

**JUNG**  
MADE IN GERMANY



**KNX**<sup>®</sup>

Smart in Design  
and Technology

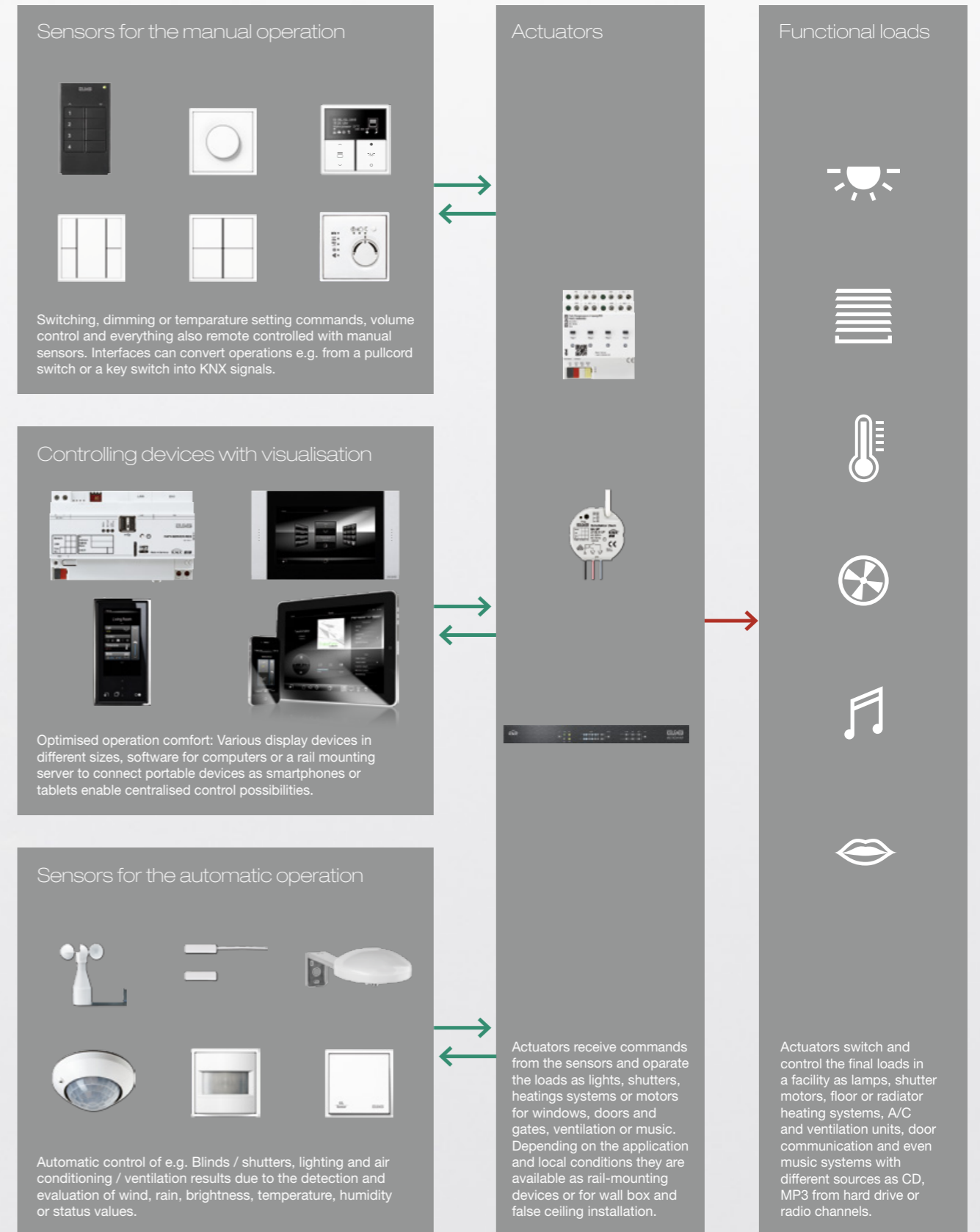


# The trademark

The KNX bus system is a building management system with a control bus system tailored to suit the electrical installations. Leading European companies in electrical installation engineering – including JUNG – founded an organisation with the aim to achieve a standardisation of the system and widespread acceptance of the KNX in Europe and worldwide. KNX is a „Societe Coopérative“ under Belgian law with its headquarters in Brussels. The trademark KNX visually underlines the system compatibility of the products. The purpose of the organisation is to promote building management systems in a standardised form on the European market, to achieve fast, widespread market acceptance and develop the trademark to a seal of quality. Technical guidelines for the system and the products, together with quality regulations will be drawn up by the company accordingly. This will ensure that KNX bus equipment from various manufacturers within a system can communicate with each other.

## The KNX system

The demands made on modern electrical installations in private homes and on business premises have changed considerably. More and more emphasis is being placed on safety, operational ease and flexible use. The limits for conventional installations with a confusing number of own functional networks for electrical power, heating, lighting and shutter control, burglar alarm system, smoke, gas and fire detectors, however, have long been reached. Installation and power costs have risen. Subsequent upgrading, renovation and change of system operation is expensive and complicated. The KNX System offers a convincing perspective. The KNX System is an intelligent building management system for measuring, regulating, switching, controlling, signalling and monitoring. Laid additionally to the power supply network, information transmission is via a bus line suitable for all specific applications. This electronic control system does not require a central unit as it is located decentralised in every individual appliance. All consumers connected to this mutual bus line, such as switches, sensors, actuators, displays, control units etc. can exchange information via this communication line which can also be compiled logically for evaluation. The bus line can be laid in line, star or tree structure. All devices can be selected freely and are interactive. The information transmission can contain analogue functions (temperature, time, quantity etc.) and digital functions (yes/no, on/off, light/dark, warm/cold, long/short, more/less). Dimmer functions are of course also possible.





