

thinknx

A complete solution

THINKNX SUPERVISION SYSTEM

ThinKnx is a universal, multi-purpose supervisor for building automation that allows to manage all the functions of the systems integrated into your smart home or building.

The different functions of home automation are handled by ThinKnx through a simple, appealing, highly customizable and multiplatform interface that allows to intimately and freely interact with the system using your tablet, iPhone, Android or Windows Smartphone.



RESIDENTIAL HOUSES

Create custom interfaces to control smart houses enhancing your living and providing better comfort, security, saving and easiness.



COMMERCIAL BUILDINGS

Manage smart buildings to speed up routine operations, simplify maintenance and improve energy savings while adding value due to integrated systems.

A real advantage

FOR OWNERS AND FOR SYSTEM INTEGRATORS

ThinKnx system comprehends all the parts needed to transform the building automation in a real advantage for the building owner enhancing benefits in many areas including saving on energy costs, limiting environmental impact and improving building security and safety.

It is a complete solution that helps also system integrators. Through very simple, intuitive and versatile tools, they are guided to create outstanding user interfaces easy to deploy and to mantain, to fulfill all the customers expectations. Our efficient and qualified technical support gives an additional value to ThinKnx system.



ThinKnx guarantees flexibility and scalability of the installation so it can be adapted to all the customers' needs. It supports installations on simple plants with integrated standard systems and meets the needs of more complex building allowing a huge quantity of systems to communicate to each other.

Integration and interoperability are favoured by the easiness during the configuration activity.



OTHER

BUSES

HIGHLY CUSTOMIZABLE

Both graphics and logics, everything can be decided during the configuration phase through an easy procedure.

All the graphics that will appear in the supervision software can be decided by the user. The supervision project can be multiuser in order to give the final user the control of different views and commands of the same plants.

Security is also guaranteed thanks to the use of restrictions and PIN codes.

ENGLAND OVER 2,000 SERVERS WALES utschland O Dre Over two thousand installations in the world prove the reliability and security of ThinKnx system. A constant attention to the requests and suggestions of customers, drives ThinKnx's staff to keep on working for improving products, searching for new solutions on terreich the cutting-edge of technology with the Austria aim of remaining the trailblazer for super-France vision systems. Hrvatska Croatia Босна и Херцеговина Bosnia and Herzegovina SMART България Bulgaria Kosova Косово Automated actions give a new value to the Македонија Macedonia (FYROM) building: thermostats, lights and other devices can be programmed to work following the habits of the householder. A powerful logic engine makes all the inte-Ελλάς arated systems able to communicate to Greece each other and to send feedbacks to the supervision following the rules defined by the user. Data coming from the plant can also be stored and can help to further increase comfort and efficiency. Malta





































We control

BUILDING AUTOMATION

Direct connection to the KNX bus Unlimited KNX-datapoint control Electrical switching

Dimming regulation

RGB Led control through KNX

Blinds control Generic timers Weather forecasts Scenes management

Philips Hue integration with KNX

Complex logical and mathematical

functions

Reading and sending of analog values

SMS gateway Generic gateway

Management of technical alarms with push notifications, e-mails and auto-

matic page change

User programmable calendar

Smart irrigation system

VOIP & INTERCOM

Integration of audio/video door stations for Windows, iPad, iPhone and Android clients

VoIP SIP server included

Simplified installation for devices of the following manufacturers:

Mobotix, 2N, TCS

LOADS CONTROL & REPORTS

Intelligent loads control Monitoring of analog values and sending of reports via email as lists or as interactive charts.

them all!

HOME ENTERTAINMENT

vices and systems:

- Sonos
- Tutondo
- Audio/Video multiroom matrices AMX, Autopatch, Kramer, Atlona, Gefen
- Integrated control of audio/video de- Amplifiers Denon, Onkyo, Cambridge Audio
 - Serial gateway
 - IR Trans for infrared control
 - Internet of Things gateway

SECURITY & CCTV

Visualization of IP Cameras with MJPEG or RTSP video flow

- Integrated control of security panels: - Bentel: KyoUnit, Kyo320, Absoluta
- Brahms: B4 CMP
- Paradox

- Elkron: MP508TG
- Aritech: Master Advisor
- Honeywell Galaxy
- Inim
- Urmet
- Siemens SPC

HVAC

Heating & cooling management with weekly timer

Temperature or modality based schedule

































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Discover ThinKnx servers

ThinKnx servers are the heart of the whole solution. All the devices are designed and optimized to manage an entire automation system. They are built for continuous operation with fanless processing device and have enough horsepower even for the most complex multi room buildings. Linux operating system and industrial solid state memories guarantee enhanced system reliability.

