JUNG

KNX Catalogue

KNX

EN

MADE IN GERMANY SINCE 1912

AULIX lighting

návrhy osvětlení a prodej svítidel

inteligentní systémy, vypínače

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Sledujte nás také na sociálních sítích:

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KNX SECURE
Effective protection for smart buildings.

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Simple design, sophisticated technology.

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Simply efficient: Remote maintenance of the KNX system.

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SMART VISU SERVER
More convenience and control, even when travelling.

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Ernst Paris

Company founder Albrecht Jung

Progress as tradition

JUNG stands for pure design and future-oriented solutions worldwide. Innovation, passion and precision have been guiding our product developments for more than 100 years. Light, shading, air conditioning, energy, security, door communication and multimedia – our systems provide the appropriate solution for every requirement.

With 1300 employees, 19 subsidiaries and independent sales and partner organisations in around 70 countries, we are represented on five continents. Whether private, commercial or hotel construction: architects and planners worldwide place their trust in the innovative solutions from JUNG. Our building technology can be found in the Reichstag in Berlin as well as in the Hermitage in St. Petersburg and the Shangri-La Hotel in Singapore.

We consciously combine this internationality with close ties to the headquarters of our family business in Schalksmühle. There and in Lünen we develop and manufacture components for classic electrical installations as well as intelligent systems for building technology. Mass production, small series or genuine manufacture: our modern production methods meet the highest requirements.

WE ARE JUNG:

1912 Medium-sized third generation family company

“Made in Germany” for more than 100 years

Around 1300 employees

19 subsidiaries and over 70 agencies worldwide

What makes a building smart?

When all the functions of modern building system technology are networked in a meaningful way and communicate with each other. This means extra comfort, cost-effectiveness, safety and energy efficiency. Our solutions are based on the KNX standard popular worldwide and are therefore absolutely future-proof. From easy to use control elements to a complex system, the JUNG KNX components provide comprehensive, future-proof solutions for control, visualisation and organisation of the building system technology. Our systems completely cover areas such as lighting, shade, heating/air conditioning, surveillance/security, multimedia and smart metering.

From the basic configuration to the high end comfort solution, everything is possible. The professional JUNG KNX technology can be adapted to new requirements at any time.

Function

Visualisation

Evaluation

System reliability

KNX – the worldwide standard with system

KNX has been a worldwide standard for over 30 years and represents a strong international community. The European standard EN 50090 has become established as a global standard in accordance with ISO/IEC 14543-3. The “KNX” label makes clear the system compatibility of the products of all manufacturers.

KNX – FACTS AND FIGURES

1990 30 years of experience

93,000 partners in 190 countries

500 manufacturers

515 training centres

DATE: OCTOBER 2020

FUTURE-PROOF

KNX as building system technology is consistently further developed. As international standard, KNX is future-oriented and guarantees constant upgradeability when new components appear, also manufacturer-independent.

INVESTMENT SECURITY

High quality, certified KNX products and the global standardisation guarantee a sustainable investment in a long-lasting system. The KNX system has existed for more than 30 years and first generation devices are still compatible with the latest KNX products.

INTEROPERABILITY

Products with the KNX logo “speak and understand” the KNX language. They are programmed and put into operation using the manufacturer-independent Engineering Tool (ETS™). Strict KNX interworking rules ensure that the certified products of different manufacturers can communicate with each other in the various applications. KNX has standardised complete sets of data types for a large number of functions for this.

DECENTRALISED SYSTEM DESIGN

KNX functions as a modular system. Network and building technology can thus be expanded and rebuilt in any way at any time. Customised and economic solutions can always be found for small or large projects, modernisation or new construction.

Life in the smart home: functions and applications

KNX is the future-proof solution for the professional smart home: the lighting scene in the living room matches the well-being temperature perfectly. It stays pleasantly cool in the bedroom because the shutters automatically descend when the sun shines in. Your favourite music can be heard in every room thanks to multi-rooming. With intelligent technology from JUNG.

LIGHTING
Individual control of the indoor and outdoor lighting. Automatically, as needed and thus energy saving.

MONITORING/ALARM SIGNALLING
Sensors for monitoring windows and doors, central on/off controls and notification and alarm systems give a secure feeling.

MULTIMEDIA
Multi-rooming in the entire house, TV and entertainment systems and multimedia components are integrated in KNX.

BLINDS AND SHUTTERS
The automatic control of blinds and shutters including louvre adjustment is regulated by sunlight. The control is performed centrally or decentralised.

HEATING, VENTILATION, AIR CONDITIONING
Demand-based control of heating, ventilation and air conditioning ensure not only the individual feel-good temperature but also a healthy room climate.

VISUALISATION AND REMOTE CONTROL
Show and operate all states in your own home using touch displays. Also when on the move from smart phones and tablets.

Finca, Mallorca
Architect/Planner: APM Mallorca, Santa Ponsa
Equipped with JUNG KNX technology
in the LS 990 range

Cultivated objectivity

Smart building technology in prestigious architecture – combined with one high aspiration: only the best, always. Owners in the whole world have confidence in intelligent KNX technology for their homes. Implemented in the varied JUNG design, the smart technology integrates seamlessly into virtually every interior.

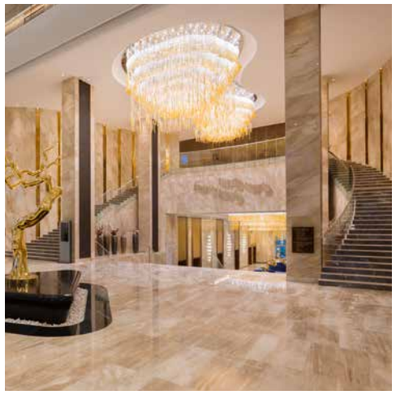
Smart and economical

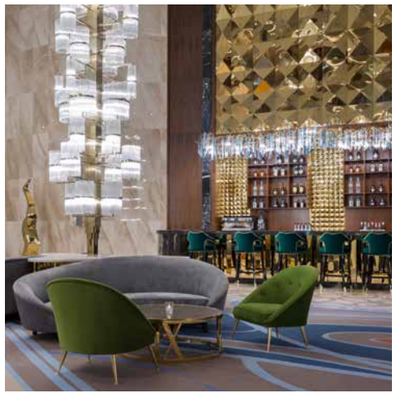
Investment security is the main argument for the decision for building automation in office and administrative building construction. It should also be cost-effective, energy-efficient and functional. Additionally important: Flexibility in adaptation to changing renting situations. The good thing here is that owners and planners worldwide can rely here on the smart KNX solutions of JUNG.

Vienna Biocenter, Vienna
Architect: ATP architekten ingenieure
Equipped with JUNG KNX technology in the LS 990 range.

Hilton Hotel Astana, Kazakhstan
Architect/Planner: INK Architects, Almaty, Nurly Tau BC
Equipped with JUNG KNX technology
in the LS 990 range

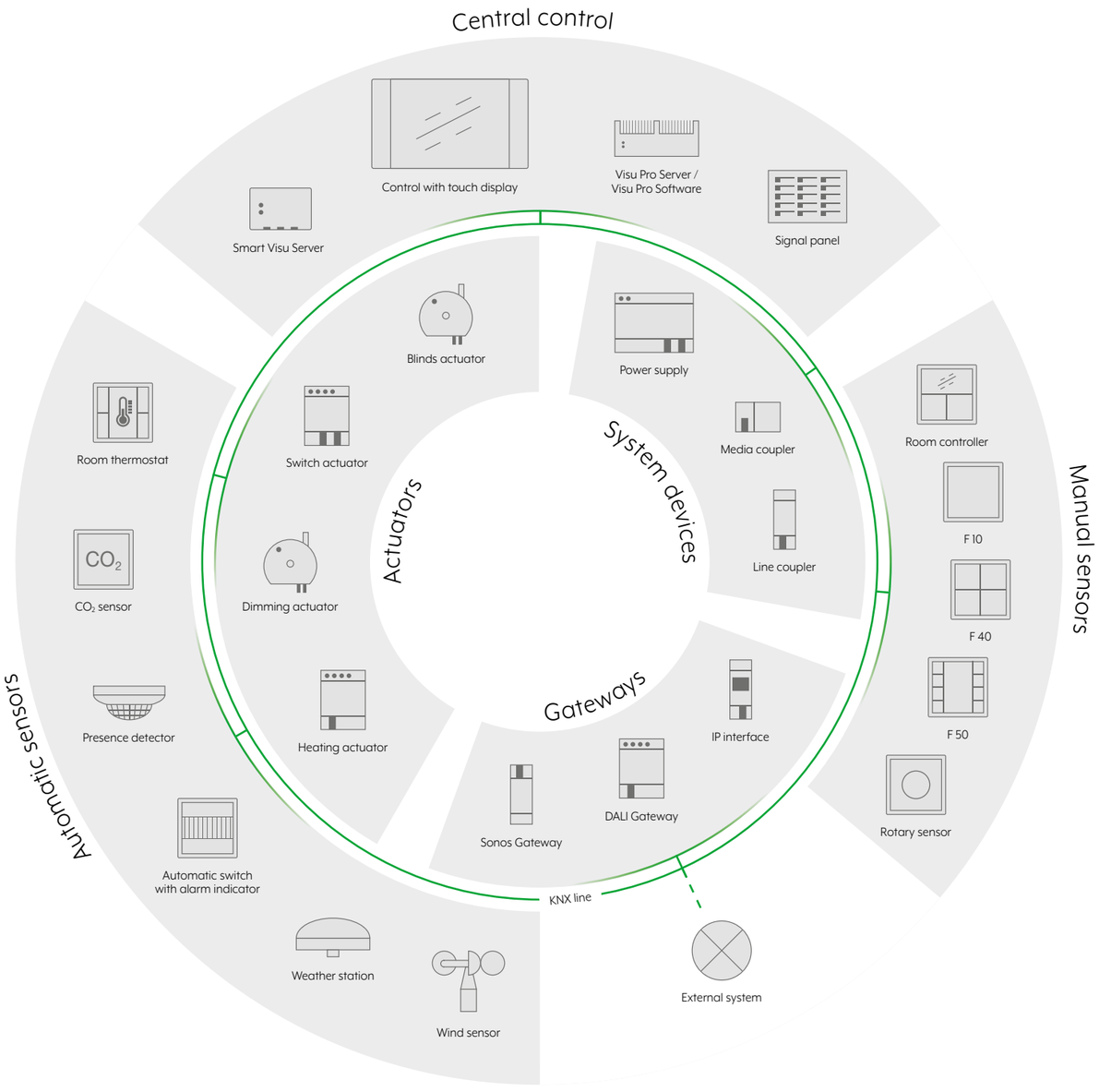
Intelligent comfort



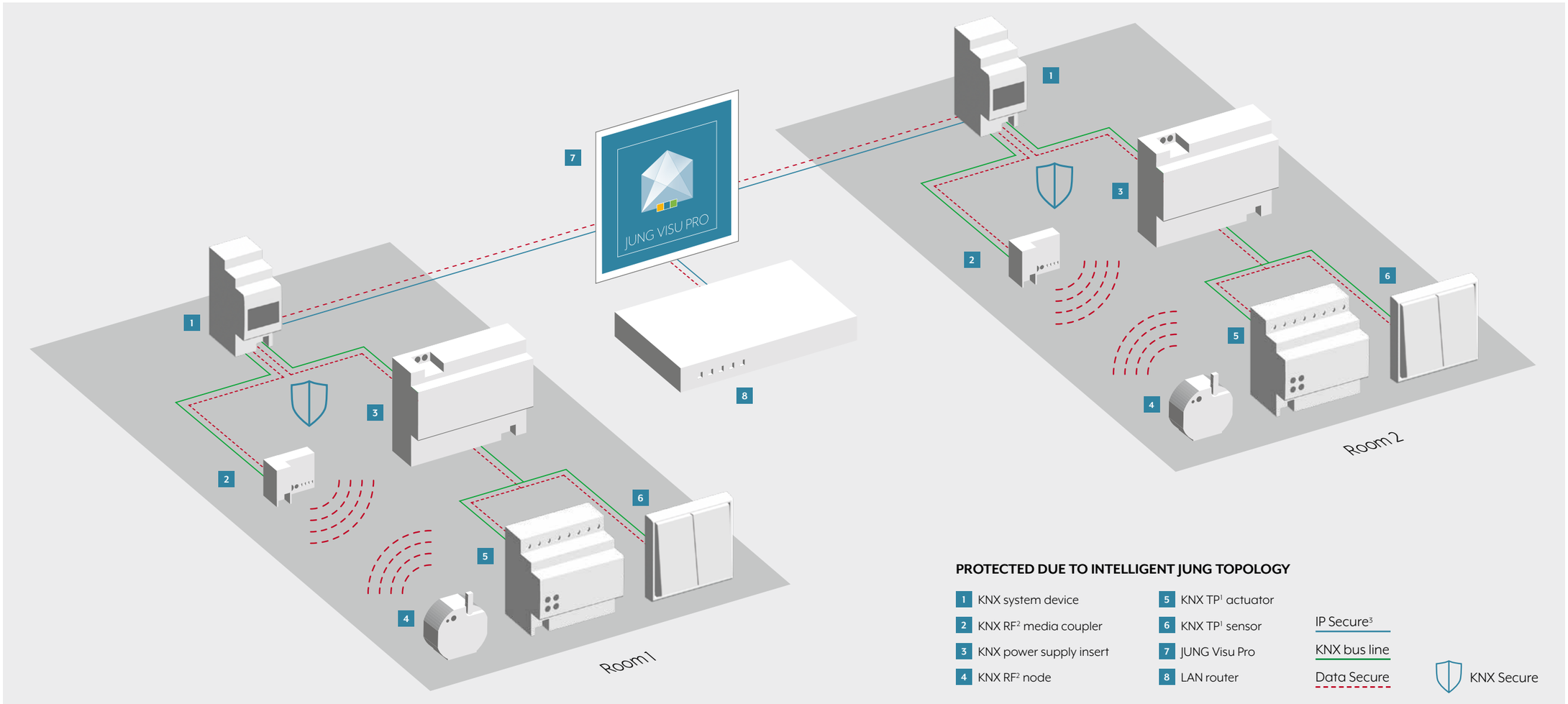


Hotel operators worldwide have confidence in the advantages of intelligent KNX technology from JUNG. Whether well-known hotel chains such as the Hilton Group with its Hilton Hotel Astana in Kazakhstan or first-class family and designer hotels: with KNX, maximum comfort for the guest is combined with reliability and cost effectiveness for the operating company in a uniquely smart way.

Systematically networked: the JUNG KNX system



JUNG KNX Secure: security in the field bus and IP network



The discussion about data protection also does not stop at a smart building. Because everything you can operate digitally yourself, can theoretically also be controlled by unauthorised third parties. This is where JUNG KNX Secure comes in and provides effective protection thanks to encryption with the AES128 algorithm.

KNX Secure provides double protection: KNX IP Secure encrypts the transmission at network layer. It authenticates selected telegrams regardless of the medium and encrypts the transmitted data with the AES128 algorithm. Thus the communication between sensor and actuator in the IP network cannot be interpreted or manipulated. This also ensures secure communication with visualisations. KNX Data Secure also encrypts and authenticates the data on the bus line (TP)[1] or via wireless communication (RF)[2]. This reliably prevents attack scenarios such as telegram recording, telegram repetitions (replay attack) or modification (man-in-the-middle attack).

[1] TP: Twisted pair [2] RF: Radio frequency [3] IP Secure: https encrypted

JUNG KNX Secure: Secure & fast in operation

Professional installers need the certificates of the individual KNX Secure components to make a KNX installation secure. They are printed on the devices as a QR code and must be integrated into the ETS. The easiest way to do this is via app.

1. INSTALL JUNG KNX SECURE SCANNER APP

The smartphone app is installed before the installation. KNX Secure Scanner is available in the app stores of Apple and Google at no charge. Using the KNX Secure Scanner app, installers can easily scan the QR codes on JUNG KNX devices.

Download on the App Store

GET IT ON Google Play

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2. REGISTER CERTIFICATES VIA SMARTPHONE APP

The scanning with the JUNG KNX Secure Scanner app is quick and easy. The keys are shown there as a list view. With the app, the installer then creates a protected JSON file or lists the Secure keys in a password-protected PDF. Then the KNX components are installed.

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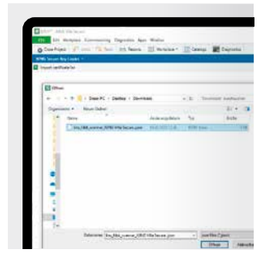
3. IMPORTING CERTIFICATES WITH THE KNX SECURE KEY LOADER

In order to securely integrate the scanned device certificates into the ETS, the installer transfers the JSON files created with the JUNG KNX Secure Scanner to their computer. Several files can come together there, which the installer archives and imports into the ETS project using the ETS app JUNG KNX Secure Key Loader.



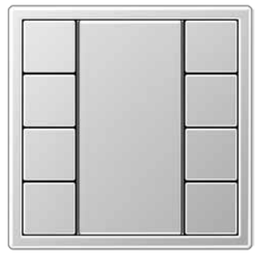
JUNG KNX Secure

On the following pages you will find numerous products that support KNX Secure. They are appropriately identified with this symbol.

Compact Room Controller F 50
LS 990 in black/stainless steel

Operating KNX in the JUNG design

PUSH-BUTTON SENSOR F 50



in LS 990 in aluminium

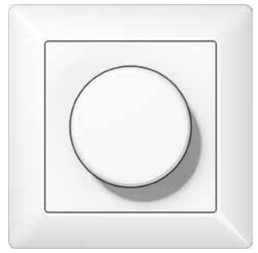
PUSH-BUTTON SENSOR F 40

in A FLOW in matt anthracite

KNX PUSH-BUTTON SENSOR F 10

in CD 500 in light grey

ROTARY SENSOR



in AS 500 in white

When the design makes the operation self-explanatory: the JUNG F 50 push-button sensors impress with high-quality materials. The clear shape stylishly complements the operating concept.

F 40 push-button sensor
LS 990 in stainless steel

Clear labelling

JUNG components are labelled according to individual requirements using the Graphic Tool. Using laser engraving or colour printing process depending on material and colour. Whether produced for the entire building or for one piece. Inscription fields can also be printed independently above the labelling.

LASER ENGRAVING

Precise erosion of the surface for a particularly valued appearance: the finest contours of symbols and texts must also be realised using laser engraving. A striking form of product refinement, particularly for the metal variants.

Labelling in the catalogue part: L

COLOUR PRINTING

Easily integrate the design of the electrical installation in your own corporate design – using abrasion-resistant colour printing. Symbols, individual texts and patterns also give the elements an unmistakeable look.

Labelling in the catalogue part: P

LABELLING

Many Jung products have an integrated labelling field. These can be printed with text or symbols using the labelling. The functions of KNX sensors and more are clearly identified.

Graphic-Tool online: jung.de/gt

Push-button sensor F 50
LS 990 in aluminium/chrome

The F 50 family

The KNX F 50 push-button sensors provide plenty of space on the concise information area for individual marking with the Graphic Tool. Operation is then via the buttons arranged at the side.

PUSH-BUTTON SENSORS

For the control of functions and scenes. The scope of delivery includes the transparent design of the cover with a large labelling area as standard; this can optionally be replaced with a coloured version.

PUSH-BUTTON SENSORS RF

KNX RF is the manufacturer-independent KNX wireless standard. These push-button sensors have the same operating concept and design as the well-known push-button sensors with twisted pair connection.

COMPACT ROOM CONTROLLER

Impressive thanks to an intuitive operating concept and two integrated temperature controllers. The backlit LC display clearly legibly shows the most important values and functions.

ROOM TEMPERATURE CONTROLLER

Device for individual room temperature control. The default can be changed to the push-button sensor functions of switching, dimming, blinds, transducers, or scenes.

Push-button sensor F 50
LS 990 in aluminium

Individual button assignment

TWO-BUTTON OPERATION

Two functions (operation left/right)

TWO-BUTTON OPERATION

Two functions (operation up/down)

ONE-BUTTON OPERATION

Four functions (toggle)

90° MOUNTING

Possible in one or two-button operation

Two operating modes can be set in principle on the F 50 push-button sensor Standard and Universal: one-button operation and two-button operation. In the case of the two-button version, the operation can be optionally programmed for up/down or left/right. Horizontal mounting with appropriate button assignment can also be implemented.

Compact Room Controller F 50
A CREATION in black with glass frame

Illuminating: the RGB LEDs

F 50 push-button sensors Universal have an operation LED and a status LED per button. These can be freely set in red, green and blue. The LEDs and the illuminated labelling area can each be adjusted for brightness so that, for example, one LED can be used as a pilot light.

Versatile functionality

THE DESIGN COVER

The design cover is available as a transparent version and as coloured variant – that is unique in the market.

OPTIMISED: THE INSTALLATION

Flat design and low installation depth make the push-button sensors easy to mount. The easily accessible terminals for the KNX bus and the push-button extension module are clearly labelled:

1 Extension module

2 KNX bus

PRACTICAL: THE CONSTRUCTION SITE COVERAGE

Thanks to the construction site coverage, button and function assignment can already be realised in construction site operation. The decision for button and cover design thus has time until the project acceptance.

INTEGRATED: THE TEMPERATURE SENSOR*

The temperature at various places in the room can be measured with the temperature sensor. The values are transmitted to the room temperature controller or room controller for effective control.

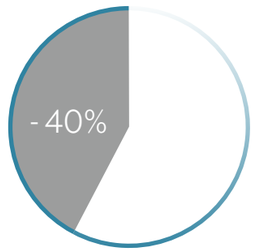
ENLIGHTENING: THE LIGHT SCENE MEMORY*

Up to 8 light scenes can be stored in the integrated light scene memory; in turn, eight groups can be assigned to each scene. These scenes can be called up using buttons or other KNX commands.

*only for Universal version

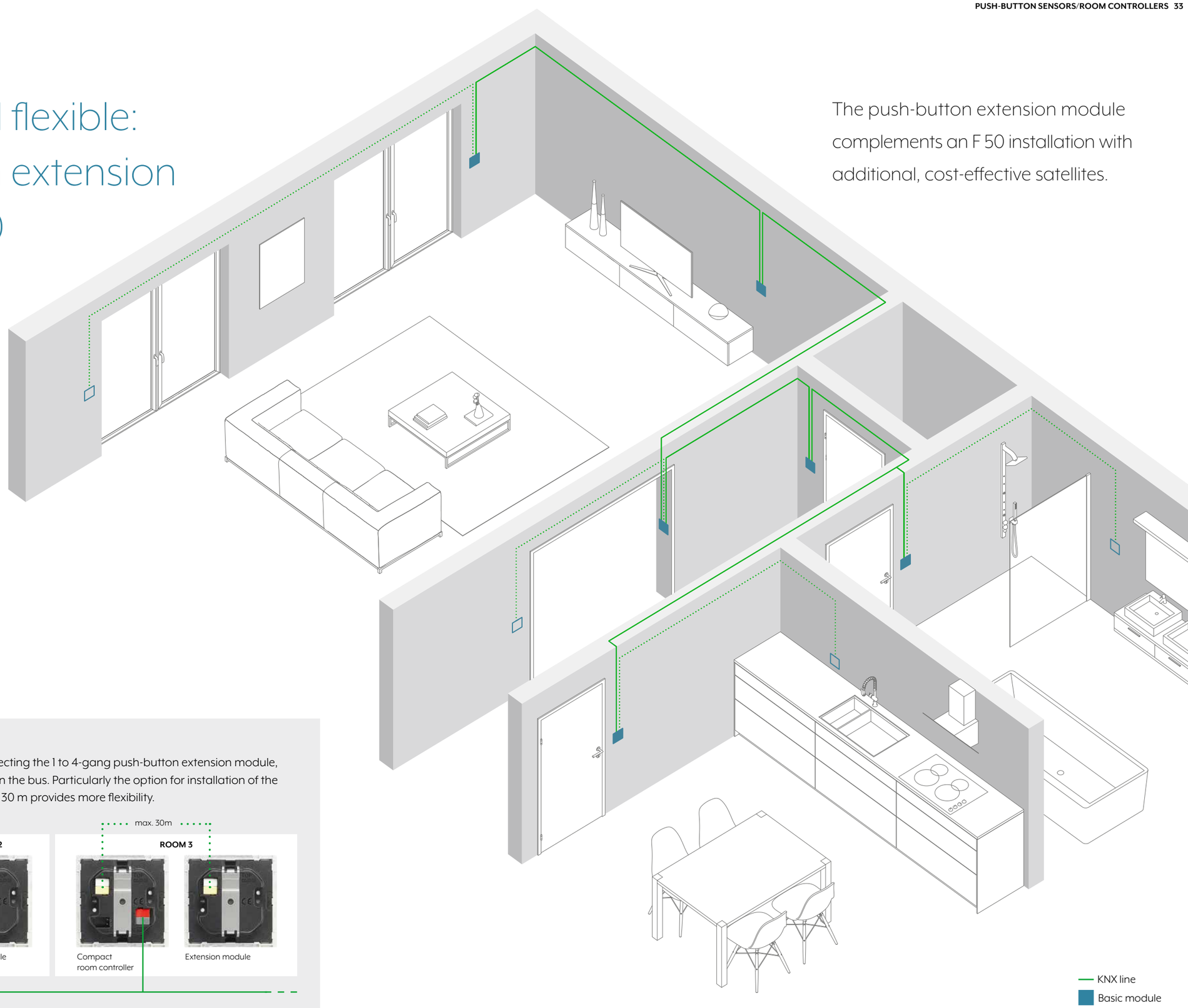
Efficient and flexible: Push-button extension module F 50

The push-button extension module complements an F 50 installation with additional, cost-effective satellites.



COST SAVING

In comparison with exclusive use of push-button sensors in the KNX installation shown, the saving is 40%.

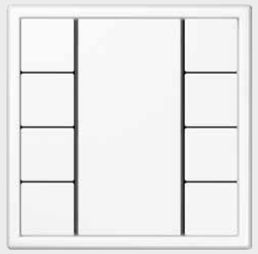


PUSH-BUTTON EXTENSION MODULE

The functions can be extended by connecting the 1 to 4-gang push-button extension module, while at the same minimising the load on the bus. Particularly the option for installation of the extension module at a distance of up to 30 m provides more flexibility.

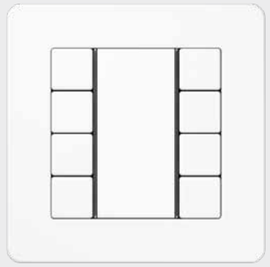
Variety of designs

LS 990



in white

A FLOW

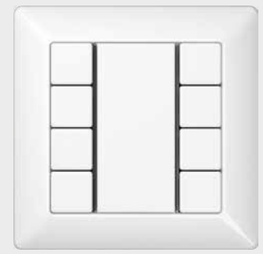


in white

CD 500

in white

AS 500

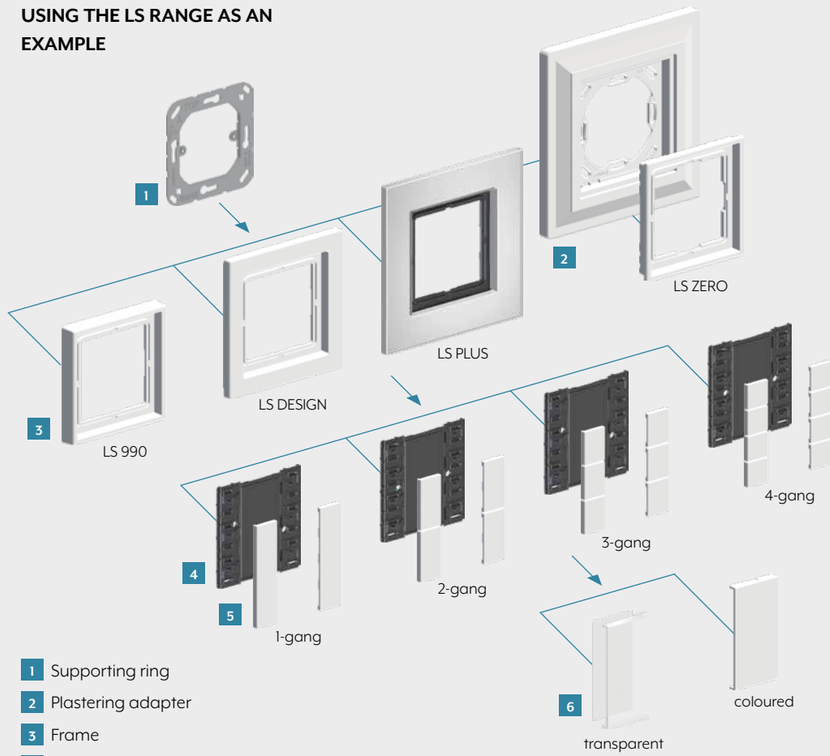


in white

High quality materials and distinctive forms determine the JUNG design. The AS, A, CD and LS ranges give the KNX sensors their attractive appearance. They can be selected to match the ambiance for each room.

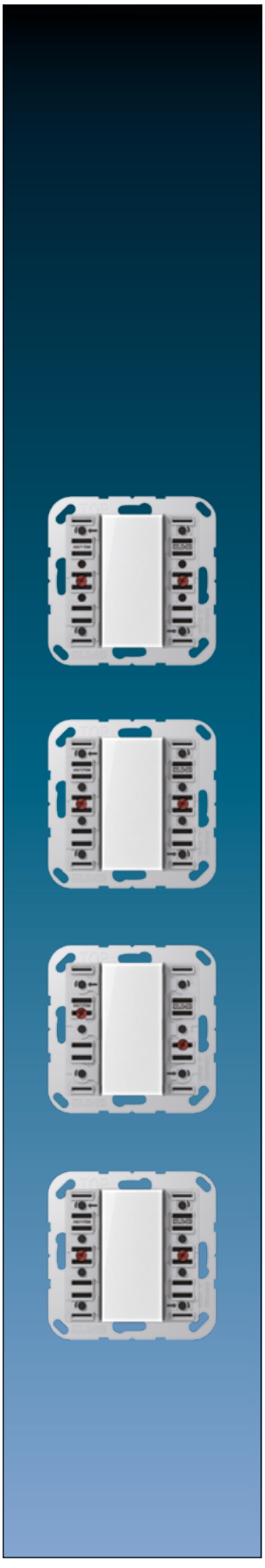
Modular system

USING THE LS RANGE AS AN EXAMPLE



1 Supporting ring
2 Plastering adapter
3 Frame
4 Push-button module
5 Cover kit
6 Labelling field

The 1, 2, 3 and 4-gang F 50 modules are available in the JUNG design alongside the corresponding 1 to 4-gang cover kits. The transparent or coloured labelling field is optionally added to this. The design frames of the various ranges round off the concept.



Ref.-no.

