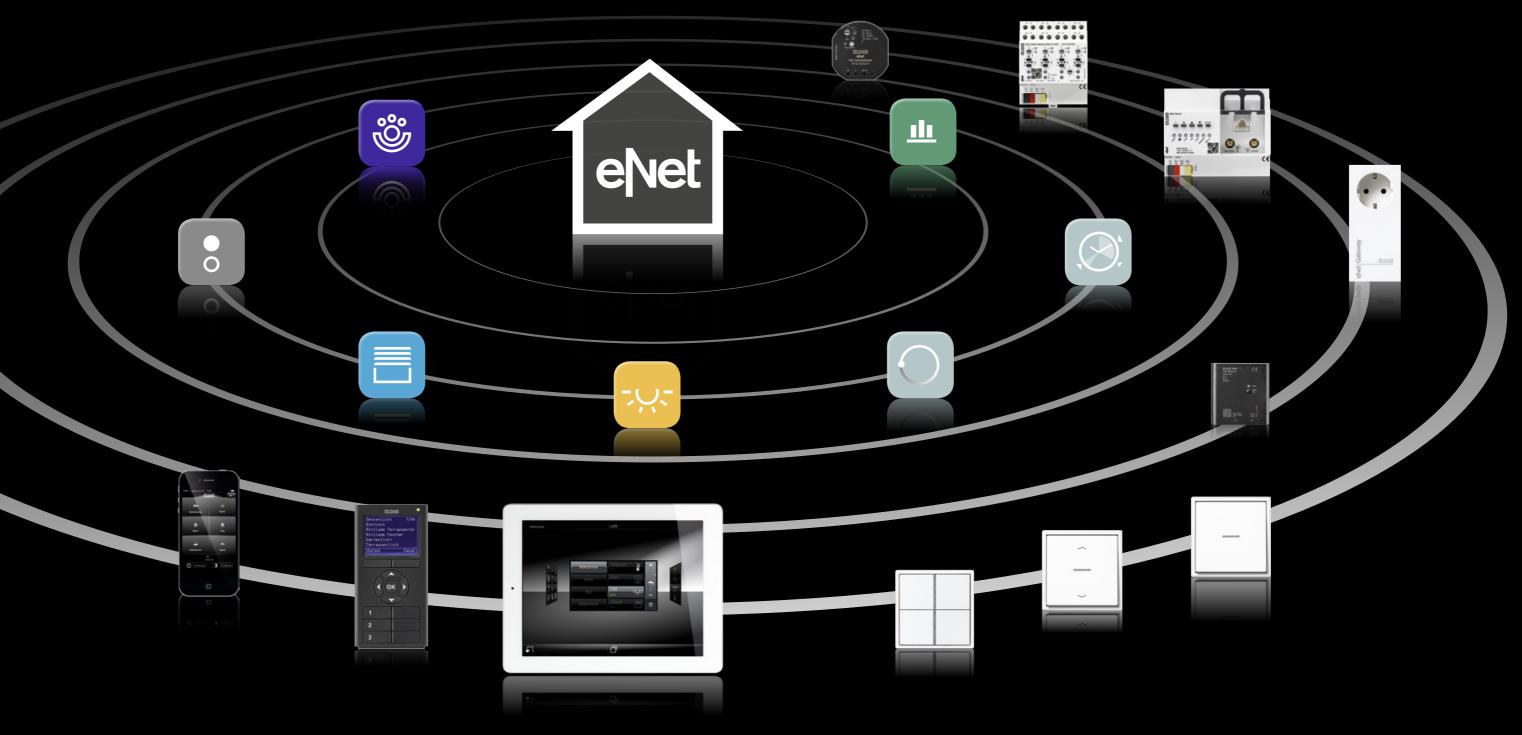




eNet Radio Retrofitting for Smart Homes

eNet – one system, many benefits

Bidirectional system. Simple installation. Flexible operation possibilities. Network solutions with other systems.



The advantages of eNet are just convincing

eNet is a bidirectional radio system working on the frequency 868.3 MHz. A safe radio transmission with direct feedback is ensured. The benefits of such building automation system are the quick installation and retrofitting, a simple and flexible operation and the integration of existing JUNG management systems. The system concept is being completed by providing the possibility of user-oriented visualisations and the capability of updating device software.

eNet is smart

Networking and control of electrical installations within a building and from remote access.

Light switching and dimming, blinds and shutters moving up and down, scene control - networked with eNet. The eNet Server as the centre: fast projecting on the basis of building structures or functions, safe commissioning, operating all functions via the intuitive graphical user interface.

eNet is easily retrofitted

Modern electrical installation with minimal effort.