## Blind/shutter control

The automatic lowering of blinds/shutters according to room temperature avoids the room being heated up necessarily. The control can be central and decentral. Blinds/shutters mounted outside, are protected against damage from high winds by wind sensors which, coupled with the blind/shutter control, prevent or initiate lowering or raising.

## Lighting

Lighting control units can be controlled centrally and decentrally. The illuminance can be reduced by switching off or dimming at programmed times (breaks, weekends, end of working day, company holidays etc.) or according to the room or outside brightness. This saves energy and reduces operating costs as well. New requirements can be met quickly and safely by reparametering if room usage has been changed. Of course, comfortable light scene controls as well as a fully automated partition wall lighting control can be realised.

## Heating, ventilation and air-conditioning systems

The reduction of the temperature in rooms not in use (meeting/conference rooms) is controlled by motion detectors. Time-dependent control of the room temperature also saves energy (e.g. at weekends and public holidays). A coupling with the shutter control is recommended to prevent the room from heating up extremely caused by direct sunlight which results additional demands on the air-conditioning system. Displays allow constant control of current temperatures.

## Monitoring and alarm installations

Using sensors (door and window contacts), monitors or displays indicate which are open and which are closed. Locking can be initiated electromechanically. Faults in the parts of the building or system are also displayed and documented. This ensures that the complete building's installations are monitored.

## Entertainment

There is an increasing desire to combine home and building automation with streaming of digital music. This integration is also known as audio multiroom application. For instance lighting and music control can be integrated in scenes, which can be selected at the push of a button from anywhere in the building. Audio streams are transmitted over Ethernet or wireless (IEE 802.11) networks from a server with the open-source software to music players, and in turn controlled by the visualisation package Facility-Pilot. Supported audio streams are for instance Internet Radio, MP3, WAV and Ogg Vorbis. Interfaces enable the coupling of personal computers (PC's) or neighbouring bus systems to the KNX bus systems. PC's for programming or service purposes and printers for documentation can be connected.





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# KNX in JUNG Design

The smart KNX F 40 and F 50 control elements present themselves in the varied JUNG design, so their appearance can be perfectly coordinated with each other. This means that they integrate perfectly into any atmosphere. With their numerous shapes, colours and top quality materials nothing remains to be desired. Thus intelligent technology and stylish design come together to meet even the toughest requirements.



# LS 990

With its square construction, large operating surface and narrow frame the classic LS 990 design has already proven itself over 40 years. Purist elegance in plastic or genuine metal lends this series a touch of class. The large-area switches are given an optimal assignment of function and individual design through top-quality laser engraving or colour printing.



The variety of LS 990 for F 40 sensors





## Flat Design

The aesthetic Flat Design makes it possible to install the frame almost flush with the wall. This produces a level and flat surface that does not look as if something has been added onto it. This effect can be accentuated individually by a variety of materials and colours. A well-designed module system provides a broad performance variety. KNX sensors in F 40 visually harmonise with the other controls.

The variety of FD and LSD for F40 sensors



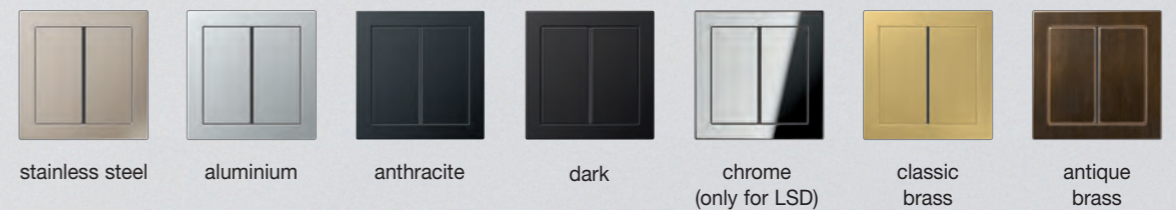
ivory white light grey black



## LS Design

In terms of form the frames in the LS Design take on the flat FD look and also have a shadow gap. Ever new combinations can fit in with any given atmosphere – and the large selection of colours and materials contributes to this. In the LS Design too, the large buttons make it really comfortable to operate the F 40 KNX button sensors.

The variety of FD and LSD for F40 sensors



stainless steel aluminium anthracite dark chrome (only for LSD) classic brass antique brass



# Acreation

The appeal of the Acreation range is in its clear design and in its choice of materials: Coloured frames made of glass or plastic with matching covers make a stylish impression. The large control panels of the Push-button sensors make them easy to use. The function allocation is simplified through appropriate identification with texts or symbols using laser engraving or colour print with the JUNG Graphic Tool.

The variety of A creation for F 40 sensors Material  
Material frames: Duroplastic/Thermoplastic



white matt anthracite aluminium black champagne mocha

Material frames: glass



black red blue-grey soft white white silver champagne mocha







## CD 500

The CD 500 range harmoniously integrates into any living area through its design. This impression is reinforced by the angling in the rocker area. This makes the switch to a special sort of design accessory that can be chosen as required to match the interior decoration style. Five different colours offer a wide variety.