KNX standard push-button module
including transparent cover ref.-no.: A 50 NA

Intended use
- Operation of loads, e.g. light on/off, dimming, blinds up/down, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics
- KNX medium: TP 256
- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- To be completed with cover kit
- Inscription field
- One red status LED for a pair of buttons
- One operation LED as orientation light and programming status – red, green or blue, adjustable
- Energy saving mode
- Integrated bus coupling unit
- Transparent cover kit (included) for temporary site use without design covers

KNX standard push-button module, 1-gang
for cover kit 1-gang, ref.-no.: A 501 TSA ..
ETS product family: Push-button
Product type: 1-gang push-button

A 5071 TSM

KNX standard push-button module, 2-gang
for cover kit 2-gang, ref.-no.: A 502 TSA ..
ETS product family: Push-button
Product type: 2-gang push-button

A 5072 TSM

KNX standard push-button module, 3-gang
for cover kit 3-gang, ref.-no.: A 503 TSA ..
ETS product family: Push-button
Product type: 3-gang push-button

A 5073 TSM

KNX standard push-button module, 4-gang
for cover kit 4-gang, ref.-no.: A 504 TSA ..
ETS product family: Push-button
Product type: 4-gang push-button

A 5074 TSM

Ref.-no.

KNX universal push-button module
including transparent cover ref.-no.: A 50 NA
Intended use
- Operation of loads, e.g. light on/off, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics
- KNX medium: TP 256
- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- One or two functions per button
- To be completed with cover kit
- Inscription field can be illuminated
- One status LED per button, red, green or blue, adjustable
- One operation LED as orientation light and programming status – red, green or blue, adjustable
- Brightness of status LED, operation LED and inscription field adjustable, can be changed during operation, e.g. during night times
- Measurement of room temperature
- Extension unit for room temperature controller
- Disabling function: Disabling or change function mode of single or all button functions
- Alarm function, optional acknowledge by pressing any button
- Energy saving mode
- Integrated bus coupling unit
- Connection for a push-button extension module, 1-4 gang
- Transparent cover kit (included) for temporary site use without design covers

KNX universal push-button module, 1-gang
for cover kit 1-gang, ref.-no.: A 501 TSA ..
can be extended by means of a push-button extension module, ref.-no.: A 509.. TSEM
ETS product family: Push-button
Product type: 1-gang push-button

A 5091 TSM

KNX universal push-button module, 2-gang
for cover kit 2-gang, ref.-no.: A 502 TSA ..
can be extended by means of a push-button extension module, ref.-no.: A 509.. TSEM
ETS product family: Push-button
Product type: 2-gang push-button

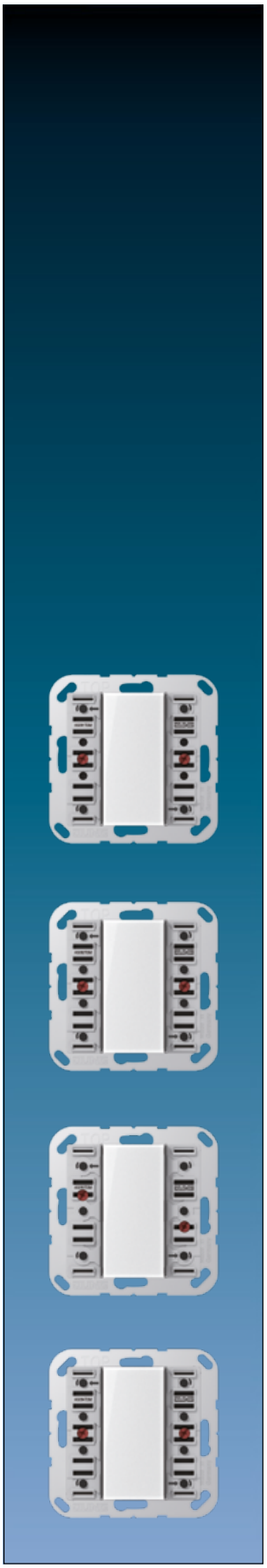
A 5092 TSM

KNX universal push-button module, 3-gang
for cover kit 3-gang, ref.-no.: A 503 TSA ..
can be extended by means of a push-button extension module, ref.-no.: A 509.. TSEM
ETS product family: Push-button
Product type: 3-gang push-button

A 5093 TSM

KNX universal push-button module, 4-gang
for cover kit 4-gang, ref.-no.: A 504 TSA ..
can be extended by means of a push-button extension module, ref.-no.: A 509.. TSEM
ETS product family: Push-button
Product type: 4-gang push-button

A 5094 TSM



	Ref.-no.
KNX room temperature controller module 2-gang including transparent cover and inlay with symbols for cover kit 2-gang, ref.-no.: A 502 TSA ..	**A 5178 TSM**

Intended use
- Single-room temperature control in KNX installations
- Operation of loads, e.g. light on/off, dimming, blinds up/down, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics
All buttons can be assigned with push-button sensor functions or functions for controller operation.
- KNX medium: TP 256
- Measurement of room temperature
- Room temperature control with setpoint value specification
- Extension unit for room temperature controller
- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- One or two functions per button
- Completion with cover kit 2-gang
- Inscription field can be illuminated
- Two red status LEDs per button – red, green or blue adjustable
- One operation LED as an orientation light and to indicate the programming status – red, green or blue adjustable
- Brightness of status LEDs, operation LED and labelling field adjustable; switchable while in operation, e.g. during the night
- Disabling function: Disabling or change function mode of single or all button functions
- Alarm function, optional acknowledge by pressing any button
- Energy saving mode (for operation without controller function)
- Integrated bus coupling unit
- Connection for a push-button extension module, for extension with up to eight additional buttons

Push-button extension module
including transparent cover ref.-no.: A 50 NA
for the extension of the Universal push-button module (ref.-no.: A 509.. TSM) and
room temperature controller module (ref.-no.: A 5178 TSM) with up to 4 additional push-buttons

1-gang	**A 5091 TSEM**
2-gang	**A 5092 TSEM**
3-gang	**A 5093 TSEM**
4-gang	**A 5094 TSEM**

Product characteristics
- One or two functions per button
- To be completed with cover kit
- Inscription field can be illuminated
- One status LED per button, red, green or blue, adjustable
- One operation LED as orientation light and programming status – red, green or blue, adjustable
- Brightness of status LED, operation LED and inscription field adjustable, can be changed during operation, e.g. during night times
- Measurement of room temperature
- Extension unit for room temperature controller
- Disabling function: Disabling or change function mode of single or all button functions
- Alarm function, optional acknowledge by pressing any button
- Energy saving mode
- Transparent cover kit (included) for temporary site use without design covers

Technical data

Cable length:	max. 30 m
Cable type:	J-Y(St)Y 2 x 2 x 0.8 mm

Ref.-no.

KNX room controller display compact module 2-gang
for cover kit 2-gang, ref.-no.: A 502 TSA ..
can be extended by means of a room controller extension module, ref.-no.: A 5178 TSEM
can be extended by means of a push-button extension module, ref.-no.: A 509.. TSEM

A 5192 KRM TS D

Technical data
Recommended mounting height: 1.5 m

KNX room controller display compact module 4-gang
for cover kit 4-gang, ref.-no.: A 504 TSA ..
can be extended by means of a room controller extension module, ref.-no.: A 5178 TSEM
can be extended by means of a push-button extension module, ref.-no.: A 509.. TSEM

A 5194 KRM TS D

Intended use
- Measurement and feedback control of the room temperature
- Operation of loads, e.g. light on/off, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics
All buttons can be assigned with push-button sensor functions or functions for controller operation.
- KNX medium: TP 256
- Backlit LC display
- One or two functions per button
- To be completed with cover kit
- Eight status LEDs – red, green or blue
- Brightness of status LEDs and LCD adjustable
- Integrated bus coupling unit
- Connection of extension modules
- Integrated room temperature sensor
- External sensor (ref.-no.: FF 7.8) can be connected
- Room temperature control with setpoint value specification
- Two internal independent controllers for two independent areas – in connection with extension modules
- Display of room or set temperature (°C or °F)
- Display of outdoor temperature – with external sensor, e.g. weather station
- Display of time, in conjunction with KNX time encoder (in menu level)
- Push-button function or rocker function
- Disabling function: Disabling or change function mode of single or all button functions
- Alarm function, optional acknowledge by pressing any button

Technical data
Recommended mounting height: 1.5 m

Room controller extension module 2-gang
for cover kit 2-gang, ref.-no.: A 502 TSA ..
for the extension of a room controller module (ref.-no.: A 5192 KRM TS D, A 5194 KRM TS D)
with a second room temperature control unit

A 5178 TSEM

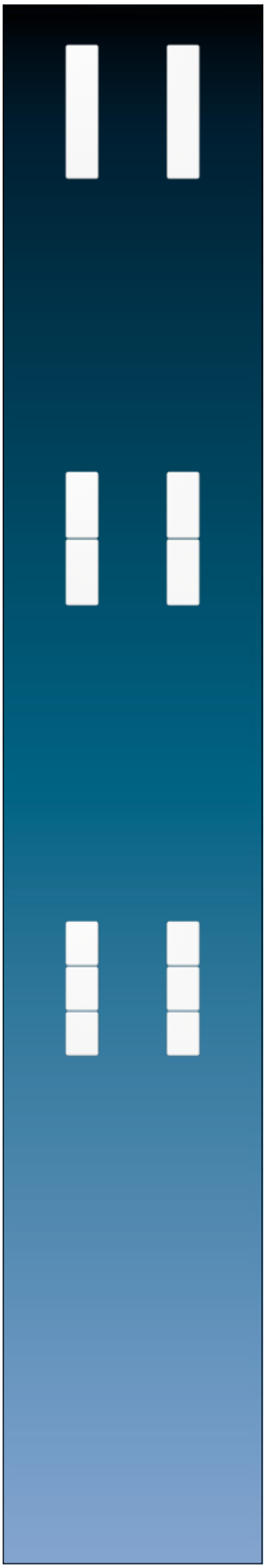
Intended use
- Operation of loads, e.g. light on/off, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Measurement of room temperature
- Extension for room controller modules (.. 5192 KRM TS D, .. 5194 KRM TS D)
- Installation in flush box according to DIN 49073

Technical data
Cable length: max. 30 m
Cable type: J-Y(St)Y 2 x 2 x 0.8 mm

KNX AS range and A range

F 50

Delivery of cover kits:
1 complete set per ref.-no.!



			Ref.-no.
Cover kit 1-gang			
to clip on F 50 push-button modules 1-gang of the AS/A range			
ref.-no.: A 5071 TSM, A 5091 TSM, A 5091 TSEM, A 5071 RF TSM, A 5212 TSM, FM A 5001 M			
Thermoplastic (breakproof) high-gloss			
ivory		L	**A 501 TSA**
white		L	**A 501 TSA WW**
black		L	**A 501 TSA SW**
Thermoplastic (breakproof) lacquered			
aluminium	P	L	**A 501 TSA AL**
champagne	P		**A 501 TSA CH**
mocha			**A 501 TSA MO**
matt lacquered			
matt snow white	N		**A 501 TSA WWM**
matt graphite black	N		**A 501 TSA SWM**
matt anthracite			**A 501 TSA ANM**
Cover kit 2-gang			
to clip on F 50 push-button modules 2-gang of the AS/A range			
ref.-no.: A 5072 TSM, A 5092 TSM, A 5092 TSEM, A 5178 TSM, A 5192 KRM TS D,			
A 5178 TSEM, A 5072 RF TSM, A 5224 TSM, FM A 5002 M			
Thermoplastic (breakproof) high-gloss			
ivory		L	**A 502 TSA**
white		L	**A 502 TSA WW**
black		L	**A 502 TSA SW**
Thermoplastic (breakproof) lacquered			
aluminium	P	L	**A 502 TSA AL**
champagne	P		**A 502 TSA CH**
mocha			**A 502 TSA MO**
matt lacquered			
matt snow white	N		**A 502 TSA WWM**
matt graphite black	N		**A 502 TSA SWM**
matt anthracite			**A 502 TSA ANM**
Cover kit 3-gang			
to clip on F 50 push-button modules 3-gang of the AS/A range			
ref.-no.: A 5073 TSM, A 5093 TSM, A 5093 TSEM, A 5073 RF TSM, A 5236 TSM,			
FM A 5003 M, SI TM A 5073, SI TM A 5093			
Thermoplastic (breakproof) high-gloss			
ivory		L	**A 503 TSA**
white		L	**A 503 TSA WW**
black		L	**A 503 TSA SW**
Thermoplastic (breakproof) lacquered			
aluminium	P	L	**A 503 TSA AL**
champagne	P		**A 503 TSA CH**
mocha			**A 503 TSA MO**
matt lacquered			
matt snow white	N		**A 503 TSA WWM**
matt graphite black	N		**A 503 TSA SWM**
matt anthracite			**A 503 TSA ANM**

Delivery of cover kits:
1 complete set per ref.-no.!

			Ref.-no.
Cover kit 4-gang			
to clip on F 50 push-button modules 4-gang of the AS/A range			
ref.-no.: A 5074 TSM, A 5094 TSM, A 5094 TSEM, A 5194 KRM TS D,			
A 5074 RF TSM, A 5248 TSM, FM A 5004 M			
Thermoplastic (breakproof) high-gloss			
ivory		L	**A 504 TSA**
white		L	**A 504 TSA WW**
black		L	**A 504 TSA SW**
Thermoplastic (breakproof) lacquered			
aluminium	P	L	**A 504 TSA AL**
champagne	P		**A 504 TSA CH**
mocha			**A 504 TSA MO**
matt lacquered			
matt snow white	N		**A 504 TSA WWM**
matt graphite black	N		**A 504 TSA SWM**
matt anthracite			**A 504 TSA ANM**

Transparent cover with paper inlay			
(Spare part)			
to clip on F 50 push-button modules of the AS/A range			
ref.-no.: A 507.. TSM, A 509.. TSM, A 509.. TSEM, A 5178 TSM,			
A 51.. KRM TS D, A 5178 TSEM, A 507.. RF TSM, A 52.. TSM, FM A 50.. M			
Also included in delivery of modules.			
inscription field 25 x 52.5 mm			
paper inlay pearly			**A 50 NA**

Neutral cover			
to clip on F 50 push-button modules of the AS/A range			
ref.-no.: A 507.. TSM, A 509.. TSM, A 509.. TSEM, A 5178 TSM, A 51.. KRM TS D,			
A 5178 TSEM, A 507.. RF TSM, A 52.. TSM, FM A 50.. M			
dimensions: 25 x 55 mm			
Thermoplastic (breakproof) high-gloss			
ivory		L	**A 50 NA W**
white		L	**A 50 NA WW**
black		L	**A 50 NA SW**
Thermoplastic (breakproof) lacquered			
aluminium	P	L	**A 50 NA AL**
champagne	P		**A 50 NA CH**
mocha			**A 50 NA MO**
matt lacquered			
matt snow white	N		**A 50 NA WWM**
matt graphite black	N		**A 50 NA SWM**
matt anthracite			**A 50 NA ANM**

Professional inscription see www.jung.de/gt

Ref.-no.

KNX standard push-button module
including transparent cover ref.-no.: CD 50 NA

Intended use
- Operation of loads, e.g. light on/off, dimming, blinds up/down, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics
- KNX medium: TP 256
- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- To be completed with cover kit
- Inscription field
- One red status LED for a pair of buttons
- One operation LED as orientation light and programming status – red, green or blue, adjustable
- Energy saving mode
- Integrated bus coupling unit
- Transparent cover kit (included) for temporary site use without design covers

KNX standard push-button module, 1-gang
for cover kit 1-gang, ref.-no.: CD 501 TSA ..
ETS product family: Push-button
Product type: 1-gang push-button

CD 5071 TSM

KNX standard push-button module, 2-gang
for cover kit 2-gang, ref.-no.: CD 502 TSA ..
ETS product family: Push-button
Product type: 2-gang push-button

CD 5072 TSM

KNX standard push-button module, 3-gang
for cover kit 3-gang, ref.-no.: CD 503 TSA ..
ETS product family: Push-button
Product type: 3-gang push-button

CD 5073 TSM

KNX standard push-button module, 4-gang
for cover kit 4-gang, ref.-no.: CD 504 TSA ..
ETS product family: Push-button
Product type: 4-gang push-button

CD 5074 TSM

Ref.-no.

KNX universal push-button module
including transparent cover ref.-no.: CD 50 NA
Intended use
- Operation of loads, e.g. light on/off, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics
- KNX medium: TP 256
- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- One or two functions per button
- To be completed with cover kit
- Inscription field can be illuminated
- One status LED per button, red, green or blue, adjustable
- One operation LED as orientation light and programming status – red, green or blue, adjustable
- Brightness of status LED, operation LED and inscription field adjustable, can be changed during operation, e.g. during night times
- Measurement of room temperature
- Extension unit for room temperature controller
- Disabling function: Disabling or change function mode of single or all button functions
- Alarm function, optional acknowledge by pressing any button
- Energy saving mode
- Integrated bus coupling unit
- Connection for a push-button extension module, 1-4 gang
- Transparent cover kit (included) for temporary site use without design covers

KNX universal push-button module, 1-gang
for cover kit 1-gang, ref.-no.: CD 501 TSA ..
can be extended by means of a push-button extension module, ref.-no.: CD 509.. TSEM
ETS product family: Push-button
Product type: 1-gang push-button

CD 5091 TSM

KNX universal push-button module, 2-gang
for cover kit 2-gang, ref.-no.: CD 502 TSA ..
can be extended by means of a push-button extension module, ref.-no.: CD 509.. TSEM
ETS product family: Push-button
Product type: 2-gang push-button

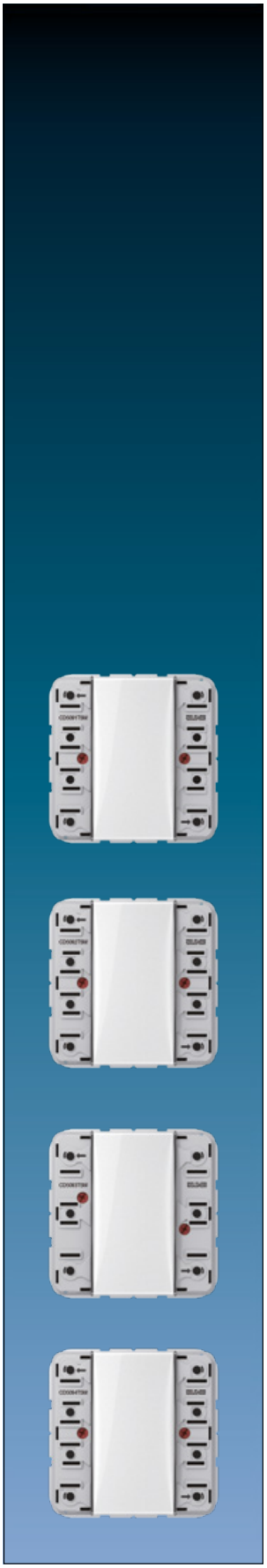
CD 5092 TSM

KNX universal push-button module, 3-gang
for cover kit 3-gang, ref.-no.: CD 503 TSA ..
can be extended by means of a push-button extension module, ref.-no.: CD 509.. TSEM
ETS product family: Push-button
Product type: 3-gang push-button

CD 5093 TSM

KNX universal push-button module, 4-gang
for cover kit 4-gang, ref.-no.: CD 504 TSA ..
can be extended by means of a push-button extension module, ref.-no.: CD 509.. TSEM
ETS product family: Push-button
Product type: 4-gang push-button

CD 5094 TSM



	Ref.-no.
KNX room temperature controller module 2-gang including transparent cover and inlay with symbols for cover kit 2-gang, ref.-no.: CD 502 TSA ..	**CD 5178 TSM**

Intended use
- Single-room temperature control in KNX installations
- Operation of loads, e.g. light on/off, dimming, blinds up/down, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics
All buttons can be assigned with push-button sensor functions or functions for controller operation.
- KNX medium: TP 256
- Measurement of room temperature
- Room temperature control with setpoint value specification
- Extension unit for room temperature controller
- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- One or two functions per button
- Completion with cover kit 2-gang
- Inscription field can be illuminated
- Two red status LEDs per button – red, green or blue adjustable
- One operation LED as an orientation light and to indicate the programming status – red, green or blue adjustable
- Brightness of status LEDs, operation LED and labelling field adjustable; switchable while in operation, e.g. during the night
- Disabling function: Disabling or change function mode of single or all button functions
- Alarm function, optional acknowledge by pressing any button
- Energy saving mode (for operation without controller function)
- Integrated bus coupling unit
- Connection for a push-button extension module, for extension with up to eight additional buttons

Push-button extension module
including transparent cover ref.-no.: CD 50 NA
for the extension of the Universal push-button module (ref.-no.: CD 509.. TSM) and room temperature controller module (ref.-no.: CD 5178 TSM) with up to 4 additional push-buttons

1-gang	**CD 5091 TSEM**
2-gang	**CD 5092 TSEM**
3-gang	**CD 5093 TSEM**
4-gang	**CD 5094 TSEM**

Product characteristics
- One or two functions per button
- To be completed with cover kit
- Inscription field can be illuminated
- One status LED per button, red, green or blue, adjustable
- One operation LED as orientation light and programming status – red, green or blue, adjustable
- Brightness of status LED, operation LED and inscription field adjustable, can be changed during operation, e.g. during night times
- Measurement of room temperature
- Extension unit for room temperature controller
- Disabling function: Disabling or change function mode of single or all button functions
- Alarm function, optional acknowledge by pressing any button
- Energy saving mode
- Transparent cover kit (included) for temporary site use without design covers

Technical data

Cable length:	max. 30 m
Cable type:	J-Y(St)Y 2 x 2 x 0.8 mm

Ref.-no.

KNX room controller display compact module 2-gang
for cover kit 2-gang, ref.-no.: CD 502 TSA ..
can be extended by means of a room controller extension module, ref.-no.: CD 5178 TSEM
can be extended by means of a push-button extension module, ref.-no.: CD 509.. TSEM

CD 5192 KRM TS D

Technical data
Recommended mounting height: 1.5 m

KNX room controller display compact module 4-gang
for cover kit 4-gang, ref.-no.: CD 504 TSA ..
can be extended by means of a room controller extension module, ref.-no.: CD 5178 TSEM
can be extended by means of a push-button extension module, ref.-no.: CD 509.. TSEM

CD 5194 KRM TS D

Intended use
- Measurement and feedback control of the room temperature
- Operation of loads, e.g. light on/off, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics
All buttons can be assigned with push-button sensor functions or functions for controller operation.
- KNX medium: TP 256
- Backlit LC display
- One or two functions per button
- To be completed with cover kit
- Eight status LEDs – red, green or blue
- Brightness of status LEDs and LCD adjustable
- Integrated bus coupling unit
- Connection of extension modules
- Integrated room temperature sensor
- External sensor (ref.-no.: FF 7.8) can be connected
- Room temperature control with setpoint value specification
- Two internal independent controllers for two independent areas – in connection with extension modules
- Display of room or set temperature (°C or °F)
- Display of outdoor temperature – with external sensor, e.g. weather station
- Display of time, in conjunction with KNX time encoder (in menu level)
- Push-button function or rocker function
- Disabling function: Disabling or change function mode of single or all button functions
- Alarm function, optional acknowledge by pressing any button
- Function symbols can be shown

Technical data
Recommended mounting height: 1.5 m

Room controller extension module 2-gang
for cover kit 2-gang, ref.-no.: CD 502 TSA ..
for the extension of a room controller module (ref.-no.: CD 5192 KRM TS D, CD 5194 KRM TS D)
with a second room temperature control unit

CD 5178 TSEM

Intended use
- Operation of loads, e.g. light on/off, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Measurement of room temperature
- Extension for room controller modules (.. 5192 KRM TS D, .. 5194 KRM TS D)
- Installation in flush box according to DIN 49073

Technical data
Cable length: max. 30 m
Cable type: J-Y(St)Y 2 x 2 x 0.8 mm

Delivery of cover kits:
1 complete set per ref.-no.!

	Ref.-no.

Cover kit 1-gang
to clip on F 50 push-button modules 1-gang of the CD range
ref.-no.: CD 5071 TSM, CD 5091 TSM, CD 5091 TSEM, CD 5071 RF TSM, CD 5212 TSM, FM CD 5001 M

Thermoplastic (breakproof) high-gloss

ivory	L **CD 501 TSA**
white	L **CD 501 TSA WW**
grey	L **CD 501 TSA GR**
light grey	L **CD 501 TSA LG**
black	L **CD 501 TSA SW**

Cover kit 2-gang
to clip on F 50 push-button modules 2-gang of the CD range
ref.-no.: CD 5072 TSM, CD 5092 TSM, CD 5092 TSEM, CD 5178 TSM, CD 5192 KRM TS D, CD 5178 TSEM, CD 5072 RF TSM, CD 5224 TSM, FM CD 5002 M

Thermoplastic (breakproof) high-gloss

ivory	L **CD 502 TSA**
white	L **CD 502 TSA WW**
grey	L **CD 502 TSA GR**
light grey	L **CD 502 TSA LG**
black	L **CD 502 TSA SW**

Cover kit 3-gang
to clip on F 50 push-button modules 3-gang of the CD range
ref.-no.: CD 5073 TSM, CD 5093 TSM, CD 5093 TSEM, CD 5073 RF TSM, CD 5236 TSM, FM CD 5003 M, SI TM CD 5073, SI TM CD 5093

Thermoplastic (breakproof) high-gloss

ivory	L **CD 503 TSA**
white	L **CD 503 TSA WW**
grey	L **CD 503 TSA GR**
light grey	L **CD 503 TSA LG**
black	L **CD 503 TSA SW**

Cover kit 4-gang
to clip on F 50 push-button modules 4-gang of the CD range
ref.-no.: CD 5074 TSM, CD 5094 TSM, CD 5094 TSEM, CD 5194 KRM TS D, CD 5074 RF TSM, CD 5248 TSM, FM CD 5004 M

Thermoplastic (breakproof) high-gloss

ivory	L **CD 504 TSA**
white	L **CD 504 TSA WW**
grey	L **CD 504 TSA GR**
light grey	L **CD 504 TSA LG**
black	L **CD 504 TSA SW**

Neutral cover
to clip on F 50 push-button modules of the CD range
ref.-no.: CD 507.. TSM, CD 509.. TSM, CD 509.. TSEM, CD 5178 TSM, CD 51.. KRM TS D, CD 5178 TSEM, CD 507.. RF TSM, CD 52.. TSM, FM CD 50.. M
dimensions: 33 x 68 mm

Thermoplastic (breakproof) high-gloss

ivory	L **CD 50 NA W**
white	L **CD 50 NA WW**
grey	L **CD 50 NA GR**
light grey	L **CD 50 NA LG**
black	L **CD 50 NA SW**

Transparent cover with paper inlay (Spare part)

to clip on F 50 push-button modules of the CD range, paper inlay pearly	**CD 50 NA**

Professional inscription see www.jung.de/gt

Ref.-no.

KNX standard push-button module
including transparent cover ref.-no.: LS 50 NA

Intended use
- Operation of loads, e.g. light on/off, dimming, blinds up/down, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics
- KNX medium: TP 256
- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- To be completed with cover kit
- Inscription field
- One red status LED for a pair of buttons
- One operation LED as orientation light and programming status – red, green or blue, adjustable
- Energy saving mode
- Integrated bus coupling unit
- Transparent cover kit (included) for temporary site use without design covers

KNX standard push-button module, 1-gang
for cover kit 1-gang, ref.-no.: ..501 TSA .. in the LS range
ETS product family: Push-button
Product type: 1-gang push-button

LS 5071 TSM

KNX standard push-button module, 2-gang
for cover kit 2-gang, ref.-no.: LS 502 TSA ..
ETS product family: Push-button
Product type: 2-gang push-button

LS 5072 TSM

KNX standard push-button module, 3-gang
for cover kit 3-gang, ref.-no.: ..503 TSA .. in the LS range
ETS product family: Push-button
Product type: 3-gang push-button

LS 5073 TSM

KNX standard push-button module, 4-gang
for cover kit 4-gang, ref.-no.: ..504 TSA .. in the LS range
ETS product family: Push-button
Product type: 4-gang push-button

LS 5074 TSM

Ref.-no.

KNX universal push-button module
including transparent cover ref.-no.: LS 50 NA
Intended use
- Operation of loads, e.g. light on/off, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics
- KNX medium: TP 256
- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- One or two functions per button
- To be completed with cover kit
- Inscription field can be illuminated
- One status LED per button, red, green or blue, adjustable
- One operation LED as orientation light and programming status – red, green or blue, adjustable
- Brightness of status LED, operation LED and inscription field adjustable, can be changed during operation, e.g. during night times
- Measurement of room temperature
- Extension unit for room temperature controller
- Disabling function: Disabling or change function mode of single or all button functions
- Alarm function, optional acknowledge by pressing any button
- Energy saving mode
- Integrated bus coupling unit
- Connection for a push-button extension module, 1-4 gang
- Transparent cover kit (included) for temporary site use without design covers

KNX universal push-button module, 1-gang
for cover kit 1-gang, ref.-no.: ..501 TSA .. in the LS range
can be extended by means of a push-button extension module, ref.-no.: LS 509.. TSEM
ETS product family: Push-button
Product type: 1-gang push-button

LS 5091 TSM

KNX universal push-button module, 2-gang
for cover kit 2-gang, ref.-no.: LS 502 TSA ..
can be extended by means of a push-button extension module, ref.-no.: LS 509.. TSEM
ETS product family: Push-button
Product type: 2-gang push-button

LS 5092 TSM

KNX universal push-button module, 3-gang
for cover kit 3-gang, ref.-no.: ..503 TSA .. in the LS range
can be extended by means of a push-button extension module, ref.-no.: LS 509.. TSEM
ETS product family: Push-button
Product type: 3-gang push-button

LS 5093 TSM

KNX universal push-button module, 4-gang
for cover kit 4-gang, ref.-no.: ..504 TSA .. in the LS range
can be extended by means of a push-button extension module, ref.-no.: LS 509.. TSEM
ETS product family: Push-button
Product type: 4-gang push-button

LS 5094 TSM

	Ref.-no.
KNX room temperature controller module 2-gang including transparent cover and inlay with symbols for cover kit 2-gang, ref.-no.: LS 502 TSA ..	**LS 5178 TSM**

Intended use
- Single-room temperature control in KNX installations
- Operation of loads, e.g. light on/off, dimming, blinds up/down, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics
All buttons can be assigned with push-button sensor functions or functions for controller operation.
- KNX medium: TP 256
- Measurement of room temperature
- Room temperature control with setpoint value specification
- Extension unit for room temperature controller
- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- One or two functions per button
- Completion with cover kit 2-gang
- Inscription field can be illuminated
- Two red status LEDs per button – red, green or blue adjustable
- One operation LED as an orientation light and to indicate the programming status – red, green or blue adjustable
- Brightness of status LEDs, operation LED and labelling field adjustable; switchable while in operation, e.g. during the night
- Disabling function: Disabling or change function mode of single or all button functions
- Alarm function, optional acknowledge by pressing any button
- Energy saving mode (for operation without controller function)
- Integrated bus coupling unit
- Connection for a push-button extension module, for extension with up to eight additional buttons

Push-button extension module
including transparent cover ref.-no.: LS 50 NA
for the extension of the Universal push-button module (ref.-no.: LS 509.. TSM)
and room temperature controller module (ref.-no.: LS 5178 TSM) with up to 4 additional push-buttons

1-gang	**LS 5091 TSEM**
2-gang	**LS 5092 TSEM**
3-gang	**LS 5093 TSEM**
4-gang	**LS 5094 TSEM**

Product characteristics
- One or two functions per button
- To be completed with cover kit
- Inscription field can be illuminated
- One status LED per button, red, green or blue, adjustable
- One operation LED as orientation light and programming status – red, green or blue, adjustable
- Brightness of status LED, operation LED and inscription field adjustable, can be changed during operation, e.g. during night times
- Measurement of room temperature
- Extension unit for room temperature controller
- Disabling function: Disabling or change function mode of single or all button functions
- Alarm function, optional acknowledge by pressing any button
- Energy saving mode
- Transparent cover kit (included) for temporary site use without design covers

Technical data

Cable length:	max. 30 m
Cable type:	J-Y(St)Y 2 x 2 x 0.8 mm

Ref.-no.

