ISE 2017, Basalte introduced the Deseo temperature controller, a comprehensive HVAC controller that directly integrates with KNX home automation. Its elegant design and use of top-quality materials enable HVAC control to blend into any interior, thanks to the high-quality finishes such as aluminium, bronze and glass. The internal temperature sensor and thermostat monitor heating, cooling and ventilation in the room. Its unique, user-friendly interface provides simple controls for setpoint, ventilation and modes. Combined with Basalte's unique multi-touch functionalities, Deseo becomes the one-stop keypad for HVAC and quick lighting control in your room.

Contact: www.basalte.be

LED dimmer SXT with integrated power supply

BILTON INTERNATIONAL GMBH The optimum effect of the light is only achieved through professional LED lighting management. BILTON offers control units in three devices and in all standard signal variants. The SXT series is a 1 – 4 channel LED dimmer for constant voltage-powered LED modules, with an integrated power supply. The new control unit provides an output load of 96 W with an input current of 24 V. Each channel can have a maximum load of 4 A. Further advantages are the simple control of scenes and sequences, quick configuration time and the adjustment of the dimming curve. The Bilton LED dimmer SXT is available in the following signal options: KNX, DALI, Switch Dim, DMX, 1 – 10 V Analogue. *Contact: www.biltongroup.com*

realKNX – Siri® Voice Control

BLEU COMM AZUR SARL Use voice control and query through Siri® for KNX. The realKNX mini server acts as a bridge between a KNX installation and Apple's iDevices. realKNX enables voice control and powerful automation including geofencing. realKNX requires no configuration. The realKNX mini server will automatically find the KNX proServ gateway, then load the building structure that has been configured in ETS and expose it to the Apple clients. This will take five minutes and requires no interaction. Finally launch the realKNX app – it will automatically sort all KNX functions in the rooms. Siri and HomeKit compatible apps are now ready to use.

Contact: www.proknx.com

KNX MCU-04 DC

BMS – BUILDING MANAGEMENT SYSTEMS The main and sub modules for 24 V DC drives include four motor outputs and eight binary inputs per device. The connection to the KNX bus is realised via the main module. Thus each combination is just one KNX participant. Integrated security objects and priority management ensure that the controlled products like blinds, awnings, large louvre blades, roller shutters, windows, light domes, etc. are damage-proof at any time. The speed control during acceleration and braking protects the drives and the blockage detection ensures a risk-free operation. The automatic detection of end positions, the 6-byte "SunControl" object as well as the preconfigured product libraries and movement strategies provide support with fast commissioning. *Contact: www.bms-solutions.de*

BSmart KNX Multi Function

BSMART 24 / 16 / 8 / 4-fold KNX binary output for switching and control of loads or 12 / 8 / 4 / 2-fold KNX actuator for the control of drives for motorised blinds, shutters or curtains. To be used in KNX installations for home and building automation. BSmart KNX products make it possible to achieve the most convenient solutions for projects and also increase the comfort of living spaces while decreasing energy costs.   *Contact:* www.bsmart-knx.com

Busch-Presence Detector

BUSCH-JAEGER The new Busch-Presence detector Corridor KNX is especially designed for use in hallways and long corridors. The detector reaches a detection range of up to 30 metres. This single device covers areas which previously required several detectors to be used. Its extra-flat design blends seamlessly into the existing room design. With the integrated room temperature controller, the premium version of the Busch-Presence detector Corridor KNX can additionally regulate heating and cooling. Moreover, constant lighting control as well as two power off stages can be implemented. The detector can also be set to programming mode via the infrared remote control.

Contact: www.busch-jaeger.de/en

CJC launches NINA Design Switch on KNX

CJC SYSTEMS The Belgian pioneer in design switches launched their famous "NINA" collection on KNX so you can now easily integrate this KNX design switch into your KNX project. The cover plate, made out of aluminium, is available in more than 14 high-end finishes. Each lever is available in chrome, gold, antique silver and antique bronze and has a separate function for upward and downward movement. Other possibilities: short and long keystroke, night and day LED indicators, brightness adaptability, dimming, blind / shutter control, lightscenes etc. This collection is available with or without control LED and can be equipped with an optional temperature and humidity sensor. It is available with up to two levers on a single cover plate and is to be installed in universal built-in boxes.   *Contact:* www.cjcsystems.com

Jigsaw Server with Integrated KNX Interface

COMFORTCLICK ComfortClick Jigsaw is the new server for controlling KNX-based smart homes. Jigsaw now comes with an integrated KNX interface and bOS visualisation software, which enables you to control all devices in your smart building from a single app on any mobile device. In addition to KNX, Jigsaw also supports: Z-Wave, Modbus, DSC alarm, Sonos, IP cameras, Kodi, Global Caché, IRTrans, Philips Hue, SMA devices, TCP / IP devices and IP intercoms. bOS Configurator enables you to design your own custom GUI, logical operations, scenes and schedules. Control and monitor your smart home with free bOS Client apps for iOS, Android and Windows or Amazon Echo.

Contact: www.comfortclick.com
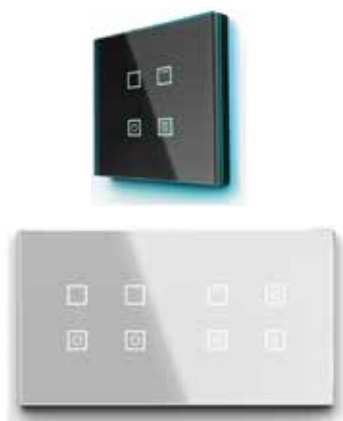
HomeCockpit Minor

DIALOGIC SYSTEMS GMBH & CO. KG Now with two HDMI and USB ports. A monitoring system that simplifies everything: The new Minor generation from Dialogic Systems has two HMDI and USB ports, so two PCs can be connected and controlled simultaneously. The KNX visualisation for building automation can thus be run on one computer, while the other PC monitors security technology, for instance. To this end, there is a 3 mm thick, touch-operated, real glass panel and a sound card, plus loudspeakers and a microphone. A voice performance module and a 5 MP camera are available as options too. Get in touch with the future! *Contact:* www.home-cockpit.de/en

Laüka: New multifunctional capacitive Pushbuttons

DINUY S.A. New Laüka range of touch-sensitive glass pushbuttons, allowing control of lighting and blinds. *Control:* The Laüka series is a range of switches designed to provide full control to the user over the lighting, the blinds and, in turn, the ability to memorise scenes to generate the desired ambience. *Versatility:* Created to meet the diverse needs of both professional and private types of installations: home, restaurants, hotels, etc. *Integration:* Perfect integration in all types of interiors. *Functionality:* Formed by 4/8 buttons where direct functions can be assigned to control the lighting, move the blinds or create personalised scenes. It incorporates temperature sensors and a configurable thermostat. *Contact:* www.dinuy.com/en

DIVUS HEARTBEAT

DIVUS GMBH The solution for your stable, secure and controlled network. DIVUS HEARTBEAT is a hardware software solution, composed of a PoE+ enabled managed switch and an innovative manager for KNX CONTROL. Integrated into the network, it creates a secure area for building automation, the "DIVUS SECURE NET". A protected intranet, in which the devices interact perfectly, but can not be attacked from the outside. Additional features such as status scan, real-time monitoring, system diagnostics and troubleshooting provide support through automatically generated system reports making it to an indispensable innovation for your building network! *Contact:* www.divus.eu

EAE XD100 KNX SENSOR

EAE TECHNOLOGY XD100 KNX detector with a compact and unobtrusive design is ideal for interior rooms such as medium- to large-sized offices, corridors, classrooms, car parks, conference and meeting rooms. The detector is available in two models; PD100 presence detector, MD100 motion detector. Both models have flush-mounted and surface-mounted versions. XD100 has three independent channels; presence, lighting (up to four lighting groups) and HVAC. The constant lighting function can be applied with two different setpoints related to the presence information (e. g. during presence: 500 lux, during absence: 100 lux). The lighting can be set to different brightness levels or scenes can be recalled based on motion detection thanks to the corridor function. XD100 KNX detector can either be used as a standalone device or master-slave device (parallel operation with other XD100s) according to the requirements. *Contact:* www.eaetechnology.com

Universal Dimmer 4 Channels x 300W

EELECTRON SPA DM04A01KNX is a KNX universal power dimmer with four channels x 300 W, automatic identification of the load type and with configurable parameters to optimise the control of different lamps such as LED, incandescent and halogen, CFL dimmable lights and low voltage lamps with electronic or ferromagnetic transformer.   *Contact: www.eelectron.com*

ekey – Know who is coming home!