The variety of CD 500 for F 40 sensors



## CD plus

The highly varied CD plus range of switches offers a great deal of space for a demanding colour design in a classical living ambience. With five frame sizes in three different colours plus two types of applications, each in eleven colours, this makes possible a huge range of combinations that can be put together entirely to suit your own taste.



light grey  
yellow  
light green  
stainless steel  
granite  
metallic green  
metallic black  
metallic blue  
metallic red  
chrome  
gold

The variety of CD plus for F 40 sensors





# Room controller OLED

The Room controller OLED wins you over with its brilliant display: The design of the CD and LS range has a high-definition OLED graphic display to ensure easy readability from any angle. This way the functions performed can always be identified at a glance. The operation of lighting, shade, temperature, music and more is all done comfortably at the touch of a button. Convenient feature: for additional functionality the unit can also be connected to the push-button extension module.



Created as part of the switch design, the OLED Room controller is a delight to the eye. Using the Graphic Tool, laser-engraved or printed symbols make it easy to assign the functions.

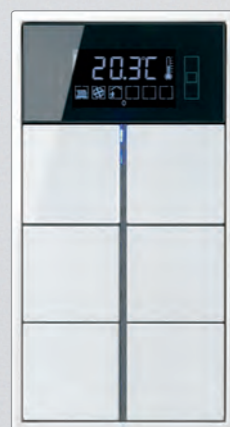


# Compact RCD

The KNX Compact room controller in the design of the AS, A, CD and LS ranges can be used to regulate lighting, temperature and roller or venetian blinds. It also has large control panels that can be labelled, as required, with laser engraving or colour print using our Graphic Tool. The integrated display with illuminated digital features clearly shows the room, outside or set temperature together with the current time. The functions can be extended by connecting the Compact room controller with the Push-button extension module.



LS 990 version



Compact RCD with extension module



Acreation version

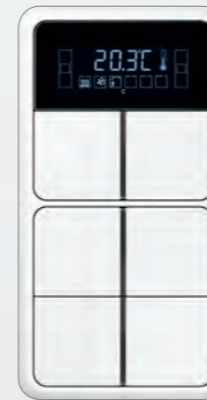


# Functional variety of F 40

With the KNX F 40 Push-button sensors in the JUNG design, the operation of the KNX functions is comfortably carried out through the large control buttons. These can be individually identified to meet any wish or need using the Graphic Tool. The push-button sensors are also available in versions of one to 4-gang units as required. Optimal universal flexibility is provided by extending the functions with the extension module.

The KNX room control devices with display are also available in a wide variety of switch designs. The Compact room controller and the Room controller OLED both combine comfortable operation with a clear visual display of the room functions. These, too, can be extended, quickly and easily, with the Push-button extension module.

## CD 500 in white



Compact RCD with extension module



4-gang push-button sensor with 4-gang extension module



4-gang push-button sensor with 4-gang extension module



1-gang push-button sensor



2-gang push-button sensor



3-gang push-button sensor



4-gang push-button sensor

## A creation in aluminium



Compact RCD with extension module



4-gang push-button sensor with 2-gang extension module



4-gang push-button sensor with 4-gang extension module



1-gang push-button sensor



2-gang push-button sensor

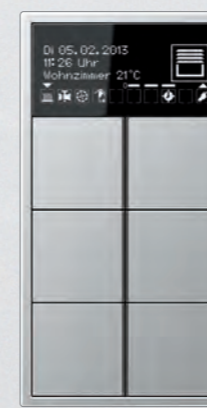


3-gang push-button sensor



4-gang push-button sensor

## LS 990 in aluminium



Compact RCD with extension module



4-gang push-button sensor with 4-gang extension module



4-gang push-button sensor with 4-gang extension module



1-gang push-button sensor



2-gang push-button sensor



3-gang push-button sensor



4-gang push-button sensor



The variety of LS 990 for F 50 sensors



# LS 990

The F 50 Push-button sensors in the classic design: the clear, square construction with narrow frame in combination with top-quality materials ensure a uniquely elegant look. The transparent and/or coloured labelling field and the recessed buttons enhance this appearance. The labelling field and buttons can be labelled as required provided by laser-engraving or colour print.





## Flat Design

Flat construction meets with gracefully homogeneous surfaces: the F 50 Push-button sensors are particularly elegant with their installation virtually flush with the wall. This effect is further enhanced with the variety of materials and colours in metal and plastic. There is the matching alternative in the Flat Design for any kind of atmosphere. A well thought out modular system also ensures a wide variety of technical application options.

The variety of FD and LSD for F 50 sensors



ivory white light grey black



## LS Design

The LS Design provides a high degree of flexibility and a broad functional spectrum. In terms of form, the frames take on the flat FD look, with additional shadow gaps to lend an appearance of floating lightness. This means that it is always possible to select new combinations to suit each particular atmosphere. This produces a harmonious look together with the wide variety of choices of colour and material.