KNX room controller display compact module 2-gang
for cover kit 2-gang, ref.-no.: LS 502 TSA ..
can be extended by means of a room controller extension module, ref.-no: LS 5178 TSEM
can be extended by means of a push-button extension module, ref.-no.: LS 509.. TSEM

LS 5192 KRM TS D

Technical data
Recommended mounting height: 1.5 m

KNX room controller display compact module 4-gang
for cover kit 4-gang, ref.-no.: ..504 TSA .. in the LS range
can be extended by means of a room controller extension module, ref.-no: LS 5178 TSEM
can be extended by means of a push-button extension module, ref.-no.: LS 509.. TSEM

LS 5194 KRM TS D

Intended use
- Measurement and feedback control of the room temperature
- Operation of loads, e.g. light on/off, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics
All buttons can be assigned with push-button sensor functions or functions for controller operation.
- KNX medium: TP 256
- Backlit LC display
- One or two functions per button
- To be completed with cover kit
- Eight status LEDs – red, green or blue
- Brightness of status LEDs and LCD adjustable
- Integrated bus coupling unit
- Connection of extension modules
- Integrated room temperature sensor
- External sensor (ref.-no.: FF 7.8) can be connected
- Room temperature control with setpoint value specification
- Two internal independent controllers for two independent areas – in connection with extension modules
- Display of room or set temperature (°C or °F)
- Display of outdoor temperature – with external sensor, e.g. weather station
- Display of time, in conjunction with KNX time encoder (in menu level)
- Push-button function or rocker function
- Disabling function: Disabling or change function mode of single or all button functions
- Alarm function, optional acknowledge by pressing any button
- Function symbols can be shown

Technical data
Recommended mounting height: 1.5 m

Room controller extension module 2-gang
for cover kit 2-gang, ref.-no.: LS 502 TSA ..
for the extension of a room controller module (ref.-no.: LS 5192 KRM TS D, LS 5194 KRM TS D)
with a second room temperature control unit

LS 5178 TSEM

Intended use
- Operation of loads, e.g. light on/off, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Measurement of room temperature
- Extension for room controller modules (.. 5192 KRM TS D, .. 5194 KRM TS D)
- Installation in flush box according to DIN 49073

Technical data
Cable length: max. 30 m
Cable type: J-Y(St)Y 2 x 2 x 0.8 mm

Delivery of cover kits:
1 complete set per ref.-no.!

			Ref.-no.
Cover kit 1-gang			
to clip on F 50 push-button modules 1-gang of the LS range			
ref.-no.: LS 5071 TSM, LS 5091 TSM, LS 5091 TSEM, LS 5071 RF TSM, LS 5212 TSM, FM LS 5001 M			
Thermoplastic (breakproof) high-gloss			
ivory		L	**LS 501 TSA**
white		L	**LS 501 TSA WW**
light grey		L	**LS 501 TSA LG**
black		L	**LS 501 TSA SW**
matt lacquered			
matt snow white	N		**LS 501 TSA WWM**
matt graphite black	N		**LS 501 TSA SWM**
metal versions			
aluminium	P	L	**AL 2501 TSA**
stainless steel		L	**ES 2501 TSA**
anthracite (aluminium lacquered)			**AL 2501 TSA AN**
dark (aluminium lacquered)			**AL 2501 TSA D**
chrome			**GCR 2501 TSA**
gold-coloured			**GO 2501 TSA**
gold-plated			**LS 501 TSA GGO**
classic brass	P		**ME 2501 TSA C**
antique brass			**ME 2501 TSA AT**

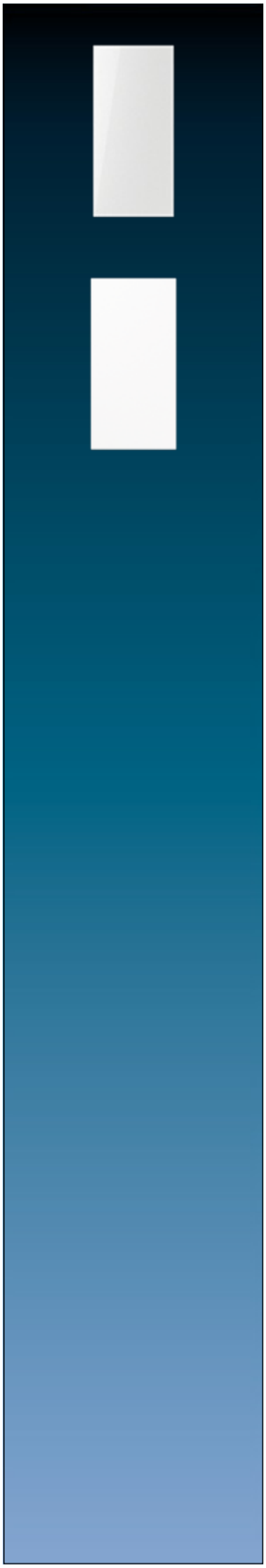
Cover kit 2-gang			
to clip on F 50 push-button modules 2-gang of the LS range			
ref.-no.: LS 5072 TSM, LS 5092 TSM, LS 5092 TSEM, LS 5178 TSM, LS 5192 KRM TS D,			
LS 5178 TSEM, LS 5072 RF TSM, LS 5224 TSM, FM LS 5002 M			
Thermoplastic (breakproof) high-gloss			
ivory		L	**LS 502 TSA**
white		L	**LS 502 TSA WW**
light grey		L	**LS 502 TSA LG**
black		L	**LS 502 TSA SW**
matt lacquered			
matt snow white	N		**LS 502 TSA WWM**
matt graphite black	N		**LS 502 TSA SWM**
metal versions			
aluminium	P	L	**AL 2502 TSA**
stainless steel		L	**ES 2502 TSA**
anthracite (aluminium lacquered)			**AL 2502 TSA AN**
dark (aluminium lacquered)			**AL 2502 TSA D**
chrome			**GCR 2502 TSA**
gold-coloured			**GO 2502 TSA**
gold-plated			**LS 502 TSA GGO**
classic brass	P		**ME 2502 TSA C**
antique brass			**ME 2502 TSA AT**

Delivery of cover kits:
1 complete set per ref.-no.!

			Ref.-no.
Cover kit 3-gang			
to clip on F 50 push-button modules 3-gang of the LS range			
ref.-no.: LS 5073 TSM, LS 5093 TSM, LS 5093 TSEM, LS 5073 RF TSM,			
LS 5236 TSM, FM LS 5003 M, SI TM LS 5073, SI TM LS 5093			
Thermoplastic (breakproof) high-gloss			
ivory		L	**LS 503 TSA**
white		L	**LS 503 TSA WW**
light grey		L	**LS 503 TSA LG**
black		L	**LS 503 TSA SW**
matt lacquered			
matt snow white	N		**LS 503 TSA WWM**
matt graphite black	N		**LS 503 TSA SWM**
metal versions			
aluminium		P L	**AL 2503 TSA**
stainless steel		L	**ES 2503 TSA**
anthracite (aluminium lacquered)			**AL 2503 TSA AN**
dark (aluminium lacquered)			**AL 2503 TSA D**
chrome			**GCR 2503 TSA**
gold-coloured			**GO 2503 TSA**
gold-plated			**LS 503 TSA GGO**
classic brass		P	**ME 2503 TSA C**
antique brass			**ME 2503 TSA AT**
Cover kit 4-gang			
to clip on F 50 push-button modules 4-gang of the LS range			
ref.-no.: LS 5074 TSM, LS 5094 TSM, LS 5094 TSEM, LS 5194 KRM TS D,			
LS 5074 RF TSM, LS 5248 TSM, FM LS 5004 M			
Thermoplastic (breakproof) high-gloss			
ivory		L	**LS 504 TSA**
white		L	**LS 504 TSA WW**
light grey		L	**LS 504 TSA LG**
black		L	**LS 504 TSA SW**
matt lacquered			
matt snow white	N		**LS 504 TSA WWM**
matt graphite black	N		**LS 504 TSA SWM**
metal versions			
aluminium		P L	**AL 2504 TSA**
stainless steel		L	**ES 2504 TSA**
anthracite (aluminium lacquered)			**AL 2504 TSA AN**
dark (aluminium lacquered)			**AL 2504 TSA D**
chrome			**GCR 2504 TSA**
gold-coloured			**GO 2504 TSA**
gold-plated			**LS 504 TSA GGO**
classic brass		P	**ME 2504 TSA C**
antique brass			**ME 2504 TSA AT**

			Ref.-no.
Transparent cover with paper inlay			
(Spare part)			
to clip on F 50 push-button modules of the LS range			
ref.-no.: LS 507.. TSM, LS 509.. TSM, LS 509.. TSEM, LS 5178 TSM,			
LS 5178 TSEM, LS 507.. RF TSM, LS 52.. TSM, FM LS 50.. M			
Also included in delivery of modules.			
inscription field 33 x 67.5 mm			
paper inlay pearly			**LS 50 NA**
Neutral cover			
to clip on F 50 push-button modules of the LS range			
ref.-no.: LS 507.. TSM, LS 509.. TSM, LS 509.. TSEM, LS 5178 TSM,			
LS 5178 TSEM, LS 507.. RF TSM, LS 52.. TSM, FM LS 50.. M			
dimensions: 33 x 70.5 mm			
Thermoplastic (breakproof) high-gloss			
ivory		L	**LS 50 NA W**
white		L	**LS 50 NA WW**
light grey		L	**LS 50 NA LG**
black		L	**LS 50 NA SW**
matt lacquered			
matt snow white	N		**LS 50 NA WWM**
matt graphite black	N		**LS 50 NA SWM**
metal versions (lacquered)			
aluminium		P	**AL 50 NA-L**
stainless steel		P	**ES 50 NA-L**
anthracite			**AL 50 NA AN-L**
dark			**AL 50 NA D-L**
classic brass		P	**ME 50 NA C-L**
antique brass			**ME 50 NA AT-L**

Professional inscription see www.jung.de/gt



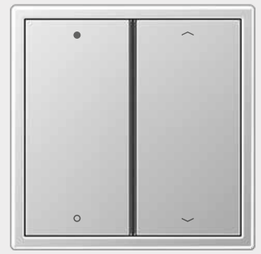
Push-button sensor F 40
LS 990 in stainless steel

The F 40 family

Easy operating concept meets straight line design: The KNX sensors of the F 40 family focus on large, square centre plates for convenient use.

PUSH-BUTTON SENSORS

Thanks to the large buttons, a simple and convenient operating concept for control of functions and scenes is produced for 1 to 4-gang F 40 push-button sensors.



PUSH-BUTTON SENSORS RF

KNX RF is the manufacturer-independent KNX wireless standard. The RF push-button sensors have the same operating concept and design as the well-known push-button sensors with twisted pair connection.

COMPACT ROOM CONTROLLER

The room functions and scenes are controlled with the room controllers of the F 40 family using the large operating buttons. Status and function selection are shown on the graphical display. Centrally arranged, coloured LEDs for operation and status display round off the easy handling. With three control panels for switching, sensing, dimming or blind control The preset functions are executed using the markings on the left and right on the display; the buttons can be freely parametrised.

Push-button sensor F 40
LS CUBE in aluminium

Individual button assignment

ONE-BUTTON OPERATION

with one function per button.

ONE-BUTTON OPERATION

with two functions per button.

TWO-BUTTON OPERATION

with two functions per button.

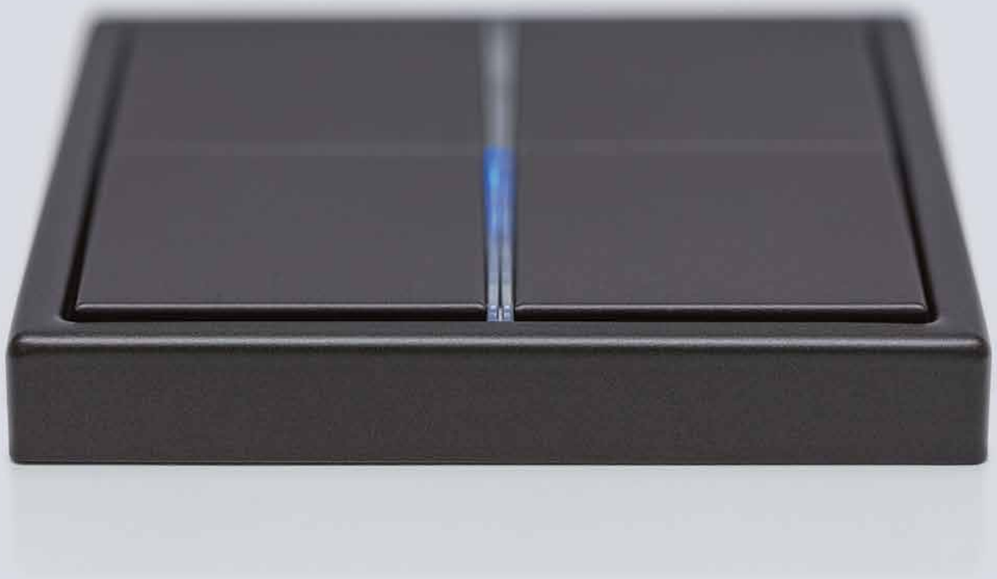
TWO-BUTTON OPERATION

with four functions per button.

One-button or two-button operation can be set as operating modes for the F 40 push-button sensors. One operating button can be configured in each case as rocker or button function. For the rocker function, an operating button is divided into two operating pressure points with the same basic function. For the button function, on the other hand, an operating button features two control points with individually programmable functions.

Versatile functionality

With regard to design and operating concept, the F 40 push-button sensors come close to a conventional switch. This also makes the handling easy for users not used to KNX. The large areas can be labelled easily and clearly recognisable that further optimises the operation using the Graphic Tool.



Push-button sensor F 40
LS 990 in Dark

EXTENSION MODULE CONNECTION*

The flat push-button extension module can be directly connected to the main module for flexible extension of the functions. It is mounted in a 2-gang frame using a special supporting ring. Advantage also for the retrofitting. No separate flush-mounted box is needed.

THE CONSTRUCTION SITE COVERAGE

Thanks to the construction site coverage, button and function assignment can already be realised in construction site operation. The decision for button and cover design thus has time until the project acceptance.

PUSH-BUTTON QUICK MOUNTING

The operating buttons are provided as complete Cover kit on a mounting aid for quick mounting. Each button can also be individually replaced, e.g. for a laser-cut or printed version.

INTEGRATED: THE TEMPERATURE SENSOR*

The temperature at a different place in the room can be measured with the temperature sensor. The values are transmitted to the room temperature controller or room controller for effective control.

ENLIGHTENING: THE LIGHT SCENE MEMORY*

Up to 8 light scenes can be stored in the integrated light scene memory; in turn, eight groups can be assigned to each scene. They can be recalled using the buttons or other KNX commands.

* only for Universal version

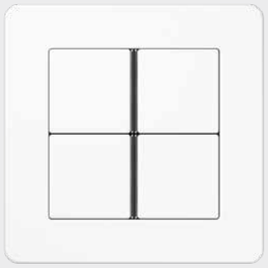
Push-button sensor F 40
LS ZERO in aluminium

Variety of designs

LS 990

in white

A FLOW

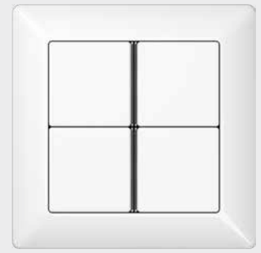


in white

CD 500

in white

AS 500

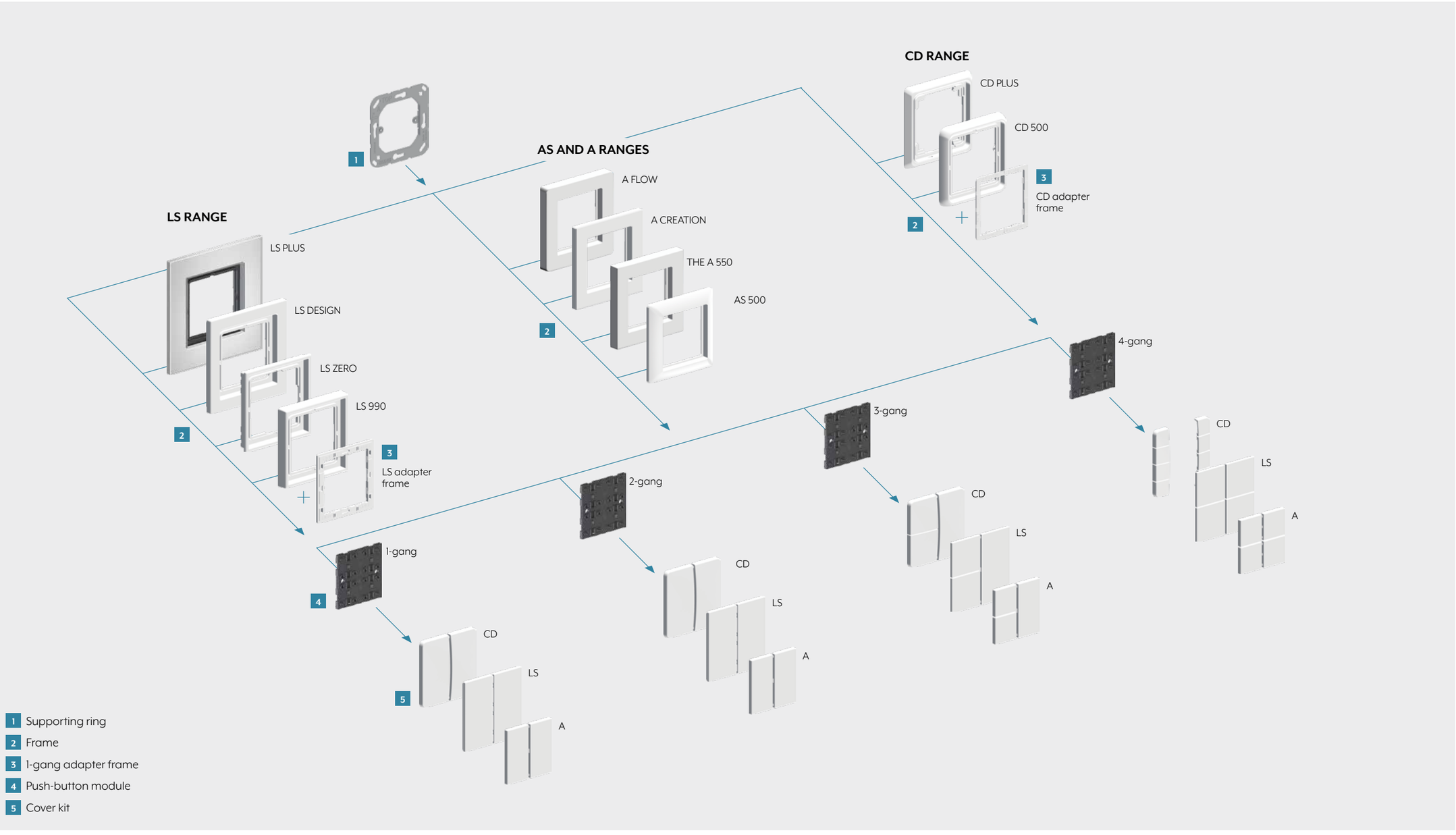


in white

The AS, A, CD and LS ranges give the KNX sensors of the F 40 family their attractive appearance. Genuine materials, distinctive forms and a wide variety of colours determine the JUNG design. They can be matched to any ambiance.

F 40 – numerous combination possibilities

Flexibility for the planning: There are identical modules as the basis for all design variants for the KNX F 40 push-button sensors. Thus, the switch program can still be selected after the installation. The corresponding cover kits and frames are available in the JUNG design ranges.

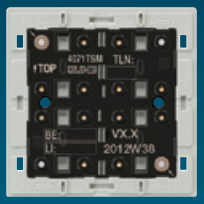


Ref.-no.

KNX standard push-button module
Adapter frames are included in delivery:
ref.-no. LS 4 AR for LS range (pre-mounted) and ref.-no. CD 4 AR for CD range.
AS / A ranges without adapter frame.
Only with the ETS 3.0d version or later versions the full functionality will be available.

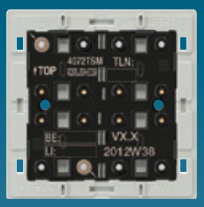
Intended use
- Operation of loads, e.g. light on/off, dimming, blinds up/down, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics
- KNX medium: TP 256
- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- To be completed with cover kit
- One red status LED per button
- One blue operation LED as an orientation light and to indicate the programming status
- Integrated bus coupling unit
- Transparent cover kit (included) for temporary site use without design covers



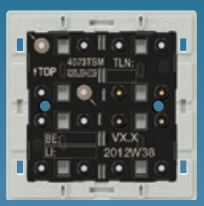
KNX standard push-button module, 1-gang
for cover kit 1-gang, ref.-no.: .. 401 TSA ..
for cover 1-gang with symbols, ref.-no.: .. 401 TSAP ..
ETS product family: Push-button
Product type: 1-gang push-button
1 blue LED: operation indication
1 red LED: status indication

4071 TSM



KNX standard push-button module, 2-gang
for cover kit 2-gang, ref.-no.: .. 402 TSA ..
for cover 2-gang with symbols, ref.-no.: .. 402 TSAP ..
ETS product family: Push-button
Product type: 2-gang push-button
1 blue LED: operation indication
2 red LED: status indication

4072 TSM



KNX standard push-button module, 3-gang
for cover kit 3-gang, ref.-no.: .. 403 TSA ..
for cover 2-gang with symbols, ref.-no.: .. 402 TSAP ..
for cover 4-gang with symbols, ref.-no.: .. 404 TSAP ..
ETS product family: Push-button
Product type: 3-gang push-button
1 blue LED: operation indication
3 red LED: status indication

4073 TSM

KNX standard push-button module, 4-gang
for cover kit 4-gang, ref.-no.: .. 404 TSA ..
for cover 4-gang with symbols, ref.-no.: .. 404 TSAP ..
ETS product family: Push-button
Product type: 4-gang push-button
1 blue LED: operation indication
4 red LED: status indication

4074 TSM

Ref.-no.

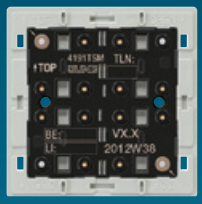
KNX universal push-button module
can be extended by means of a push-button extension module, ref.-no.: 409.. TSEM
Adapter frames are included in delivery:
ref.-no. LS 4 AR for LS range (pre-mounted) and ref.-no. CD 4 AR for CD range.
AS / A ranges without adapter frame.
Only with the ETS 3.0d version or later versions the full functionality will be available.

Intended use
- Operation of loads, e.g. light on/off, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics
- KNX medium: TP 256
- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- Measurement of room temperature
- To be completed with cover kit
- Two red status LEDs per button
- One blue operation LED as an orientation light and to indicate the programming status
- Integrated bus coupling unit
- One, two or three functions per button
- Push-button function or rocker function, vertical or horizontal
- Connection for a push-button extension module, 1-4 gang
- Transparent cover kit (included) for temporary site use without design covers

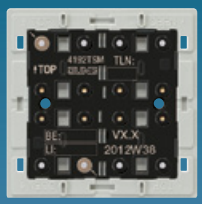
KNX universal push-button module, 1-gang
for cover kit 1-gang, ref.-no.: .. 401 TSA ..
for cover 1-gang with symbols, ref.-no.: .. 401 TSAP ..
ETS product family: Push-button
Product type: 1-gang push-button
1 blue LED: operation indication
2 red LED: status indication

4191 TSM



KNX universal push-button module, 2-gang
for cover kit 2-gang, ref.-no.: .. 402 TSA ..
for cover 2-gang with symbols, ref.-no.: .. 402 TSAP ..
ETS product family: Push-button
Product type: 2-gang push-button
1 blue LED: operation indication
4 red LED: status indication

4192 TSM

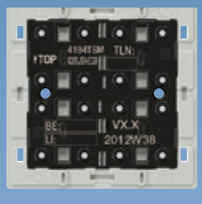


KNX universal push-button module, 3-gang
for cover kit 3-gang, ref.-no.: .. 403 TSA ..
for cover 2-gang with symbols, ref.-no.: .. 402 TSAP ..
for cover 4-gang with symbols, ref.-no.: .. 404 TSAP ..
ETS product family: Push-button
Product type: 3-gang push-button
1 blue LED: operation indication
6 red LED: status indication

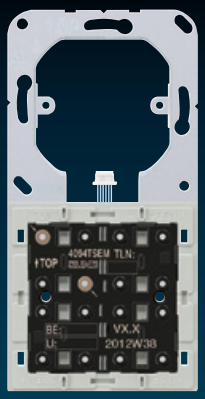
4193 TSM

KNX universal push-button module, 4-gang
for cover kit 4-gang, ref.-no.: .. 404 TSA ..
for cover 4-gang with symbols, ref.-no.: .. 404 TSAP ..
ETS product family: Push-button
Product type: 4-gang push-button
1 blue LED: operation indication
8 red LED: status indication

4194 TSM



Delivery of cover kits:
1 complete set per ref.-no.!



		Ref.-no.
Push-button extension module		
for the extension of up to 4 additional push-buttons for the devices:		
• Universal push-button module (ref.-no. 419.. TSM)		
• Room controller display compact module (ref.-no. 4093 KRM TS D)		
• Room controller display module 2-gang		
preferred installation: vertical		
Adapter frames are included in delivery:		
ref.-no. LS 4 AR for LS range (pre-mounted) and ref.-no. CD 4 AR for CD range.		
AS / A ranges without adapter frame.		
red LED: status indication		
1-gang		**4091 TSEM**
2-gang		**4092 TSEM**
3-gang		**4093 TSEM**
4-gang		**4094 TSEM**

Cover kits for AS and A ranges

Cover kit 1-gang
to clip on F 40 push-button modules 1-gang
ref.-no.: 4071 TSM, 4191 TSM, 4091 TSEM, 4071 RF TSM, 4212 TSM, 4008 TSM, FM 4001 M

Thermoplastic (breakproof) high-gloss			
ivory		L	**A 401 TSA**
white		L	**A 401 TSA WW**
black		L	**A 401 TSA SW**
Thermoplastic (breakproof) lacquered			
aluminium	P	L	**A 401 TSA AL**
champagne	P		**A 401 TSA CH**
mocha			**A 401 TSA MO**
matt lacquered			
matt snow white	N		**A 401 TSA WWM**
matt graphite black	N		**A 401 TSA SWM**
matt anthracite			**A 401 TSA ANM**

Cover kit 2-gang
to clip on F 40 push-button modules 2-gang
ref.-no.: 4072 TSM, 4192 TSM, 4092 TSEM, 4072 RF TSM, 4224 TSM, 4008 TSM, FM 4002 M

Thermoplastic (breakproof) high-gloss			
ivory		L	**A 402 TSA**
white		L	**A 402 TSA WW**
black		L	**A 402 TSA SW**
Thermoplastic (breakproof) lacquered			
aluminium	P	L	**A 402 TSA AL**
champagne	P		**A 402 TSA CH**
mocha			**A 402 TSA MO**
matt lacquered			
matt snow white	N		**A 402 TSA WWM**
matt graphite black	N		**A 402 TSA SWM**
matt anthracite			**A 402 TSA ANM**

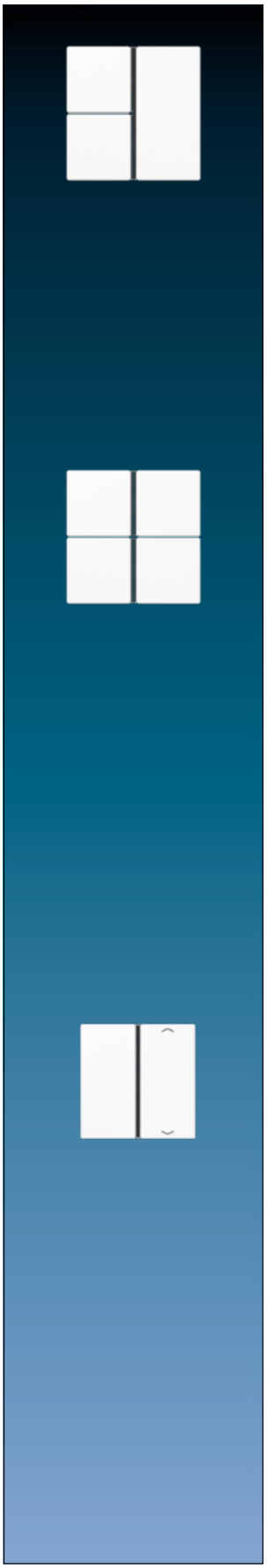
Delivery of cover kits:
1 complete set per ref.-no.!