EKEY BIOMETRIC SYSTEMS By integrating ekey fingerprint access control systems via a KNX interface, the ultimate benefit will be added to your installation: personalised building control using biometric data that guarantees unique identification. Save up to 99 fingerprints within one installation and use up to ten ekey events to program customised scenarios through the ETS. Apart from these ten standard events, there is a dedicated event available for unknown fingerprints / users. A security event can be triggered automatically after a certain number of rejections were recognised by the ekey finger scanner within a configurable time period.   *Contact: www.ekey.net / en / home*

KNX pushbutton with thermostat

EKINEX BY SBS The new ekinex® EK-ED2-TP pushbuttons are KNX devices for switching loads, dimming lighting devices, controlling shutters or other programmable functions. Thanks to the integrated temperature sensor, the device can be configured to work also as a room temperature controller. The push buttons can be completed with square or rectangular rockers; in addition to plastic and aluminum, Fenix NTM® is now available – an innovative nanotech material with outstanding features. Two LED (blue / green or white / red) for each channel are programmable as status feedback or orientation light. The devices are designed for wall installation in a flush mounting box and are equipped with an integrated KNX bus communication module.

Contact: www.ekinex.com

Interface KNX B8-TH

ELSNER ELEKTRONIK GMBH The KNX B8-TH is a compact interface that fits into any switch box. Via eight binary inputs, for example, contacts for windows or push buttons for dimming, switching or up / down movement are integrated into the KNX system. Wall sensors for 55 mm switch series and a feed probe connected to special inputs provide values for the internal ambient and ventilation control of the interface. The room temperature and air humidity are thus recorded. If required, the surface temperature of a heating / cooling system is also measured and the dew point is monitored.

Contact: www.elsner-elektronik.de / en

LogicMachine5 Cloud Services

EMBEDDED SYSTEMS SIA Cloud services like Amazon Echo, Apple Home-Kit and others, can now speak to KNX. Amazon provides a voice interface to combine home control, music control, home shopping, news, traffic and weather updates and more. Voice-assisted living has never been so easy to implement with new LogicMachine5. LogicMachine5 controls and interconnects all Amazon Echo and Apple devices and allows you to control your installation via voice commands. *Contact:* www.logicmachine.net

Enertex KNX SmartMeter 85A RT

ENERTEX BAYERN GMBH Enertex introduces a new variant of its SmartMeter with an integrated clock. The variant includes all the features of the basic device: bidirectional energy meter, measurement of current, voltage, active power, reactive power, power factor, THD, harmonics, zero system current. Due to its internal clock, the SmartMeter can even record all the values with a correct time stamp, if no KNX bus is connected. Therefore the device can also be used as a standalone data logger to record the power supply quality and energy consumption or generation, without the need for any software configuration. In this mode, all the measurement values are recorded at each minute on an SD card in the CSV text format. *Contact:* www.enertex.de

Panno S Intelligent Control Panel

ENNO ELECTRONICS CO., LTD. Panno S, the next generation "all in one" product, is the world's first home automation system control panel from enno electronics that integrates multiple protocols and is compatible with KNX bus technology, EnOcean wireless technology, Apple HomeKit and RS485 standards. Aircraft-grade aluminum metal with vibration feedback, adaptive 320*320 AMOLED backlit LED display, 8 zone 0–10 V dimming control, Apple Siri voice control, iOS App control and proximity sensor. Without additional modules or switches installed, you can easily set up and control the lights, air conditioning and HVAC ventilation system in your home. Numerous functions are integrated that allow most of the demands to be satisfied.

Contact: www.enno.com

Intelligent lighting for KNX

ESYLUX GMBH presents the first KNX-compatible DALI lighting system in the form of a new design of the NOVA system solution. A KNX module directly integrated in the master lights permits seamless integration in KNX building automation systems and means that there is no need to install a separate gateway. This allows the master lights – and in turn, the entire system – to be conveniently controlled and read out from a central control point. As you would expect, the master lights, together with the slave lights, provide constant lighting control based on the amount of natural light. At higher configuration levels, the lights emit biologically effective lighting using ESYLUX's SymbiLogic technology. *Contact:* www.esylux.com

eSMART 4building Series

EXOR INTERNATIONAL S.P.A. EXOR International eSMART Series are advanced KNX HMI devices for a flexible and lightweight solution in building automation. The products have been designed for budget home control. The support of KNX IP and other protocols with JMobile efficient gateway capability is a bonus for integration. The compact mechanical size results in an easier installation in a home or building environment. With the availability of OPC UA server and client, the product is IoT ready. Ready for wall mounting. Display size 4.3", 7" and 10.1". *Contact: www.exorint.net*

THERMO ICE KNX BY GEWISS

GEWISS Fully realised with plate glass, commands, touch type, circular slider, rear projection display and RGB LED, THERMO ICE KNX allows you to manage heating / cooling systems in a 2- or 4-way system, using algorithms of two-point control, proportional-integral control and fan coil. If combined with a humidity outdoor sensor, it enables a system for humidification / dehumidification to be managed. It includes temperature and proximity sensors as well as two inputs for potential-free contacts (window contact, temperature sensor NTC external, etc.). Available in white, black and titanium, it can be implemented either in KNX systems or KNX Easy systems. Suitable for round, square and rectangular boxes. *Contact: www.pro.gewiss.com*

Gira X1

GIRA GIERSIEPEN GMBH & CO. KG The Gira X1 is the simple and cost-efficient way to achieve an intelligent home with a KNX system. It can do all the things that are necessary and practical in a single-family home: switching lights on and off, activating light scenes, controlling blinds, setting a comfortable temperature and visualising the various functions – inside the building or remotely via the app. The X1 can be rapidly and easily installed on a DIN-rail and quickly parameterised by an electrician. Functions such as device-less logic simulation and the ability to set up or maintain the project remotely via Internet and VPN accelerate the start-up process and reduce costs for the customer.

Contact: www.gira.com/en

LED Dimming Actuator, 4-fold, 350mA

GREAT EMPIRE INTERNATIONAL GROUP CO., LTD. The dimmer with LED constant current can drive the LED directly, has four independent channels and two independent outputs. The output current of each channel can be set via the linked switch button and can produce 350 mA / 700 mA or 700 mA / 1 A. When the output current exceeds the rated current of the load, the load will probably burn out and cannot use a 700 mA output to drive 350 mA LED. In the case of a full load, if all LED are 350 mA, the dimmer can output eight fold, but if some LED are 700 mA or 1 A, it cannot output eight fold in certain configurations and the LED cannot reach the expected brightness value.

Contact: www.geigcl.com
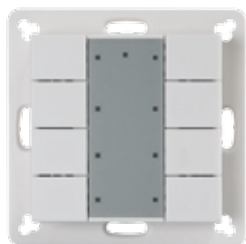
New Hager KNX pulse gateways

HAGER VERTRIEBSGESELLSCHAFT MBH & CO. KG Hager's KNX pulse gateways TXE771 and TXE773 with one or three channels can be connected to any mechanical electricity, water, gas or heat meter using the S0 interface in accordance with DIN 43864. The devices convert the analogue pulse values into digital KNX telegrams and transmit them at intervals specified between one minute and 24 hours to e. g. a KNX server. The programming of the device can be carried out using either the ETS or the easy configuration tool. Thanks to its waterproof IP44 housing and an operating temperature ranging from -20°C to +55°C, assembly is also possible in damp locations or outside.

Contact: www.hager.de

Switching Actuators with Current Detection

HDL AUTOMATION CO., LTD (HDL) The M/4.20.1, M/8.20.1, M/12.20.1 and M/16.20.1 expansion switch actuators all feature current detection technology and fully comply with EU safety standards as well as with KNX. Capable of single channel current reporting, total current reporting and dual current threshold control, the HDL range of channel switching expansion actuators with current detection precisely combine form and function into a singularly unique package. For effective current detection three modes are available, these being automatic mode, trigger mode and comparison mode. The current report generated by the modules supports 2-byte and 4-byte floating point type data types. *Contact: www.hdlautomation.com*

SR-KN9550 KNX Push Buttons

HONGKONG SUNRICHER TECHNOLOGY LIMITED The new KNX push buttons are available with two, four, six, or eight button surfaces, which are arranged vertically and can be used in pairs or as individual button surfaces. The device provides extensive functions including switching and dimming (absolute or relative), lightscene control, blind and shutter control and room thermostat control which are freely configurable with ETS to any button. The push buttons fit in 55 mm systems with direct connection to the KNX bus and are powered by the KNX bus. *Contact: www.sunricher.com*

Air quality sensor and control

HUGO MÜLLER GMBH & CO KG The air quality sensor (AQS) GS 41.00 KNX offers detection of the air quality (CO_2 concentration compensated by atmospheric pressure, temperature, relative humidity) as well as air quality control functions. The sensors are commonly found in office buildings, schools and private homes. Due to wall-mounted housing, ideal sensor positioning is possible. In addition, the two-part device setup guarantees a simple installation. Manual adjustment of the setpoint temperature (range: +/- 3°C) is available via the integrated touch panel. Various options and parameters within the ETS application offer adaption to multiple solutions.