Further appealing characteristics are the direct KNX connection driven by proprietary stack, a very low power consumption and plenty of ports to integrate third party devices.

The Micro server empowers all these features using less than 1 Wattl











Compact

Standard automation Unlimited KNX groups Unlimited clients Multimedia control VolP (optional) Reports (optional) Security (optional)

Power: 12-18 VDC - 1A Max Nr. 1 EIB/KNX port Nr. 1 network port Nr. 1 standard RS232

Nr. 1 USB port KNX telegrams led

Micro

Standard automation Unlimited KNX groups Unlimited clients IR Transmitter VoIP (optional)

Power: 12-24 VDC - 1A Max Nr. 1 EIB/KNX port Nr. 1 network port KNX telegrams led Consumption 1 Watt

Rack

Standard automation Unlimited KNX groups Unlimited clients Multimedia control VolP Reports Security (optional)

Nr. 1 EIB/KNX port Nr. 2 serial ports for RS232 or RS485 Nr. 1 standard RS232

Nr. 4 USB ports Nr. 2 Ethernet ports

Micro ZWave

Standard automation Unlimited KNX groups Unlimited clients IR Transmitter VoIP (optional)

Power: 12-24 VDC - 1A Max Nr. 1 EIB/KNX port Nr. 1 network port KNX telegrams led Embedded ZWave Controller

Consumption 1 Watt



ThinKnx Configurator

ThinKnx Configurator is the tool for the creation and development of the supervision project. It allows to create all the connections needed between the graphic interface and the actual devices that are part of the system. With simple steps and intuitive parameters, graphical interfaces can be compiled with an high customization and used with all clients and all devices.

Just as easily, the user can create logics and configure system elements in order to achieve integration between all the devices. Finally, the tool allows to load the project on client devices and servers with differentiated exports according to the specific user.

Reports & Gateways Universal Gateway - Universal gateway



ThinKnx software suite comprehends a wide range of native applications to cover practically any mobile platform and operating system. Downloading the proper app, it is possible to take control of the system from iPad, iPhone, Android tablets and smartphones, Windows touch screen and PC with the same ease of use and efficiency.

Native applications, embedding all the graphics inside the mobile device, grant also the best possible performance during remote Wi-Fi or 3G connection, thus ensuring an uncomparable user experience.

Easy and intuitive interface

Graphical user interface is completely customizable following the needs of the final user. A multilevel structure will help to proceed inside the supervision since the first glance. The retractable main menu allows a pleasant navigation through the various functions simply scrolling them. Every function can contain an unlimited number of graphical pages.

The interface automatically complies with the resolution and orientation of the device in use, boosting readability and speeding up operations.





Customizable graphics

The appearance of every single function, page or object can be totally edited. For example it is possible to add a personalized background to a page (floor plan or photo) and freely position the objects (lights, motorizations, thermostats, etc.). A predefined icon set is available for every graphical object besides to the possibility to import on purpose created graphic.





Pop-ups for complex operations

For objects that require multiple user inputs, such as dimmers, RGB lights, motorizations, chronothermostats, timers etc., the system automatically prompts dialogs designed for the specific features of the object. This will help to mantain pages clear and to avoid to overcrowd them with excessive repeated buttons.