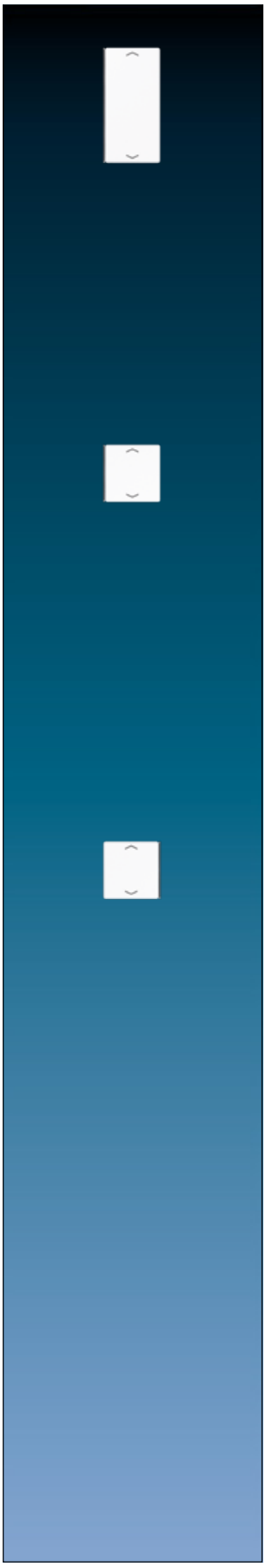
			Ref.-no.
Cover kit 3-gang			
to clip on F 40 push-button modules 3-gang			
ref.-no.: 4073 TSM, 4193 TSM, 4093 TSEM, 4073 RF TSM, 4236 TSM, 4008 TSM, FM 4003 M			
Thermoplastic (breakproof) high-gloss			
ivory		L	**A 403 TSA**
white		L	**A 403 TSA WW**
black		L	**A 403 TSA SW**
Thermoplastic (breakproof) lacquered			
aluminium	P	L	**A 403 TSA AL**
champagne	P		**A 403 TSA CH**
mocha			**A 403 TSA MO**
matt lacquered			
matt snow white	N		**A 403 TSA WWM**
matt graphite black	N		**A 403 TSA SWM**
matt anthracite			**A 403 TSA ANM**
Cover kit 4-gang			
to clip on F 40 push-button modules 4-gang			
ref.-no.: 4074 TSM, 4194 TSM, 4094 TSEM, 4074 RF TSM, 4248 TSM, 4008 TSM, FM 4004 M			
Thermoplastic (breakproof) high-gloss			
ivory		L	**A 404 TSA**
white		L	**A 404 TSA WW**
black		L	**A 404 TSA SW**
Thermoplastic (breakproof) lacquered			
aluminium	P	L	**A 404 TSA AL**
champagne	P		**A 404 TSA CH**
mocha			**A 404 TSA MO**
matt lacquered			
matt snow white	N		**A 404 TSA WWM**
matt graphite black	N		**A 404 TSA SWM**
matt anthracite			**A 404 TSA ANM**

Professional laser inscription and colour printing!
For further information see www.jung.de/gt

Covers with symbols for AS and A ranges

Cover 1-gang			
with symbols ▲▼			
to clip on F 40 push-button modules 1-gang			
ref.-no.: 4071 TSM, 4191 TSM, 4091 TSEM, 4071 RF TSM, 4212 TSM, 4008 TSM, FM 4001 M			
Thermoplastic (breakproof) high-gloss			
ivory			**A 401 TSAP**
white			**A 401 TSAP WW**
black			**A 401 TSAP SW**
Thermoplastic (breakproof) lacquered			
aluminium			**A 401 TSAP AL**
champagne			**A 401 TSAP CH**
mocha			**A 401 TSAP MO**
matt lacquered			
matt anthracite			**A 401 TSAP ANM**





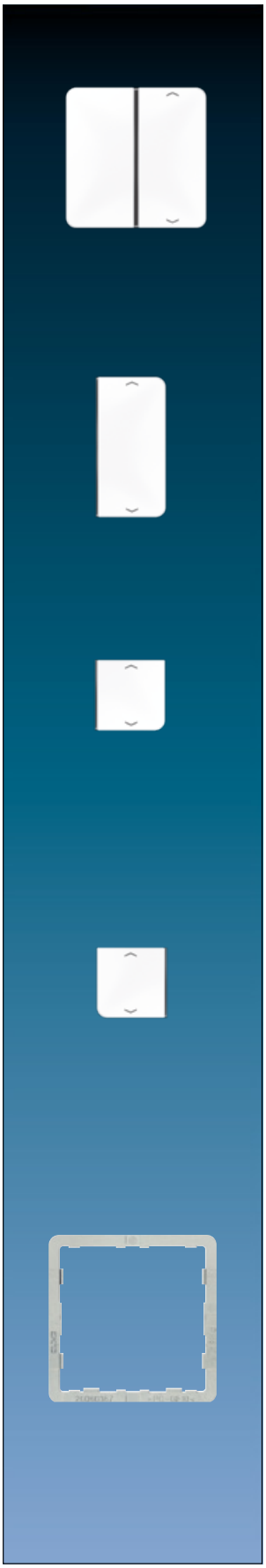
	Ref.-no.
Cover 2-gang	
with symbols ▲▼	
to exchange the covers of the cover kit 2-gang ref.-no.: A 402 TSA..	
and the right cover of the cover kit 3-gang ref.-no.: A 403 TSA..	
Thermoplastic (breakproof) high-gloss	
ivory	**A 402 TSAP**
white	**A 402 TSAP WW**
black	**A 402 TSAP SW**
Thermoplastic (breakproof) lacquered	
aluminium	**A 402 TSAP AL**
champagne	**A 402 TSAP CH**
mocha	**A 402 TSAP MO**
matt lacquered	
matt anthracite	**A 402 TSAP ANM**
Cover 4-gang	
with symbols ▲▼	
to exchange the top left cover of the cover kit 3-gang ref.-no.: A 403 TSA..	
and top left and bottom right cover of the cover kit 4-gang ref.-no.: A 404 TSA..	
Thermoplastic (breakproof) high-gloss	
ivory	**A 404 TSAP 14**
white	**A 404 TSAP WW 14**
black	**A 404 TSAP SW 14**
Thermoplastic (breakproof) lacquered	
aluminium	**A 404 TSAP AL 14**
champagne	**A 404 TSAP CH 14**
mocha	**A 404 TSAP MO 14**
matt lacquered	
matt anthracite	**A 404 TSAP ANM 14**
Cover 4-gang	
with symbols ▲▼	
to exchange the bottom left cover of the cover kit 3-gang ref.-no.: A 403 TSA..	
and top right and bottom left cover of the cover kit 4-gang ref.-no.: A 404 TSA..	
Thermoplastic (breakproof) high-gloss	
ivory	**A 404 TSAP 23**
white	**A 404 TSAP WW 23**
black	**A 404 TSAP SW 23**
Thermoplastic (breakproof) lacquered	
aluminium	**A 404 TSAP AL 23**
champagne	**A 404 TSAP CH 23**
mocha	**A 404 TSAP MO 23**
matt lacquered	
matt anthracite	**A 404 TSAP ANM 23**

Delivery of cover kits:
1 complete set per ref.-no.!

	Ref.-no.
Cover kits for CD range	
Cover kit 1-gang	
to clip on F 40 push-button modules 1-gang	
ref.-no.: 4071 TSM, 4191 TSM, 4091 TSEM, 4071 RF TSM, 4212 TSM, 4008 TSM, FM 4001 M	
Thermoplastic (breakproof) high-gloss	
ivory	L **CD 401 TSA**
white	L **CD 401 TSA WW**
grey	L **CD 401 TSA GR**
light grey	L **CD 401 TSA LG**
black	L **CD 401 TSA SW**
Cover kit 2-gang	
to clip on F 40 push-button modules 2-gang	
ref.-no.: 4072 TSM, 4192 TSM, 4092 TSEM, 4072 RF TSM, 4224 TSM, 4008 TSM, FM 4002 M	
Thermoplastic (breakproof) high-gloss	
ivory	L **CD 402 TSA**
white	L **CD 402 TSA WW**
grey	L **CD 402 TSA GR**
light grey	L **CD 402 TSA LG**
black	L **CD 402 TSA SW**
Cover kit 3-gang	
to clip on F 40 push-button modules 3-gang	
ref.-no.: 4073 TSM, 4193 TSM, 4093 TSEM, 4073 RF TSM, 4236 TSM, 4008 TSM, FM 4003 M	
Thermoplastic (breakproof) high-gloss	
ivory	L **CD 403 TSA**
white	L **CD 403 TSA WW**
grey	L **CD 403 TSA GR**
light grey	L **CD 403 TSA LG**
black	L **CD 403 TSA SW**
Cover kit 4-gang	
to clip on F 40 push-button modules 4-gang	
ref.-no.: 4074 TSM, 4194 TSM, 4094 TSEM, 4074 RF TSM, 4248 TSM, 4008 TSM, FM 4004 M	
Thermoplastic (breakproof) high-gloss	
ivory	L **CD 404 TSA**
white	L **CD 404 TSA WW**
grey	L **CD 404 TSA GR**
light grey	L **CD 404 TSA LG**
black	L **CD 404 TSA SW**

Professional laser inscription and colour printing!
For further information see www.jung.de/gt

Delivery of cover kits:
1 complete set per ref.-no.!



	Ref.-no.

Covers with symbols for CD range

Cover 1-gang
with symbols ▲▼
to clip on F 40 push-button modules 1-gang
ref.-no.: 4071 TSM, 4191 TSM, 4091 TSEM, 4071 RF TSM, 4212 TSM, 4008 TSM, FM 4001 M

Thermoplastic (breakproof) high-gloss

ivory	**CD 401 TSAP**
white	**CD 401 TSAP WW**
grey	**CD 401 TSAP GR**
light grey	**CD 401 TSAP LG**
black	**CD 401 TSAP SW**

Cover 2-gang
with symbols ▲▼
to exchange the covers of the cover kit 2-gang ref.-no.: CD 402 TSA..
and the right cover of the cover kit 3-gang ref.-no.: CD 403 TSA..

Thermoplastic (breakproof) high-gloss

ivory	**CD 402 TSAP**
white	**CD 402 TSAP WW**
grey	**CD 402 TSAP GR**
light grey	**CD 402 TSAP LG**
black	**CD 402 TSAP SW**

Cover 4-gang
with symbols ▲▼
to exchange the top left cover of the cover kit 3-gang ref.-no.: CD 403 TSA..
and top left and bottom right cover of the cover kit 4-gang ref.-no.: CD 404 TSA..

Thermoplastic (breakproof) high-gloss

ivory	**CD 404 TSAP 14**
white	**CD 404 TSAP WW 14**
grey	**CD 404 TSAP GR 14**
light grey	**CD 404 TSAP LG 14**
black	**CD 404 TSAP SW 14**

Cover 4-gang
with symbols ▲▼
to exchange the bottom left cover of the cover kit 3-gang ref.-no.: CD 403 TSA..
and top right and bottom left cover of the cover kit 4-gang ref.-no.: CD 404 TSA..

Thermoplastic (breakproof) high-gloss

ivory	**CD 404 TSAP 23**
white	**CD 404 TSAP WW 23**
grey	**CD 404 TSAP GR 23**
light grey	**CD 404 TSAP LG 23**
black	**CD 404 TSAP SW 23**

Adapter frame
(Spare part)
to combine push-button modules with CD range
Also included in delivery of modules.

	CD 4 AR

Delivery of cover kits:
1 complete set per ref.-no.!

			Ref.-no.
Cover kits for LS range			
Cover kit 1-gang			
to clip on F 40 push-button modules 1-gang			
ref.-no.: 4071 TSM, 4191 TSM, 4091 TSEM, 4071 RF TSM, 4212 TSM, 4008 TSM, FM 4001 M			
Thermoplastic (breakproof) high-gloss			
ivory		L	**LS 401 TSA**
white		L	**LS 401 TSA WW**
light grey		L	**LS 401 TSA LG**
black		L	**LS 401 TSA SW**
matt lacquered			
matt snow white	N		**LS 401 TSA WWM**
matt graphite black	N		**LS 401 TSA SWM**
metal versions			
aluminium		P L	**AL 2401 TSA**
stainless steel		L	**ES 2401 TSA**
anthracite (aluminium lacquered)			**AL 2401 TSA AN**
dark (aluminium lacquered)			**AL 2401 TSA D**
classic brass		P	**ME 2401 TSA C**
antique brass			**ME 2401 TSA AT**
Cover kit 2-gang			
to clip on F 40 push-button modules 2-gang			
ref.-no.: 4072 TSM, 4192 TSM, 4092 TSEM, 4072 RF TSM, 4224 TSM, 4008 TSM, FM 4002 M			
Thermoplastic (breakproof) high-gloss			
ivory		L	**LS 402 TSA**
white		L	**LS 402 TSA WW**
light grey		L	**LS 402 TSA LG**
black		L	**LS 402 TSA SW**
matt lacquered			
matt snow white	N		**LS 402 TSA WWM**
matt graphite black	N		**LS 402 TSA SWM**
metal versions			
aluminium		P L	**AL 2402 TSA**
stainless steel		L	**ES 2402 TSA**
anthracite (aluminium lacquered)			**AL 2402 TSA AN**
dark (aluminium lacquered)			**AL 2402 TSA D**
classic brass		P	**ME 2402 TSA C**
antique brass			**ME 2402 TSA AT**

Delivery of cover kits:
1 complete set per ref.-no.!

			Ref.-no.
Cover kit 3-gang			
to clip on F 40 push-button modules 3-gang			
ref.-no.: 4073 TSM, 4193 TSM, 4093 TSEM, 4073 RF TSM, 4236 TSM, 4008 TSM, FM 4003 M			
Thermoplastic (breakproof) high-gloss			
ivory		L	**LS 403 TSA**
white		L	**LS 403 TSA WW**
light grey		L	**LS 403 TSA LG**
black		L	**LS 403 TSA SW**
matt lacquered			
matt snow white	N		**LS 403 TSA WWM**
matt graphite black	N		**LS 403 TSA SWM**
metal versions			
aluminium		P L	**AL 2403 TSA**
stainless steel		L	**ES 2403 TSA**
anthracite (aluminium lacquered)			**AL 2403 TSA AN**
dark (aluminium lacquered)			**AL 2403 TSA D**
classic brass		P	**ME 2403 TSA C**
antique brass			**ME 2403 TSA AT**

Cover kit 4-gang			
to clip on F 40 push-button modules 4-gang			
ref.-no.: 4074 TSM, 4194 TSM, 4094 TSEM, 4074 RF TSM, 4248 TSM, 4008 TSM, FM 4004 M			
Thermoplastic (breakproof) high-gloss			
ivory		L	**LS 404 TSA**
white		L	**LS 404 TSA WW**
light grey		L	**LS 404 TSA LG**
black		L	**LS 404 TSA SW**
matt lacquered			
matt snow white	N		**LS 404 TSA WWM**
matt graphite black	N		**LS 404 TSA SWM**
metal versions			
aluminium		P L	**AL 2404 TSA**
stainless steel		L	**ES 2404 TSA**
anthracite (aluminium lacquered)			**AL 2404 TSA AN**
dark (aluminium lacquered)			**AL 2404 TSA D**
classic brass		P	**ME 2404 TSA C**
antique brass			**ME 2404 TSA AT**

Professional laser inscription and colour printing!
For further information see www.jung.de/gt

Covers with symbols for LS range

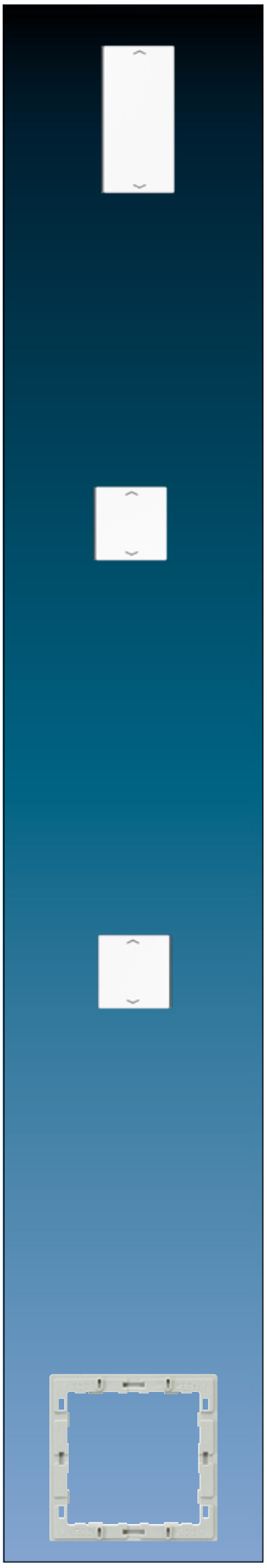
Cover 1-gang			
with symbols ▲▼			
to clip on F 40 push-button modules 1-gang			
ref.-no.: 4071 TSM, 4191 TSM, 4091 TSEM, 4071 RF TSM, 4212 TSM, 4008 TSM, FM 4001 M			
Thermoplastic (breakproof) high-gloss			
ivory			**LS 401 TSAP**
white			**LS 401 TSAP WW**
light grey			**LS 401 TSAP LG**
black			**LS 401 TSAP SW**
metal versions			
aluminium			**AL 2401 TSAP**
stainless steel			**ES 2401 TSAP**
anthracite (aluminium lacquered)			**AL 2401 TSAP AN**
dark (aluminium lacquered)			**AL 2401 TSAP D**

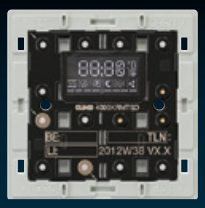
	Ref.-no.
Cover 2-gang	
with symbols ▲▼	
to exchange the covers of the cover kit 2-gang ref.-no.: ..402 TSA..	
and the right cover of the cover kit 3-gang ref.-no.: ..403 TSA.. in the LS range	
Thermoplastic (breakproof) high-gloss	
ivory	**LS 402 TSAP**
white	**LS 402 TSAP WW**
light grey	**LS 402 TSAP LG**
black	**LS 402 TSAP SW**
metal versions	
aluminium	**AL 2402 TSAP**
stainless steel	**ES 2402 TSAP**
anthracite (aluminium lacquered)	**AL 2402 TSAP AN**
dark (aluminium lacquered)	**AL 2402 TSAP D**
classic brass	**ME 2402 TSAP C**
antique brass	**ME 2402 TSAP AT**

Cover 4-gang	
with symbols ▲▼	
to exchange the top left cover of the cover kit 3-gang ref.-no.: ..403 TSA..	
and top left and bottom right cover of the cover kit 4-gang ref.-no.: ..404 TSA.. in the LS range	
Thermoplastic (breakproof) high-gloss	
ivory	**LS 404 TSAP 14**
white	**LS 404 TSAP WW 14**
light grey	**LS 404 TSAP LG 14**
black	**LS 404 TSAP SW 14**
metal versions	
aluminium	**AL 2404 TSAP 14**
stainless steel	**ES 2404 TSAP 14**
anthracite (aluminium lacquered)	**AL 2404 TSAP AN 14**
dark (aluminium lacquered)	**AL 2404 TSAP D 14**
classic brass	**ME 2404 TSAP C 14**
antique brass	**ME 2404 TSAP AT 14**

Cover 4-gang	
with symbols ▲▼	
to exchange the bottom left cover of the cover kit 3-gang ref.-no.: ..403 TSA..	
and top right and bottom left cover of the cover kit 4-gang ref.-no.: ..404 TSA.. in the LS range	
Thermoplastic (breakproof) high-gloss	
ivory	**LS 404 TSAP 23**
white	**LS 404 TSAP WW 23**
light grey	**LS 404 TSAP LG 23**
black	**LS 404 TSAP SW 23**
metal versions	
aluminium	**AL 2404 TSAP 23**
stainless steel	**ES 2404 TSAP 23**
anthracite (aluminium lacquered)	**AL 2404 TSAP AN 23**
dark (aluminium lacquered)	**AL 2404 TSAP D 23**
classic brass	**ME 2404 TSAP C 23**
antique brass	**ME 2404 TSAP AT 23**

Adapter frame	
(Spare part)	
to combine push-button modules with LS range	
Also included in delivery of modules.	
	LS 4 AR





	Ref.-no.
KNX room controller display compact module can be extended by means of a push-button extension module, ref.-no.: 409.. TSEM Adapter frames are included in delivery: ref.-no. LS 4 AR for LS range (pre-mounted) and ref.-no. CD 4 AR for CD range. AS / A ranges without adapter frame.	**4093 KRM TS D**

Intended use

- Measurement and feedback control of the room temperature
- Operation of loads, e.g. light on/off, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

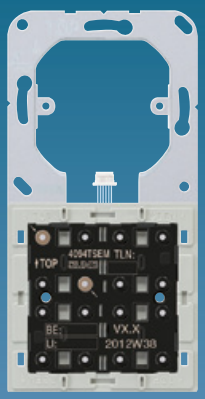
Product characteristics

All buttons can be assigned with push-button sensor functions or functions for controller operation.

- KNX medium: TP 256
- Four red status LEDs
- One blue operation LED as an orientation light and to indicate the programming status
- Integrated bus coupling unit
- Connection for a push-button extension module, 1-4 gang
- Integrated temperature sensor
- Room temperature control with setpoint value specification
- Display of room or set temperature
- Display of outdoor temperature – with external sensor, e.g. weather station
- Display of time, in conjunction with KNX time encoder
- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- Push-button function or rocker function, vertical or horizontal
- Fan coil application with up to 8 fan speeds and auto function
- Transparent cover kit (included) for temporary site use without design covers

Technical data

Recommended mounting height: 1.5 m



Push-button extension module

for the extension of up to 4 additional push-buttons for the devices:

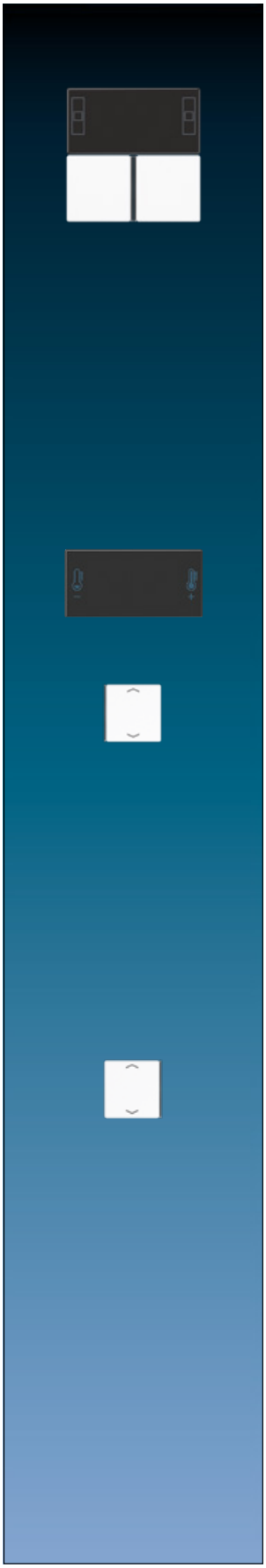
- Universal push-button module (ref.-no. 419.. TSM)
- Room controller display compact module (ref.-no. 4093 KRM TS D)
- Room controller display module 2-gang

preferred installation: vertical
Adapter frames are included in delivery:
ref.-no. LS 4 AR for LS range (pre-mounted) and ref.-no. CD 4 AR for CD range.
AS / A ranges without adapter frame.
red LED: status indication

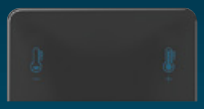
1-gang	**4091 TSEM**
2-gang	**4092 TSEM**
3-gang	**4093 TSEM**
4-gang	**4094 TSEM**

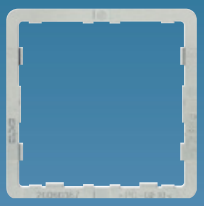
Delivery of cover kits:
1 complete set per ref.-no.!

			Ref.-no.
Cover kits for AS and A ranges			
Cover kit			
to clip on room controller display compact module ref.-no.: 4093 KRM TS D			
Thermoplastic (breakproof) high-gloss			
ivory		L	**A 4093 TSA**
white		L	**A 4093 TSA WW**
black		L	**A 4093 TSA SW**
Thermoplastic (breakproof) lacquered			
aluminium	P	L	**A 4093 TSA AL**
champagne	P		**A 4093 TSA CH**
mocha			**A 4093 TSA MO**
matt lacquered			
matt snow white	N		**A 4093 TSA WWM**
matt graphite black	N		**A 4093 TSA SWM**
matt anthracite			**A 4093 TSA ANM**
Professional laser inscription and colour printing!			
For further information see www.jung.de/gt			
Cover with temperature symbol			
to exchange the display cover of the cover kit ref.-no.: A 4093 TSA..			
Thermoplastic (breakproof) high-gloss			
			A 409 T
Cover 4-gang with symbols ▲▼			
to exchange the bottom right cover of the cover kit ref.-no.: A 4093 TSA..			
Thermoplastic (breakproof) high-gloss			
ivory			**A 404 TSAP 14**
white			**A 404 TSAP WW 14**
black			**A 404 TSAP SW 14**
Thermoplastic (breakproof) lacquered			
aluminium			**A 404 TSAP AL 14**
champagne			**A 404 TSAP CH 14**
mocha			**A 404 TSAP MO 14**
matt lacquered			
matt anthracite			**A 404 TSAP ANM 14**
Cover 4-gang with symbols ▲▼			
to exchange the bottom left cover of the cover kit ref.-no.: A 4093 TSA..			
Thermoplastic (breakproof) high-gloss			
ivory			**A 404 TSAP 23**
white			**A 404 TSAP WW 23**
black			**A 404 TSAP SW 23**
Thermoplastic (breakproof) lacquered			
aluminium			**A 404 TSAP AL 23**
champagne			**A 404 TSAP CH 23**
mocha			**A 404 TSAP MO 23**
matt lacquered			
matt anthracite			**A 404 TSAP ANM 23**



Delivery of cover kits:
1 complete set per ref.-no.!





	Ref.-no.
Cover kits for CD range	
Cover kit	
to clip on room controller display compact module ref.-no.: 4093 KRM TS D	
Thermoplastic (breakproof) high-gloss	
ivory	L **CD 4093 TSA**
white	L **CD 4093 TSA WW**
grey	L **CD 4093 TSA GR**
light grey	L **CD 4093 TSA LG**
black	L **CD 4093 TSA SW**
Professional laser inscription and colour printing!	
For further information see www.jung.de/gt	
Cover with temperature symbol	
to exchange the display cover of the cover kit ref.-no.: CD 4093 TSA..	
Thermoplastic (breakproof) high-gloss	
	CD 409 T
Cover 4-gang	
with symbols ▲▼	
to exchange the bottom right cover of the cover kit ref.-no.: CD 4093 TSA..	
Thermoplastic (breakproof) high-gloss	
ivory	**CD 404 TSAP 14**
white	**CD 404 TSAP WW 14**
grey	**CD 404 TSAP GR 14**
light grey	**CD 404 TSAP LG 14**
black	**CD 404 TSAP SW 14**
Cover 4-gang	
with symbols ▲▼	
to exchange the bottom left cover of the cover kit ref.-no.: CD 4093 TSA..	
Thermoplastic (breakproof) high-gloss	
ivory	**CD 404 TSAP 23**
white	**CD 404 TSAP WW 23**
grey	**CD 404 TSAP GR 23**
light grey	**CD 404 TSAP LG 23**
black	**CD 404 TSAP SW 23**
Adapter frame	
(Spare part)	
to combine push-button modules with CD range	
Also included in delivery of modules.	
	CD 4 AR

Delivery of cover kits:
1 complete set per ref.-no.!

			Ref.-no.
Cover kits for LS range			
Cover kit			
to clip on room controller display compact module ref.-no.: 4093 KRM TS D			
Thermoplastic (breakproof) high-gloss			
ivory		L	**LS 4093 TSA**
white		L	**LS 4093 TSA WW**
light grey		L	**LS 4093 TSA LG**
black		L	**LS 4093 TSA SW**
matt lacquered			
matt snow white	N		**LS 4093 TSA WWM**
matt graphite black	N		**LS 4093 TSA SWM**
metal versions			
aluminium	P	L	**AL 4093 TSA**
stainless steel		L	**ES 4093 TSA**
anthracite (aluminium lacquered)			**AL 4093 TSA AN**
dark (aluminium lacquered)			**AL 4093 TSA D**
classic brass	P		**ME 4093 TSA C**
antique brass			**ME 4093 TSA AT**

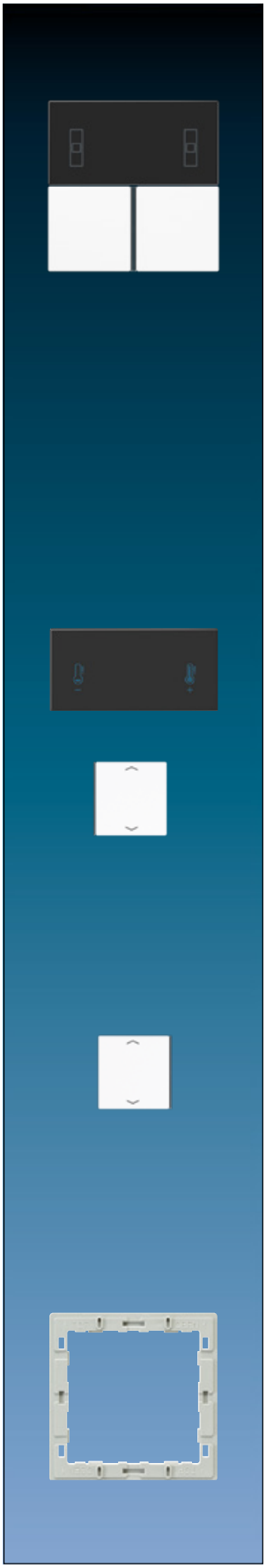
Professional laser inscription and colour printing!
For further information see www.jung.de/gt

Cover with temperature symbol			
to exchange the display cover of the cover kit ref.-no.: .. 4093 TSA .. in the LS range			
Thermoplastic (breakproof) high-gloss			
			LS 409 T

Cover 4-gang			
with symbols ▲▼			
to exchange the bottom right cover of the cover kit ref.-no.: .. 4093 TSA .. in the LS range			
Thermoplastic (breakproof) high-gloss			
ivory			**LS 404 TSAP 14**
white			**LS 404 TSAP WW 14**
light grey			**LS 404 TSAP LG 14**
black			**LS 404 TSAP SW 14**
metal versions page 73			

Cover 4-gang			
with symbols ▲▼			
to exchange the bottom left cover of the cover kit ref.-no.: .. 4093 TSA .. in the LS range			
Thermoplastic (breakproof) high-gloss			
ivory			**LS 404 TSAP 23**
white			**LS 404 TSAP WW 23**
light grey			**LS 404 TSAP LG 23**
black			**LS 404 TSAP SW 23**
metal versions page 73			

Adapter frame			
(Spare part)			
to combine push-button modules with LS range			
Also included in delivery of modules.			
			LS 4 AR



KNX RF

KNX WIRELESS MEDIA COUPLER

Interface between KNX RF and KNX TP

KNX HAND-HELD RADIO TRANSMITTERS

in 2-gang and 4-gang versions

KNX F 40 WALL-MOUNTED TRANSMITTER

in LS 990 in white

KNX F 50 WALL-MOUNTED TRANSMITTER

in LS 990 in white

The KNX RF wireless standard in the JUNG design: wall-mounted transmitter in the F 50 and F 40 families – ideal for retrofitting and extending existing KNX installations. The KNX wall-mounted transmitters bridge structural conditions where no bus lines can or will be installed. In this way the especially flat devices can be flexibly located in the room as they are simply stuck on – whether on plaster, wood, or glass.

The room functions can be controlled conveniently with the press of a button in this way. Alternatively to the wall-mounted transmitters, the KNX hand-held radio transmitters are available. Any addressing, parametrising and diagnosing is carried out through the KNX wireless USB stick or if desired through the KNX data interface. The bi-directional connection of the KNX RF and wired KNX TP is established by the JUNG media coupler.

KNX F 40 hand-held radio transmitter
in LS 990 in aluminium




Ref.-no.

KNX RF radio transmitter modules F 50

Intended use

- Radio operation of loads, e.g. light on/off, dimming, Venetian blinds up/down, brightness values, calling up and saving light scenes
- Operation in cabled KNX systems via radio converter (ref.-no.: MK 100 RF)
- Installation in flush box according to DIN 49073, screw fixing on walls or adhesive fixing on smooth, even surfaces (glass).