Contact: www.hugo-mueller.com

MURA IP Door Station

IDDERO presents the new MURA IP door station: An elegant, robust door intercom unit that provides full colour video and high-quality digital audio over IP, allowing users to talk to the visitor at their door from a dedicated indoor monitor, a standard SIP (VoIP) phone, or a smartphone or tablet. Together with Iddero's HCx-KNX touch panels, the MURA IP door station provides a solution that fully integrates IP door communications into any KNX installation. The door phone events function makes it possible to trigger actions – such as opening the door – with KNX telegrams, or to receive KNX notifications in response to events such as the reception of an incoming call. Available in multiple configurations. *Contact: www.muraip.com*

RGBWL-K

INGENIUM SL – BES KNX The new RGBWL-K (reference DM480440) is a 4-channel controller for controlling RGB, RGBW or any other low voltage (10 – 24 V DC) LED strip modules. It allows each output to be controlled independently to regulate four monochrome channels or all channels simultaneously for RGB and RGBW applications. It is able to select a particular colour using a colour selector and to modify the brightness of the chosen colour or of each channel individually. This device also allows the programming of scenes and sequences and also has an advanced logic unit with eight blocks of operations including logic, comparison and arithmetic operations as well as timer blocks and counters. *Contact: www.besknx.com/website/en*

DK-RC-KNX-1i with 4 binary inputs

INTESISBOX IntesisBox® adds to its portfolio the DK-RC-KNX-1i gateway, expanding its range of products for the integration of Daikin's air conditioning products. The new gateway, like the current DK-RC-KNX-1, allows you to control and monitor all the air conditioner's operating parameters from KNX in an entirely bi-directional way. The main novelty is that the DK-RC-KNX-1i incorporates four binary inputs that will allow KNX integrators to integrate different external devices into their home automation projects. These binary inputs can develop four standard KNX functions such as switching, regulation, shutter control and value sending. In addition, they enable three internal functions to be executed from the own gateway. *Contact: www.intesisbox.com*

Power Block actuators – the intelligent decentralised control centre

IPAS GMBH With Power Block, IPAS presents for the first time 16 AC load switch actuators with 8 and 16 outputs in a DIN-rail enclosure. The Power Block actuator series stands out due to its compact format and the extremely powerful application. In addition to numerous parameters defining individual functions or switch outputs, alarm, time, scene and regulator functions can also be activated in the application. These can be used independently of the configuration of the outputs. The switch outputs can be configured individually as binary or shutter outputs. *Contact: www.ipas-products.com*

iRidium lite for KNX

IRIDIUM MOBILE It's a solution for the fast setup of KNX projects with no programming. To control equipment, download i3 lite from the Apple Store or Google Play and import your ETS project or configure it via Weinzierl 771 / 772 / 777. Next, create the floors, rooms and add control modules to different zones. A graphic interface is created automatically. The project is ready to use. You can create routines and schedules of equipment. If necessary, your customers can add A / V and IoT gadgets to the project. iRidium lite can be used with the iRidium server to collect, store and process data, compile trends, run routines and logic functions 24 / 7. iRidium lite enables the control of KNX equipment combined with other automation systems, A / V and IoT gadgets. *Contact:* www.iridiummobile.net

ise smart connect KNX Remote Access

ISE INDIVIDUELLE SOFTWARE-ENTWICKLUNG GMBH The new "Remote Access" is the revised version of the "ise smart connect KNX Secure". The easy-to-install secure remote access is not only a significant assistance for the electrical installer and a cost reduction for parameterisation and maintenance. Customers also benefit from the significant advantages of remote access. In addition to access control and access to cameras and web-based visualisations, the gateway has been extended by a notification system. Now messages can be sent directly via individual rules from the KNX as an email (with attachment), SMS or voice call. *Contact:* www.ise.de/en

New KNX Stack from ITK Engineering

ITK ENGINEERING AG KNbriX from ITK Engineering links smart home solutions with the KNX bus and works to achieve a fast integration of components and functions. The KNX Stack is available in two editions: the basic version serves as a gateway solution. KNbriX Plus is a single chip solution for both application and stack. The user-friendly form of the API allows for smooth communication between the client application and the KNX Stack from ITK. Both make up the perfect core package for development of KNX devices from small to large quantities within very short development timeframes.

Contact: www.itk-engineering.de/en

JUNG F50 KNX Compact room controller

ALBRECHT JUNG GMBH & CO. KG The F50 KNX compact room controller appeals due to its intuitive operation and two built-in temperature controllers. The backlit LCD clearly shows the most important values and functions, irrespective of the viewing angle. Depending on the respective functions, the button icons shown on the display may be individually selected during programming. Buttons labelled using the graphic tool further assist the user in assigning functions; the same applies to the RGB status LED. Push button sensor or controller functions may be assigned to each of the room controller buttons.

Contact: www.jung.de/en

MDT JAL-0410.02 / JAL-0810.02
Shutter Actuator 2-/4-/8-fold

MDT TECHNOLOGIES GMBH The new series of MDT Shutter Actuators has been enhanced with extensive functions. These functions are: Integrated logical functions for window contacts (open / tilt) with practical ventilation function; automatic sun protection / slat guidance with sun protection calculation; plain text diagnosis with 14 byte Group Object; enhanced block functions. Each channel can be parameterised individually. Status response, block functions, central switch functions and functions for calibrating and positioning can be selected. It is possible to create eight scenes per channel and the behaviour in event of bus voltage failure or recovery is adjustable.

Contact: www.mdt.de/EN

KNX DALI-Gateway REG-K

MERTEN GMBH New: Merten KNX/DALI-Gateway MEG6725-0001 supports DT8 tunable white and colour control. Tunable white enables the change between warm white and cold white. This can be used to enhance the feeling of well-being (Human Centric Lighting). Additionally RGBW and XY control format is supported. The typical application for these formats is improved product presentation – making fruit look good in a supermarket etc. or to attract attention to an advertisement. A new timer enables the smooth change of brightness and colour for all three formats. A firmware upgrade is available to upgrade older devices. *Contact: www.schneider-electric.com/en*

New NETx BMS visualisation
for modern building automation projects

NETXAUTOMATION SOFTWARE GMBH With the NETx BMS visualisation, the further development of NETx Voyager visualisation will be launched in 2017. The NETx BMS visualisation is part of the NETx BMS solution and impresses with numerous new features, such as configurable pages / groups and objects with variables, freely scalable view / pages, new button mode for XLogic functions and long / short click or secure server client communication thanks to TLS. Multiple pages and screens are also possible with the new visualisation. In addition, the user is free to choose between PC or web-based visualisation.

Contact: www.netxautomation.com

New KNX Twisted Pair Controller
Integrated Circuits

ON SEMICONDUCTOR has introduced three new KNX controllers: NCN5121 and NCN5130 contain the complete KNX PHY and MAC layers, while NCN5110 is an analogue-only bit transceiver. New features include a fixed 3.3 V and a programmable 1.2 – 21 V DC-DC controller, an analogue signal monitoring output, the option to work with one crystal in the application, excellent efficiency by a proprietary energy recovery method. The minimum bus coupler capacitor is reduced to 27µF. NCN5130 DC-DC controllers can draw 100 mA; the total allowable bus current is increased to 40 mA. All parts come in 6 x 6 QFN-40 pin packages and have a junction temperature range of -40 to 125°. Evaluation boards with user manuals and documentation are available.