The variety of FD and LSD for F 50 sensors



stainless steel aluminium anthracite dark chrome (only for LSD) classic brass antique brass



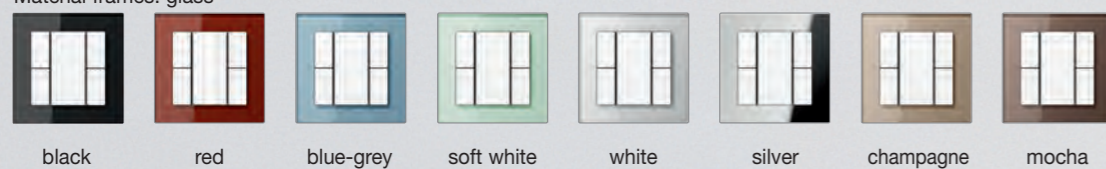
# Acreation

The new F 50 Push-button sensors also appeal with their exclusive selection of materials in the Acreation design. The recessed buttons and the new design covers, in combination with the distinct frames made of glass or plastic, ensure an especially harmonious overall appearance. Depending on the model, the covers and switches can be individually designed using laser engraving, colour print or labelling with the JUNG Graphic Tool.

F 50 Push-button sensors  
Material frames: Duroplastic/Thermoplastic



Material frames: glass



F 50 push-button sensors



## CD 500

The CD 500 range harmoniously integrates into any living area through its design. This impression is reinforced by the angling in the rocker area. This makes the switch to a special sort of design accessory that can be chosen as required to match the interior decoration style. Five different colours offer a wide variety.

The variety of CD 500 for F 40 sensors



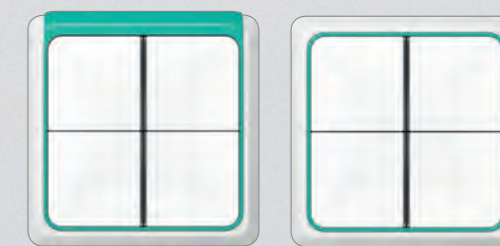
## CD plus

The highly varied CD plus range of switches offers a great deal of space for a demanding colour design in a classical living ambience. With five frame sizes in three different colours plus two types of applications, each in eleven colours, this makes possible a huge range of combinations that can be put together entirely to suit your own taste.



light grey  
yellow  
light green  
stainless steel  
granite  
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metallic black  
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metallic red  
chrome  
gold