Product characteristics

- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- Button pairs for push-button function or rocker function
- Status indication with LED
- Integrated temperature sensor
- Battery-powered device (battery compartment accessible from front)
- Project design and commissioning with ETS5 or a more recent version.

Technical data

Rated voltage:	DC 3 V
Battery type:	1 x lithium CR 2450N (included)
Ambient temperature:	–5 ... +45 °C
Radio frequency:	868.0 ... 868.6 MHz
Transmitting power:	max. 20 mW
Transmission range in free field:	typical 100 m

for AS and A ranges

including mounting plate, adhesive pad and fastening screw
including transparent cover ref.-no.: A 50 NA

KNX RF radio transmitter module 1-gang

for cover kit 1-gang, ref.-no.: A 501 TSA ..
ETS product family: Push-button
Product type: 1-gang push-button
1 green LED: actuator status
1 red LED: transmission status

A 5071 RF TSM

KNX RF radio transmitter module 2-gang

for cover kit 2-gang, ref.-no.: A 502 TSA ..
ETS product family: Push-button
Product type: 2-gang push-button
2 green LED: actuator status
1 red LED: transmission status

A 5072 RF TSM

KNX RF radio transmitter module 3-gang

for cover kit 3-gang, ref.-no.: A 503 TSA ..
ETS product family: Push-button
Product type: 3-gang push-button
3 green LED: actuator status
1 red LED: transmission status

A 5073 RF TSM

KNX RF radio transmitter module 4-gang

for cover kit 4-gang, ref.-no.: A 504 TSA ..
ETS product family: Push-button
Product type: 4-gang push-button
4 green LED: actuator status
1 red LED: transmission status

A 5074 RF TSM

Cover kits for AS and A ranges see as of page 40

	Ref.-no.
KNX RF radio transmitter modules F 50	
for CD range including mounting plate, adhesive pad and fastening screw including transparent cover ref.-no.: CD 50 NA	
KNX RF radio transmitter module 1-gang for cover kit 1-gang, ref.-no.: CD 501 TSA .. ETS product family: Push-button Product type: 1-gang push-button 1 green LED: actuator status 1 red LED: transmission status	**CD 5071 RF TSM**
KNX RF radio transmitter module 2-gang for cover kit 2-gang, ref.-no.: CD 502 TSA .. ETS product family: Push-button Product type: 2-gang push-button 2 green LED: actuator status 1 red LED: transmission status	**CD 5072 RF TSM**
KNX RF radio transmitter module 3-gang for cover kit 3-gang, ref.-no.: CD 503 TSA .. ETS product family: Push-button Product type: 3-gang push-button 3 green LED: actuator status 1 red LED: transmission status	**CD 5073 RF TSM**
KNX RF radio transmitter module 4-gang for cover kit 4-gang, ref.-no.: CD 504 TSA .. ETS product family: Push-button Product type: 4-gang push-button 4 green LED: actuator status 1 red LED: transmission status	**CD 5074 RF TSM**

Cover kits for CD range see as of page 46

	Ref.-no.
KNX RF radio transmitter modules F 50 **for LS range** including mounting plate, adhesive pad and fastening screw including transparent cover ref.-no.: LS 50 NA	
KNX RF radio transmitter module 1-gang for cover kit 1-gang, ref.-no.: ..501 TSA .. in the LS range Can not be combined with frames in FLAT DESIGN. ETS product family: Push-button Product type: 1-gang push-button 1 green LED: actuator status 1 red LED: transmission status	**LS 5071 RF TSM**
KNX RF radio transmitter module 2-gang for cover kit 2-gang, ref.-no.: LS 502 TSA .. Can not be combined with frames in FLAT DESIGN. ETS product family: Push-button Product type: 2-gang push-button 2 green LED: actuator status 1 red LED: transmission status	**LS 5072 RF TSM**
KNX RF radio transmitter module 3-gang for cover kit 3-gang, ref.-no.: ..503 TSA .. in the LS range Can not be combined with frames in FLAT DESIGN. ETS product family: Push-button Product type: 3-gang push-button 3 green LED: actuator status 1 red LED: transmission status	**LS 5073 RF TSM**
KNX RF radio transmitter module 4-gang for cover kit 4-gang, ref.-no.: ..504 TSA .. in the LS range Can not be combined with frames in FLAT DESIGN. ETS product family: Push-button Product type: 4-gang push-button 4 green LED: actuator status 1 red LED: transmission status	**LS 5074 RF TSM**

Cover kits for LS range see as of page 51

Ref.-no.

KNX RF radio transmitter modules F 40
including mounting plate, adhesive pad and fastening screw
Adapter frames are included in delivery:
ref.-no. LS 4 AR for LS range (pre-mounted) and ref.-no. CD 4 AR for CD range.
AS / A ranges without adapter frame.

Intended use
- Radio operation of loads, e.g. light on/off, dimming, Venetian blinds up/down, brightness values, calling up and saving light scenes
- Operation in cabled KNX systems via radio converter (ref.-no.: MK 100 RF)
- Mounting on appliance box according to DIN 49073, screw fixing on walls or adhesive fixing on smooth, even surfaces (glass).

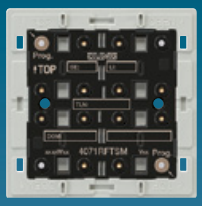
Product characteristics
- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- Button pairs for push-button function or rocker function
- Status indication with LED
- Battery-powered device
- Project design and commissioning with ETS5 or a more recent version.
- Can not be combined with frames in FLAT DESIGN.

Technical data

Rated voltage:	DC 3 V
Battery type:	1 x lithium CR 2450N (included)
Ambient temperature:	–5 ... +45 °C
Radio frequency:	868.0 ... 868.6 MHz
Transmitting power:	max. 20 mW
Transmission range in free field:	typical 100 m

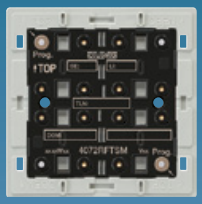
KNX RF radio transmitter module 1-gang
for cover kit 1-gang, ref.-no.: .. 401 TSA ..
for cover 1-gang with symbols, ref.-no.: .. 401 TSAP ..
ETS product family: Push-button
Product type: 1-gang push-button
1 red LED: actuator status
1 blue LED: transmission status

4071 RF TSM



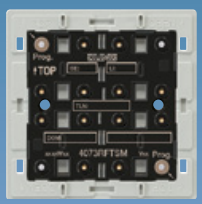
KNX RF radio transmitter module 2-gang
for cover kit 2-gang, ref.-no.: .. 402 TSA ..
for cover 2-gang with symbols, ref.-no.: .. 402 TSAP ..
ETS product family: Push-button
Product type: 2-gang push-button
2 red LEDs: actuator status
1 blue LED: transmission status

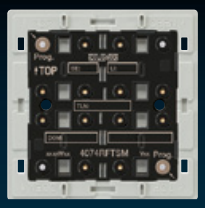
4072 RF TSM



KNX RF radio transmitter module 3-gang
for cover kit 3-gang, ref.-no.: .. 403 TSA ..
for cover 2-gang with symbols, ref.-no.: .. 402 TSAP ..
for cover 4-gang with symbols, ref.-no.: .. 404 TSAP ..
ETS product family: Push-button
Product type: 3-gang push-button
3 red LEDs: actuator status
1 blue LED: transmission status

4073 RF TSM





Ref.-no.

KNX RF radio transmitter module 4-gang
for cover kit 4-gang, ref.-no.: .. 404 TSA ..
for cover 4-gang with symbols, ref.-no.: .. 404 TSAP ..
ETS product family: Push-button
Product type: 4-gang push-button
4 red LEDs: actuator status
1 blue LED: transmission status

4074 RF TSM

Cover kits see as of page 66

KNX RF radio hand-held transmitter
Project design and commissioning with ETS5 or a more recent version.
Intended use
- Radio operation of loads, e.g. light on/off, dimming, Venetian blinds up/down, brightness values, calling up and saving light scenes
- Operation in cabled KNX systems via radio converter (ref.-no.: MK 100 RF)

Product characteristics
- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- Button pairs for push-button function or rocker function
- Two-colour LED to display actuation, sending status and actuator feedback
- Battery-powered device

KNX RF radio hand-held transmitter
2-gang

HS 2 RF

KNX RF radio hand-held transmitter
4-gang

HS 4 RF

Ref.-no.

KNX RF radio USB stick

USB 2130 RF

Intended use
- PC interface for the addressing, programming and diagnostics of KNX RF devices
- USB stick for coupling to a PC with a Windows-based operating system

Product characteristics
- Commissioning, programming, visualisation and diagnostics of KNX RF devices
- Automatic installation of PC communication via HID profile

Technical data

Rated voltage:	DC 5 V
USB version:	2.0
Connection USB:	type A
Ambient temperature:	–10 ... +70 °C
Relative humidity:	max. 80 % (no condensation)
Radio frequency:	868.0 ... 868.6 MHz
Transmitting power:	max. 20 mW
Transmission range in free field:	typical 100 m

KNX RF radio converter

Project design and commissioning with ETS5 or a more recent version.

MK 100 RF

Intended use
- KNX medium: TP 256
- KNX Data Secure compatible with ETS 5.7.3 or higher
- Connection of KNX radio networks with cabled KNX lines
- Extension of the radio range in KNX radio networks
  (repeater operation, external power supply with 24 V AC/DC, e.g. ref.-no. NT 2415 REG VDC)
- Installation in flush box according to DIN 49073 in combination with a suitable cover

KNX push-button sensor F 10
A FLOW in matt anthracite

The F 10 family

The JUNG KNX push-button F 10 looks like a classic light switch, but masters intelligent KNX technology. Thanks to the JUNG design, it perfectly complements the widest range of furnishing styles. Thus the technology and design form a unit that meets the toughest demands.

KNX PUSH-BUTTON F 10 STANDARD

The KNX F 10 push-button sensor operates consumers, dims lights, moves blinds and much more. All KNX functions are possible with its operating concept (rocker or push-button). Up to two functions can be set per operating button.

KNX PUSH-BUTTON F 10 UNIVERSAL

The Universal design has in addition a locking and alarm function, a temperature sensor and offers the option to connect a KNX push-button extension. Installation push-buttons or reed contacts can also be connected to the KNX F 10 push-button sensor.

KNX PUSH-BUTTON EXTENSION

Cost-efficient KNX installation: the KNX F 10 push-button sensor Universal version can be connected to a KNX push-button extension via the appropriate connections.

JUNG KNX SECURE

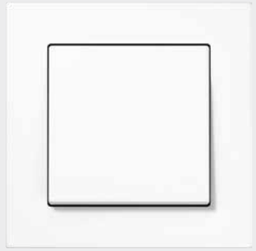
All versions of the JUNG KNX F 10 push-button sensor are secure thanks to KNX Data Secure. The encryption secures and authenticates all data in the KNX system.

Intelligent technology in a timeless design

KNX PUSH-BUTTON SENSOR F 10

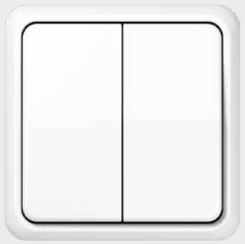
LS 990 in aluminium

KNX PUSH-BUTTON SENSOR F 10



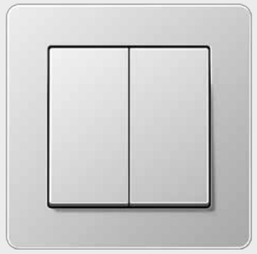
A 550 in white

KNX PUSH-BUTTON SENSOR F 10



CD 500 in white

KNX PUSH-BUTTON SENSOR F 10



A FLOW in aluminium

The JUNG KNX push-button F 10 is available with covers and devices of the A, AS, CD and LS ranges.

Individual button assignment

KNX PUSH-BUTTON SENSOR F 10

Push-button function

KNX PUSH-BUTTON SENSOR F 10

Rocker function

KNX PUSH-BUTTON SENSOR F 10

Push-button function 2-gang

KNX PUSH-BUTTON SENSOR F 10

Rocker function 2-gang

The KNX F 10 push-button masters both the push-button function and the rocker function. The rocker function of the Standard version enables additional control possibilities such as dimming lamps. The push-button function in the Universal version enables full-surface operation.

The functions of the F 10

KNX PUSH-BUTTON F 10 INSERT

COVER IN LS 990

The new JUNG KNX push-buttons F 10 enable extensive options in the technical interior equipment of an intelligent building. They have large functional versatility.

INTUITIVE AND VERSATILE OPERATION

The function assignment of the JUNG KNX F 10 push-button sensor can be completely customised. The push-buttons in the Universal version switch blinds, dim lights or operate other functions in a smart building. In addition, their individual switching points can be assigned multiple times thanks to a sophisticated operating concept. In this way, they make particularly versatile control of the intelligent building possible.

TEMPERATURE SENSOR

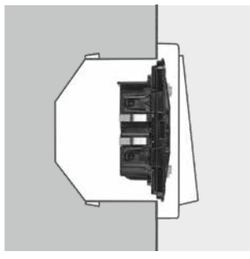
The JUNG KNX F 10 push-button in the Universal version has a temperature sensor. It thus records the room temperature with pinpoint accuracy and passes the information on to, for example, a KNX temperature controller Fan Coil. This then regulates the heating to a desired value.

NUMEROUS ADDITIONAL FUNCTIONS

In the guise of a classic switch, the JUNG KNX push-buttons F 10 provide a wide range of functions. Both versions have a controller satellite unit and an energy saving mode. The KNX F 10 Universal push-button also has alarm signalling, lock function and HSV colour control.

SMALL INSTALLATION DEPTH

Due to the compact design of the KNX F 10 push-buttons, tradespeople have more room to work with. For example, the small installation depth of only 15 millimetres creates a lot more space for the wiring.



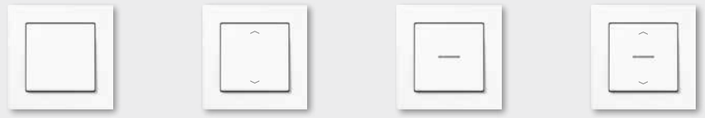
System design for KNX push-button sensor Standard and Universal

Standard 1-gang
Part No.: A 10711 ST

Universal 1-gang
Part No.: A 10911 ST

AS range

A range



Standard 2-gang
Ref. no.: A 10721 ST

Universal 2-gang
Ref. no.: A 10921 ST

AS range

A range

Standard 1-gang
Ref. no.: LS CD 10711 ST

Universal 1-gang
Ref. no.: LS CD 10911 ST

CD range

LS range

Standard 2-gang
Ref. no.: LS CD 10721 ST

Universal 2-gang
Ref. no.: LS CD 10921 ST

CD range

LS range

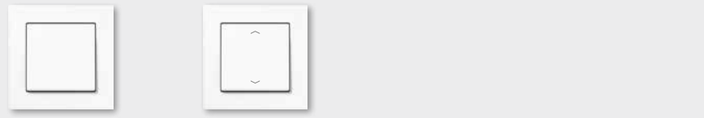
System design for KNX push-button extension

Extension 1-gang
Part No.: A 10911 TE

Can only
be combined with
Universal
push-button sensors

AS range

A range



Extension 2-gang
Part No.: A 10921 TE

Can only
be combined with
Universal
push-button sensors

AS range

A range

Extension 1-gang
Ref. no.: LS CD 10911 TE

Can only
be combined with
Universal
push-button sensors

CD range

LS range

Extension 2-gang
Part. no.: LS CD 10921 TE

Can only
be combined with
Universal
push-button sensors

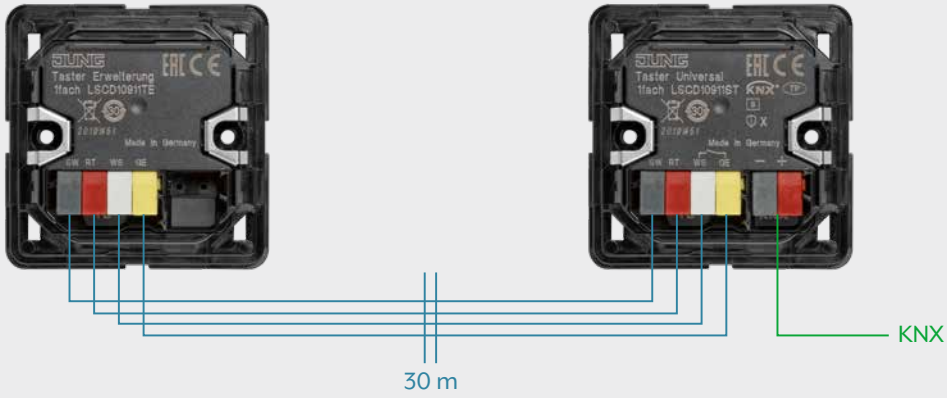
CD range

LS range

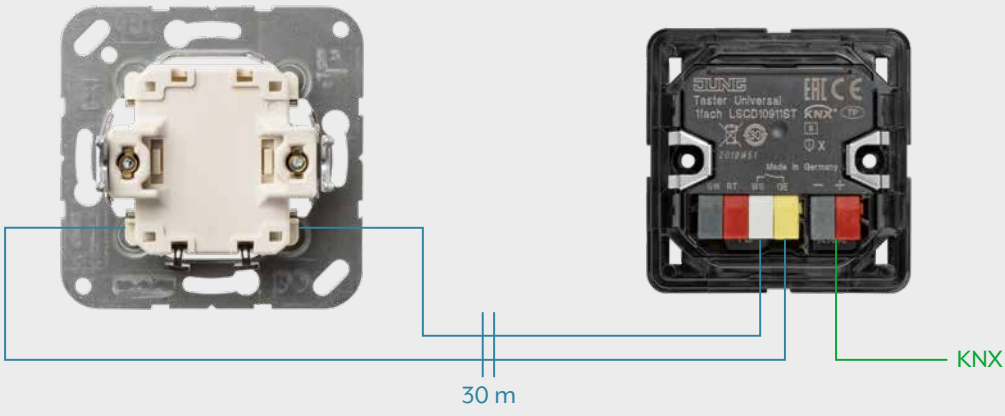
Connection of an extension

Cost-efficient KNX installation: The KNX F 10 push-button sensor Universal can be connected to a KNX push-button extension, reed contacts or conventional push-buttons.

ATTACHING A KNX PUSH-BUTTON EXTENSION



CONNECTION OF A PUSH-BUTTON



An extension connected to a KNX F 10 push-button sensor Universal can be placed at a distance of up to 30 metre cable length in the process. Thus the JUNG KNX push-buttons F 10 enable a smart and at the same time considerably more cost-efficient electrical installation. The KNX F 10 push-button sensor provides a particularly versatile control of the complete smart building.

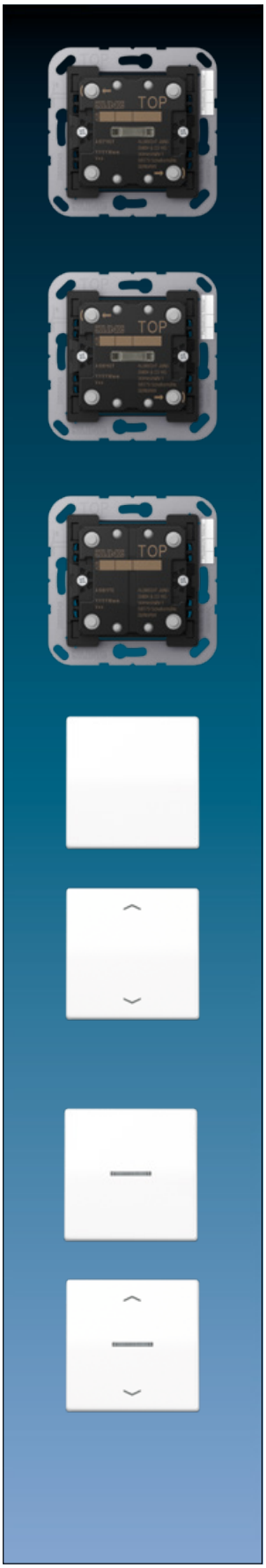
KNX push-button
Intended use
- Operation of loads, e.g. light on/off, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Standard
Product characteristics
- KNX medium: TP 256
- Operating concept (rocker or button) adjustable for each operating area
- Button evaluation (single- or dual-area operation) adjustable
- One or two functions per operating area
- Integrated bus coupling unit
- One status LED per operating area – red
- KNX Data Secure compatible with ETS 5.7.3 or higher

Universal
Product characteristics
- KNX medium: TP 256
- Operating concept (rocker or button) adjustable for each operating area
- Button evaluation (single- or dual-area operation) adjustable
- One or two functions per operating area
- Integrated bus coupling unit
- Alarm function, optional acknowledge by pressing any button
- Disabling function: Disabling or change function mode of single or all button functions
- Status LED brightness adjustable
- Measurement of room temperature
- Connection of a push-button extension possible
- Connection of installation buttons or reed contacts possible
- KNX Data Secure compatible with ETS 5.7.3 or higher

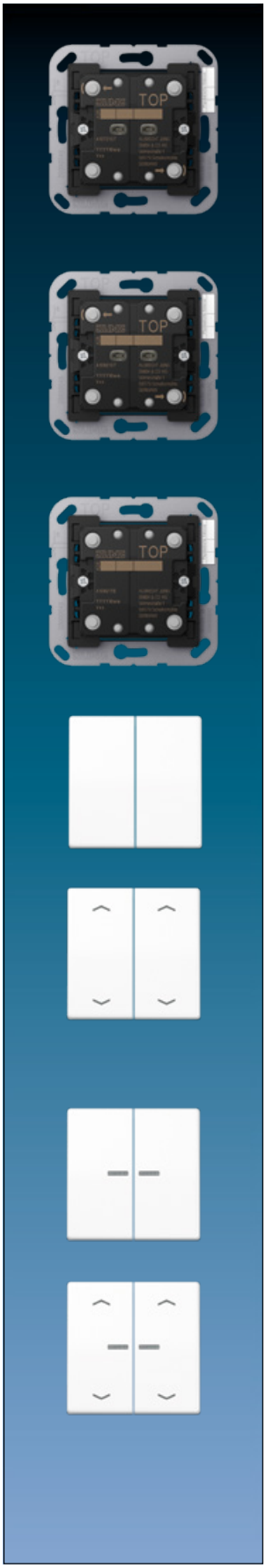
Extension
Product characteristics
- Operating concept (rocker or button) adjustable for each operating area
- Button evaluation (single- or dual-area operation) adjustable
- One or two functions per operating area
- Without status LED
- Without bus coupling unit
- Connection to push-button universal possible

KNX push-buttons F 10



		Ref.-no.
KNX push-button standard 1-gang		
Project design and commissioning with ETS5 or a more recent version.		
ETS product family: Push-button		
Product type: 1-gang push-button		
	N	**A 10711 ST**
KNX push-button universal 1-gang		
Project design and commissioning with ETS5 or a more recent version.		
ETS product family: Push-button		
Product type: 1-gang push-button		
	N	**A 10911 ST**
KNX push-button extension 1-gang		
	N	**A 10911 TE**
1-gang rocker		
for KNX push-button 1-gang ref.-no.: A 10711 ST, A 10911 ST, A 10911 TE		
Duroplastic (scratch-proof) glossy		
ivory	N	**AS 101**
white	N	**AS 101 WW**
1-gang rocker with arrow symbols		
for KNX push-button 1-gang ref.-no.: A 10711 ST, A 10911 ST, A 10911 TE		
Duroplastic (scratch-proof) glossy		
ivory	N	**AS 101 P**
white	N	**AS 101 P WW**
1-gang rocker with lens		
for KNX push-button 1-gang ref.-no.: A 10711 ST, A 10911 ST		
Duroplastic (scratch-proof) glossy		
ivory	N	**AS 101 KO5**
white	N	**AS 101 KO5 WW**
1-gang rocker with lens and arrow symbols		
for KNX push-button 1-gang ref.-no.: A 10711 ST, A 10911 ST		
Duroplastic (scratch-proof) glossy		
ivory	N	**AS 101 KO5P**
white	N	**AS 101 KO5P WW**

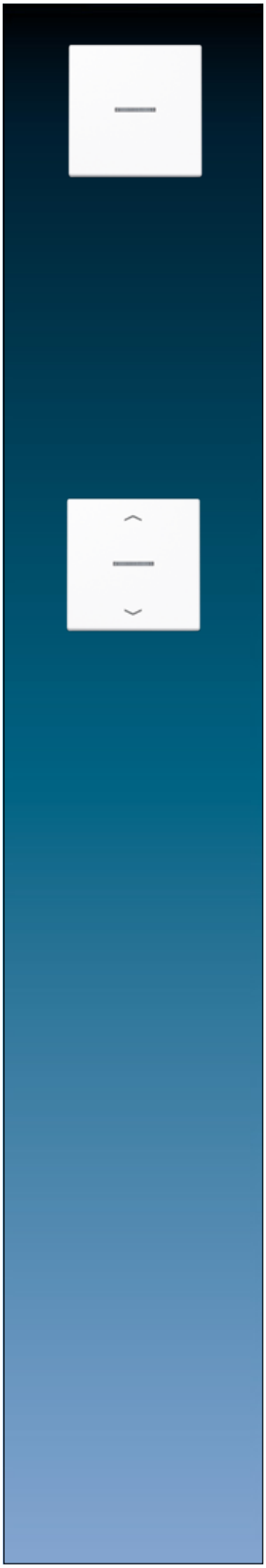
		Ref.-no.
KNX push-button standard 2-gang		
Project design and commissioning with ETS5 or a more recent version.		
ETS product family: Push-button		
Product type: 2-gang push-button		
	N	**A 10721 ST**
KNX push-button universal 2-gang		
Project design and commissioning with ETS5 or a more recent version.		
ETS product family: Push-button		
Product type: 2-gang push-button		
	N	**A 10921 ST**
KNX push-button extension 2-gang		
	N	**A 10921 TE**
2-gang rocker		
for KNX push-button 2-gang ref.-no.: A 10721 ST, A 10921 ST, A 10921 TE		
Duroplastic (scratch-proof) glossy		
ivory	N	**AS 102**
white	N	**AS 102 WW**
2-gang rocker with arrow symbols		
for KNX push-button 2-gang ref.-no.: A 10721 ST, A 10921 ST, A 10921 TE		
Duroplastic (scratch-proof) glossy		
ivory	N	**AS 102 P**
white	N	**AS 102 P WW**
2-gang rocker with lens		
for KNX push-button 2-gang ref.-no.: A 10721 ST, A 10921 ST		
Duroplastic (scratch-proof) glossy		
ivory	N	**AS 102 KO5**
white	N	**AS 102 KO5 WW**
2-gang rocker with lens and arrow symbols		
for KNX push-button 2-gang ref.-no.: A 10721 ST, A 10921 ST		
Duroplastic (scratch-proof) glossy		
ivory	N	**AS 102 KO5P**
white	N	**AS 102 KO5P WW**



KNX push-buttons F 10

		Ref.-no.
KNX push-button standard 1-gang		
Project design and commissioning with ETS5 or a more recent version.		
ETS product family: Push-button		
Product type: 1-gang push-button		
	N	**A 10711 ST**
KNX push-button universal 1-gang		
Project design and commissioning with ETS5 or a more recent version.		
ETS product family: Push-button		
Product type: 1-gang push-button		
	N	**A 10911 ST**
KNX push-button extension 1-gang		
	N	**A 10911 TE**
1-gang rocker		
for KNX push-button 1-gang ref.-no.: A 10711 ST, A 10911 ST, A 10911 TE		
Duroplastic (scratch-proof) glossy		
white	N	**A 101 WW**
black	N	**A 101 SW**
Duroplastic lacquered		
aluminium	N L	**A 101 AL**
champagne	N	**A 101 CH**
mocha	N	**A 101 MO**
Thermoplastic (breakproof) high-gloss		
white	N L	**A 101 BF WW**
black	N L	**A 101 BF SW**
matt lacquered		
matt snow white	N	**A 101 BF WWM**
matt graphite black	N	**A 101 BF SWM**
matt anthracite	N	**A 101 BF ANM**
1-gang rocker with arrow symbols		
for KNX push-button 1-gang ref.-no.: A 10711 ST, A 10911 ST, A 10911 TE		
Duroplastic (scratch-proof) glossy		
white	N	**A 101 P WW**
black	N	**A 101 P SW**
Duroplastic lacquered		
aluminium	N	**A 101 P AL**
champagne	N	**A 101 P CH**
mocha	N	**A 101 P MO**
Thermoplastic (breakproof) high-gloss		
white	N	**A 101 P BF WW**
black	N	**A 101 P BF SW**
matt lacquered		
matt anthracite	N	**A 101 P BF ANM**

			Ref.-no.
1-gang rocker with lens			
for KNX push-button 1-gang ref.-no.: A 10711 ST, A 10911 ST			
Duroplastic (scratch-proof) glossy			
white	N		**A 101 KO5 WW**
black	N		**A 101 KO5 SW**
Duroplastic lacquered			
aluminium	N	L	**A 101 KO5 AL**
champagne	N		**A 101 KO5 CH**
mocha	N		**A 101 KO5 MO**
Thermoplastic (breakproof) high-gloss			
white	N	L	**A 101 KO5 BF WW**
black	N	L	**A 101 KO5 BF SW**
matt lacquered			
matt snow white	N		**A 101 KO5 BF WWM**
matt graphite black	N		**A 101 KO5 BF SWM**
matt anthracite	N		**A 101 KO5 BF ANM**
1-gang rocker with lens and arrow symbols			
for KNX push-button 1-gang ref.-no.: A 10711 ST, A 10911 ST			
Duroplastic (scratch-proof) glossy			
white	N		**A 101 KO5P WW**
black	N		**A 101 KO5P SW**
Duroplastic lacquered			
aluminium	N		**A 101 KO5P AL**
champagne	N		**A 101 KO5P CH**
mocha	N		**A 101 KO5P MO**
Thermoplastic (breakproof) high-gloss			
white	N		**A 101 KO5P BF WW**
black	N		**A 101 KO5P BF SW**
matt lacquered			
matt anthracite	N		**A 101 KO5P BF ANM**



KNX push-buttons F 10

KNX push-button standard 2-gang
Project design and commissioning with ETS5 or a more recent version.
ETS product family: Push-button
Product type: 2-gang push-button

		Ref.-no.
	N	**A 10721 ST**

KNX push-button universal 2-gang
Project design and commissioning with ETS5 or a more recent version.
ETS product family: Push-button
Product type: 2-gang push-button

	N	**A 10921 ST**

KNX push-button extension 2-gang

	N	**A 10921 TE**

2-gang rocker
for KNX push-button 2-gang ref.-no.: A 10721 ST, A 10921 ST, A 10921 TE