Contact: www.onsemi.com

3.5 inch Touch Screen Panel (TFT)

PROLITE CONTROLS The TFT is connected to the bus via the KNX connection terminals and need a 30 V DC additional supply voltage to assign the Individual Address and configure the software parameter settings and to update the data directly through an SD card. The TFT functions are summarised as follows: 1. capacitive touch screen, TFT colour display; 2. switching, scenes, dimming, curtain control, intelligent scene control and other control functions 3. time and date display 4. screensaver options: clock, electronic photo album, gradient black or do not use; 5. configuration of the database through the PC software and updating data directly via an SD card and 6. customising the setting of the main interfaces *Contact: www.prolitecontrols.com*

KNX Edge

REDFISH GROUP PTY LTD The KNX Edge is a modern, secure interface between the KNX network and the rest of the world. At its core, it supports the KNXnet/IP protocol, with up to 100 concurrent tunnelling connections. Secure end-to-end remote access (including programming with the ETS) is included with the KNX Anywhere cloud service. Individual connections can be configured via the firewall service. Also included: KNXnet/IP secure. Web ready (management app, web services). Group object data cache. Configured for guaranteed automatic security updates (manual updates possible).

Contact: www.redfish.com.au

230 V KNX Actuator, 1 – 4 colour LED

RUTEC LICHT GMBH & CO. KG The KNX LED dimmer 80120 is used for 1 – 4 colour 24 V DC LED lighting strips and has an integrated power supply for up to 100 W. The intelligent load identification system distributes the total channel output depending on the occupancy. With the extensive application file, various types of regulation and switching behaviour such as relative / absolute dimming, soft dimming function, 60 scenes, six colour sequences and colour circle function are possible. The device also has features and safety elements like reset function, short circuit / overvoltage protection and overtemperature protection. Due to its compact design, it is suitable for a variety of installation situations. *Contact: www.rutec.de*

U.motion TP 7 inch – Version 2

SCHNEIDER ELECTRIC The U.motion touch panels put an elegant frame around the visualisation. The ultra-slim Android-based 7 inch touch panel is now powered with Android 4.2. It is compatible with many apps on the market and can be used in combination with U.motion servers, homeLYnk, spaceLYnk or InSideControl, through dedicated apps. This complete solution is especially interesting with the new firmware of homeLYnk and spaceLYnk. Now the end user can use the same interface at home and anywhere in the world using smartphones, tablets and touch screens.

Contact: www.schneider-electric.com

New filter function for the Line and Backbone Couplers

SIEMENS AG With the new application program "000131" for line and backbone coupler N 140/_3, it is now possible with ETS4/5 to set the "filter" function for the Main Groups 16 to 31, also for devices that have already been installed. The Group Address based communication on the KNX bus can thus be optimised. Additionally, the new blocking function of individually addressed telegrams provides increased protection against sabotage. If the transmission of these telegrams is blocked at the Line Coupler e. g. from main line to the line, then the commissioning of these devices is only possible within the line. The described function is also available for IP router N 146/02.

Contact: www.siemens.com/gamma

Cloud-based automation

SIEMENS SCHWEIZ AG Synco IC is a cloud-based system working on a mobile, tablet or PC, and provides a complete plant overview from anywhere, anytime. Remote access greatly reduces site travel and enhances energy-efficient operation. Connecting a building is easy and takes just a few minutes. The system configuration as well as fault diagnosis and intervention can be done remotely; and multiple sites can be controlled centrally. At one glance, the most important information about the plant is visible and allows users to quickly correct the settings with a click of the mouse.

Contact: www.siemens.com/synco-ic

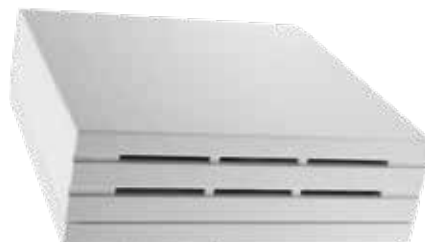# SIN.EQRTUEVO1T M-Bus / W.M-Bus Web server

SINAPSI SRL SIN.EQRTUEVO1T is a web server with an integrated data logger to acquire data from sinapsitech® smart repeaters, which collects information from devices that use wireless M-Bus protocol such as meters, heat cost allocators, digital and analogue I/O, probes. It also integrates a 20-device M-Bus port for wired applications. SIN.EQRTUEVO1T is SSL compliant and can manage up to 500 meters providing storage of daily readings for 10 years. The web interface allows report generation, M-Bus network setup and I/O management. The B.M.S. version allows a simple integration into most complete and complex building automation systems, making communication available via TCP / IP in KNX and other protocols.

Contact: www.sinapsitech.it

Universal Radio Receiver

SOMFY Thanks to the universal radio receiver, commands from the Somfy RTS remotes can conveniently be transmitted to the KNX bus network for integration with any application. The receiver enables the control of any shading application, any switch function, lighting, dimming, heating, cooling, or ventilation via the same wireless RTS remote control. Up to ten universal radio inputs with max. five transmitters can be used per input. The device is powered over the KNX bus network. The RTS receiver for 447 MHz is available in 2 / 2017 while the 433 MHz variant will follow Q3 / 2017. *Contact: www.somfy.com*
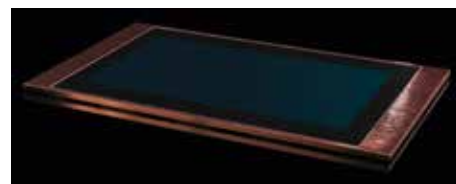
IS 3360 KNX

STEINEL VERTRIEB GMBH The IS 3360 KNX infrared motion detector from STEINEL PROFESSIONAL watches over more than 1,000 m² of space in large buildings, multi-storey car parks and indoor facilities. Providing a 360 degree angle of coverage, it ensures precision detection of any movement within a range of 20 m from a height of up to 4 m. Designed either for concealed or surface-mounted installation, it is available with a square or round enclosure for maximum versatility. Giving a range of user-friendly functions, it can be integrated into any chosen KNX installation with effortless ease.

Contact: www.steinel-professional.de/en

Touch Panel Edition3 refinement

T2M2 GMBH manufactures high-quality individual parts for building visualisation, which fit perfectly into a wide range of residential areas. Whether discrete or glossy – the high-quality coatings of our panels made from precious and non-precious materials (e. g. gold, copper or rhodium) – provide a stylish ambience of unmistakable uniqueness. The touch panels also have an integrated KNX interface and are available in the sizes of 10 – 24 inches.

Contact: www.en.t2m2.de

TP USB Interface UIM-KNX 42

TAPKO TECHNOLOGIES TAPKO's TP USB interface device UIM-KNX 42 enables addressing of every device in a KNX bus system with no extra application program required. It provides a PC / KNX data connection for commissioning, visualisation, protocolling and diagnosis. Via cEMI protocol, any software based on Falcon can use the UIM-KNX 42 for communication with other bus devices. Due to USB HID profile support, no specific USB driver is required. The UIM-KNX 42 supports long frames as well as a special diagnostic mode. To be ready for KNX Data Security, it is mandatory for a USB TP interface device to support long telegrams. *Contact: www.tapko.com*

pureKNX-line7

TCI GESELLSCHAFT FÜR TECHNISCHE INFORMATIK MBH The new touch panel pureKNX-line7 completes the pureKNX family. Functionally it is oriented on the KNX base unit. Thanks to its glass touch-sensitive surface, it also convinces with its high-quality design. The system-wide operating concept "easy smart home" is simple and clear: four touch zones in the corners, a touchpad at the centre and a control ring for dimming or setting the room temperature. The functions of the individual control interfaces are freely parameterisable. Thanks to mobile apps for Android and iOS, the visualisation via smartphone can be operated with the same "look and feel". Through the simultaneous use of touch panels and mobile devices, users enjoy the benefits of both worlds even globally. *Contact: www.ambiento.de/en*

MOTIVITY PLUS: Built-on motion detector

TENSE TOP DESIGN SWITCHES has launched an innovative built-on motion detector which combines functionality and an elegant design in a beautiful way. Thanks to its discrete housing, you can easily install the built-on motion detector on walls, plasterboard and concrete. Furthermore, this product is waterproof so this motion detector can be mounted outside as well. This product is available in white. But do you have a dark ceiling or wall? Do not worry, then just use the black variant. This built-on motion detector has a subtle cylindrical design due to its 30 x 73 mm dimensions. And it will create a uniform look in a project. In short, this design product offers every comfort and convenience to the customer. *Contact: www.tense.be*

KNX-OT-Box S

THEBEN AG Two field buses, one installation – the connection inbetween is this little box, which enables the bidirectional exchange of data between the OT boiler and the heat distribution via the KNX system. The KNX-OT-Box S allows demand-oriented and weather-compensated flow control, control of domestic hot water, and much more. It even provides a legionella protection program. As practical as with the MIX2 actuators: Also here, the KNX bus module can be removed, replaced and programmed, independently of the device. *Contact: www.theben.co.uk*