Networking existing components - without wiring new cables. In case of already installed Blinds or Light Management devices, the new centre plates are the interface for the bidirectional system eNet.

eNet is quickly installed

Quick installation thanks to push-button technology and eNet connect.

Manual commissioning via push-button. With the mode switch of the actuators, the devices can be configured. With the channel-dependent status LEDs, craftsman-compliant installation option is given. New are the planning and commissioning options via eNet connect of the eNet server. Together with the device scan, these are the highlights of a simple and quick installation.

eNet is flexible

Convenient carry-over during relocation.

Flexible, because everywhere quickly and easily installed. Thus, the single components can be easily dismantled and installed in your new home and of course be completed with further devices.

eNet is energy efficient

Indication of consumption and reduction through demand-based use.

The eNet products themselves have minimal energy consumption in standby mode and meet the latest EU directives. The eNet sensors measure energy consumption and provide information about savings on the graphical user interface eNet Home of the eNet server.

eNet is comfortable

Operation with feedback thanks to a bidirectional wireless transmission.

Combine lighting and blinds as desired and link it in a retrieval scene. This is simply comfortable. The garage door is opened or closed, the basement light switched on or off: Thanks to bidirectional communication, visible as a direct feedback with status LED on the wall transmitter and plain text display on the remote control.

eNet is future-proof

Up to date and future-proof due to updates and compatibility with other systems.

New features or bug fixing: Updating the device software via the eNet Server avoids annoying device replacement. Embed JUNG management systems and link these with a scene. The new eNet sensor button and gateways enable compatibility and future safety.

The eNet transmitter

In various housings, depending on application, the eNet transmitter convince with functionality and ease of use.

Wall transmitter

The 1 to 4-gang wall mounting transmitter can interact with each actuator from the system. Control commands are transmitted wirelessly for light or shade, including scene function. Operation is carried out on large push-buttons and LEDs show feedback on the current status.

Available in the AS, A, CD and LS ranges



Smart Control IP

The Smart Control IP acts in combination with the eNet Server as an intelligent operation centre for wall installation. All the favourite functions set up in the eNet Server can be triggered through the coloured touchscreen.



Hand-held transmitter

Especially convenient and from any location in the house, functions and scenes are "remote controlled". The handheld transmitter with display is easy to operate with its large buttons and informs about channel status with plain text. The display is logically structured according to areas and consumers. Display texts can be easily changed. There are additional versions available with two or four channel control or the 1-channel toggle transmitter. Combined with IP Gateway and eNet app a convenient operation via Smartphone is also possible.

SILDER



Smartphone



Hand-held transmitter with display



Hand-held trans- Hand-held trans- Hand-held toggle mitter, 4-channel mitter, 2-channel transmitter, 1-channel

Energy sensors

The measurement of voltage and current for energy consumption takes place with the energy sensors and is evaluated with the eNet server.



Radio energy

sensor



Radio energy sensor adapter plug

Radio energy sensor for rail mounting, 4-channel

Gateway in plug adapter housing

This gateway connects eNet and JUNG Radio Management. Ideal for retrofitting and extension of existing Radio Management installations.



Repeater

The repeater extends the range of eNet radio signals. Thus, all control commands safely transferred to the corresponding receiver. The repeater functionality can also be activated in the eNet actuators.







Universal transmitter

Conventional 230V switches can be made to function wirelessly with the compact universal transmitter.



Radio universal transmitter, 2-channel

IP Gateway

Gateway with wall holder for the control of eNet-actuators via smartphone. Operation of lighting and shading takes place by eNet IP gateway app.



Brightness detector

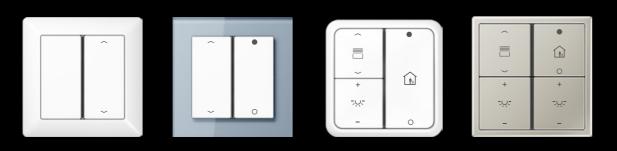
The wireless detector measures brightness and temperature. A solar-powered device, buffered by storage battery.





The eNet wall transmitter

eNet operated in switch design: The wall transmitters convince visually by their design diversity in form, material and colour. The desired function or scene can easily and comfortably be executed by the large rockers. The flat wall transmitter is fastened just where it is needed - whether on plaster, wood or glass.



The battery-operated eNet wall transmitters for communicating switch, dimmer, blind and scene commands are available in 1, 2, 3 and 4-gang versions. Status reports are provided through red and green LEDs. For allocating functions, the buttons can be individually labelled by laser engraving or colour print with the Graphic Tool.