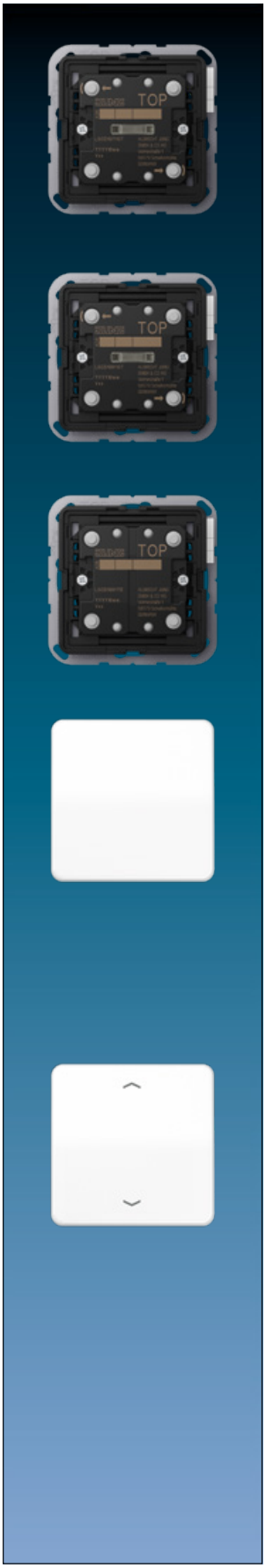
Duroplastic (scratch-proof) glossy			
white	N		**A 102 WW**
black	N		**A 102 SW**
Duroplastic lacquered			
aluminium	N	L	**A 102 AL**
champagne	N		**A 102 CH**
mocha	N		**A 102 MO**
Thermoplastic (breakproof) high-gloss			
white	N	L	**A 102 BF WW**
black	N	L	**A 102 BF SW**
matt lacquered			
matt snow white	N		**A 102 BF WWM**
matt graphite black	N		**A 102 BF SWM**
matt anthracite	N		**A 102 BF ANM**

2-gang rocker with arrow symbols
for KNX push-button 2-gang ref.-no.: A 10721 ST, A 10921 ST, A 10921 TE

Duroplastic (scratch-proof) glossy		
white	N	**A 102 P WW**
black	N	**A 102 P SW**
Duroplastic lacquered		
aluminium	N	**A 102 P AL**
champagne	N	**A 102 P CH**
mocha	N	**A 102 P MO**
Thermoplastic (breakproof) high-gloss		
white	N	**A 102 P BF WW**
black	N	**A 102 P BF SW**
matt lacquered		
matt anthracite	N	**A 102 P BF ANM**

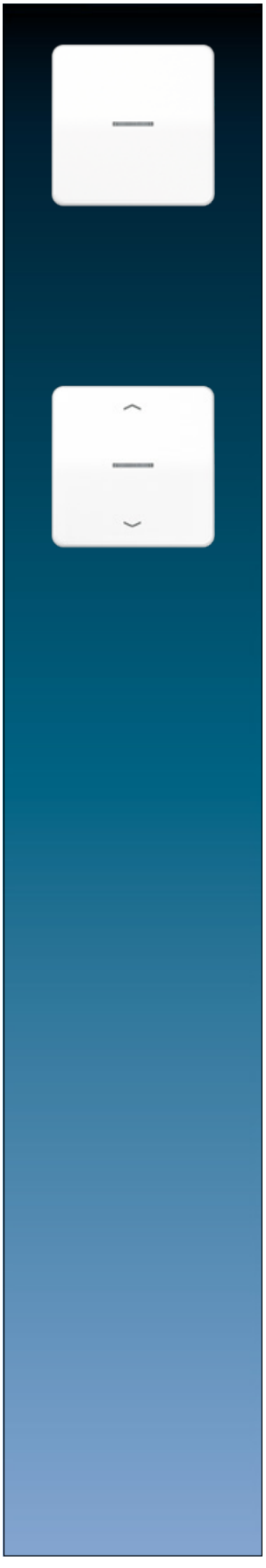
			Ref.-no.
2-gang rocker with lens			
for KNX push-button 2-gang ref.-no.: A 10721 ST, A 10921 ST			
Duroplastic (scratch-proof) glossy			
white	N		**A 102 KO5 WW**
black	N		**A 102 KO5 SW**
Duroplastic lacquered			
aluminium	N	L	**A 102 KO5 AL**
champagne	N		**A 102 KO5 CH**
mocha	N		**A 102 KO5 MO**
Thermoplastic (breakproof) high-gloss			
white	N	L	**A 102 KO5 BF WW**
black	N	L	**A 102 KO5 BF SW**
matt lacquered			
matt snow white	N		**A 102 KO5 BF WWM**
matt graphite black	N		**A 102 KO5 BF SWM**
matt anthracite	N		**A 102 KO5 BF ANM**
2-gang rocker with lens and arrow symbols			
for KNX push-button 2-gang ref.-no.: A 10721 ST, A 10921 ST			
Duroplastic (scratch-proof) glossy			
white	N		**A 102 KO5P WW**
black	N		**A 102 KO5P SW**
Duroplastic lacquered			
aluminium	N		**A 102 KO5P AL**
champagne	N		**A 102 KO5P CH**
mocha	N		**A 102 KO5P MO**
Thermoplastic (breakproof) high-gloss			
white	N		**A 102 KO5P BF WW**
black	N		**A 102 KO5P BF SW**
matt lacquered			
matt anthracite	N		**A 102 KO5P BF ANM**

KNX push-buttons F 10



		Ref.-no.
KNX push-button standard 1-gang		
Project design and commissioning with ETS5 or a more recent version.		
ETS product family: Push-button		
Product type: 1-gang push-button		
	N	**LS CD 10711 ST**
KNX push-button universal 1-gang		
Project design and commissioning with ETS5 or a more recent version.		
ETS product family: Push-button		
Product type: 1-gang push-button		
	N	**LS CD 10911 ST**
KNX push-button extension 1-gang		
	N	**LS CD 10911 TE**
1-gang rocker		
for KNX push-button 1-gang ref.-no.: LS CD 10711 ST, LS CD 10911 ST, LS CD 10911 TE		
Duroplastic (scratch-proof) glossy		
ivory	N	**CD 101**
white	N	**CD 101 WW**
brown	N	**CD 101 BR**
grey	N	**CD 101 GR**
light grey	N	**CD 101 LG**
black	N	**CD 101 SW**
metal versions (anodized aluminium)		
gold-bronze	N L	**CD 101 GB**
platinum	N L	**CD 101 PT**
1-gang rocker with arrow symbols		
for KNX push-button 1-gang ref.-no.: LS CD 10711 ST, LS CD 10911 ST, LS CD 10911 TE		
Duroplastic (scratch-proof) glossy		
ivory	N	**CD 101 P**
white	N	**CD 101 P WW**
brown	N	**CD 101 P BR**
grey	N	**CD 101 P GR**
light grey	N	**CD 101 P LG**
black	N	**CD 101 P SW**
metal versions (anodized aluminium)		
gold-bronze	N	**CD 101 P GB**
platinum	N	**CD 101 P PT**

			Ref.-no.
1-gang rocker with lens			
for KNX push-button 1-gang ref.-no.: LS CD 10711 ST, LS CD 10911 ST			
Duroplastic (scratch-proof) glossy			
ivory	N		**CD 101 KO5**
white	N		**CD 101 KO5 WW**
brown	N		**CD 101 KO5 BR**
grey	N		**CD 101 KO5 GR**
light grey	N		**CD 101 KO5 LG**
black	N		**CD 101 KO5 SW**
metal versions (anodized aluminium)			
gold-bronze	N	L	**CD 101 KO5 GB**
platinum	N	L	**CD 101 KO5 PT**
1-gang rocker with lens and arrow symbols			
for KNX push-button 1-gang ref.-no.: LS CD 10711 ST, LS CD 10911 ST			
Duroplastic (scratch-proof) glossy			
ivory	N		**CD 101 KO5P**
white	N		**CD 101 KO5P WW**
brown	N		**CD 101 KO5P BR**
grey	N		**CD 101 KO5P GR**
light grey	N		**CD 101 KO5P LG**
black	N		**CD 101 KO5P SW**
metal versions (anodized aluminium)			
gold-bronze	N		**CD 101 KO5P GB**
platinum	N		**CD 101 KO5P PT**

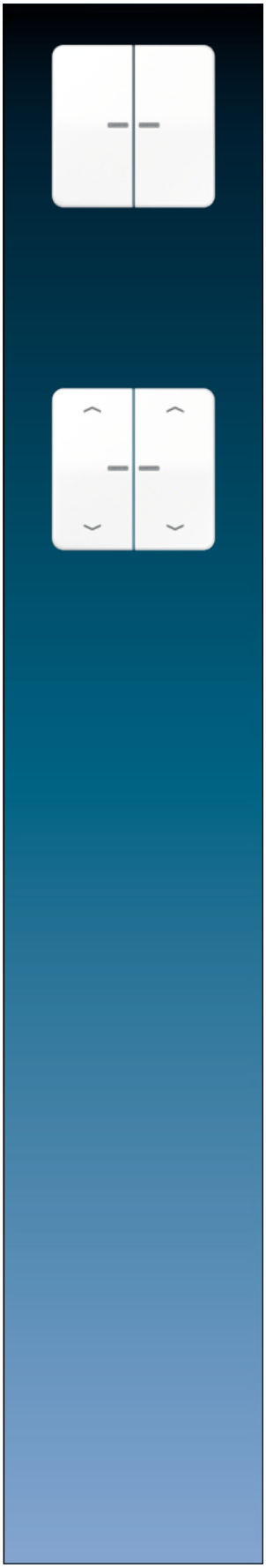


KNX push-buttons F 10

		Ref.-no.
KNX push-button standard 2-gang		
Project design and commissioning with ETS5 or a more recent version.		
ETS product family: Push-button		
Product type: 2-gang push-button		
	N	**LS CD 10721 ST**
KNX push-button universal 2-gang		
Project design and commissioning with ETS5 or a more recent version.		
ETS product family: Push-button		
Product type: 2-gang push-button		
	N	**LS CD 10921 ST**
KNX push-button extension 2-gang		
	N	**LS CD 10921 TE**
2-gang rocker		
for KNX push-button 2-gang ref.-no.: LS CD 10721 ST, LS CD 10921 ST, LS CD 10921 TE		
Duroplastic (scratch-proof) glossy		
ivory	N	**CD 102**
white	N	**CD 102 WW**
brown	N	**CD 102 BR**
grey	N	**CD 102 GR**
light grey	N	**CD 102 LG**
black	N	**CD 102 SW**
Duroplastic lacquered		
gold-bronze	N	**CD 102 GB**
platinum	N	**CD 102 PT**
2-gang rocker with arrow symbols		
for KNX push-button 2-gang ref.-no.: LS CD 10721 ST, LS CD 10921 ST, LS CD 10921 TE		
Duroplastic (scratch-proof) glossy		
ivory	N	**CD 102 P**
white	N	**CD 102 P WW**
brown	N	**CD 102 P BR**
grey	N	**CD 102 P GR**
light grey	N	**CD 102 P LG**
black	N	**CD 102 P SW**
Duroplastic lacquered		
gold-bronze	N	**CD 102 P GB**
platinum	N	**CD 102 P PT**

		Ref.-no.
2-gang rocker with lens		
for KNX push-button 2-gang ref.-no.: LS CD 10721 ST, LS CD 10921 ST		
Duroplastic (scratch-proof) glossy		
ivory	N	**CD 102 KO5**
white	N	**CD 102 KO5 WW**
brown	N	**CD 102 KO5 BR**
grey	N	**CD 102 KO5 GR**
light grey	N	**CD 102 KO5 LG**
black	N	**CD 102 KO5 SW**
Duroplastic lacquered		
gold-bronze	N	**CD 102 KO5 GB**
platinum	N	**CD 102 KO5 PT**

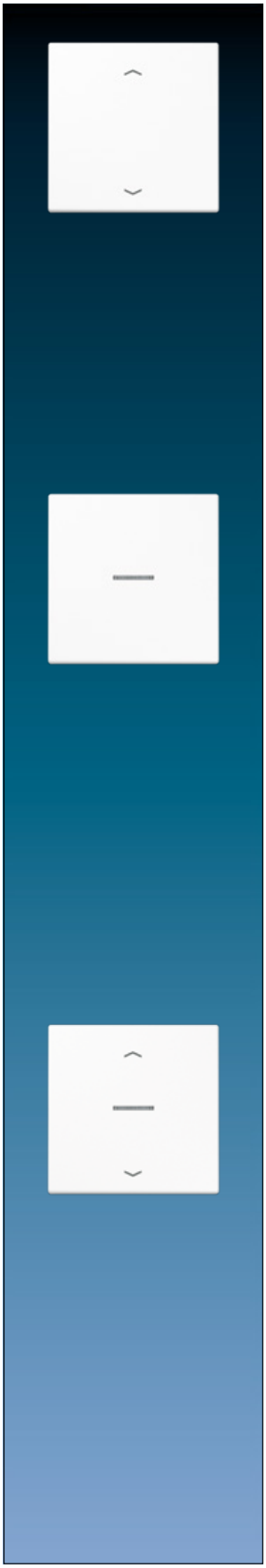
2-gang rocker with lens and arrow symbols		
for KNX push-button 2-gang ref.-no.: LS CD 10721 ST, LS CD 10921 ST		
Duroplastic (scratch-proof) glossy		
ivory	N	**CD 102 KO5P**
white	N	**CD 102 KO5P WW**
brown	N	**CD 102 KO5P BR**
grey	N	**CD 102 KO5P GR**
light grey	N	**CD 102 KO5P LG**
black	N	**CD 102 KO5P SW**
Duroplastic lacquered		
gold-bronze	N	**CD 102 KO5P GB**
platinum	N	**CD 102 KO5P PT**



KNX push-buttons F 10

			Ref.-no.
KNX push-button standard 1-gang			
Project design and commissioning with ETS5 or a more recent version.			
ETS product family: Push-button			
Product type: 1-gang push-button			
	N		**LS CD 10711 ST**
KNX push-button universal 1-gang			
Project design and commissioning with ETS5 or a more recent version.			
ETS product family: Push-button			
Product type: 1-gang push-button			
	N		**LS CD 10911 ST**
KNX push-button extension 1-gang			
	N		**LS CD 10911 TE**
1-gang rocker			
for KNX push-button 1-gang ref.-no.: LS CD 10711 ST, LS CD 10911 ST, LS CD 10911 TE			
Duroplastic (scratch-proof) glossy			
ivory	N		**LS 101**
white	N		**LS 101 WW**
light grey	N		**LS 101 LG**
black	N		**LS 101 SW**
matt lacquered			
matt snow white	N		**LS 101 WWM**
matt graphite black	N		**LS 101 SWM**
metal versions			
aluminium	N	P L	**AL 101**
stainless steel	N	L	**ES 101**
anthracite (aluminium lacquered)	N		**AL 101 AN**
dark (aluminium lacquered)	N		**AL 101 D**
chrome	N		**GCR 101**
gold-coloured	N		**GO 101**
classic brass	N	P	**ME 101 C**
antique brass	N		**ME 101 AT**

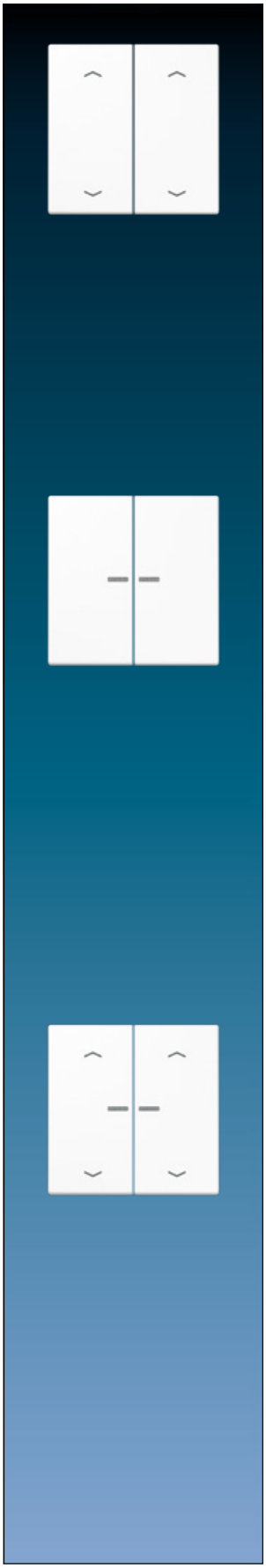
			Ref.-no.
1-gang rocker with arrow symbols			
for KNX push-button 1-gang ref.-no.: LS CD 10711 ST, LS CD 10911 ST, LS CD 10911 TE			
Duroplastic (scratch-proof) glossy			
ivory	N		**LS 101 P**
white	N		**LS 101 P WW**
light grey	N		**LS 101 P LG**
black	N		**LS 101 P SW**
metal versions			
aluminium	N		**AL 101 P**
stainless steel	N		**ES 101 P**
anthracite (aluminium lacquered)	N		**AL 101 P AN**
dark (aluminium lacquered)	N		**AL 101 P D**
chrome	N		**GCR 101 P**
gold-coloured	N		**GO 101 P**
classic brass	N		**ME 101 P C**
antique brass	N		**ME 101 P AT**
1-gang rocker with lens			
for KNX push-button 1-gang ref.-no.: LS CD 10711 ST, LS CD 10911 ST			
Duroplastic (scratch-proof) glossy			
ivory	N		**LS 101 KO5**
white	N		**LS 101 KO5 WW**
light grey	N		**LS 101 KO5 LG**
black	N		**LS 101 KO5 SW**
matt lacquered			
matt snow white	N		**LS 101 KO5 WWM**
matt graphite black	N		**LS 101 KO5 SWM**
metal versions			
aluminium	N	P L	**AL 101 KO5**
stainless steel	N	L	**ES 101 KO5**
anthracite (aluminium lacquered)	N		**AL 101 KO5 AN**
dark (aluminium lacquered)	N		**AL 101 KO5 D**
chrome	N		**GCR 101 KO5**
gold-coloured	N		**GO 101 KO5**
classic brass	N	P	**ME 101 KO5 C**
antique brass	N		**ME 101 KO5 AT**
1-gang rocker with lens and arrow symbols			
for KNX push-button 1-gang ref.-no.: LS CD 10711 ST, LS CD 10911 ST			
Duroplastic (scratch-proof) glossy			
ivory	N		**LS 101 KO5P**
white	N		**LS 101 KO5P WW**
light grey	N		**LS 101 KO5P LG**
black	N		**LS 101 KO5P SW**
metal versions			
aluminium	N		**AL 101 KO5P**
stainless steel	N		**ES 101 KO5P**
anthracite (aluminium lacquered)	N		**AL 101 KO5P AN**
dark (aluminium lacquered)	N		**AL 101 KO5P D**
chrome	N		**GCR 101 KO5P**
gold-coloured	N		**GO 101 KO5P**
classic brass	N		**ME 101 KO5P C**
antique brass	N		**ME 101 KO5P AT**



KNX push-buttons F 10

			Ref.-no.
KNX push-button standard 2-gang			
Project design and commissioning with ETS5 or a more recent version.			
ETS product family: Push-button			
Product type: 2-gang push-button			
	N		**LS CD 10721 ST**
KNX push-button universal 2-gang			
Project design and commissioning with ETS5 or a more recent version.			
ETS product family: Push-button			
Product type: 2-gang push-button			
	N		**LS CD 10921 ST**
KNX push-button extension 2-gang			
	N		**LS CD 10921 TE**
2-gang rocker			
for KNX push-button 2-gang ref.-no.: LS CD 10721 ST, LS CD 10921 ST, LS CD 10921 TE			
Duroplastic (scratch-proof) glossy			
ivory	N		**LS 102**
white	N		**LS 102 WW**
light grey	N		**LS 102 LG**
black	N		**LS 102 SW**
matt lacquered			
matt snow white	N		**LS 102 WWM**
matt graphite black	N		**LS 102 SWM**
metal versions			
aluminium	N	P L	**AL 102**
stainless steel	N	L	**ES 102**
anthracite (aluminium lacquered)	N		**AL 102 AN**
dark (aluminium lacquered)	N		**AL 102 D**
chrome	N		**GCR 102**
gold-coloured	N		**GO 102**
classic brass	N	P	**ME 102 C**
antique brass	N		**ME 102 AT**

			Ref.-no.
2-gang rocker with arrow symbols			
for KNX push-button 2-gang ref.-no.: LS CD 10721 ST, LS CD 10921 ST, LS CD 10921 TE			
Duroplastic (scratch-proof) glossy			
ivory	N		**LS 102 P**
white	N		**LS 102 P WW**
light grey	N		**LS 102 P LG**
black	N		**LS 102 P SW**
metal versions			
aluminium	N		**AL 102 P**
stainless steel	N		**ES 102 P**
anthracite (aluminium lacquered)	N		**AL 102 P AN**
dark (aluminium lacquered)	N		**AL 102 P D**
chrome	N		**GCR 102 P**
gold-coloured	N		**GO 102 P**
classic brass	N		**ME 102 P C**
antique brass	N		**ME 102 P AT**
2-gang rocker with lens			
for KNX push-button 2-gang ref.-no.: LS CD 10721 ST, LS CD 10921 ST			
Duroplastic (scratch-proof) glossy			
ivory	N		**LS 102 KO5**
white	N		**LS 102 KO5 WW**
light grey	N		**LS 102 KO5 LG**
black	N		**LS 102 KO5 SW**
matt lacquered			
matt snow white	N		**LS 102 KO5 WWM**
matt graphite black	N		**LS 102 KO5 SWM**
metal versions			
aluminium	N	P L	**AL 102 KO5**
stainless steel	N	L	**ES 102 KO5**
anthracite (aluminium lacquered)	N		**AL 102 KO5 AN**
dark (aluminium lacquered)	N		**AL 102 KO5 D**
chrome	N		**GCR 102 KO5**
gold-coloured	N		**GO 102 KO5**
classic brass	N	P	**ME 102 KO5 C**
antique brass	N		**ME 102 KO5 AT**
2-gang rocker with lens and arrow symbols			
for KNX push-button 2-gang ref.-no.: LS CD 10721 ST, LS CD 10921 ST			
Duroplastic (scratch-proof) glossy			
ivory	N		**LS 102 KO5P**
white	N		**LS 102 KO5P WW**
light grey	N		**LS 102 KO5P LG**
black	N		**LS 102 KO5P SW**
metal versions			
aluminium	N		**AL 102 KO5P**
stainless steel	N		**ES 102 KO5P**
anthracite (aluminium lacquered)	N		**AL 102 KO5P AN**
dark (aluminium lacquered)	N		**AL 102 KO5P D**
chrome	N		**GCR 102 KO5P**
gold-coloured	N		**GO 102 KO5P**
classic brass	N		**ME 102 KO5P C**
antique brass	N		**ME 102 KO5P AT**



KNX surface-mounted push buttons

KNX PUSH-BUTTON 1-GANG

Rocker with push-button function above and below

KNX PUSH-BUTTON 1-GANG

Rocker with push-button function above and below

KNX PUSH-BUTTON 2-GANG

Rocker with push-button function only below

KNX PUSH-BUTTON 2-GANG

Rocker with push-button function above and below

The KNX surface-mounted push buttons in unbreakable thermoplastic are weatherproof and UV-resistant to the greatest possible extent. The splash-water protected WG 800 range can be labelled throughout the range and has ample space for professional electrical installation. It is used everywhere that a surface-mounted installation is necessary.

Push-button BCU

	Ref.-no.

Depending on the version of the push-button BCU – 1-gang rocker or 2-gang rocker – centre plates are used with and without indication lights.
The “upper” or “lower” rockers can be controlled with the push-button with “neutral position”, while only the “lower” rocker can be pressed with the push-button with “switch position”.
The push-button BCU can only function with an application program i.e. the push-button BCU consists of the device (hardware) and the application program (software).

KNX push-button BCU, neutral position
Function: switching, dimming, shutter control
LED: always ON, always OFF, status indication
KNX medium: TP 256

1-gang	**8471.02 LED W**

The status LED serves as an orientation light or status indicator and can be parameterised.

KNX push-button BCU, switch position
Function: switching, dimming
LED: always ON, always OFF
KNX medium: TP 256

1-gang	**8471.01 LED W**

The status LED serves as an orientation light or status indicator and can be parameterised.

1-gang rocker with lens
for 1-gang push-button BCU
neutral position ref.-no.: 8471.02 LED W
switch position ref.-no.: 8471.01 LED W

	800 NT

1-gang rocker with lens and arrow symbols
for 1-gang push-button BCU
neutral position ref.-no.: 8471.02 LED W

	800 P

Rocker with inscription field
for 1-gang push-button BCU
neutral position ref.-no.: 8471.02 LED W
switch position ref.-no.: 8471.01 LED W

with inscription field 22 x 48 mm	**800 NA**

1-gang rocker with big lens
for 1-gang push-button BCU
neutral position ref.-no.: 8471.02 LED W
switch position ref.-no.: 8471.01 LED W
with red insert (ref.-no.: 33 NR)

	800 KO

	Ref.-no.
Insert with symbol, opaque	
for switches with indicator light and push-buttons in design range WG 800	
anthracite	
symbol light	**33 AN L**
symbol bell	**33 AN K**
symbol door	**33 AN T**
Insert without symbol, opaque	
for switches with indicator light and push-buttons in design range WG 800	
anthracite	**33 AN N**
Insert without symbol, translucent	
for switches with indicator light and push-buttons in design range WG 800	
green	**33 GN**
transparent	**33 KLAR**
red	**33 NR**
KNX push-button BCU, neutral position	
Function: switching, dimming, shutter control	
LED: always ON, always OFF, status indication	
KNX medium: TP 256	
2-gang	**8472.02 LED W**
The status LED serves as an orientation light or status indicator and can be parameterised.	
KNX push-button BCU, switch position	
Function: switching, dimming, shutter control	
LED: always ON, always OFF	
KNX medium: TP 256	
2-gang	**8472.01 LED W**
The status LED serves as an orientation light or status indicator and can be parameterised.	
2-gang rocker with lens	
for 2-gang push-button BCU	
neutral position ref.-no.: 8472.02 LED W	
switch position ref.-no.: 8472.01 LED W	
	805 NT
2-gang rocker with lens and arrow symbols	
for 2-gang push-button BCU	
switch position ref.-no.: 8472.01 LED W	
	805 P
2-gang rocker with lens and arrow symbols	
for 2-gang push-button BCU	
neutral position ref.-no.: 8472.02 LED W	
	805 MP

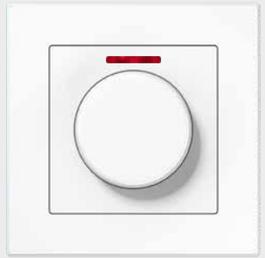
KNX rotary sensor
LS 990 in chrome

KNX rotary sensor

AS 500

in white

A CREATION

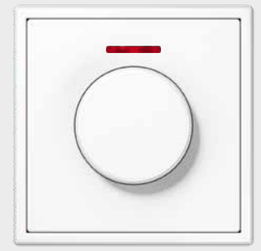


in white

CD 500

in white

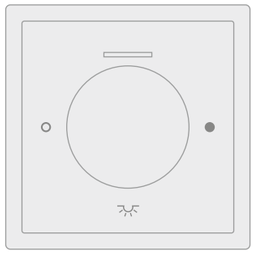
LS 990



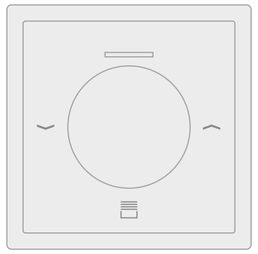
in white

While the operation is the same as with a classic rotary dimmer, the functionality for the KNX rotary sensor is much more extensive. The room functions and scenes are controlled here according to the proven “turn and press” principle. It also harmonises perfectly with the rest of the components in the JUNG design.

Intuitive operating concept

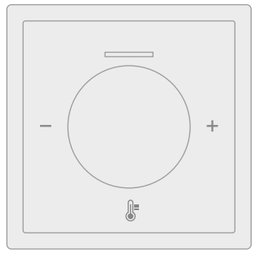


Lighting control



Blind control

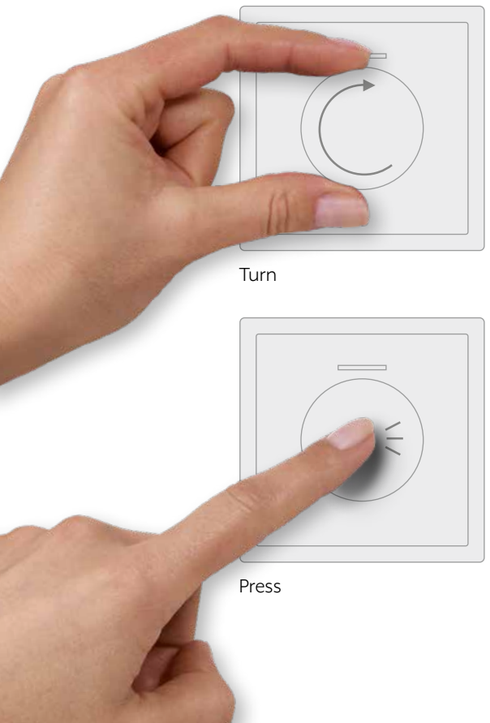
Music control



Temperature / climate control

FUNCTIONALITY

The KNX rotary sensor is used for controlling dimming, switching, and blind actuators as well as for the setpoint shift of a temperature controller. It has two red status LEDs for orientation.



Turn

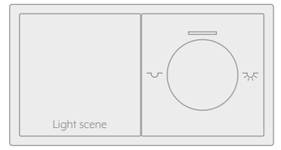
Press

OPERATION

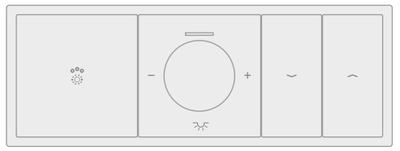
The innovation in the rotary sensor lies in the implementation of an operating concept that has never existed in the KNX system before. The well-known function of a rotary dimmer was used as the template. The rotary sensor operates according to the same principle and also has three extension inputs to connect conventional, floating contacts of switches, buttons and magnetic contacts. These combination possibilities extend the range of functions many times over. Labelling using the Graphic Tool further optimises the handling.

Combination possibilities using satellites

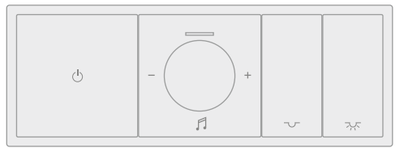
One press of the push-button activates the programmed light scenario, that includes several lights in the living room, for example. All luminaires can be dimmed together using the KNX rotary sensor.



All three binary inputs of the rotary sensor are used here: activate lighting scenes via the connected push-button, dim all connected luminaires together with the rotary sensor and also move the shutters up and down using the blind push-buttons.



The Hi-Fi system is switched on and the volume controlled with the rotary sensor. The floor lamp is controlled in parallel using the serial button. The push-button connected to the third extension input functions as energy-saving button: Pressing switches off the electricity for the connected consumers and they do not enter the energy-consuming standby mode.



Ref.-no.