KNX/DALI Gateway

THEBEN HTS The KNX/DALI Gateway combines the DALI protocol of digital lighting control with the building automation across rooms. It controls up to 64 operating units with DALI interface and assigns a DALI address to each DALI participant. The DALI participants can be combined in up to 16 groups of lights, and be controlled via KNX, individually or via scenes. Which lamps shine full of ambience at which brightness, or in which RGB colour – all this can be controlled via the KNX/DALI Gateway. *Contact: www.theben-hts.ch*

Audiofy now embeds ThinKnx server

THINKNX BY PULSAR ENGINEERING SRL Audiofy, the powerful, integrated, multiroom professional audio system now includes ThinKnx supervision functionalities. Just with a dedicated plug-in, you can now have complete control of KNX plants and of all the integrated devices even from other technologies. like every ThinKnx server. Controlled by a complete set of native apps, Audiofy streams music content from internal players (which can play all the most diffused digital audio format from DLNA and UPnP Media server, Spotify, AirPlay etc.) or from analogue stereo inputs towards up to 16 rooms, allowing the end user to manage the routing of audio sources directly from his smartphone / tablet or KNX. *Contact: www.thinknx.com*

Control4 KNX Integration Suite

TISCO GMBH This release focuses on intuitive blind and slat control using sliders and a modern graphical user interface for HVAC functions with individual presets and scheduling. Currently 12 common thermostat manufacturers are supported directly. Light and multimedia scenes can be fully customised by the user. Multimedia zones can be controlled using a text display and keypads. For advanced integration modules for text messages, ntp time master, logic and generic communication are available. *Contact: www.tisco.at*

Vimar KNX transponder readers

VIMAR SPA Alluring at first sight, the Eikon Tactil ranges make a smooth, bright glass surface come alive. And beneath this elegant material you will find the Vimar KNX transponder readers for installation outside rooms. These devices have two relays to control the door lock, a courtesy light, or for other uses. With two inputs for connecting On/Off electrical equipment (for example to control the switch for opening and closing the door, a magnetic contact for signalling windows are open or closed, ceiling pull alarm, etc.) they are supplied with a front panel with four LED, each one associated to an icon for signalling a state. *Contact: www.vimar.com*

WAREMA KNX sunshading actuators SA

WAREMA RENKHOFF SE Adding the new WAREMA KNX multiple actuator to the surface-mounted housing allows between two and eight sun shading drives of 24 V DC voltage or 230 V AC voltage to be controlled independently of each other. The manual override operation and activation of the KNX programming button via Bluetooth and smartphone app are innovative and unique. Another advantage: easily replaceable miniature fuses provide the optimum line protection for the connected components, guaranteeing an extra level of safety. Standard commercial (venetian blind) push buttons can be connected via integrated binary inputs. *Contact: www.warema.com*

KNX USB Interface Stick 332

WEINZIERL ENGINEERING GMBH The KNX USB Stick 332 is a compact interface for the KNX bus. Like the new KNX USB interface 312 (DIN-rail mounted, 18 mm), the new stick supports the so-called KNX long frames. Longer telegrams speed up the download and are required for KNX security. The integrated LED show the connection status, telegram traffic as well as communication errors on the bus. The stick is compatible with the ETS® software (ETS3 or higher) and with numerous visualisations. The SDK kDrive is available for Windows and Linux to integrate the interface into its own programs. A module variant is also available for integration into the device.

Contact: www.weinzierl.de/en

Combo Multifunc. Switch Actuator

YÖNNET With the combo multifunction switch actuator, Yonnet provides control for lighting, shutters/blinds, underfloor heating and on/off valve. The product ranges is from 4-gang up to 24-gang with six different sizes available (4-, 8-, 12-, 16-, 20- and 24-gang modules). Yonnet offers good quality, very competitive prices and strong support.   *Contact:* www.yonnet.com.tr/Eng

IWAC Display

ZENNIO AVANCE Y TECNOLOGÍA SL IWAC Display is the Zennio access controller with display for hotels, which allows room access to guests through NFC or Bluetooth. Its design is printed on a high-strength tempered glass with exclusive customisation (images, icons, texts or logo) to give the desired aesthetic impression. The 2.4" backlit display shows the room number / name, an image or message when a guest is trying to access the room. IWAC Display allows each button to be selected to be used as a door bell, switch or any other action. Two outputs make it possible to open the door as well as the activation of other systems, such as the door bell. Two analogue / digital inputs are included. *Contact:* www.zennio.com

Swiss Garde 360 Presence

M. ZÜBLIN AG The five second installation: This product offers a fast installation with a very discrete and well-designed appearance. It is one product out of an identical family. If you know one product, you can handle all installation situations. The product family offers spring clips, flush mounting, surface mounting IP20 to IP55. Functionality focused on lighting control and presence detection. To facilitate the commissioning, the functionality is optimised for on / off or daylight control with a wide variety of applications such as manual override, standby light, presence detection, lightscenes and run time configuration of time and lux value *Contact:* www.en.zublin.de

National Groups

KNX Australia at Integrate 2017

AUSTRALIA KNX National Group Australia presented itself with an impressive booth at Integrate 2016, Australia's leading AV, live production + system integration event. Being one of the biggest events in Australia and given the fact that thousands of KNX bags were handed out, the performance of KNX Australia was a major success, which underlines the great work of this KNX National Group.

Contact: Ian Richardson | info@knx.org.au
www.knx.org.au

Impressive booth by KNX Australia

KNX Austria Event at T-Center

AUSTRIA KNX National Group Austria held its annual KNX Event. The event was opened with a presentation by Robert Marzy, President of KNX Austria, delivering a short overview of the KNX world and its benefits compared to propriety solutions, server solutions or pure cloud solutions. The presentations were very exciting and will definitely benefit the participants in their daily life.

Contact: Robert Marzy | robert.marzy@hager.com
www.knxaustria.at

Presentation of KNX Austria

KNX Belgium networking meeting with focus on IoT

BELGIUM KNX National Group Belgium organised its annual KNX Event at the Thomas More College in St. Katelijne-Waver, focussing on IP and the Internet of Things (IoT). In addition, the ETS Inside was introduced. About 150 KNX Professionals, KNX manufacturers and KNX partners attended the last KNX Belgium meeting of the year with interesting sessions by various speakers.

Contact: info@knx.be | www.knx.be

160 participants at KNX Networking event

Presentation by Jorge Martínez, President KNX Chile

KNX Chile promotes the KNX Standard

CHILE Witnessed by more than 70 participants, DAR-TEL, the main electrical distributor in Chile, announced its coverage of KNX products for the national market of Chile. With presentations by KNX National Group Chile, addressing all various professions and representatives of DARTEL (including the General Manager), KNX Chile is now ready to harvest the first fruits of their many activities.

Contact: Mario Sanhueza | msanhueza@inacap.cl
www.knx.org/cl

KNX China organises Technology Day in Beijing

CHINA KNX National Group China organised its KNX Technology Day in Beijing. More than 75 persons had found their way to the conference room. Topics covered KNX's long-term strategy in the Internet of Things, even beyond the now available KNX IoT 1.0 Web Services, ETS Inside and KNX Secure. KNX National Group China also used the occasion to hand out the KNX China Awards for the local best KNX projects.

Contact: Shen Pu | info@knxchina.org
www.knxchina.org

Presentation of ETS Inside to the KNX China community

KNX Colombia at TecnoMultimedia InfoComm

COLOMBIA KNX National Group Colombia presented itself at the benchmark exhibition for audio and video solutions in Bogota from 11th to 13th of October. The show was visited by more than 5000 visitors. Although it was the first performance of KNX Colombia at this fair, the solutions drew an astonishing amount of the visitor's interest. The success of this show proves that KNX is the perfect technology for this market.

Contact: Haiber Roland | haiberjimenezb@misena.edu.co
www.knx.org/co

Visitors actively looking for KNX

KNX Czech Republic focusing on KNX beginners

CZECHIA KNX National Group Czech Republic participated in the two biggest Czech electrical conferences with KNX lectures, as well as in a trade fair in Hradec Kralove. Besides the promotion of KNX, the major focus of KNX National Group Czech Republic was on KNX beginners. The participants of the workshops were acquainted not only with the theory of KNX but also with the practical aspects of the ETS5.5.

Contact: Josef Kunc | sekretar@knxcz.cz | www.knxcz.cz

KNX workshop for Hradec Kralove

KNX booth is centre of attention

KNX Denmark at Ajour Fair in Odense

DENMARK KNX National Group Denmark participated successfully at Ajour fair in Odense. The 2-day event attracted more than 1800 visitors. With the 9 m² booth at the fair, KNX Denmark played a leading role amongst all 150 exhibitors, underlined by the 30 minutes presentation about metering and energy optimisation with KNX. The goal to achieve more people in the benefits of KNX was thus more than achieved.