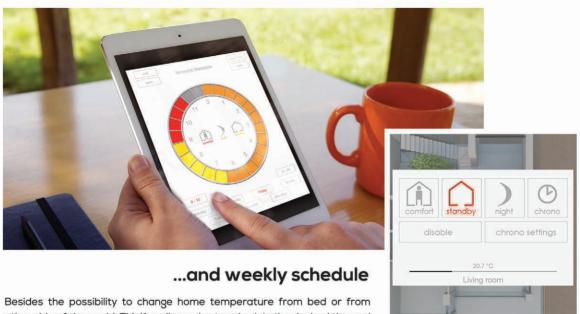


Heating and cooling regulation...

Intelligent climate control is crucial for a better life quality.

ThinKnx allows the user to operate and regulate heating, ventilation and air-conditioning in a seamless intuitive and easy wayin order to provide the desired thermal comfort and indoor air quality in the most efficient way.

ThinKnx powered smart-home will be able to automatically react to the changes of indoor or outdoor conditions: shades will raise or lower to follow sun times, heating or cooling will stop if a window is open and will start to welcome you back home with the perfect temperature.



other side of the world, ThinKnx allows also to schedule the desired thermal comfort for every room of the house during the week to grant the right temperature at the right time.

Self-explanatory dialogs plan temperatures or heating modality in winter or summer. Specifically designed views present the running settings in a comprehensive way to have the impression that the system is doing something that was not expected.



Scenes recording, launching ...

Repetitive operations will never be so boring. Through scenery objects it is possible to record multiple actions and to perform back them with a simple button in the graphical user interface or even with a normal on-wall push button. Sceneries can combine commands for any device of the system and are one of the most important bricks to build and adapt the automation system to the needs of daily life.



...and scheduling

Further benefits come from the possibility to automatically launch the recorded sceneries basing on a weekly time schedule or on an external action or trigger event. For instance, it is possible to automate the closure of all the shutters and the arming of the alarm system at a specific time in the evening if someone is in the house. Sceneries can also be concatenated and actions can be separated with pauses.

REPORTS

ThinKnx not only regulates building functions, but also compiles data to help owners to further increase the efficiencythe and comfort of their buildings.

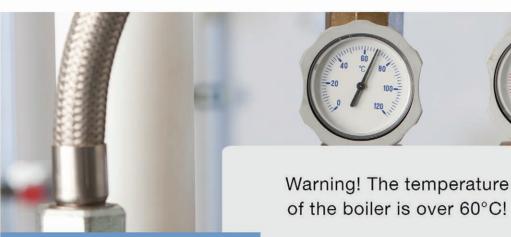
Any data like room temperatures, humidity levels, power consumptions, etc. can be stored locally in the server or in the cloud with a desired granularity and buffered for a predetermined span of time. The same data can be e-mailed in a tabular form or as interactive auto-generated charts.





CHARTS

Data collected by the server can be consulted in realtime directly from the user interface through interactive and responsive charts. The moltitude of plotting options and the possibility to include more data sets in the same chart allows to deeply analize the behaviour of the building and to find correlations between habits of the inhabitant and results in term of energy consumption and efficiency. It can help also to early identify and diagnose problems into the systems.

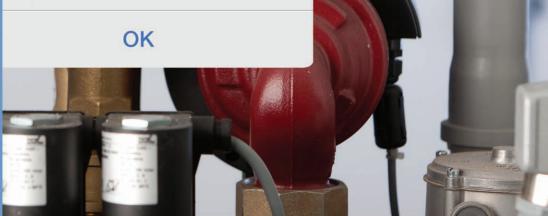


NOTIFICATIONS

Although remote control allows to stay always informed on what is happening at home, ThinKnx will also send alarm messages when some kind of important event is occurring. In case of alarm it is possible to receive push notifications, SMS or even emails that will help to react as fast as possible to the occurred technical problem, camera detection, intrusion or even door call.

SMART METERING

ThinKnx provides all the tools needed to analyze, compare and optimize energy tistical tools like charts and reports, it is possible to combine the usage of multiple energy sources easily and efficiently. The system can automatically use electricity from solar panels when it is available or schedule energy-consuming operations according to the most convenient supplier



IP CAMERAS AND CCTV

The complete home and building control gives the possibility to watch what is really happening thanks to cameras. ThinKnx permits to visualize practically every IP-camera and to create pages with multiple views and with interactive objects in order to be able to verify in realtime the result of a remote operation or to check if an alarm is true or false.