KNX rotary sensor
with integrated BCU
with integrated push-button interface 3-gang
with push-button function and acoustic signal
Function: switching, dimming, shutter control, value transmitter, scene extension

DS 4092 TS

Intended use

- Operation of loads, e.g. light on/off, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics

- KNX medium: TP 256
- Operation by turning or pressing the control button
- Integrated push-button interface: Three binary inputs for potential-free contacts
- Functions for control button and push-button interface: Switching, dimming, shutter control, value transmitters, calling up scenes, etc.
- Two red status LEDs
- Acoustic signal transmitter, e.g. for status, operation or alarm message, ringtone or audible alert
- Alarm function, optional with confirmation by pressing
- Convenience function for dimming and value adjustment: Preselection of the increment by fast turning
- Energy saving mode
- Separated locking functions for control button and push-button interface

		Ref.-no.
Centre plate with knob and lens		
for rotary sensor ref.-no.: DS 4092 TS		
for AS and A ranges		
Duroplastic (scratch-proof) glossy		
ivory	P	**A 1540 KO5**
white	P	**A 1540 KO5 WW**
black		**A 1540 KO5 SW**
Duroplastic lacquered		
aluminium	P L	**A 1540 KO5 AL**
champagne	P	**A 1540 KO5 CH**
mocha		**A 1540 KO5 MO**
Thermoplastic (breakproof) high-gloss		
white	L	**A 1540 BF KO5 WW**
black	L	**A 1540 BF KO5 SW**
matt lacquered		
matt anthracite		**A 1540 BF KO5 ANM**
for CD range		
Duroplastic (scratch-proof) glossy		
ivory	P	**CD 1540 KO5**
white	P	**CD 1540 KO5 WW**
grey		**CD 1540 KO5 GR**
light grey	P	**CD 1540 KO5 LG**
black		**CD 1540 KO5 SW**
for LS range		
Duroplastic (scratch-proof) glossy		
ivory	P	**LS 1940 KO5**
white	P	**LS 1940 KO5 WW**
light grey	P	**LS 1940 KO5 LG**
black		**LS 1940 KO5 SW**
metal versions		
aluminium	P L	**AL 1940 KO5**
stainless steel	L	**ES 1940 KO5**
anthracite (aluminium lacquered)		**AL 1940 KO5 AN**
dark (aluminium lacquered)		**AL 1940 KO5 D**
chrome		**GCR 1940 KO5**
gold-coloured		**GO 1940 KO5**
classic brass	P	**ME 1940 KO5 C**
antique brass		**ME 1940 KO5 AT**

KNX presence detector mini

KNX Presence Detector Mini
is available in the Standard and Universal versions

Unobtrusive, compact, precise: the KNX presence detector mini is all of these. It is designed to control lighting systems, room thermostats, and other electrical loads as needed. The striking feature is its compact design with three ceiling mounting options: Depending on the particular room situation, the unit may be installed in a false ceiling, on the surface, or in a commercial flush wall box.

Three mounting types.

FALSE CEILING

The most discrete installation type is clip-on mounting in a false ceiling. The spring clips ensure reliable fixing of the unit, and only the lens and the narrow design ring can be seen from below.

FLUSH MOUNTING

Flush-mounted installation of the presence detector Mini or the brightness sensor is carried out by means of a separate flush mounting set in an off-the-shelf DIN 49073 flush wall box.

SURFACE MOUNTING

The third type of ceiling installation is the surface-mounted option. JUNG also provides a separate set for this that also includes a bezel as well as a surface cap for harmonious appearance.

Temperature measurement.

The ideal room temperature is highly dependent on individual feelings. With your feel-good temperature you create comfort for yourself. Moreover, flexible control of heating, ventilation, and cooling also provides healthy indoor climate. And also concerning energy-management aspects you can only win with heating and climate control matched to your needs!

Presence detector mini

		Ref.-no.
KNX presence detector mini **with integrated BCU** **New in V 02: with temperature measurement (only "Universal" version)**		
ETS product family: Physical sensors Product type: Movement		
Standard		
white	IP	**3361 M WW**
Universal		
white	IP	**3361-1 M WW**

Intended use
- Requirement-oriented control of lighting, room thermostats and other electrical loads in interior rooms
- Clamp mounting in suspended ceilings
- Ceiling installation on fixed ceilings in appliance box according to DIN 49073 with flush mounting set (ref.-no.: PMM-UP-SET-WW)
- Surface-mounted ceiling installation with surface mounting set (ref.-no.: PMM-AP-SET-WW)

Product characteristics
- Integrated bus coupling unit
- 3 PIR sensors
- Detection field 360°
- Integrated brightness sensor
- Deployed as presence detector, motion detector, or for alert operation
- Output functions: Switching, staircase function, switching with forced position, value transmitter, light scene extension, operating mode setting for room temperature controller
- Extension of the detection area by way of operating several devices as main unit or extension unit
- Adjuster for manual adjustment of sensitivity
- Status LED: Flashes during motion detection; depending on programming in normal operation or only during the walking test mode

Additional characteristics of "Universal" version:
- Manual operation with IR remote control possible (ref.-no.: KNX PM FB IR)
- 5 function blocks for motion detection each with 2 outputs
- Function blocks switchable, e.g. for day/night operation
- PIR sensors can be evaluated separately
- Brightness sensor function with 3 limiting values
- Light control with max. 3 channels, setpoint shift in operation, separate configuration of dimming-up, control and dimming-down phase
- Light control can be combined with presence detector function
- Temperature measurement

Presence detector function:
- Detection of the smallest motions e.g. at a workplace for detecting the presence of persons
- Switch on: Motion detection and brightness threshold not reached
- Switch off: No motion in the detection field and shut-off delay elapsed or brightness threshold exceeded

Motion detector function:
- Motion detection for passageways in buildings
- Switch on: Motion detection and brightness threshold not reached
- Switch off: No motion in the detection field and shut-off delay elapsed or brightness threshold exceeded

After reacting and switching on, the motion detection works independently of the brightness.

Signalling mode:
- Brightness-independent detection of motions in the detection field
- Switch on: After detection of an adjustable number of motions within the set monitoring period
- Switch off: No motion in the detection field and shut-off delay elapsed

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	max. 10 mA
Connection bus:	terminal
Protection class:	III
Ambient temperature:	–25 ... +55 °C
Storage/transport temperature:	–25 ... +70 °C
Relative humidity:	10 ... 100 % (no condensation)
Protection level:	IP 44
Ceiling cut-out (Ø x D):	44 x 35 mm
Dimensions (Ø x H):	53.5 x 38 mm (with design ring)
Max. thickness of the suspended ceiling:	approx. 25 mm
Installation depth:	min. 35 mm
Distance between concrete ceiling and suspended ceiling:	min. 20 mm
Design ring Ø inside:	35.6 mm
Design ring Ø outside:	53.5 mm
Profile height design ring:	1.8 mm
Profile height lens:	5.5 mm
Motion detection	
Detection angle:	360°
Range:	Ø approx. 12 m (mounting height 3 m)
Brightness sensor	
Measuring range:	10 ... 2,000 lx
Accuracy (≤ 80 lx):	± 10 lx
Accuracy (> 80 lx):	± 5 %

	Ref.-no.
IR remote control	
for KNX presence detector mini universal ref.-no.: 3361-1 M ..	
for KNX universal automatic switch ref.-no.: .. 3181-1 .., .. 3281-1	
	KNX PM FB IR

Battery operation with one included lithium button cell (CR 2025)

		Ref.-no.
KNX brightness controller mini with integrated BCU ETS product family: Physical sensors Product type: Bightness		
white	IP	**2096 LUX**

Intended use

- Measurement and control of lighting indoors or in protected outdoor area
- Clamp mounting in suspended ceilings
- Ceiling installation on fixed ceilings in appliance box according to DIN 49073 with flush mounting set (ref.-no.: PMM-UP-SET-WW)
- Surface-mounted ceiling installation with surface mounting set (ref.-no.: PMM-AP-SET-WW)

Product characteristics

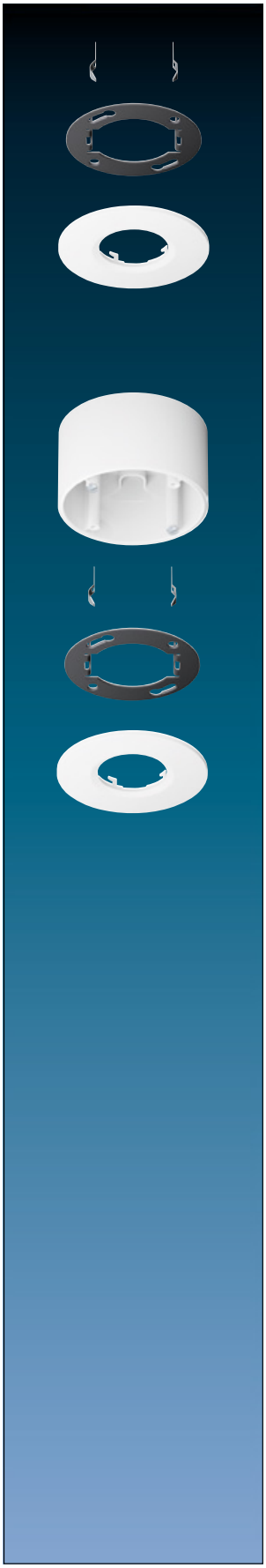
- Asymmetrical measuring surface
- Integrated bus coupling unit
- Integrated brightness sensor
- Brightness sensor function with 3 limiting values
- Brightness limiting values (3 channels) with output functions switching, value transmitter and scene extension
- Light control with max. 3 channels, setpoint shift in operation, separate configuration of dimming-up, control and dimming-down phase
- On-off control possible for switch actuators
- Power supply via bus voltage

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	max. 10 mA
Connection, KNX:	terminal
Protection class:	III
Ambient temperature:	–25 ... +55 °C
Storage/transport temperature:	–25 ... +70 °C
Relative humidity:	10 ... 100 % (no condensation)
Protection level:	IP 44
Ceiling cut-out (Ø x D):	44 x 35 mm
Dimensions (Ø x H):	53.5 x 38 mm (with design ring)
Max. thickness of the suspended ceiling:	approx. 25 mm
Installation depth:	min. 35 mm
Distance between concrete ceiling and suspended ceiling:	min. 20 mm
Design ring Ø inside:	35.6 mm
Design ring Ø outside:	53.5 mm
Profile height design ring:	1.8 mm
Profile height lens:	5.5 mm
Brightness measurement	
Measuring range:	10 ... 2000 lx
Accuracy (> 80 lx):	± 5 %
Accuracy (≤ 80 lx):	± 10 lx

	Ref.-no.
Flush mounting set	
for ceiling installation of KNX presence detector mini (ref.-no.: 3361 M WW, 3361-1 M WW)	
and KNX brightness controller mini (ref.-no.: 2096 LUX)	
Installation in flush box according to DIN 49073	
Design ring Ø inside: 35.6 mm, Ø outside: 80 mm	
Profile height design ring: 3 mm	
Profile height lens: 6.6 mm	
white	**PMM-UP-SET-WW**

Surface mounting set	
for ceiling installation of KNX presence detector mini (ref.-no.: 3361 M WW, 3361-1 M WW)	
and KNX brightness controller mini (ref.-no.: 2096 LUX)	
Dimensions (Ø x H): 80 / 83 x 49 mm (incl. design ring)	
Design ring Ø inside: 35.6 mm, Ø outside: 80 mm	
white	**PMM-AP-SET-WW**



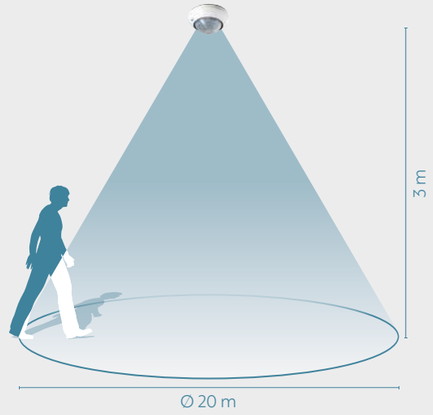
Presence detector/ ceiling observer

There are Standard and Universal versions of the KNX presence detector/ceiling observer.

This presence detector/ceiling observer is reliable. Even when great height is a problem. When installed at heights of up to 5 m, the unit registers everything that is moving within a diameter of approx. 20 m. The detection angle of 360° can be divided into three sensor segments of 120° each that can be enabled individually.

DETECTION AREA

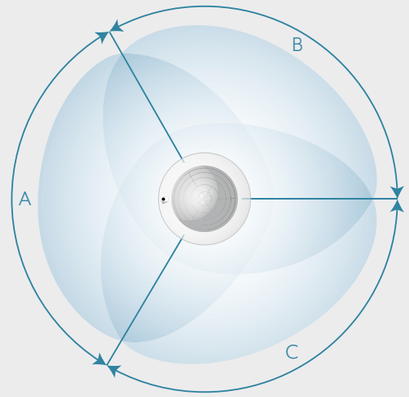
The KNX presence detector/ceiling observer has an especially homogeneous detection area of around 20 m (when installed at a height of 3 m). This allows precise motion detection even in large rooms.



RANGE

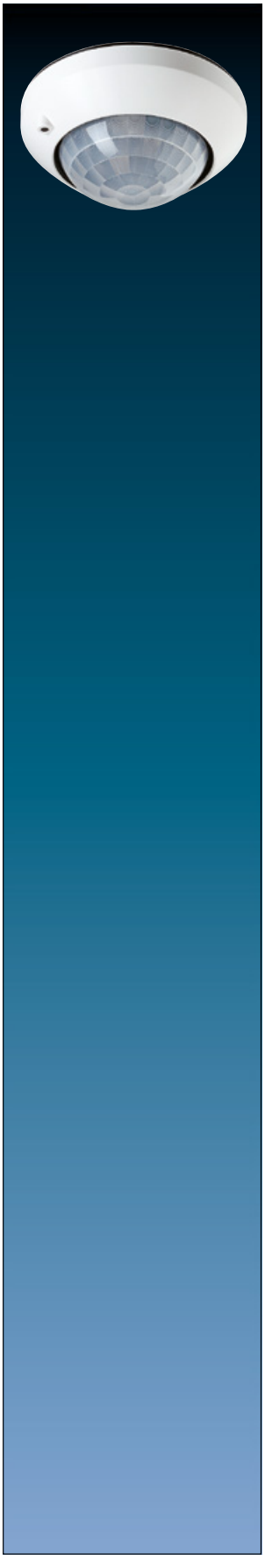
The 360° detection angle can be divided into three separate 120° portions that can be activated individually and each allocated to one of the three PIR sensors.

These sensors can also be evaluated individually by software so that the “viewing direction” of the sensors can be modified using parameters (Universal version).



There are Standard and Universal versions of the presence detector/ceiling observer. In addition to presence-dependent constant light regulation, the Universal model also has five function blocks that operate independently of each other and to which the three PIR sensors can be assigned. Each functional block may be configured as desired for the presence detector, ceiling observer, or signalling applications.

For example, using KNX commands, the blocks can be switched to the respective required application, depending on the time of day and use. The unit may be optionally set up and operated using an IR remote control. Tip for installation in sports halls: the presence detector may optionally be fitted with a protective basket made of solid steel. Thus, it will be effectively protected against damage by thrown balls.



	Ref.-no.
KNX presence detector with integrated BCU	
ETS product family: Physical sensors	
Product type: Movement	
Standard	
white	**3361 WW**
aluminium (lacquered)	**3361 AL**
Universal	
white	**3361-1 WW**
aluminium (lacquered)	**3361-1 AL**

Intended use
- Requirement-oriented control of lighting, room thermostats and other electrical loads in interior rooms
- Ceiling mounting on fixed ceilings in appliance box according to DIN 49073 or surface-mounted housing ref.-no.: PM-KAPPE-1 or PM-KAPPE AL-1

Product characteristics
- Integrated bus coupling unit
- 3 PIR sensors
- Detection field 360°
- Integrated brightness sensor
- Deployed as presence detector, motion detector, or for alert operation
- Output functions: Switching, staircase function, switching with forced position, value transmitter, light scene extension, operating mode setting for room temperature controller
- Extension of the detection area by way of operating several devices as main unit or extension unit
- Adjuster for manual adjustment of sensitivity
- Status LED: Flashes during motion detection; depending on programming in normal operation or only during the walking test mode

Additional characteristics of "Universal" version:
- Manual operation with IR remote control possible (ref.-no.: KNX PM FB IR)
- 5 function blocks for motion detection each with 2 outputs
- Function blocks switchable, e.g. for day/night operation
- PIR sensors can be evaluated separately
- Brightness sensor function with 3 limiting values
- Light control with max. 3 channels, setpoint shift in operation, separate configuration of dimming-up, control and dimming-down phase
- Light control can be combined with presence detector function

Presence detector function:
- Detection of the smallest motions e.g. at a workplace for detecting the presence of persons
- Switch on: Motion detection and brightness threshold not reached
- Switch off: No motion in the detection field and shut-off delay elapsed or brightness threshold exceeded

Motion detector function:
- Motion detection for passageways in buildings
- Switch on: Motion detection and brightness threshold not reached
- Switch off: No motion in the detection field and shut-off delay elapsed or brightness threshold exceeded

After reacting and switching on, the motion detection works independently of the brightness.

Signalling mode:
- Brightness-independent detection of motions in the detection field
- Switch on: After detection of an adjustable number of motions within the set monitoring period
- Switch off: No motion in the detection field and shut-off delay elapsed

Technical data

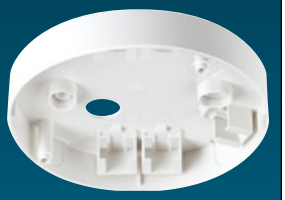
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	max. 12.5 mA
Connection bus:	terminal
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Relative humidity:	5 ... 93 % (no condensation)
Protection class:	III
Detection angle:	360°
Range:	Ø approx. 20 m (mounting height 3 m)
Brightness sensor	
Measuring range:	0 ... 2000 lx
Detection range:	Ø 2 m

	Ref.-no.

Surface-mounted housing

for ceiling installation (surface-mounted) of KNX presence detectors
ref. no.: 3361 WW, 3361 AL, 3361-1 WW, 3361-1 AL

white	**PM-KAPPE-1**
aluminium (lacquered)	**PM-KAPPE AL-1**



Technical data

Dimensions (Ø x H): 103 x 19 mm

IR remote control

for KNX presence detector universal ref.-no.: 3361-1 ..
for KNX universal automatic switch ref.-no.: .. 3181-1 .., .. 3281-1

	KNX PM FB IR

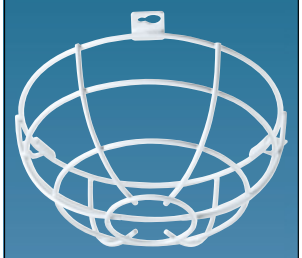
Battery operation with one included lithium button cell (CR 2025)

Protection cage

for KNX presence detector ref.-no.: 3361..

white	**SK 180-90 WW**

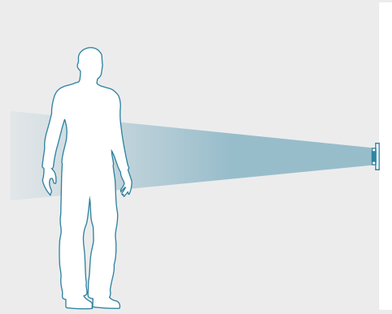
varnished steel with plastic coating
dimensions (Ø x H): approx. 180 x 90 mm



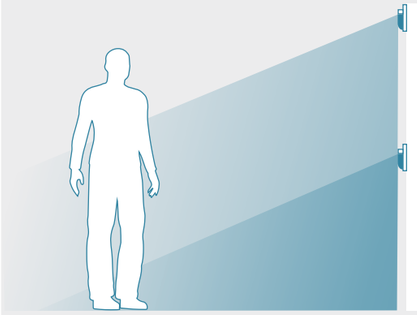
KNX automatic switch
in the 1.10 m and 2.20 m versions

KNX automatic switch

KNX AUTOMATIC SWITCH 1.10 M



KNX AUTOMATIC SWITCH 2.20 M



IMPROVED DETECTION CHARACTERISTICS, EXTENDED FUNCTIONALITY.

The 180-degree detection range is monitored by two PIR sensors that can be used individually or together. In this way, difficult room situations can also be optimally covered, such as small rooms or stairways. In this respect they are to be used as movement detectors in corridors and passages. On the other hand, as a “sentinel with switch-off brightness”, they are outstanding in use, for example, in offices.

The software for the automatic switch is matched with respect to its important parameters to the JUNG KNX presence detectors, which allows simple initial start-up. Special performance characteristic: the integrated temperature sensor. The actual room temperature is measured with this. It can be reported to various KNX devices for heating regulation and air conditioning.

Ref.-no.

KNX bus coupling unit 3
screw fixing only, without claws

2073 U

Intended use
- Coupling of automatic switches (ref.-no.: ..3181.., ..3281..) to KNX systems
- Installation in flush box according to DIN 49073

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Ambient temperature:	–25 ... +55 °C
Storage/transport temperature:	–25 ... +70 °C
Protection class:	III

KNX automatic switch 1.1 m
for bus coupling unit 3 ref.-no.: 2073 U
ETS product family: Physical sensors
Product type: Movement

Intended use
- Requirement-oriented control of lighting and other electrical loads in interior rooms
- Mounting on bus coupling unit 3 (ref.-no.: 2073 U)

Product characteristics
- Automatic switching of lighting depending on the thermal movement and ambient brightness
- 2 PIR sensors
- Detection range 180°
- Integrated brightness sensor
- Switch-off brightness can be set
- Output functions: Switching, staircase function, switching with forced position, value transmitter, light scene extension, operating mode setting for room temperature controller
- Extension of the detection area by way of operating several devices as main unit or extension unit
- Sensitivity can be set manually
- Status LEDs
- Manual switching on the device
- Up to half of the detection area can be screened off (cover or parameter setting)

Additional characteristics of "Universal" version:
- Manual operation with IR remote control possible (ref.-no.: KNX PM FB IR)
- 5 function blocks for motion detection each with 2 outputs
- Function blocks switchable, e.g. for day/night operation
- Brightness sensor function with 3 limiting values
- Alarm message in case the device is removed from the bus coupling unit
- Temperature measurement

Technical data

Current consumption KNX:	3 ... 10 mA
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Relative humidity:	10 ... 100 % (no condensation)
Protection class:	III
Mounting height:	1.10 m
Detection angle:	180°
Brightness sensor	
Measuring range:	approx. 1 ... 1,000 lx
Temperature sensor	
Measuring range:	–5 ... +45 °C
Accuracy:	± 1 K

	Ref.-no.
KNX automatic switch 1.1 m	
for AS and A ranges	
Standard	
Thermoplastic (breakproof) high-gloss	
ivory	**A 3181**
white	**A 3181 WW**
black	**A 3181 SW**
Thermoplastic (breakproof) lacquered	
aluminium	**A 3181 AL**
champagne	**A 3181 CH**
mocha	**A 3181 MO**
matt lacquered	
matt anthracite	**A 3181 ANM**
Universal	
Thermoplastic (breakproof) high-gloss	
ivory	**A 3181-1**
white	**A 3181-1 WW**
black	**A 3181-1 SW**
Thermoplastic (breakproof) lacquered	
aluminium	**A 3181-1 AL**
champagne	**A 3181-1 CH**
mocha	**A 3181-1 MO**
matt lacquered	
matt anthracite	**A 3181-1 ANM**
for CD range	
Standard	
Thermoplastic (breakproof) high-gloss	
ivory	**CD 3181**
white	**CD 3181 WW**
grey	**CD 3181 GR**
light grey	**CD 3181 LG**
black	**CD 3181 SW**
Universal	
Thermoplastic (breakproof) high-gloss	
ivory	**CD 3181-1**
white	**CD 3181-1 WW**
grey	**CD 3181-1 GR**
light grey	**CD 3181-1 LG**
black	**CD 3181-1 SW**

	Ref.-no.
KNX automatic switch 1.1 m	
for LS range	
Standard	
Thermoplastic (breakproof) high-gloss	
ivory	**LS 3181**
white	**LS 3181 WW**
light grey	**LS 3181 LG**
black	**LS 3181 SW**
metal versions	
aluminium (lacquered)	**AL 3181**
stainless steel (lacquered)	**ES 3181**
anthracite (lacquered)	**AL 3181 AN**
dark (lacquered)	**AL 3181 D**
classic brass (lacquered)	**ME 3181 C**
antique brass (lacquered)	**ME 3181 AT**
Universal	
Thermoplastic (breakproof) high-gloss	
ivory	**LS 3181-1**
white	**LS 3181-1 WW**
light grey	**LS 3181-1 LG**
black	**LS 3181-1 SW**
metal versions	
aluminium (lacquered)	**AL 3181-1**
stainless steel (lacquered)	**ES 3181-1**
anthracite (lacquered)	**AL 3181-1 AN**
dark (lacquered)	**AL 3181-1 D**
classic brass (lacquered)	**ME 3181-1 C**
antique brass (lacquered)	**ME 3181-1 AT**

Ref.-no.

KNX automatic switch 2.2 m
for bus coupling unit 3 ref.-no.: 2073 U
Protection level IP 44 is ensured with sealing kit ref.-no. AS A 50 DS and "IP 44 frame" of the respective design range.
Standard (3281 ..): IP 44 suitable only for indoor installation
Universal (3281-1 ..): IP 44 suitable for indoor and outdoor installation
ETS product family: Physical sensors
Product type: Movement

Intended use
- Requirement-oriented control of lighting and other electrical loads
- Mounting on bus coupling unit 3 (ref.-no.: 2073 U)

Product characteristics
- Automatic switching of lighting depending on the thermal movement and ambient brightness
- 2 PIR sensors
- Detection range 180°
- Integrated brightness sensor
- Switch-off brightness can be set
- Output functions: Switching, staircase function, switching with forced position, value transmitter, light scene extension, operating mode setting for room temperature controller
- Extension of the detection area by way of operating several devices as main unit or extension unit
- Sensitivity can be set manually
- Status LEDs
- Manual switching on the device

Additional characteristics of "Universal" version:
- Manual operation with IR remote control possible (ref.-no.: KNX PM FB IR)
- Up to half of the detection area can be screened off (parameter setting)
- 5 function blocks for motion detection each with 2 outputs
- Function blocks switchable, e.g. for day/night operation
- Brightness sensor function with 3 limiting values
- Alarm message in case the device is removed from the bus coupling unit
- Temperature measurement

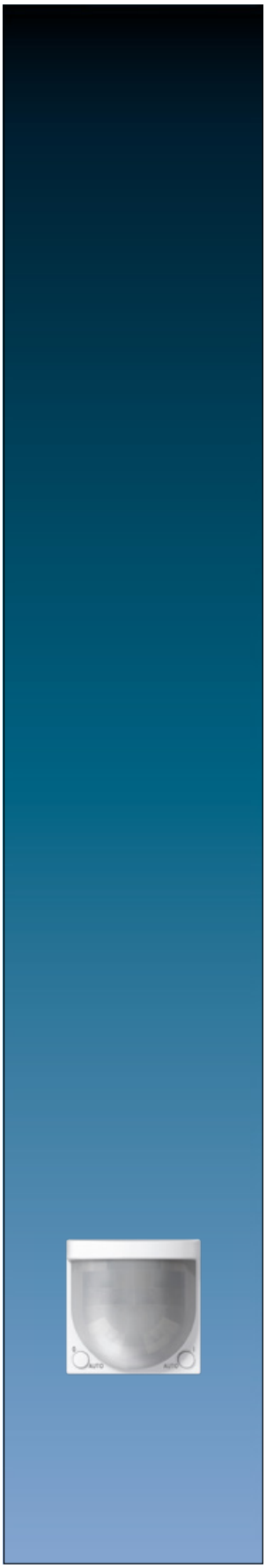
Technical data

Current consumption KNX:	3 ... 10 mA
Ambient temperature:	–25 ... +55 °C
Storage/transport temperature:	–25 ... +70 °C
Relative humidity:	10 ... 100 % (no condensation)
Protection class:	III
Mounting height:	1.10 / 2.20 m
Detection angle:	180°
Brightness sensor	
Measuring range:	approx. 1 ... 1000 lx
Temperature sensor	
Measuring range:	approx. –20 ... 55 °C
Accuracy:	± 1 K

for AS and A ranges

Standard

Thermoplastic (breakproof) high-gloss		
ivory	IP	**A 3281**
white	IP	**A 3281 WW**
black	IP	**A 3281 SW**
Thermoplastic (breakproof) lacquered		
aluminium	IP	**A 3281 AL**
champagne	IP	**A 3281 CH**
mocha	IP	**A 3281 MO**
matt lacquered		
matt anthracite	IP	**A 3281 ANM**



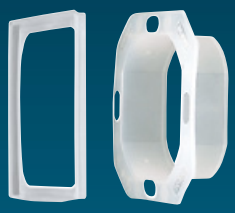
		Ref.-no.
KNX automatic switch 2.2 m		
Universal		
Thermoplastic (breakproof) high-gloss		
ivory	IP	**A 3281-1**
white	IP	**A 3281-1 WW**
black	IP	**A 3281-1 SW**
Thermoplastic (breakproof) lacquered		
aluminium	IP	**A 3281-1 AL**
champagne	IP	**A 3281-1 CH**
mocha	IP	**A 3281-1 MO**
matt lacquered		
matt anthracite	IP	**A 3281-1 ANM**
for CD range		
Standard		
Thermoplastic (breakproof) high-gloss		
ivory	IP	**CD 3281**
white	IP	**CD 3281 WW**
grey	IP	**CD 3281 GR**
light grey	IP	**CD 3281 LG**
black	IP	**CD 3281 SW**
Universal		
Thermoplastic (breakproof) high-gloss		
ivory	IP	**CD 3281-1**
white	IP	**CD 3281-1 WW**
grey	IP	**CD 3281-1 GR**
light grey	IP	**CD 3281-1 LG**
black	IP	**CD 3281-1 SW**
for LS range		
Standard		
Thermoplastic (breakproof) high-gloss		
ivory	IP	**LS 3281**
white	IP	**LS 3281 WW**
light grey	IP	**LS 3281 LG**
black	IP	**LS 3281 SW**
metal versions		
aluminium (lacquered)	IP	**AL 3281**
stainless steel (lacquered)	IP	**ES 3281**
anthracite (lacquered)	IP	**AL 3281 AN**
dark (lacquered)	IP	**AL 3281 D**
classic brass (lacquered)		**ME 3281 C**
antique brass (lacquered)		**ME 3281 AT**

		Ref.-no.
KNX automatic switch 2.2 m		
Universal		
Thermoplastic (breakproof) high-gloss		
ivory	IP	**LS 3281-1**
white	IP	**LS 3281-1 WW**
light grey	IP	**LS 3281-1 LG**
black	IP	**LS 3281-1 SW**
metal versions		
aluminium (lacquered)	IP	**AL 3281-1**
stainless steel (lacquered)	IP	**ES 3281-1**
anthracite (lacquered)	IP	**AL 3281-1 AN**
dark (lacquered)	IP	**AL 3281-1 D**
classic brass (lacquered)		**ME 3281-1 C**
antique brass (lacquered)		**ME 3281-1 AT**

Sealing kit
for automatic switches 2.2 m of the AS / A ranges

	IP	**AS A 50 DS**

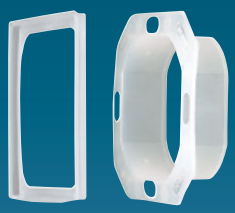
To obtain protection level IP 44



Sealing kit
for automatic switches 2.2 m of the CD and LS ranges

	IP	**AS CD 50 DS**

To obtain protection level IP 44



KNX room temperature controller fan coil

Consistent JUNG design also in the KNX temperature and ventilation control: the different room temperature controllers provide a healthy room climate in private and commercial buildings. Well-thought-out operating concepts support intuitive handling in each case.