Contact: Lillian Andersen | lillian.andersen@schneider-electric.com | www.knxdenmark.dk

Social media and KNX Training Centres in Finland

FINLAND KNX National Group Finland's Facebook group counts more than 200 users. Active dialogues and fast responses to questions are the core of this group. The members of KNX National Group Finland are actively involved in supporting product issues and configuration questions on the field. Also, the 8th KNX Training Center was opened in 2016, thanks to which KNX can continue to train KNX professionals to serve the Finnish market.

Contact: Johan Stigzelius | johan.stigzelius@knx.fi
www.knx.fi

KNX training in full action

KNX booth and conference at IBS 2016

KNX France at IBS 2016: News and Crowds of visitors

FRANCE The KNX National Group France booth at IBS 2016 successfully welcomed hundreds of visitors from all fields. Beyond this, KNX National Group France organised workshops, addressing the whole KNX community. With nearly 100 listeners, the conference covered several topics, such as an introduction of KNX and ETS, followed by presentations. One of the highlights was the presentation of newly created documentation for the first time.

Contact: Amel Karim | contact@knx.fr | www.knx.fr

7. ZVEI Kolloquium Building automation in Frankfurt

GERMANY Around 200 participants from all various fields of the electrical industry, gathered at Kap Europa and discussed "The Internet of Things". That IoT has become a part of everybody's life, was proven not only by the lively discussions. It became clear that the Internet of Things is developing at a fast pace, for which the home and building control standards have to contribute to proactively.

Contact: Hajo Deul | knx@zvei.org | www.knx.de

More than 200 participants at the ZVEI Kolloquium

KNX India successfully organised its 2nd Roadshow

INDIA Full rooms in New Delhi, Mumbai and Hyderabad – The 2nd KNX Roadshow of KNX National Group India successfully reached out to the Indian community. Highlight of this event was the introduction of the first KNX Networking Forum. Every 2-day stop was concluded with an ETS Training Workshop, which also highlighted the many advantages of the manufacturer independent tool.

Contact: *Bhavesh Doshi | info@knx.in | www.knx.in*

Networking at KNX Forum in Mumbai

Panel discussion at KNX Italy Day

The KNX Italy Day 2016 at Supernova Festival

ITALY The KNX Italy Day was held during the Supernova Festival, which brings the culture of innovation in the square with exhibitions, conferences and workshops. The day addressed the issue of IoT in the panel discussion "IoT revolution: the Internet of things embraces the building". During the KNX Day, the award ceremony for the best Italian KNX projects in five categories was held concurrently.

Contact: *segreteria@konnex.it | www.knx.it*

KNX Japan host technical seminar

JAPAN KNX National Group Japan hosted its first technical seminar on 29th November in Tokyo. With more than 60 participants, the seminar was a complete success! Under the theme "Towards the new era of multi-vendor IoT", presenters from various backgrounds, such as BACnet, KNX and Microsoft's IoT&Clound, spoke about the future of open, integrated control systems in the IoT world. The event concluded with an enjoyable networking party.

Contact: *Takayuki Shintani | info@knx.or.jp*
           www.knx.or.jp

Presenting KNX IoT and Secure at the seminar

Collaboration for KS Code Standardisation

KASH 한국스마트홈산업협회
Korea Association of Smart Home

KNX 한국협회

Collaboration between KNX Korea and KASH

KOREA KNX National Group Korea and KASH (Korea Association of Smart Home, www.kashi.or.kr) are scheduled to join forces as strategic partners. KASH will support KNX National Group Korea to stimulate the KNX business and will handle the standardisation of the KNX Protocol in Korean, which will not only benefit the Korean KNX market, but also underline the objective of KNX Association to be recognised as a worldwide standard.

Contact: *Martin Han | info@knx.or.kr | www.knx.or.kr*

Successful "KNX DAYS 2106" in Luxemburg

LUXEMBOURG KNX National Group Luxembourg hosted its first KNX DAYS event. This two-day exhibition was attended by wholesalers, installers, integrators, KNX users and the KNX training centre CNFPC. Participants had the opportunity to exchange ideas on the latest KNX topics, and see some great exhibitor presentations. There was also the opportunity to win ETS5 licences in a competition that ran over both days.

Contact: *Alphonse Massard | info@knx.lu | www.knx.lu*

ETS5 Professional Licence for the happy winner

KNX – The perfect technology for Mexico

MEXICO The World Trade Center in Mexico City was the venue for Tecnomultimedia Infoccom, the leading fair for audio / video solutions as well as building automation technology. Being present with manufacturers, integrators and also KNX tutors, KNX National Group Mexico presented itself in the best possible way, making all visitors understand that KNX offers the solution to many requirements in Mexico.

Contact: Maribel Pacheco | info@knx.mx | www.knx.mx

Successful conclusion of the day in Mexico

Co-operation between STABU and KNX Netherlands

NETHERLANDS A mutual workgroup with members from both KNX National Group Netherlands and representatives of STABU have worked towards a base structure for specification texts for home and building control in 2016. On 10th November 2016, STABU presented the first results of the mutual collaboration. This year the workgroup will continue their work to elaborate on the first results.

Contact: *Rob van Mil | info@knx.nl | www.knx.nl*

Strong co-operation: STABU and KNX Netherlands

KNX New Zealand announcing winner prize draw

NEW ZEALAND A prize draw for an ETS5 Professional license was held for all visitors to Facilities Integrate 2016. Announced at this week's "KNX Professionals" meeting, the lucky winner was Mike Taylor of "Aotea Electric Nelson" who is looking forward to using KNX in projects in the Nelson area. Aotea Electric has already successfully completed a number of KNX installations.

Contact: *Colin Price | info@knxnz.org | www.knx.org.nz*

Colin Price (President KNX New Zealand) and Mike Taylor

KNX Poland active throughout the year

POLAND With events in Glivice and Sopot, KNX National Group Poland brought the worldwide standard for home and building control closer to the people. With various workshops and presentation, as well as guest speeches from the industry, KNX Poland once more proved that it is a group for the whole country. The next event will take place in Warsaw, which again is expected to be sold-out.

Contact: Jan Worobiec | jan.worobiec@targetpress.pl
www.knxpolska.pl

KNX conference in Sopot

New KNX Handbook in Romania

ROMANIA KNX National Group Romania proudly presented its Romanian KNX Handbook in 2016. Within a short period of time, KNX National Group Romania achieved again another milestone, which will not only spread more knowledge in the Romanian market, but also generate further profit, which can be used at exhibitions, workshops and forums in the country. The book is available as hardcopy or as eBook.

Contact: Rafael Marculescu | presedinte@knx.ro
www.knx.ro

KNX Handbook in Romanian

KNX Russia at Interlight by Messe Frankfurt

RUSSIA KNX National Group Russia and KNX Userclub Russia combined their forces and successfully performed at Interlight, the leading fair for home and building control in Russia. The KNX booth was supported by all KNX manufacturers, presenting the latest innovations for KNX. Highlights were concurrent presentations, tours and also the award for the best booth at Interlight.

Contact: Andrey Golovin | golovin@konnex-russia.ru
www.konnex-russia.ru

Visitors at the KNX city booth in Russia

KNX Roadshow South East Asia reaching out to new markets

SOUTH EAST ASIA With the first event in Thailand, KNX reached another part of this world. Continuing in Singapore and Malaysia, the 2nd KNX Roadshow South East Asia underlined once again, the high demand for open technologies for home and building control. Besides sold-out events, further highlights were the foundation of the KNX Userclub Thailand as well as the involvement in ASEAN Skills competition.

Contact: Stella Toh | stella@stellarcorp.com.sg
www.knx.asia

Presentation at first event in Thailand

Successful participation in Matelec fair

SPAIN KNX National Group Spain participated in MATELEC'16 with a total booth space of 750 m². 14 members exhibited the latest KNX innovations. Integrators exhibited in the central area with large posters of the most representative projects and the solutions. This space was also used as a networking area for all KNX Spain members and as a congress area for presentations about KNX Secure, KNX IoT and ETS Inside.

Contact: Michael Sartor | info@knx.es | www.knx.es

KNX National Group Spain booth and congress area

KNX at the EasyFairs in Stockholm

SWEDEN KNX National Group Sweden participated at EasyFairs, a two-day fair in October and was present with a booth and seminars about the "KNX Consultants Handbook" and the "KNX Villa – a market analysis about all cost for a standard private villa". The result that KNX was cheaper than a conventional installation created a lot of interest and visitors in the booth.