The Smart Control IP

The Smart Control IP in combination with the eNet Server provides optimal convenience as an intelligent operation centre. Be it for operating lighting, shutters and blinds or regulating individual scenes: all the favourite display functions set up in the eNet Server can be activated intuitively by fingertip control through the coloured touchscreen. Users can navigate through the individual functions and scenes from here. This is ensured through the uniform JUNG user interface, which owes its popularity to its clear structure and easy operation. Smart Control IP is available for wall installation in the LS range.



The eNet hand-held transmitter

Remote controlled eNet: With the eNet hand-held transmitter, the functions and scenes throughout the house are controlled mobile, comfortable and accessible. Different versions are available, depending on your intended use. All transmitters operate with all actuators in the system.



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Hand-held transmitter 1 to 4-channel

The hand-held transmitter 1-channel with toggle function serves for the transmission of switching, dimming and blind control commands. In the versions 2 and 4-channel, scenes can also be remote controlled . Additional functions can be activated via the eNet server. In all three hand-held transmitter, status messages are displayed via red and green LEDs.

Handheld transmitter with display

The hand-held transmitter with LC display combines extensive functionality and ease of use in a handy design. In addition to the control of room functions and scenes, also favourite lists can be created, called up and organised. In addition to the control buttons, the transmitter also features navigation keys with central confirmation button, as known from classic remote controls. The display shows plain text (editable), the well-structured list of consumers, rooms and favourites optimises the handling. Additional functions can also be activated via the eNet server. Comfortable: The wake-up function by the built-in accelerometer, whereby the transmitter immediately changes from the energy-saving standby mode into the function mode. Charging the transmitter takes place either via the included charging cable or the table charger.





The eNet IP gateway

Operating eNet through Tablet and Smartphone: With the IP Gateway and eNet app, the operation of eNet is managed inexpensively and conveniently - from anywhere in your own WLAN area.



The IP Gateway with wall fixing can be linked to max. five smartphones at the same time. 24 channels to operate eNet actuators, 20 favourite lists and 16 scenes are integrated. Operation is performed via a fixed IP address or a WLAN router and a USB power supply. The functions and scenes are controlled by means of the eNet App.

Intuitive operation with the eNet app

With the free JUNG eNet app for iOS and Android, the operation of lighting, shade and scenes takes place through a graphic user interface on a Smartphone or Tablet.





Room overview

For the creation of the entire room the desired icons are selected from a library. The naming of the rooms can be made individually.

Control of functions and scenes

If the user calls up for the desired room via the icons, the assigned functions and scenes are clearly displayed. Afterwards, a convenient touch operation can be carried out.



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The eNet energy sensors

Higher energy efficiency with eNet: the energy sensors measure voltage and current for monitoring of energy consumption. In this case, active, reactive and apparent power and active electrical energy are being calculated. Depending on the application, the sensors are available in three different variants. The energy sensor as a plug adapter is ideal for portable consumer to be monitored, such as floor lamps. The flush mounting version of the energy sensor can be "hidden" in the wall.

Typical consumer for the use of the flush mounting type is the TV set or a hi-fi system. The 4-channel rail mounting energy sensor is incorporated into the electrical distribution board. Typical examples for stationary consumer are washing machines and dryers. The consumption values measured by the sensors are clearly displayed via the eNet Home visualisation of the eNet Server. The consumption control results in statistics with the possibility of recording several years. By doing comparisons, users may realise potential for savings and reduce consumption.





Radio energy sensor in plug adapter housing

Radio energy sensor for flush

mounting



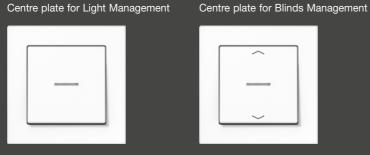
Radio energy sensor for rail mounting, 4-channel

The eNet receiver

The eNet receivers are available in various shapes, depending on the application and availability of space.

Centre plates for Management systems

With these system components, the proven JUNG Light and Blinds Management can be integrated into the eNet.



Available in the AS, A, CD and LS ranges

Radio switch actuator in SCHUKO housing

In its plug adaptor design, the switch actuator is a particularly flexible solution for turning lighting on or off. Here, too, its operation is carried out through the various eNet transmitters. Its bi-directionality also enables its status to be displayed by LED.

Radio flush-mounted actuators

The operation mode of the radio actuators can easily adjusted for switching, dimming or shutter applications with the mode switch. The compact design is ideal for installation in wall boxes or in a special housing for false ceilings or distribution boards. Above that, devices for DALI or 1-10V control are available.