The variety of CD plus for F 40 sensors



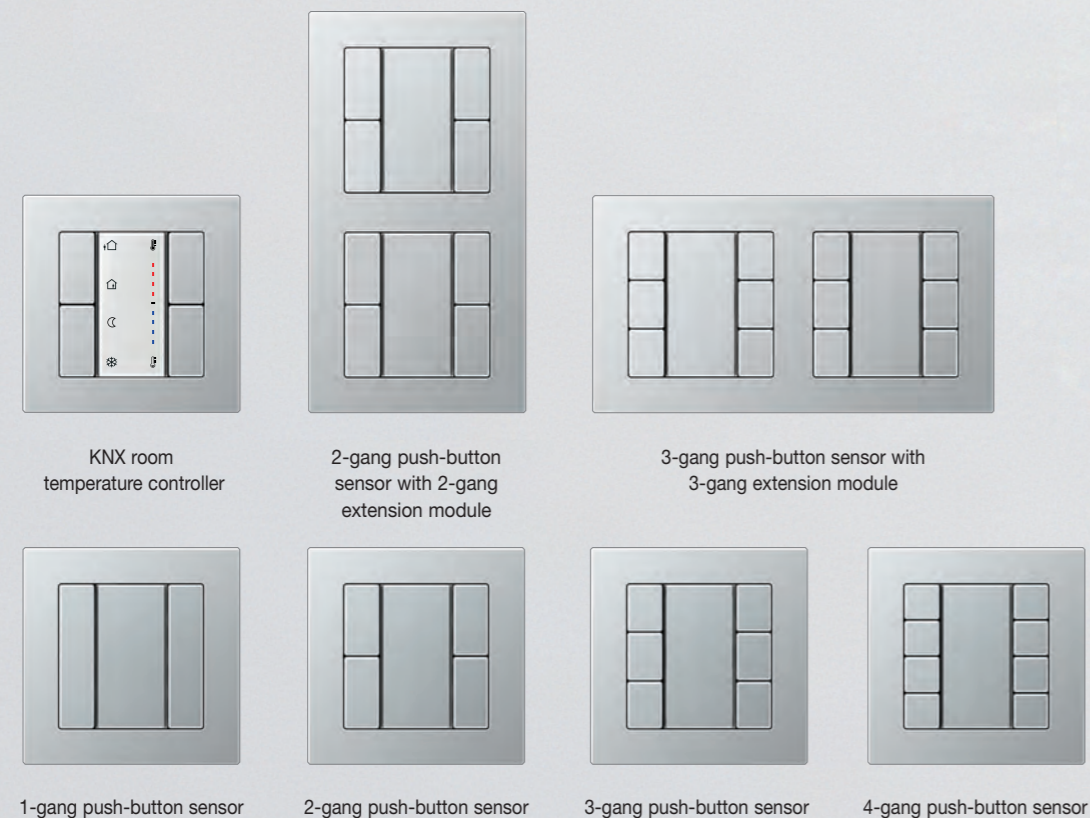


# Functional variety of F 50

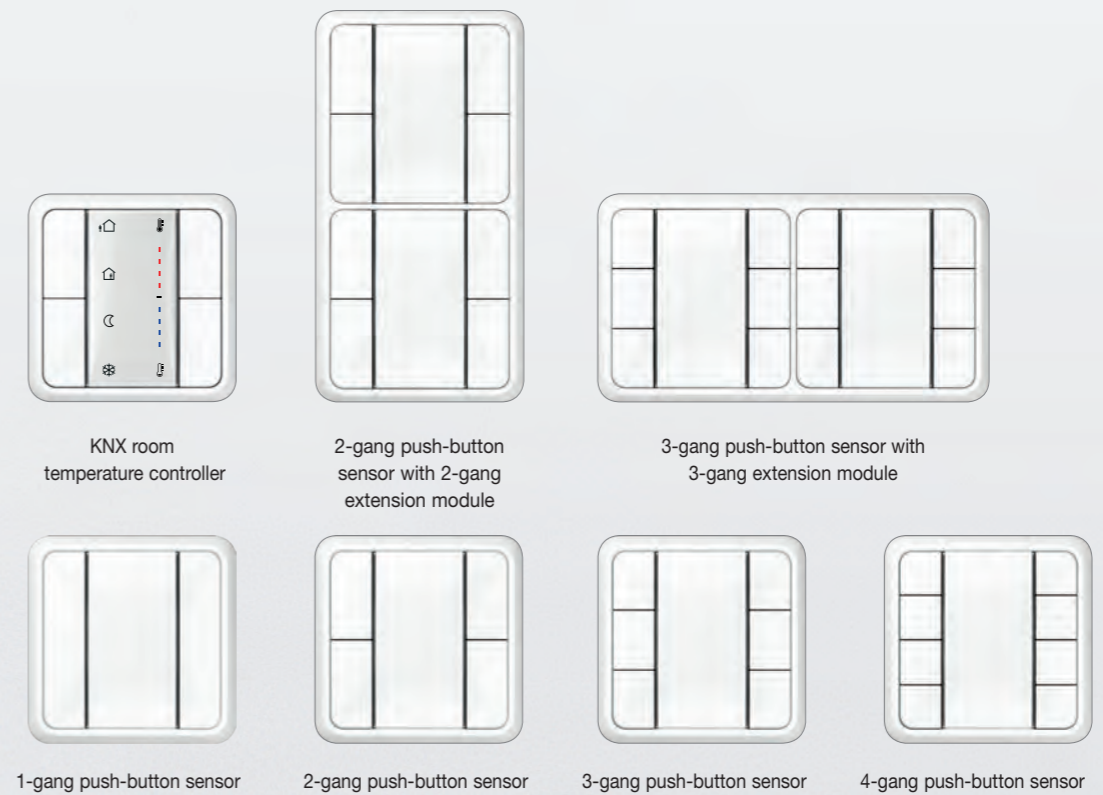
The F 50 Push-button sensors have an immediate appeal with their homogenous surface appearance and their harmonious overall look. Operation of the functions is carried out comfortably at the touch of a button.

The imprinting of the extensive labelling area provides a simple and clear allocation of functions using the JUNG Graphic Tool. The buttons can also be marked using either laser engraving or symbols applied by colour printing. The information in the labelling area can be usefully extended and the functions can effectively be assigned. The design covers a unique feature with colours that match the buttons. The overall look is consequently one that exudes quality. Both the coloured covers and the buttons can be individually customised with laser engraving or colour printing, as an additional design feature or of course to optimise the assignment of functions.