Contact: Jan Hammersköld | info@knx.se | www.knx.se

KNX Sweden seminar at EasyFairs 2016

Survey amongst Swiss KNX Partners

SWITZERLAND KNX National Group Swiss conducted a survey amongst its KNX Partners. The development of revenue was positively rated. In hindsight, there is a very positive attitude towards the market development. The survey's results show that the price plays only the 4th most important role when choosing the right system. Criteria, such as usage, quality and open system is of more importance to the integrators.

Contact: René Senn | knx@knx.ch | www.knx.ch

General Assembly of KNX Swiss

KNX UK seminar event at MTC, Coventry

UK KNX National Group UK hosted a special event in October at the Manufacturing Technology Centre, Coventry. Guests were treated to two excellent presentations "Smart Home and Intelligent Building Control: Energy Efficiency in Buildings" by David Shephard (ABB) and "Commercial Controls" by Jon Payne (Entech) followed by a lively Q&A session. ABB, Theben and BEG brought catalogues and products for discussion.

Contact: Tara Gartland | admin@knxuk.org
www.knxuk.org

The Manufacturing Technology Centre, Coventry

KNX Userclub / Professionals

KNX Professional Austria founded

AUSTRIA With the foundation of KNX Professional Austria, the Austrian market is delighted to welcome another platform for integrators for sharing experiences and enhancing the KNX technology in Austria. With the availability of the KNX Professionals Austria, everyone in Austria now has the chance to join a KNX platform without longjourneys for meetings and events, making KNX thereby more accessible.

Contact: Mario-Pascal Necker
mario.pascal.necker@knx-professionals.org
www.knx-professionals.org

KNX Professional Austria's founding members

Dynamitec winner KNX Innovation Award 2016

BELGIUM System integrator Dynamitec from Gent has won the Belgium KNX Innovation Award 2016. Head judge Jan Derua handed over the award during the network meeting from KNX Belgium on the 8th September 2016. Dynamitec earned the award with rebuilding a single family home to create two separate residential units with a residential care character.

Contact: Hannelore Verdonckt | info@knx-professionals.be
www.knx.org/be-nl/KNX-Belgie

Proud winner of KNX Innovation Award 2016

KNX Professionals Germany at GET NORD

GERMANY Once again, KNX Professionals Germany participated at GET Nord, the only joint trade fair for electrical engineering, sanitation, heating and air conditioning in northern Germany. Focus was the increasing demand for security in home and building control. With the presentation of KNX Secure to the visitors, KNX is already offering the perfect solution for this show's focus.

Contact: Dirk Müller | info@knx-professionals.de
www.knx-professionals.de

KNX Professionals Germany at GetNord

KNX Professionals opening the conference

National Conference Building Automatisation 2016

NETHERLANDS On 10th November 2016 KNX organised its network meeting during the National Conference Building Automatisation. During this event several speakers took the stage to talk about current and future market developments in which KNX will play a part and successful construction projects in which KNX played an important role.

Contact: Ineke van Erp | info@knx.nl
www.knx-professionals.nl

Extraordinary Award Ceremony at Matelec'16

SPAIN Once again, the best projects were presented with the Energy Efficiency award. The projects of the finalists were exhibited with large posters during the four days of the fair. The winners in the three categories were announced at the Award Ceremony during the last Matelec fair, where they received their awards, including a ETS5 Professional licence. The performance of a magician and a cocktail rounded the event.

Contact: Michael Sartor | michael.sartor@knx.es
www.knx-professionals.es

Best projects awarded by KNX Spain

KNX city presentation by Mr. John Lau

KNX Userclub Hong Kong for Smart City framework

HONG KONG After its successful registration, KNX Userclub Hong Kong was invited by Hong Kong Science Technology Park to present the KNX city. Due to the ambitions in Hong Kong as well as the increased awareness of KNX city, KNX Userclub Hong Kong is a major cornerstone for the transformation of Kowloon East to a smart city district, resulting in a greater awareness for KNX and all KNX members in Hong Kong.

Contact: John Lau | john_lau@suffice.com.hk

KNX Userclub Iran founded

IRAN A huge market with motivated integrators, service providers and KNX fans. Due to the given circumstances, a national platform was needed, allowing the organising of KNX events, workshops and training. After the first KNX Training Centres were set up, it was time for the KNX Userclub to get started with their activities. The group consists of five founding members with great commitment.

Contact: Roozbeh Bita | roozbeh2004@gmail.com

KNX Userclub Iran's founding members

Possibly the largest KNX device

KNX Userclub Malaysia
Main Sponsor of ASEAN Skills

MALAYSIA KNX Userclub Malaysia once again impressively demonstrated the high influence of the worldwide standard for home and building control in the local market. Not only was KNX Userclub Malaysia the main sponsor for the 2016 edition of ASEAN Skills, also the impressive booth and many activities during the competition highlighted once again the great reputation in Southeast Asia.

Contact: GP Chandran | gpchand@zmc.net.my
                    www.knx.org

KNX Userclub inviting
to the summer PlugFest

RUSSIA The summer edition of the successful PlugFest welcomed KNX manufacturers and KNX Userclub members, in order to exchange the latest news about KNX, including presentations of the latest KNX products and solutions. The audience's feedback was again very positive, thanks to the professional workshops, product presentations and concurrent presentations by the KNX Userclub and its members.

Contact: Dmitrij Sass | dmitry.sass@knx-user-club.ru
                    www.knx-club.ru

High attendence at KNX PlugFest

KNX is welcoming KNX Userclub
Thailand to the community

THAILAND The KNX Forum in Bangkok was not only the first event in Thailand, it was also the ideal opportunity to welcome the next KNX Userclub to the worldwide KNX community in Thailand. Gathering the community in one spot, the newest KNX Userclub was born. With active KNX Training Centres, members and integrators, the KNX Userclub Thailand has huge potential to have an impact on the growing Thai market.

Contact: Benoit Guillerey | benoit@phuket-technology.com

First KNX event in Thailand

New Training Centres

AFPA
France
smail.gaoua@afpa.fr
www.Afpa.fr

Armita Kish
Iran, Islamic Republic of
payam.kamranfar@gmail.com
www.armitakish.com

ENTA – Escola de Novas Tecnologias dos Açores
Portugal
tec.a.r@hotmail.com

Hujer Ingenieurbüro
Germany
info@hujer-eib.de
www.hujer-eib.de

INSTELL AS
Norway
torstein@instell.no
www.instell.no

Jyväskylän ammattiopisto
Finland
sahkokilta@jao.fi
www.jao.fi/fi/Jyvaskylan-ammattiopisto

Koulutuskeskus SEDU
Finland
srv-system@nic.fi
www.sedu.fi/fi

Legrand KNX training centre
Hungary
kummerzoltan2016@gmail.com
www.legrand.hu

Omega Power Equipment Pty Ltd
Australia
jamesp@omegapower.com.au
www.omegapower.com.au

Phuket Technology
Thailand
info@phuket-technology.com
www.phuket-technology.com

Schneider Electric
Latvia
andris@ak-studija.lv
www.schneider-electric.lv

Smart Build
Iran, Islamic Republic of
mahdavian@smartbuild.ir
www.smartbuild.ir

Yasha Electronic Co.
Iran, Islamic Republic of
e_monazzah@yashaco.ir
www.yashaco.ir

ETS Inside

The ETS Inside is the new tool by KNX Association for your smart home project. Do you want to learn more about the new tool? Then have a look in the new ETS Inside flyers.

More at:
http://etsinside.knx.org

KNX New Scientific Partners

Hellenic Open University
Greece
ldoulos@mail.ntua.gr
www.eap.gr

Hochschule Kaiserslautern (Standort Zweibrücken)
Germany
jan.conrad@hs-kl.de
www.hs-kl.de

ies jaroso
Spain
electronicajaroso@gmail.com
www.fp.iesjaroso.es

TGM
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christian.pfeiler@tgm.ac.at
www.tgm.ac.at

Universita' Politecnica delle Marche
Italy
e.gambi@univpm.it
www.univpm.it

University of Tampere
Finland
roope.raisamo@uta.fi
www.uta.fi

Zhongyuan University of Technology
China
zhangsq@zut.edu.cn
www.cs.zut.edu.cn

More info:
Visit our website:
www.knx.org

KNX at International Conferences and Fairs

Largest Extension of Members in the History of KTB

BELGIUM KNX took the initiative of motivating a number of very active KNX members to join the ranks of the KNX Technical Board, the highest technical decision body in the KNX Association. An overwhelming number of members reacted to this call, resulting in the biggest increase ever in the history of the KNX Technical Board. This brings the members to 21. *Contact:* www.knx.org

The representatives of the KNX Association together with the KTB core members from companies like: Eelectron, Zennio, Intesis, Tapko, Weinzierl, Gewiss, Vimar, Elsner, Albrecht Jung, Gira, Siemens, SBT, ABB Stotz, Theben, Hager, Busch Jaeger, Merten, Feller, Schneider, Elsner and INSTA. The KTB meeting was kindly hosted by Theben.