Switch/Push-button actuator. 1-channel



Switch/Push-button actuator with floating contact, 1-channel



Switch/Push-button actuator. 2-channel







Universal dimmer

Blinds actuator

Control unit

Radio rail mounting actuators

These actuators offer an operating mode switch. control buttons and the corresponding LED indicators for a fast one-man commissioning. The signals are transmitted via the JUNG eNet Master receiver with integrated antenna or alternatively via an external antenna to the actuators.



Switch/Blinds actuator,

8/4-channel

Universal dimmer, 1-channel



Master receiver



Blinds actuator



Switch/Push-

button actuator,

1-channel







1-10V



DALI control unit

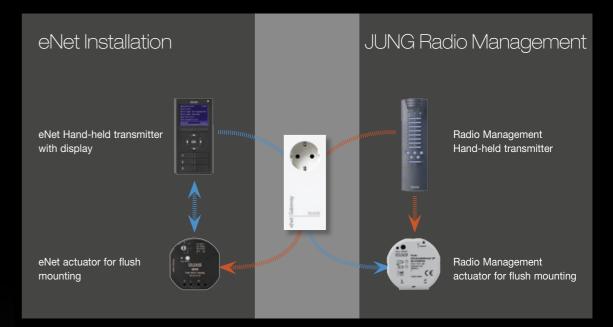
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eNet Gateway	JUNG

Integration and retrofit of existing JUNG management systems

eNet easily retrofitted: With the radio plug adaptor gateway and the centre plates of the existing JUNG Radio, Light and Blinds Management installations can be retrofitted quickly and inexpensively. Without much effort or renovation work.

RM Gateway

The radio gateway plug adapter acts as a "translator" between eNet and Radio Management. It is used to control eNet actuators by Radio Management transmitters and vice versa for the control of Radio Management actuators by eNet transmitters. 24 transmitter channels from both systems can be connected; seven scenes from both systems can be retrieved. In combination with the IP gateway and the eNet App even existing Radio Management systems can be controlled via smartphone.



Centre plates for Light and Blinds Management

The components of the JUNG Light or Blinds Management can be easily converted to eNet. For this purpose the existing inserts can be equipped with the eNet centre plates from the Jung design ranges. The operation can be done either on the centre plate, on the hand-held transmitter or via the eNet Server. Additional functions are possible via the eNet Server.



Centre plate Light Management

For manual or remote controlled operation of appropriate flushmounted inserts for switching or dimming. Simply exchange the existing centre plate and retrofit eNet.



Centre plate Blinds Management

For manual or remote controlled operation of appropriate flush-mounted inserts for blinds control, shutters and awnings. Simply exchange the existing centre plate and retrofit <u>eNet</u>.



The eNet server connection takes place via the setting "PC" on the mode switch for all actuators.

Switch actuator

ect Here the mode s

The mode switch is used to select the operating mode "switching" and "push-button". Here the mode switch is used to select the settings for "universal dimmer", "minimum brightness" or the required dimming principle.

Manual commissioning

The manual commissioning takes place via push-button. With the mode switch of the actuators, the device configuration is adjusted in addition. In combination with the channel status LEDs this provides a safe, fast and craftsman-compliant installation. In just two steps, the manual commissioning is carried out: first select the mode at the mode switch, secondly connect the transmitter and receiver with the prog-key.







Dimming actuator

Blinds actuator

Here the mode switch is used to select the moving times for shutter and blinds.





The eNet Server

The eNet Server is the intelligent control centre of the system, offering the commissioning, programming and control of the eNet components and networking of the entire building technology.

The advantage for the installer: With the integrated configuration software eNet Connect, commissioning and programming are simply comfortable. The eNet Connect is simply called up in the browser of the PC, without any software installation. Thus, the configuration can be prepared in the office and then presented to the customer on side, even in offline mode. The shared virtual planning also serves as the basis for the realisation of the installation. For the visualisation the server must stay in the installation. Alternatively the installer can use the server as a tool for remote maintenance, changes or the configuration of up to nine other eNet installations. An update of all connected eNet devices is also granted by the server.

Advantage for the user: With the integrated eNet visualisation eNet Home (displayed in the JUNG GUI) the control of the eNet system is simply intuitive. Of course, it can be adapted to individual requirements. Via computer, tablet or smartphone the system can be operated with maximum comfort.