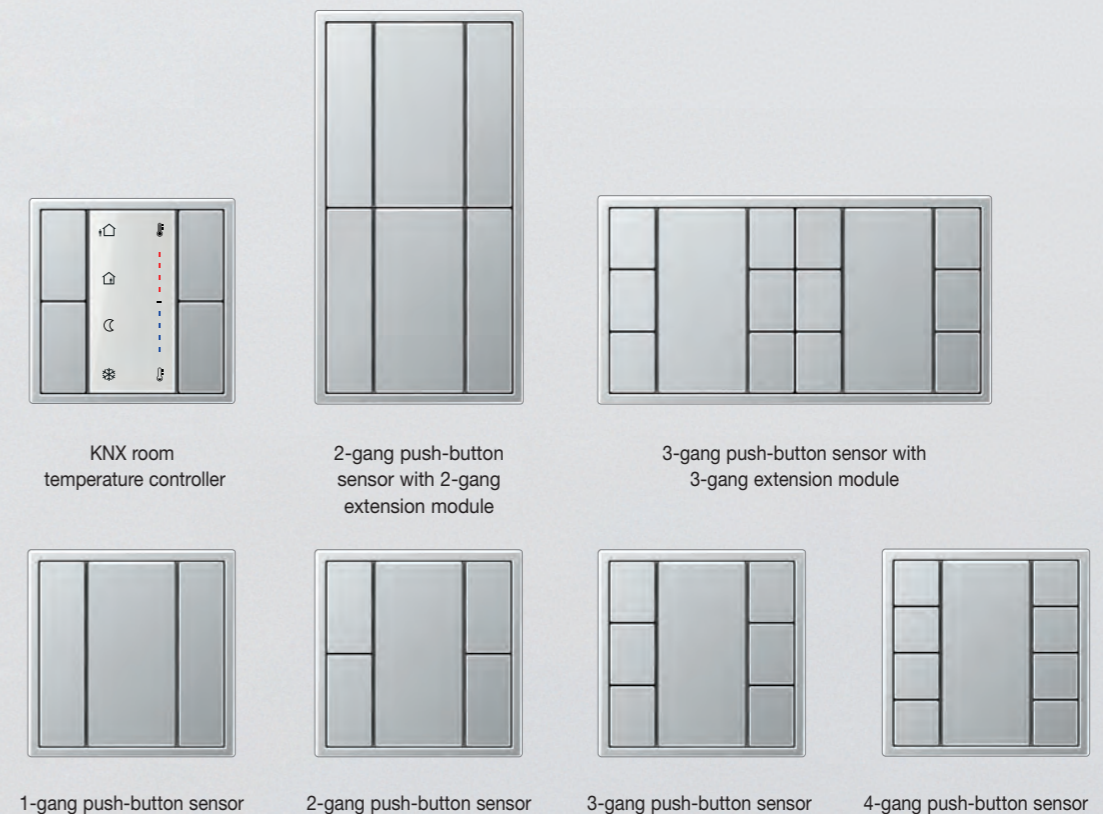
## A creation in aluminium



## CD 500 in white



## LS 990 in aluminium

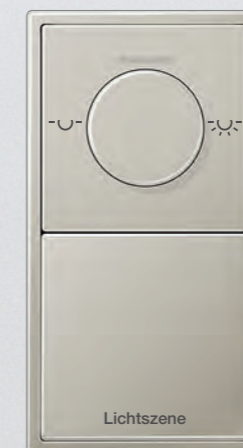


# Rotary Sensor

The Rotary sensor is innovative because it implements an operating concept that has never before existed in this form in the KNX system. It is based on the well-known operation of a rotary dimmer. The KNX Rotary sensor works on the same principle and has access to switches and push-buttons through three extension inputs. This option to combine with conventional components enhances the functional spectrum of this KNX device many times over.

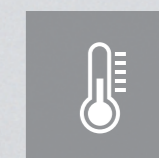


The user turns the music on or off and regulates the volume with a circular movement through the KNX rotary sensor. They select the desired music source through a serial button attached to two binary inputs.



One press of the button activates the programmed light scenario, that includes several lights in the living room, for example. with the KNX Rotary sensor all the lights can be dimmed together – for the perfect lighting atmosphere.

The KNX Rotary sensor comfortably controls lighting, venetian blinds, roller blinds and temperature.





## Smart Displays

With JUNG, many functions in a house and ease of use belong together – and this can also be seen in the KNX Smart displays that have been conceived as control centres. That is why they all access the uniform JUNG user interface. With the coloured touch screen the visual display and operation of functions works intuitively and comfortably – from lighting, shade and temperature to multimedia, smart metering and more. Depending on the intended use, there are Smart displays in various sizes and with different functionality, tailored to the individual requirements of the users.

# Smart Control KNX

Smart and intuitive building control: This compact KNX room controller device in switch design with touchscreen combines visual display and operation of room functions with the ease of use of a Smartphone.

Light, blinds, shutters, temperature control and scenarios are controlled using the intuitive touch screen and the large, sensory operating buttons. Combination with a push-button extension module is also possible to extend the functionality. The Smart Control naturally also has something to offer visually: in connection with design frames from the LS range it projects an elegant image and integrates itself harmoniously into the existing electrical installation.



The large LS plus frames give it an exclusive look



In the Flat Design, installation is possible that is virtually flush with the wall



The LS Design frames take on the FD look



Timelessly classical and elegant: the narrow LS 990 frames



# Smart Control IP

Connects the worlds of communication and building control: the Smart control IP. The JUNG room controller is integrated within networks and activated through a single IP address. JUNG door communication systems and KNX features are operated and displayed using various clients. With its touch screen it connects the visual display and control of room functions with the ease of use of a smart-phone. Due to the network connection, all the settings can be made really easily and quickly through a web configuration – in comfort on a computer or laptop.



## KNX integration

Connection to the Facility Pilot Server is done via a client. In this combination the Smart-Control IP becomes a KNX room controller that allows display and control of the lighting, blinds/shutters, temperature and scenes. This is especially convenient thanks to the touch screen with its intuitive user interface.

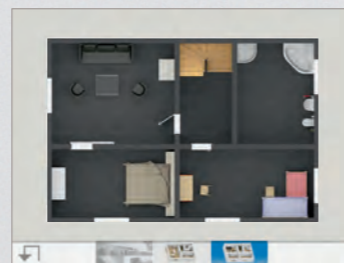


## Weather screen

The weather screen is set up via a Web Client and can be called up and shown at any time on the display of the Smart-Control IP. Current weather data and the local weather forecast are ready to be called up by the user at any time – a very practical thing to do before leaving the house or planning a weekend excursion.

# Smart Panel

A compact operation centre for wall installation: The new KNX Smart panel 5.1 with coloured 5" TFT touch screen. This provides comfortable operation of the functions in the building such as lighting, blinds, temperature and multimedia. With the new Smart panel if desired, the visual display and operation takes place through the uniform JUNG user interface, that enables logical and intuitive adjustment of the various functions. Alternatively, or as an extension, a freely designable user interface can be used, that enables the implementation of an individual display. The Smart panel is also available in a larger option with a 9" display.



This freely designable user interface opens up many ways to realise the visual display according to individual wishes. But there is also the option to return to the default, pre-programmed, uniform JUNG user interface.