Also analog cameras are supported using IP-videoserver or integrated digital video recorder









Gate 2



Gate 3



Door Light









DOOR COMMUNICATION

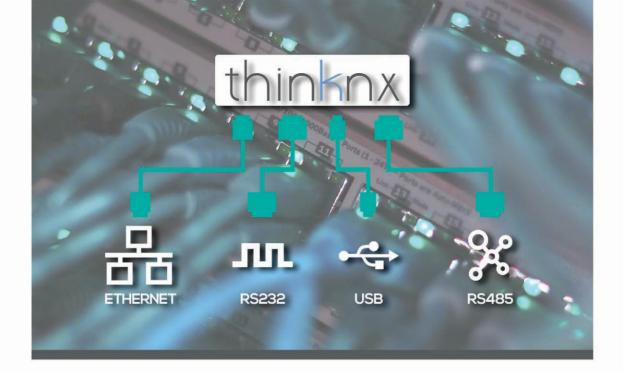
Answering to a door call when you are laying beside the pool is now possible using ThinKnx native apps. They are designed to support VoIP based door communication and to permit the complete management of gates and entrances. ThinKnx also embeds a VoIP server that facilitates system configuration and grants no missed call even when the app is running in background. Moreover, door camera can also be used to trigger events, sceneries like any other system camera.





Multimedia

ThinKnx is compatible with a large set of the most common audio and video equipments. This allows the complete control of home entertainment by means of customized and user-friendly graphical interfaces, centralizing and eliminating the needs of multiple separate remotes. Multimedia systems can also be operated from sceneries even in automated way. It will be instantaneous to enjoy desired music anywhere in the house.

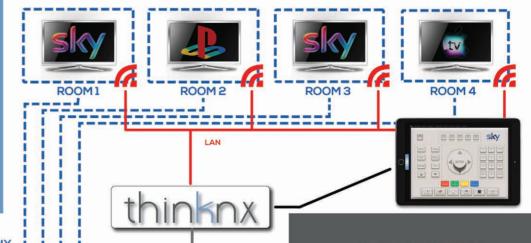


...and Internet of Things

In addition to the already embedded protocols, ThinKnx gives the chance to connect and control almost any kind of device thanks to a wide set of configurable link ports. Using ethernet, for instance, custom strings can be sent to devices to perform desired operations. Generic http requests can be associated to particular events and data transfers on serial ports can drive a scenery or other actions.

AUDIO/VIDEO MULTIROOM

The whole-house audio or video is a single, centralized system that can be controlled and enjoyed everywhere at home. In the various rooms of the house you can watch or listen to multiple independent centralized sources. ThinKnx user interface is the most obvious way to control such systems: it will be possible to select the desired source and to control it without having any information on its position and how it is connected to the screen, for a relaxing everyday experience.



VIDEO MATRIX SERIAL IR TRANSMITTERS

Devices which are not so sophistacated to have a dedicated control port, can be integrated into the ThinKnx system. In fact, by means of network infrared trasmitter, even the most simple CD player or satellite receiver can be controlled from the graphical interface and used in complex multiroom distributions. Furthermore, they can be integrated into sceneries and used in conjuction with other elements of the house as normal on-wall pushbuttons.



SONOS SONOS

SONOS

ThinKnx integrates every feature of the Sonos system, from single track to playlist reproduction. Even devices grouping can be decided in relation to other events. Sonos can also be controlled from KNX through ThinKnx, On-wall pushbuttons can be used to turn music on or off, to play a radio, to skip tracks, to change music volume and so on, without using a tablet or a mobile phone.



AUDIOFY

Audiofy is the simple yet powerful integrated multiroom professional audio system created by ThinKnx.

Only one device combines audio matrix routing, power amplifiers for each output and up to four independent network players. A native KNX TP port allows to send commands to the music system directly from other KNX devices and to receive feedbacks.



Multiproject

AND GEOLOCALIZATION

It is really common that a single user needs to control more than a plant, like main house, mountain chalet and maybe a yacht or the office. Thanks to multiproject feature it can be done easily from the same app. With just a touch, in fact, it is possible to switch from a plant to another in a while.