Commissioning and configuration with the eNet Server

With the software eNet Connect the device, function and installation assignments takes place at the monitor by drag-and-drop - even in offline mode. The documentation and maintenance of projects is of course possible. Additional features such as timer with astro function and practical logic blocks round up the concept. Access via web applications: full functionality and networking with intuitive operation via PC, tablets and smartphones.

Visualisation in seven steps

Connect computers via LAN to the eNet Server



Once the power LED on the eNet Server is permanently illuminated, the connection can be established. The computer and the eNet Server must be connected to the same network. The connection to the eNet Server is established in the web browser and the log-on screen of the eNet Server comes up.

Login to the eNet Server

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At the initial start of the eNet server log-in data are entered to start the commissioning. The "Load Project" window opens. Now a new project can be created or an existing project selected.

Organisation of the building structure

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First, the building structure of the project is created. In a building floors and rooms can be created. These can be named freely. Important: A careful structural planning is essential here, as this is reflected 1:1 in the visualisation!

Scanning and compilation of the devices



How to set links



Creating scenes



For each scene a tab is created and assigned to a location in the building structure. In scenes only sensor channels with "Scene" type can be added. Sensor and actuator channels with different functions such as switching, dimming and blind motion time are thus linked in a scene.

Initiation of visualisation



Select the JUNG logo out of the project and start the visualisation: Analogue to the set building structure all rooms and assigned functions/scenes are shown in a graphical user interface. Via the interface the user can comfortably operate his eNet Installation.

In order to add devices from the eNet installation to the project a system scan takes place. During the system scan devices are found which are in learning mode or in which the voltage has been activated within the last three minutes. The scan result shows all found devices.

Via plans actuators are assigned to sensor channels, each to its corresponding location in the building structure. In a classified selection, devices, projected channels and components are stored. By means of drag and drop they are added to the plan.

eNet connect: Features at a glance

In addition to the physically existing devices within an eNet system, virtual functional modules can be implemented and used via eNet connect.

Use of logic modules

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The logic modules create dependencies between actuators and sensors. These logics result in automised functional processes which increase operating comfort for the user.

Analysis function

The analysis function monitors transmitters and receivers during maintenance: devices are located, signal strenths checked, telegrams recorded, as well as new programming of devices after reset within the repair function.

Timer module



The timer module can be used in several plans. This module implements timers which, according to the programming, switch lighting and blinds time controlled or depending on sunrise/ sunset.

Device parameters

When using eNet connect, all parameter settings are transferred to the devices via the server. Therefore, a re-projecting is not necessary in case of project or device changes.

Create scenes

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Flexibility in creating scenes: switching centrally "all ON / all OFF" or "master dimming" are examples for increased user convenience.

Configuration and updates

Ideal for the (remote) maintenance: network settings for the project are stored on the eNet server and can be recalled at any time via eNet connect. In addition, software and device updates can be loaded as required.

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eNet Home

eNet Home is the browser-based visualisation integrated into the eNet server. It enables a comfortable operation via smart displays, computer, laptop, tablets and smartphones. The graphical user display is clearly arranged in accordance with the control device. The structuring for rooms, functions and favourites ensure an easy control. The operation is done via the principle of "scroll, select and trigger function / scene". Thus the user have the eNet system at any time and from anywhere under control.

eNet Home: Functions and settings

Configure the user interface individually



With this interface the user can arrange functions, determine sequences in the display and create favourite lists with individual descriptions. Beside it he can assign quick access to functions/scenes for the base board.

Create scenes



In the visualisation mode scenes which have been programmed via eNet connect can be extended. Even own scenes - independent of eNet connect - can be created. This gives great flexibility to the user.

Beside the operation of all eNet functions and scenes, each user can assign individual settings in the admin mode.

Presence simulation

Consumer habits such as sequences of lighting, shading and scenes are recorded on request for 24 hours or for a week. In case of extended absence/vacation the eNet system will recall these records automatically and gives the impression of an inhabited house.

Panoramic views

Optimal presentation in the panoramic view: A photo of the desired room will be uploaded to the user interface; the operating buttons will be placed at the real sites of action in the photo. Thus, the user controls scenes and functions based on the realistic image the room.

Timer switches



Valid for all pre-configured timer switches via eNet connect: Activation/deactivation of the timer switch and settings of individual switching sequences can be done by the user independently and hereby be adapted to changing requirements.

Display of energy consumption

In conjunction with the energy sensor the data of connected devices can be displayed. The display will be carried out via a clear diagram. Possible options: hourly, daily, weekly, monthly and yearly display. Thus, the user always has a general overview, can compare consumption and identify potential savings.











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