# Smart Pilots

Intelligent KNX operation centres with capacitive, coloured touchscreens: the full version of the software Facility pilot has already been installed on the Smart pilot for wall installation. This provides the user with all the comfort of the visual display and operation of their entire building technology. With the video phone software that has also been integrated in its system, connection of the JUNG door communication system is also possible in the smart building control. The technology is perfectly rounded off by the uniform JUNG user interface which allows all functions to be operated intuitively. Convenient feature: depending on its purpose, there is a choice of three different screen sizes in 16:9 format. The use of uniform design covers in black glass with aluminium clasps gives the Smart Pilots their elegant look.



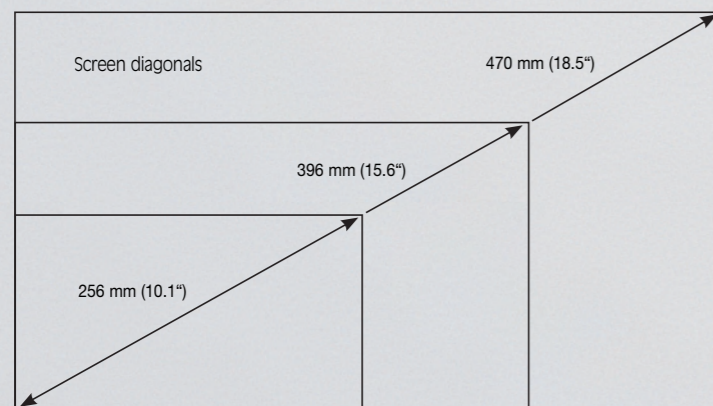
A capacitive touch screen and uniform JUNG GUI ensure intuitive user comfort.

# Overview of Smart Displays

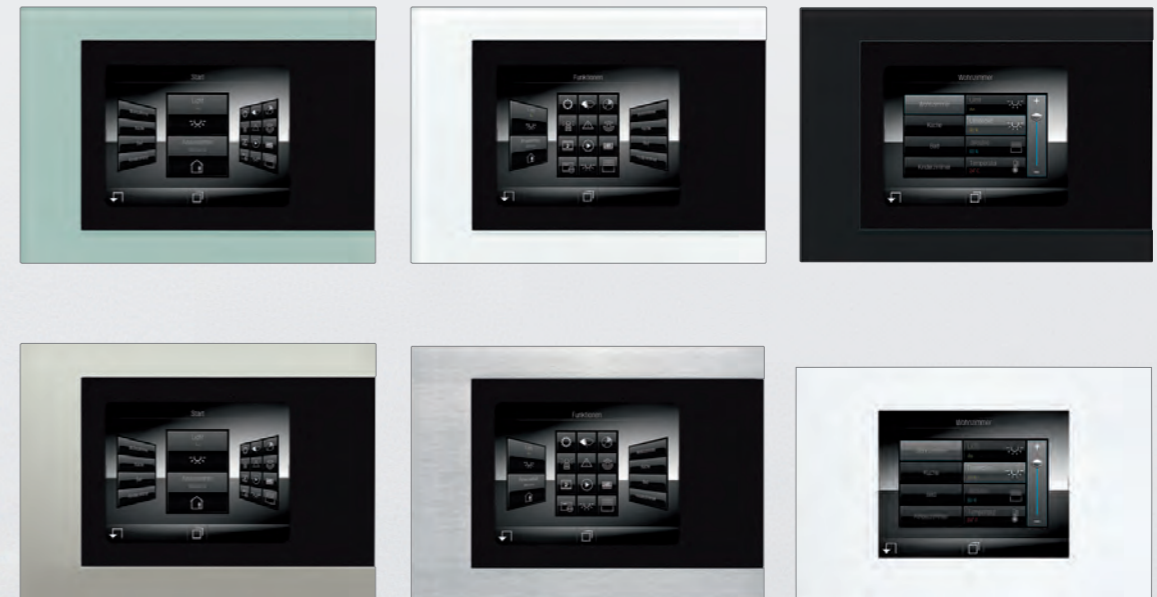
The Smart displays are available as central operation units in various sizes and with different ranges of functions depending on their purpose. What they all have in common is logical user guidance and intuitive management through a graphic user interface.



Smart pilot



For the Smart pilot with the integrated Facility pilot software, the design covers are in black glass with aluminium clasps. There are three screen sizes available in 16:9 format, in the following screen sizes: 256 mm/10.1" (resolution: WSVGA 1024 x 600 Pixels), 396 mm/15.6" (resolution: WXGA 1366 x 768 Pixels) and 470 mm/ 18.5" (WXGA 1366 x 768 Pixels).



The 5.1 Smart panel is a reporting and operation tablet for controlling building technology over a 5" touch screen with an aspect ratio of 4:3. As well as its well-thought-out operation software it also has a TCP/IP interface for accessing local and external networks. There are design frames in glass, stainless steel and aluminium.



The fanless KNX 9" Smart panel display unit for wall installation offers enough space for the operation and visual display of KNX functions. With elegant design frames in glass, aluminium or stainless steel, it also wins over with its appearance. The TFT touch display enables comfortable operation.