1st KNX Userclub Online Conference successful

BELGIUM On 7th December, KNX Association held the first KNX Userclub Online Conference. The conference was attended by KNX Userclubs and Professionals from all over the world. Thanks to the great contributions by various KNX Userclubs, the conference's programme was very diversified and exciting. Confirmed by this success, the next KNX Userclub Online Conference will now be an annual event. *Contact:* www.knx.org

KNX Userclub Online Conference held annually

2016 Edition of KNX National Group Conference in Prague

CZECHIA KNX National Group presidents and secretaries from 25 countries paid the compliment of participating in the KNX National Group Conference. The 2-day conference in historical Prague covered many topics, such as the launch of the ETS Inside, as well as other topics. The 2016 conference was a major success and everybody is looking forward to the next conference in 2017 in Vienna. *Contact:* www.knx.org

Conference of the KNX National Groups in Prague

KNX Secure at ZVEH/VDE Conference

GERMANY The conference of ZVEH in Lübeck / Germany dealt with the topics of standardisation and handcraft in the age of digitalisation. The conference opened on 6th October, continuing on 7th October and consisted of presentations such as "handcraft 4.0", digitalisation and services, ambient assisted-living as well as smart homes. Joost Demarest highlighted how to secure KNX installations.

Contact: www.knx.org

Joost Demarest presenting KNX Secure to the audience during the conference

Successful KNX Certification conference in Dortmund

GERMANY The KNX Certification Conference took place in Dortmund and gathered together many visitors. The presentations of solutions made by system component providers were followed by a presentation by Joost Demarest and Steven de Bruyne about the approach of KNX specifications and development. Afterwards, Ufuk Unal presented the current status as well the future of the KNX certification procedure. *Contact: www.knx.org*

Sold-out KNX Certification Conference

KNX Scientific Conference

GERMANY The bi-annual KNX Scientific Conference was organised at the Fachhochschule Dortmund in Germany from 27th to 28th October 2016, attended by 60 participants from universities, institutes of technology and KNX members. The winner for the "Best Conference Paper" of the Scientific Conference was Friedrich Praus from the FH Technikum Wien from Austria for his paper called "KNX security devices". *Contact: www.knx.org*

Auditorium at the FH Dortmund

KNX invited to present its technology at lighting conferences

UK In 2016, KNX was invited to present its technology at a number of lighting-related conferences: at the Lighting Consortia Day organised by the ZVEI and the Strategies in Light Europe Conference held at ExCel in London, co-located with the Lux Live Lighting exhibition. At both events, Joost Demarest as CTO of KNX, highlighted the unique value propositions of the established KNX technology.

contact: www.knx.org

The conference rooms at Strategies in Light and ZVEI Lighting Consortia Day

An intense week of exchange between KNX and its members

GERMANY The KNX Tech Days are an annual event arranged by the KNX Association exclusively for its members, to inform them about the newest technological evolutions of the KNX standard. The event was organised for the German-speaking members in Frankfurt on 22nd and 23rd November, followed by an online session in English on 24th November. The next KNX Tech Days are scheduled in Italy and UK for 2017. *Contact:* www.knx.org

Heinz Lux, CEO of KNX Association, presenting the growth figures of the KNX community in the last years

KNX Training Centre Conference in Dortmund

GERMANY The 2016 KNX Training Centre Conference took place in Dortmund, Germany, on 9th December. More than 85 participants from all over the world gathered at the Robert-Bosch-Berufskolleg and took the opportunity to learn about the novelties of KNX and how they will affect KNX training in the long run. The conference was a big success, underlining the importance of KNX training all over the world. *Contact:* www.knx.org

Participants from all over the world

With effort and diligence – strategy for competition

SWEDEN Yvan Fässler, Switzerland (Gold), Matthias Moser, Austria (Silver) and Werner Sillanpää, Finland (Bronze) are the proud winners of the Skill Electrical Installation at EuroSkills 2016. During the three days of competition in the Gothia Towers of Gothenburg, Sweden, all three showed outstanding performances. KNX Association sincerely congratulates all the winners of the competition. *Contact:* www.knx.org

The proud winners of EuroSkills 2016

Events and Fairs Schedule

Power-Days
15. – 17. 3. 2017
Salzburg (Austria)
Home and Building Automation Fair
www.power-days.at

Energy Efficiency World Africa
28. – 29. 3. 2017
Johannesburg (Africa)
Africa's largest power and energy show
www.terrapinn.com/exhibition/ energy-efficiency

eltefa
29. – 31. 3. 2017
Stuttgart (Germany)
The most important regional trade fair in the electronics sector
www.messe-stuttgart.de/eltefa

elfack 2017
9. – 12. 5. 2017
Göteborg (Sweden)
The biggest meeting place for the Nordic electronics sector
www.elfack.com

Lightfair International
9. – 11. 5. 2017
Philadelphia (USA)
World's largest annual architectural and commercial lighting trade show and conference
www.lightfair.com

Guangzhou Electrical Building Technology 2017
9. – 12. 6. 2017
Guangzhou (China)
Trade fair for building technology and automation
www.building.messefrankfurt. com.cn

Integrate Australia
29. – 31. 8. 2017
Melbourne (Australia)
Australia's largest industry event for AV and systems integration
www.integrate-expo.com

Shanghai Intelligent Building Technology
5. – 7. 9. 2017
Shanghai (China)
Event that aims at brand building and invites professional buyers
www. shanghai-intelligent-building-technology.hk.messefrankfurt.com

ineltec 2017
12. – 15. 9. 2017
Basel (Switzerland)
Switzerland's leading electronics and building fair
www.ineltec.ch

BEX Asia 2017
13. – 15. 9. 2017
Marina Bay Sands (Singapore)
Building exposition in South East Asia focused on green building
www.bex-asia.com

BIEL Light + Building 2017
13. – 16. 9. 2017
Bueonos Aires (Argentina)
Bi-annual international trade fair for electrical engineering, electronics and lighting
www.biel.com.ar

Elektrotechniek 2017
26. – 28. 9. 2017
Utrecht (Netherlands)
The most important trade fair for the installer industry
www.elektrotechniek-online.nl

Facilities Integrate 2017

27. – 28. 9. 2017

Auckland (New Zealand)

The NZ trade exhibition for the facilities management and system integration industries
www.facilitiesintegrate.nz

WorldSkills 2017

14. – 19. 10. 2017

Abu Dhabi (United Arab Emirates)

The world's largest international skills competition
www.worldskills.org

Hi-Tech Building 2017

31. 10. – 2. 11. 2017

Moscow (Russia)

Trade show with focus on building automation and smart home systems
www.en.hitechbuilding.ru

Interlight Moscow

7. – 10. 11. 2017

Moscow (Russia)

International trade fair for lighting, electrical engineering, home and building automation
www.interlight-moscow.ru. messefrankfurt.com

Hem, Villa & Bostadsrätt Stockholm

12. – 15. 10. 2017

Stockholm (Sweden)

The largest do-it-yourself trade fair
www.stockholm.hemochvilla.se

Hem, Villa & Bostadsrätt Göteborg

27. – 29. 10. 2017

Göteborg (Sweden)

The largest do-it-yourself trade fair
www.goteborg.hemochvilla.se

inteclima+elec

7. – 10. 11. 2017

Paris (France)

An opportunity to discover the most innovative solutions which combine energy efficiency and comfort
www.interclimaelec.com

Concreta 2017

23. – 26. 11. 2017

Porto (Portugal)

Professional construction fair held every two years
www.concreta.exponor.pt

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TOOL SUPPORT
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KNX
THE WORLDWIDE STANDARD
FOR HOME AND BUILDING CONTROL

One Standard (ISO/IEC 14543)

One Tool (ETS)

All Media:
- Ethernet (IP)
- Twisted Pair (TP)
- Radio Frequency (RF)
- Powerline (PL)

405 KNX Manufacturers
in **41** Countries
7,000 KNX Certified Products

+66,150 KNX Partners
in **157** Countries

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