The app additionally helps to choose the right plant. Using geolocalization services, distance from every plant is computed and the nearest one is suggested.

User restrictions

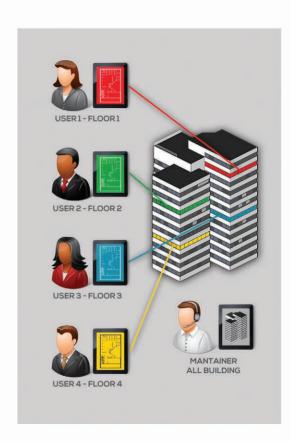
AND ELEMENTS PROTECTION

Interfaces can be customized and adapted to the single user within the same plant.

Every single functional object can be restricted to a particular user or a group of them. Thus, it is possible to create interfaces that respect hierarchy or the privacy of every single user. For instance, in a commercial building, users should be able to control just the floor of their pertinance while the building maintainer should have a vision of the entire building. The same logic can be used to control rooms in a hotel or flats in a tower.

The PIN protection feature, instead, fulfills the need to protect objects displayed in the interface which can't be excluded using restrictions feature. Indeed, in some cases customers require that the object is displayed on the interface but only a few people can control it.

PIN codes combined with user restrictions are the most powerful way to protect and customize the client application.





Background services

THE REAL POWER OF THINKNX

ThinKnx server is able to perform a considerable quantity of additional background services, for example: logical operations, message filtering, gateway towards Modbus etc.

Complex mathematical functions can be performed, for example, to compute:

- average temperature
- boiler power modulation
- loads consumption sum
- ventilations control

Moreover, ThinKnx Configurator allows to load on ThinKnx Cloud different versions of the same project. In this way, the final user just needs the server serial number and user password to update his client apps, avoiding long and complex deployment procedures.

Practical examples and a more detailed explanation can be found on our website www.thinknx.com in the download area.

Server web interface

AN EASY INTERFACE FOR SERVER MANAGEMENT

ThinKnx server integrates also an internal web server that allows to perform remote maintenance of the system.

The user from these pages can control the server status, update the firmware or reboot it. He can also enable or disable features through licenses management or authenticate clients devices. Indeed, to grant a secure connection, client devices that want to connect to ThinKnx server must be authenticated.

A realtime KNX group monitor is available to control KNX traffic and to read and write a particular group. The server displays also log messages regarding operations carried out in order to facilitate researches and troubleshooting. Logs can be filtered by a topic base and be exported to a csv file.

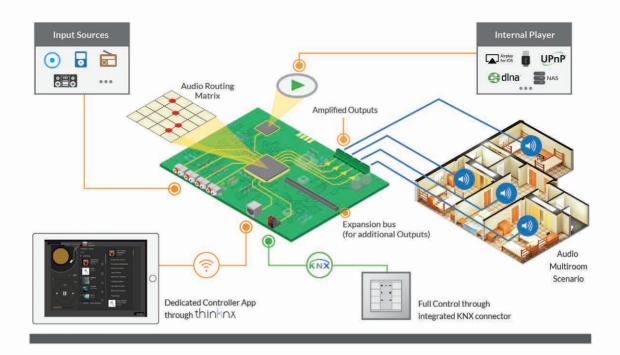


Audiofy KNX native professional multiroom audio system



ThinKnx Audiofy: the easiest way to enjoy your music...

Audiofy is the simple yet powerful integrated multiroom professional audio system created by Thinknx. Only one device combines audio matrix routing, power amplifiers for each output and up to four independent network players. The system permits to spread audio contents from external analog sources or from internal players towards up to 12 rooms with superior pure sound quality.



...fully integrated in the automation system

Thanks to the many protocols supported, Audiofy is perfectly integrated inside automation systems. A native KNX TP port allows to send commands to the music system directly from other KNX devices and to receive feedbacks. Moreover, a complete set of Apps grants a total control over your music listening experience coming from USB stick, network radios or from the most common streaming services.

The Quality numbers

ANALOG INPUTS:

High impedance, single ended inputs with pluggable screw terminals. Selectable gain (0 to 20dB) for each single input.