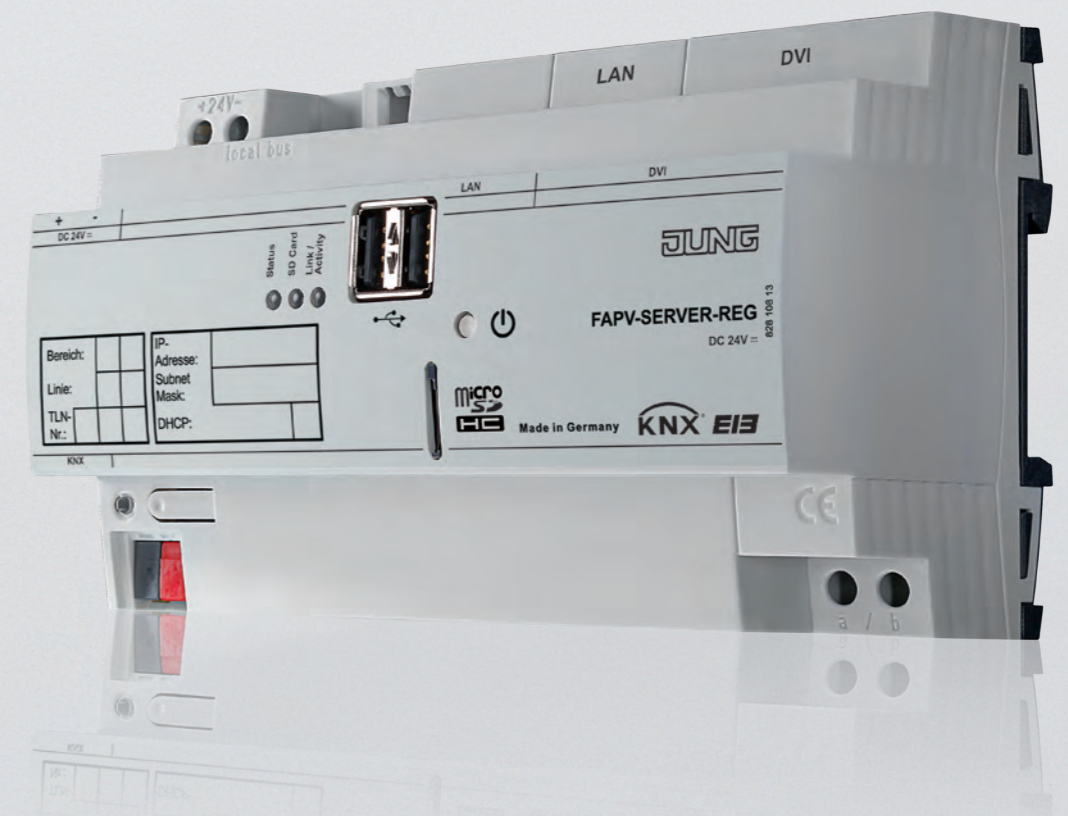




# Facility Pilot Server

In a private home or in a business property: With targeted networking of components and functions in a KNX unit, a maximum of flexibility and user comfort is achieved.

On the basis of the smart Facility pilot server this is easy to realise. This does not just link the KNX room functions, such as lighting, shade and temperature together with multimedia and more, it also allows the users to be extremely flexible in its operation. Whether this is through Smart display, a connected monitor, a laptop, tablet or even a Smartphone – with its intelligent networking the residents have their entire building technology under control, at any time and from anywhere.





# Mobile control

The JUNG graphic user interface can also be used for mobile control of KNX building technology. This is realised over conventional HTML5 browser technology. Be it for lighting, temperature, blinds or the multimedia facility – the user always has their home in view through mobile end devices such as tablets or smartphones.



Link to the KNX system through a browser, tablet or Smartphone and control your home, even when on the move.



# KNX Multiroom amplifier

Web radio and MP3 player built in

The new KNX Multiroom amplifier with web radio and built-in MP3 player: The 19" rack with a direct KNX connection has four low-frequency inputs (Cinch) for playback devices such as hi-fi systems, DVD players and computers, and routes the stereo sound to four or eight loudspeaker outputs as required. Only the loudspeaker wiring is required in an existing KNX system.

The web radio of the Multiroom amplifier can directly select 16 radio stations. It can be configured very conveniently using the Web Front End. The built-in MP3 player provides music data from an SD card that is inserted in the built-in SD card reader. New music data can be transferred to the card at any time via FTP. Convenient feature: Functions such as switch over radio station, select song titles, stop, pause, etc. are already available as KNX commands.



Operation including the web radio and MP3 player is done conveniently over the KNX bus system together with room functions such as lighting, shading and temperature, or independently of the bus directly from the device.





## Graphic Tool

The KNX control elements gain their individuality with the online Graphic Tool at [www.jung.de/gt](http://www.jung.de/gt). Depending on the product, material and personal requirements, laser engraving, colour print or labelling are deployed. With texts, symbols or motifs not just an individual design, but an ideal allocation of functions is also achieved.

### Laser engraving

The laser engraving enables individual enhanced products by means of the precision cut of the surface. Even the finest contours of ornaments, logos, and text can be achieved.

### Colour printing

The abrasion-resistant colour printing method for an individual cover design.

### Labelling fields

Integrated labelling areas can be designed with this tool as required to quickly identify the sensor function.



Whether laser engraving, colour printing or design of labelling fields: With the JUNG Graphic Tool you suitable customise the components as desired.



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For sales contacts in your country see:  
[www.jung-salescontact.com](http://www.jung-salescontact.com)

You can only obtain JUNG products from your electrical installer. In accordance with DIN VDE 0100, the installation and removal of electrical devices may only be carried out by an electrical specialist.

JUNG was one of the first manufacturer to be awarded the “Made in Germany” certification mark by TÜV NORD. Quality you can rely on!