INTERNAL STREAMER

Streams and plays all the most diffused digital audio format. Each player is an AirPlay endpoint and Upnp renderer. It can play from DLNA and Upnp Media server, network sharings and USB pluggable storage.

SOUND PROCESSOR:

Each input can be routed to 1 or more of the outputs. 3-Band equalizer, +15dB/-79dB volume control and L/R balance adjust for each output.

POWER OUTPUTS:

Class D, high efficiency, 2x50 W continuous on 40hm, fault protected, stereo outputs.

THD+N = 0.1% @ 25W - SNR = 102dB









Audiofy P1

Permits to spread music coming from the 4 analog inputs or from the single internal player to 4 amplified outputs (expandable to 12)

Nr. 1 internal network player

Nr. 4 single ended inputs

Nr. 4 amplified stereo out Nr. 1 ethernet port

Nr. 1 EIB/KNX TP port

Nr. 1 USB port

Power 24Vdc 200W Max

Audiofy P4

Permits to spread music coming from the 2 analog inputs or from the 4 internal player to 4 amplified outputs (expandable to 12)

Nr. 4 internal network player

Nr. 2 single ended inputs

Nr. 4 amplified stereo out

Nr. 1 ethernet port

Nr. 1 EIB/KNX TP port

Nr. 1 USB port

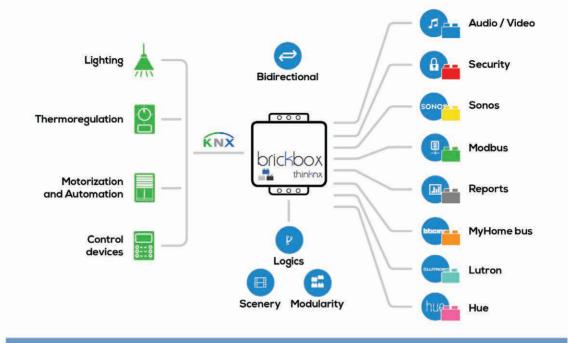
Power 24Vdc 200W Max

Audiofy E4

Expansion module to add 4 additional outputs to existing Pl or P4 module

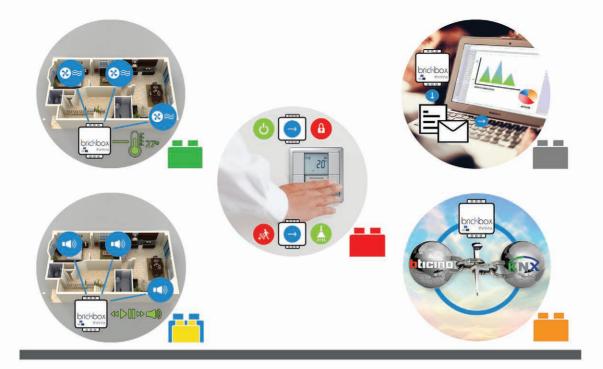
Nr. 4 amplified stereo out (50W per channel on 4 Ohm speakers)

Power 24Vdc 200W Max



ThinKnx Brickbox: universal modular KNX gateway...

Brickbox is the new ThinKnx product line that allows the connection to KNX plant of systems that don't natively support this protocol. Taking advantage of all the functions already integrated in ThinKnx products, through Brickbox it is possible to control, in a bidirectional and fully configurable way, audio sources like Sonos, multimedia systems, alarm devices and systems based on other buses like Modbus, SCS (MyHome), etc.



...and moreover

It is also possible to use Brickbox to collect data (reporting, KNX logger) or to check in realtime the service continuity of the plant(ping of KNX devices or network).

The internal services, available on ThinKnx servers can be found on Brickbox, such as preprogrammable sceneries, generic gateways, alert messaging, logical functions, etc.









Philips Hue

This brick allows to control the Philips Hue lights from KNX bus

In the ThinKnx system different rules can be created to control Hue elements (lights or groups) from KNX and to receive feedbacks from them.

It is possible to simulate RGB elements or white lamps with presettable light temperature.

Created elements can be integrated into scenes and controlled by KNX devices.

MyHome BTicino

This brick allows the bidirectional connection of MyHome BTicino plants to KNX plants. Through easy-to-fill tables it is possible to set matching among the messages coming from the two worlds.

The device makes possible the control of KNX devices from MyHome buttons and vice versa, allowing the creation of unique supervisions for the complete integration of the two systems.

Modbus

This brick allows the bidirectional connection of Modbus bus (RTU or TCP) to KNX bus. A RS232 and a RS485 ports are available to connect directly to Modbus.

It supports all the standard communication functions and all the datapoint types. It also implements advanced modes of data grouping to optimize reading on Modbus. There are no limitations in the number of usable datapoints.

Lutron

This brick allows the bidirectional connection of Lutron plants to KNX plants.

The integration allows to associate KNX groups to Lutron lights, making the devices in the Lutron plant controllable from KNX buttons or supervision.

The Brickbox makes possible also the control of KNX devices from Lutron buttons, allowing the creation of unique supervisions for the complete integration of the two systems.









Audio Video

This brick allows to control all the audio video devices already integrated in ThinKnx system from KNX bus.

Multiroom systems, A/V matrices, audio amplifiers, infrared transmitters and so on will send their status to KNX and can be commanded from there. Connection to the devices can be made through a RS232 port or RS485 port.

Sonos

This brick allows to control the popular Sonos multimedial system in a bidirectional way from KNX.

In addition to common use controls, the user can set repeat mode, to play defined tracks (both locals or coming from network services or line-in port) or playlists.

Another important feature consists of the possibility to define grouping among the players and to easily recall them with KNX groups.

Feedbacks information (play, stop, current volume, track, artist, etc.) are available on KNX.

Security

This brick allows the bidirectional control from KNX of all the alarm devices integrated in ThinKnx system. All the sensors feedbacks are available on KNX. In addition, telegrams can be sent in case of emergency or other programmable events.

It is also possible to control arming and disarming of the alarm device through 14 byte strings. Connections to the security panels can be made through a RS232 port or RS485 port.

Report and integrity

This brick allows to collect data from KNX plants (both locally and on the cloud), to generate reports and to continuously store KNX telegrams (logger modality). All the data can be sent via e-mail to multiple recipients and organized in tables or charts. It allows also to set periodic tests about the correct functioning of KNX devices in the plant (through their phisical address) or of devices in the network (ping or test connection through TCP/UDP ports). In case of malfunctioning alarms via SMS or e-mail can be sent.

Try our products!

TRAINING AND DEMO SERVERS

We think the best way to test our products is to use them, that is why we organize training sessions online or in our offices in Milan and we also distribute a demo version of our servers.

We structure the training session following your needs and requests, so that you can take the most of ThinKnx features and undestand its potential.

The demo servers are full-featured, in this way you can try all the features and decide if ThinKnx is what you are looking for. If you aren't satisfied with the server and decide to give it us back, we will refund you.

Your suggestions and comments are always well accepted, that is why we have opened a forum on our website, in which the ThinKnx community can exchange opinions and experiences.



COMMERCIAL POLICY

We always look for new partnerships and collaborations all over the world.

If you are an installer, a system integrator or a distributor contact us and you will receive information about our commercial policies.



TECHNICAL SUPPORT

Although ThinKnx system is easy to use, it includes a lot of integrations of third party systems. On our website you can find manuals that explain how to create and configure your ThinKnx project. If you need additional explanations, contact our technical support.

Pulsar Engineering

ABOUT US

Reaching a happy union between innovation and practicality was our bet and it is also our mission. Trusting our project, carrying it on with perseverance and total commitment and satisfying our customer's needs allowed Pulsar Engineering to be today a solid entity with proved operative experience in various fields.

Initially focused on the production of home automation systems in the private and commercial sectors, the company is now widely involved in the creation of special equipment (video surveillance and security systems for wind farms and biogas plants), and also in manufacturing customized products.

A natural attitude leads us to to listen carefully to customer's personal needs and to satisfy his requests, following every step of the design process and guaranteeing maintenance and continuous updating of installed products and previously settled systems.

www.pulsareng.it