Room thermostats

ROOM TEMPERATURE CONTROLLER

Standalone solution for heating and cooling for the residential and commercial areas. It is also possible to query conventional push-buttons and/or window and door contacts as well as dew/condensation and leak sensors.

ROOM AUTOSTAT

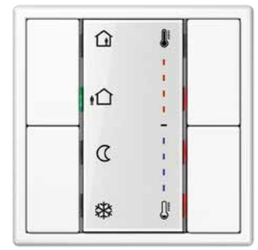
Tamper-proof without a setting wheel and thus ideal for use in public buildings: the KNX room autostat with integrated push-button interface 4-gang for convenient temperature control.

CO_2 SENSOR

For automated ventilation applications, for temperature control and querying CO_2 levels in room air. Also possible: Querying of conventional push-buttons and/or window and door contacts as well as dew/condensation and leak sensors.

ROOM TEMPERATURE CONTROLLER F 50

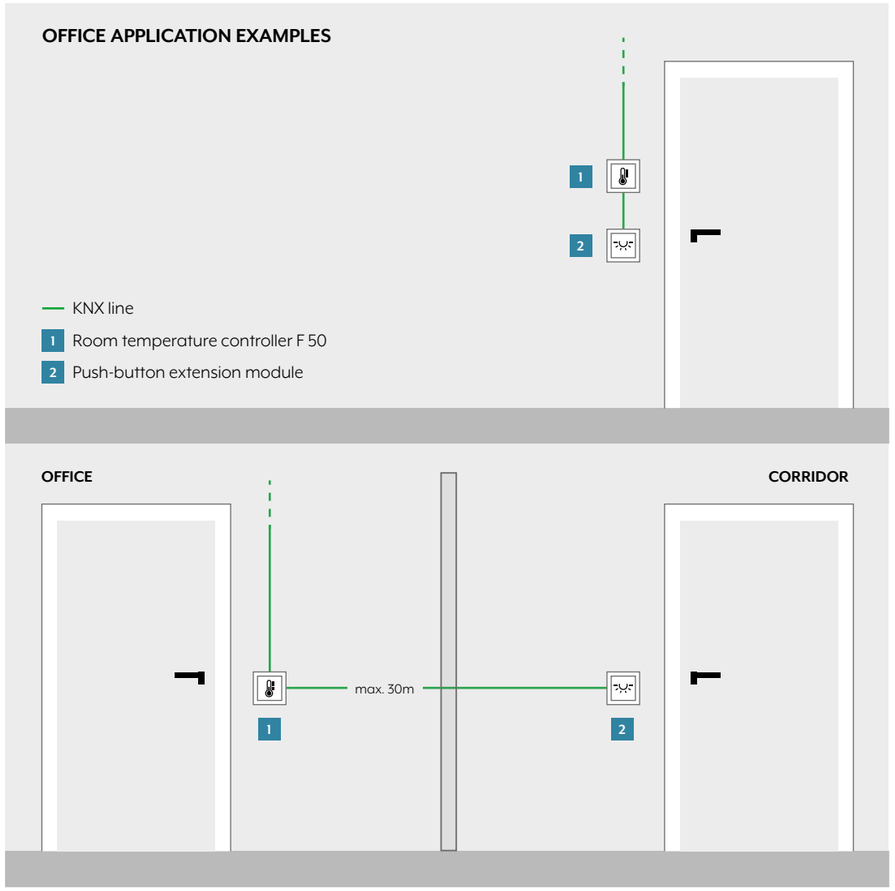
Controller for heating/cooling with integrated fan coil actuation. With variable display and operation options; self-explanatory symbols and coloured status and operation LEDs optimise the operation.



TEMPERATURE CONTROLLER FAN COIL

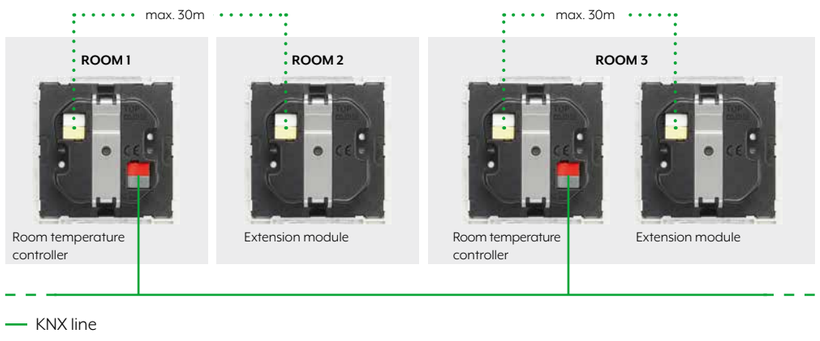
Controller for temperature and ventilation, mainly for the hotel business. Intuitive operating concept using capacitive sensor push-buttons. Clear display and unambiguous symbols make the selection from four operating modes easy.

The functions of the F 50 room temperature controller



PUSH-BUTTON EXTENSION MODULE FOR ROOM TEMPERATURE CONTROLLER F 50

The functions can be extended by connecting the 1 to 4-gang push-button extension module, while at the same minimising the load on the bus. Particularly the option for installation of the extension module at a distance of up to 30 m provides more flexibility.



Display and adjustment of the operating mode The temperature mode is selected as required using the “Comfort”, “Standby”, “Night Operation” and “Frost Protection” operating modes.

PRESENCE BUTTON

The user can decide between presence and absence with the Presence button. The appropriate symbols and coloured LEDs display the current status.

STANDBY/NIGHT OPERATION

At times of absence a choice between the “frost protection” and “night reduction” operation modes can be made. Coloured LEDs next to the symbols indicate the relevant mode.

MOVE BLINDS/SHUTTERS

By changing settings, the push-button functions can be combined. Here, the operating mode changeover is changed to the “move blinds/shutters” push-button function.

SWITCH/DIM

With this setting, the “switch/dim” push-button functions on one side have been combined with a temperature setpoint shift on the other side.

Ref.-no.

KNX temperature controller fan coil

Intended use

- Sensor module for operating electrical fan coil units in KNX installations
- Measurement and feedback control of the room temperature
- Installation in flush box according to DIN 49073

Product characteristics

- Real glass front panel
- 8 capacitive sensor buttons
- Internal temperature sensor
- External temperature sensor can be evaluated
- Control of fan coil units
- Heating and/or cooling mode
- Suitable for 2-pipe or 4-pipe systems
- Up to 3 fan speeds can be controlled
- Room temperature controller function
- Preselection of the current energy level either through the option of 4 operating modes in accordance with KNX standard or of 5 temperature profiles for use in hotels or similar sites
- Display for indication of actual temperature (°C or °F), fan speed, operating mode/profile
- 1 operating level and 2 menu levels
- Menu levels blockable
- 1 status LED (red/green/blue)
- Display brightness and contrast adjustable
- Duration of the display illumination up to 120 seconds
- Operation as extension unit for temperature controller possible
- Integrated bus coupling unit

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	8 ... 17.5 mA
Protection class:	III
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–20 ... +70 °C

for AS and A ranges

white	**TRD A 5248 WW**
black	**TRD A 5248 SW**

for LS range

white	**TRD LS 9248 WW**
black	**TRD LS 9248 SW**

Ref.-no.

KNX room temperature controller module 2-gang
including transparent cover and inlay with symbols

Intended use

- Single-room temperature control in KNX installations
- Operation of loads, e.g. light on/off, dimming, blinds up/down, calling up and saving light scenes, etc.
- Installation in flush box according to DIN 49073

Product characteristics

All buttons can be assigned with push-button sensor functions or functions for controller operation.

- KNX medium: TP 256
- Measurement of room temperature
- Room temperature control with setpoint value specification
- Extension unit for room temperature controller
- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- One or two functions per button
- Completion with cover kit 2-gang
- Inscription field can be illuminated
- Two red status LEDs per button – red, green or blue adjustable
- One operation LED as an orientation light and to indicate the programming status – red, green or blue adjustable
- Brightness of status LEDs, operation LED and labelling field adjustable; switchable while in operation, e.g. during the night
- Disabling function: Disabling or change function mode of single or all button functions
- Alarm function, optional acknowledge by pressing any button
- Energy saving mode (for operation without controller function)
- Integrated bus coupling unit
- Connection for a push-button extension module, for extension with up to eight additional buttons

for AS and A ranges
for cover kit 2-gang, ref.-no.: A 502 TSA ..

A 5178 TSM

Cover kit see page 40

for CD range
for cover kit 2-gang, ref.-no.: CD 502 TSA ..

CD 5178 TSM

Cover kit see page 46

for LS range
for cover kit 2-gang, ref.-no.: LS 502 TSA ..

LS 5178 TSM

Cover kit see page 51

KNX room temperature controller
with integrated BCU
with rotary knob for set point adjustment

Only with the ETS 3.0d version or later versions the full functionality will be available.

Intended use

- Single-room temperature control in KNX installations
- Installation in flush box according to DIN 49073

Product characteristics

- Measurement of room temperature and comparison with setpoint temperature
- Setpoint specification by selection of the operating mode
- Operating modes: Comfort, Standby, Night operation, Frost/heat protection
- Heating and cooling mode
- Heating and cooling with basic and additional step
- Setpoint adjustment
- Presence push-button
- Status LEDs

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	max. 10 mA
Connection, KNX:	terminal
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C

	Ref.-no.
KNX room temperature controller	
for AS and A ranges	
Thermoplastic (breakproof) high-gloss	
ivory	**A 2178**
white	**A 2178 WW**
black	**A 2178 SW**
Thermoplastic (breakproof) lacquered	
aluminium	**A 2178 AL**
champagne	**A 2178 CH**
mocha	**A 2178 MO**
matt lacquered	
matt anthracite	**A 2178 ANM**
for CD range	
Thermoplastic (breakproof) high-gloss	
ivory	**2178**
white	**CD 2178 WW**
grey	**CD 2178 GR**
light grey	**CD 2178 LG**
black	**CD 2178 SW**
for LS range	
Thermoplastic (breakproof) high-gloss	
ivory	**LS 2178**
white	**LS 2178 WW**
light grey	**LS 2178 LG**
black	**LS 2178 SW**
metal versions	
aluminium	**AL 2178**
stainless steel	**ES 2178**
anthracite (aluminium lacquered)	**AL 2178 AN**
dark (aluminium lacquered)	**AL 2178 D**
chrome	**GCR 2178**
classic brass	**ME 2178 C**
antique brass	**ME 2178 AT**

KNX room temperature controller
with integrated BCU
with integrated push-button interface 4-gang
with rotary knob for set point adjustment

Only with the ETS 3.0d version or later versions the full functionality will be available.

Intended use

- Single-room temperature control in KNX installations
- Type of loads for binary output: LED or electronic relais
- Installation in flush box according to DIN 49073

Product characteristics

- Measurement of room temperature and comparison with setpoint temperature
- Setpoint specification by selection of the operating mode
- Operating modes: Comfort, Standby, Night operation, Frost/heat protection
- Heating and cooling mode
- Heating and cooling with basic and additional step
- Setpoint adjustment
- Presence push-button
- Status LEDs
- Push-button interface with four inputs or two outputs (0.8 mA) and two inputs, e.g. for window contacts, push-buttons, LEDs, etc.
- Function of the inputs: switching, dimming, shutter control, light scene extension, brightness or temperature value transmitter
- Option: External temperature sensor (accessory ref.-no.: FF 7.8) connectable to input 4

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	max. 10 mA
Connection, KNX:	terminal
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Output current:	0.8 mA
Inputs and outputs	
Cable type:	J-Y(St)Y 2 x 2 x 0.8 mm
Cable length:	max. 5 m
Temperature sensor cable length:	max. 50 m

Use deep wall box for cables with 1.5 mm^2

	Ref.-no.
KNX room temperature controller	
for AS and A ranges	
Thermoplastic (breakproof) high-gloss	
ivory	**A 2178 TS**
white	**A 2178 TS WW**
black	**A 2178 TS SW**
Thermoplastic (breakproof) lacquered	
aluminium	**A 2178 TS AL**
champagne	**A 2178 TS CH**
mocha	**A 2178 TS MO**
matt lacquered	
matt anthracite	**A 2178 TS ANM**
for CD range	
Thermoplastic (breakproof) high-gloss	
ivory	**2178 TS**
white	**CD 2178 TS WW**
grey	**CD 2178 TS GR**
light grey	**CD 2178 TS LG**
black	**CD 2178 TS SW**
for LS range	
Thermoplastic (breakproof) high-gloss	
ivory	**LS 2178 TS**
white	**LS 2178 TS WW**
light grey	**LS 2178 TS LG**
black	**LS 2178 TS SW**
metal versions	
aluminium	**AL 2178 TS**
stainless steel	**ES 2178 TS**
anthracite (aluminium lacquered)	**AL 2178 TS AN**
dark (aluminium lacquered)	**AL 2178 TS D**
chrome	**GCR 2178 TS**
classic brass	**ME 2178 TS C**
antique brass	**ME 2178 TS AT**

KNX room autostat
with integrated BCU
with integrated push-button interface 4-gang
without rotary knob for set point adjustment
without any operational elements
Only with the ETS 3.0d version or later versions the full functionality will be available.

Intended use

- Single-room temperature control in KNX installations
- Installation in flush box according to DIN 49073

Product characteristics

- Measurement of room temperature and comparison with setpoint temperature
- Setpoint specification by selection of the operating mode
- Operating modes: Comfort, Standby, Night operation, Frost/heat protection
- Heating and cooling mode
- Heating and cooling with basic and additional step
- Operation solely via the bus
- Push-button interface with four inputs or two outputs (0.8 mA) and two inputs, e.g. for window contacts, push-buttons, LEDs, etc.
- Function of the inputs: switching, dimming, shutter control, light scene extension, brightness or temperature value transmitter
- Option: External temperature sensor (accessory ref.-no.: FF 7.8) connectable to input 4

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	max. 7.5 mA
Connection, KNX:	terminal
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Output current:	0.8 mA
Inputs and outputs	
Cable type:	J-Y(St)Y 2 x 2 x 0.8 mm
Cable length:	max. 5 m
Temperature sensor cable length:	max. 50 m

Use of deep wall box (60 mm) is recommended for cables with 1.5 mm^2

	Ref.-no.
KNX room autostat	
for AS and A ranges	
Duroplastic (scratch-proof) glossy	
ivory	**A 2178 ORTS**
white	**A 2178 ORTS WW**
black	**A 2178 ORTS SW**
Duroplastic lacquered	
aluminium	**A 2178 ORTS AL**
champagne	**A 2178 ORTS CH**
mocha	**A 2178 ORTS MO**
Thermoplastic (breakproof) high-gloss	
white	**A 2178 BF ORTS WW**
black	**A 2178 BF ORTS SW**
matt lacquered	
matt anthracite	**A 2178 BF ORTS ANM**
for CD range	
Duroplastic (scratch-proof) glossy	
ivory	**2178 ORTS**
white	**CD 2178 ORTS WW**
grey	**CD 2178 ORTS GR**
light grey	**CD 2178 ORTS LG**
black	**CD 2178 ORTS SW**
for LS range	
Duroplastic (scratch-proof) glossy	
ivory	**LS 2178 ORTS**
white	**LS 2178 ORTS WW**
light grey	**LS 2178 ORTS LG**
black	**LS 2178 ORTS SW**
metal versions	
aluminium	**AL 2178 ORTS**
stainless steel	**ES 2178 ORTS**
anthracite (aluminium lacquered)	**AL 2178 ORTS AN**
dark (aluminium lacquered)	**AL 2178 ORTS D**
chrome	**GCR 2178 ORTS**
classic brass	**ME 2178 ORTS C**
antique brass	**ME 2178 ORTS AT**

KNX CO_2 multi-sensor
with integrated BCU
with humidity sensor and room temperature controller
with integrated push-button interface 2-gang

Intended use

- Measurement of CO_2 concentration, relative air humidity and air temperature
- Output of the measured values as telegram to the bus, e.g. for controlling fans or window drives via KNX telegrams
- Single-room temperature control in KNX installations
- Installation in flush box according to DIN 49073

Product characteristics

- Limit value monitoring for CO_2 concentration (max. 4 threshold values) and air humidity (max. 2 threshold values)
- Dew point alarm e.g. for cooling blankets and conservatories, to avoid mould formation
- Two binary inputs for connection of floating contacts e.g. buttons, switches, window contacts
- Logic gates for simple gating functions

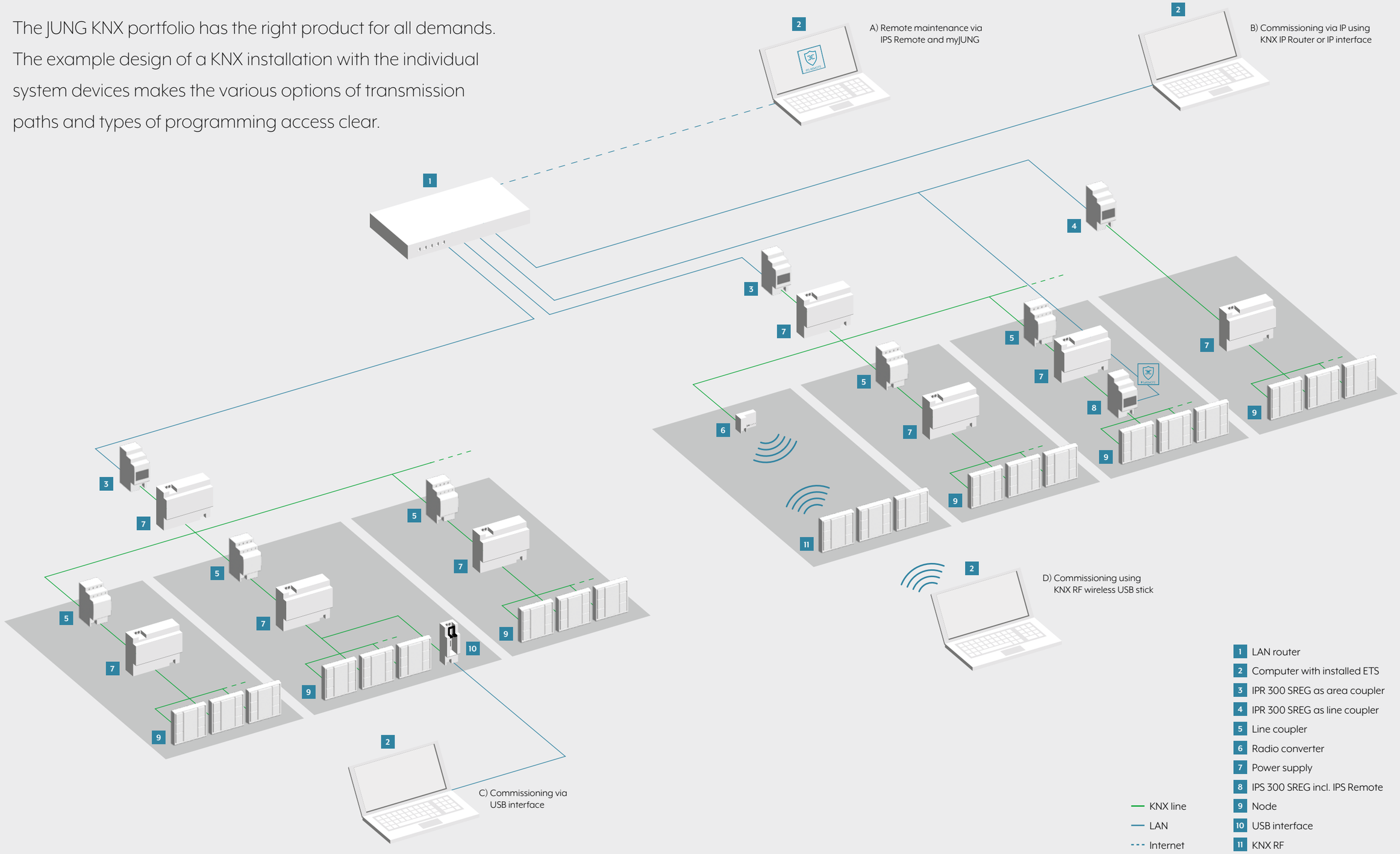
Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	typical 12.5 mA max. 25 mA (4 s/15 s as a cycle)
Connection, KNX:	terminal
Protection class:	III
Ambient temperature:	–5 ... +45 °C
Binary inputs	
Cable length:	max. 5 m
Cable type:	J-Y(St)Y 2 x 2 x 0.8 mm
CO_2 sensor	
Measuring range:	0 ... 2000 ppm
Humidity sensor	
Measuring range:	10 ... 95 % relative humidity (r. h.)
Temperature sensor	
Measuring range:	–5 ... +45 °C

	Ref.-no.
KNX CO_2 multi-sensor	
for AS and A ranges	
Duroplastic (scratch-proof) glossy	
ivory	**CO2 A 2178**
white	**CO2 A 2178 WW**
black	**CO2 A 2178 SW**
Duroplastic lacquered	
aluminium	**CO2 A 2178 AL**
champagne	**CO2 A 2178 CH**
mocha	**CO2 A 2178 MO**
Thermoplastic (breakproof) high-gloss	
white	**CO2 A 2178 BF WW**
black	**CO2 A 2178 BF SW**
matt lacquered	
matt anthracite	**CO2 A 2178 BF ANM**
for CD range	
Duroplastic (scratch-proof) glossy	
ivory	**CO2 CD 2178**
white	**CO2 CD 2178 WW**
grey	**CO2 CD 2178 GR**
light grey	**CO2 CD 2178 LG**
black	**CO2 CD 2178 SW**
for LS range	
Duroplastic (scratch-proof) glossy	
ivory	**CO2 LS 2178**
white	**CO2 LS 2178 WW**
light grey	**CO2 LS 2178 LG**
black	**CO2 LS 2178 SW**
metal versions	
aluminium	**CO2 AL 2178**
stainless steel	**CO2 ES 2178**
anthracite (aluminium lacquered)	**CO2 AL 2178 AN**
dark (aluminium lacquered)	**CO2 AL 2178 D**
chrome	**CO2 GCR 2178**
classic brass	**CO2 ME 2178 C**
antique brass	**CO2 ME 2178 AT**

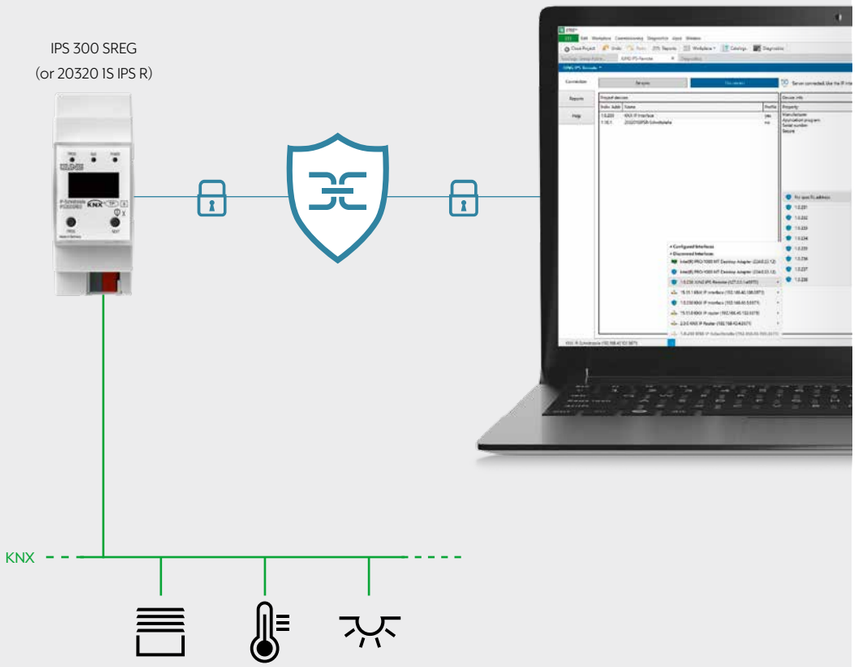
System devices

The JUNG KNX portfolio has the right product for all demands. The example design of a KNX installation with the individual system devices makes the various options of transmission paths and types of programming access clear.



Remote maintenance of the KNX system

IPS-REMOTE



Simple and secure remote maintenance and programming of all KNX components: IPS-Remote makes it possible. Remote maintenance is convenient for the expert and cost-effective for the building owner.

SOFTWARE LICENCE IPS-L IN THE MYJUNG PORTAL

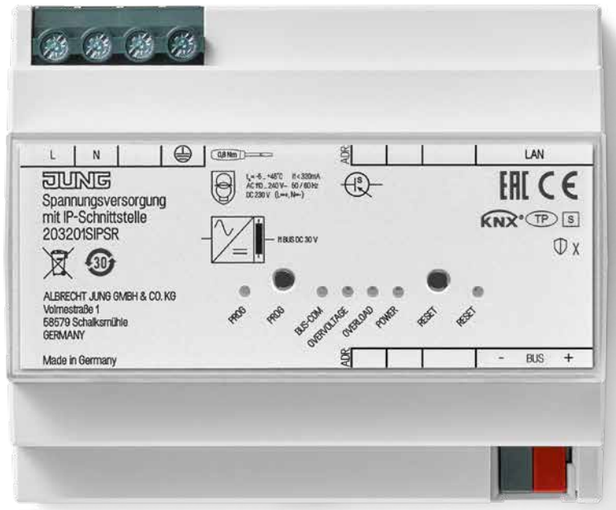
IPS-REMOTE

With encrypted remote maintenance via IPS-Remote, system integrators only access the customer's KNX components. Time-consuming and cost-intensive journeys are eliminated. The necessary requirements for this are clear: The ETS app IPS Remote, the IP interface IPS 300 SREG or a power supply with IP interface and the remote maintenance licence IPS-L bound to the respective interface. System integrators acquire these via their myJUNG access – also subsequently. Once linked, professional installers maintain the KNX components behind the IP interface as usual via ETS. If necessary, the customer grants access to the system integrator – this is done via Smart Visu Server or via connection to a push-button sensor. In this way, the control always remains with the customer. Remote maintenance focuses exclusively on the KNX system.

JUNG.DE/MYJUNG

System devices with KNX Secure

KNX POWER SUPPLY WITH IP INTERFACE



JUNG provides KNX system devices with KNX Secure and brings important areas together. All components ensure data security and reliably control the complete building technology.

The KNX power supply with IP interface brings together what is needed in every KNX installation: Power supply and interface. This makes it easier to select components already at the planning stage.

But JUNG also provides secure interfaces for all other areas in the smart building. They protect the data exchange using KNX Secure and reliably control the complete building technology.

KNX RF RADIO MEDIA COUPLER

The KNX wireless radio converter is the link between a specific KNX RF environment and a KNX TP installation. In this way, communication can take place easily between wired and wireless devices.

KNX AREA/LINE COUPLER

The coupler makes the data connection between two KNX lines and ensures a galvanic separation between these lines. The coupler is allocated logically to the subordinate line.

KNX USB DATA INTERFACE

The KNX USB data interface connects a PC with KNX systems. This allows addressing, setting and diagnosis to take place in the KNX system.

KNX USB DATA INTERFACE (FLUSH-MOUNTED)

Also available as flush-mounted insert: the USB data interface allows the connection of a PC for the addressing, programming and diagnosis of KNX components.

KNX IP INTERFACE

The IP interface connects KNX devices via the network (IP) with the PC or other data processing devices. It connects KNX lines over a fast IP backbone including with visualisation.

KNX IP ROUTER

KNXnet/IP routing for communication between KNX lines, areas and systems via the IP network: the IP router also connects KNX devices with the local network. Furthermore, it can be operated as a KNX area/line coupler or data interface.

Ref.-no.

KNX power supplies 160 mA, 320 mA, 640 mA

Intended use
- Supplying KNX devices with bus voltage
- Supplying devices with DC voltage
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Output with integrated choke for supplying KNX bus lines
- Output DC 30 V for supplying additional devices
- Nominal current can be subdivided to outputs as desired
- Reset button
- Short-circuit proof
- Overvoltage proof
- No-load protection
- Suitable for operation in systems with emergency power supply
- Floating signal contact for operating and diagnostic message
- Can be connected in parallel with identical power supply (until the maximum short-circuit current is reached)

KNX power supply, 160 mA
Rail mounting device, 4 rail units
ETS product family: System components
Product type: Power supply

20160 REG

Technical data

Rated voltage:	AC 200 ... 240 V ~
Mains frequency:	50/60 Hz
Power loss (max. load on all outputs):	max. 1.5 W
Efficiency:	approx. 76 %
Rated voltage:	DC 240 ... 250 V
KNX	
KNX medium:	TP 256
Bus output voltage:	DC 28 ... 31 V SELV
Output current:	160 mA (all outputs)
Short-circuit current:	max. 1 A
Parallel operation with identical power supply:	yes
Signal output	
Switching voltage AC:	AC 12 ... 230 V ~
Switching voltage DC:	DC 2 ... 30 V
Switching current:	5 mA ... 2 A
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +75 °C
Relative humidity:	max. 93 % (no condensation)
Mounting width:	72 mm (4 rail units)

Ref.-no.

KNX power supply, 320 mA
Rail mounting device, 4 rail units
ETS product family: System components
Product type: Power supply

20320 REG

Technical data

Rated voltage:	AC 200 ... 240 V ~
Mains frequency:	50/60 Hz
Power loss (max. load on all outputs):	max. 1.8 W
Efficiency:	approx. 84 %
Rated voltage:	DC 240 ... 250 V
KNX	
KNX medium:	TP 256
Bus output voltage:	DC 28 ... 31 V SELV
Output current:	320 mA (all outputs)
Short-circuit current:	max. 1 A
Parallel operation with identical power supply:	yes
Signal output	
Switching voltage AC:	AC 12 ... 230 V ~
Switching voltage DC:	DC 2 ... 30 V
Switching current:	5 mA ... 2 A
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +75 °C
Relative humidity:	max. 93 % (no condensation)
Mounting width:	72 mm (4 rail units)

KNX power supply, 640 mA
Rail mounting device, 4 rail units
ETS product family: System components
Product type: Power supply

20640 REG

Technical data

Rated voltage:	AC 200 ... 240 V ~
Mains frequency:	50/60 Hz
Power loss (max. load on all outputs):	max. 2.9 W
Efficiency:	approx. 87 %
Rated voltage:	DC 240 ... 250 V
KNX	
KNX medium:	TP 256
Bus output voltage:	DC 28 ... 31 V SELV
Output current:	640 mA (all outputs)
Short-circuit current:	max. 1.5 A
Parallel operation with identical power supply:	yes
Signal output	
Switching voltage AC:	AC 12 ... 230 V ~
Switching voltage DC:	DC 2 ... 30 V
Switching current:	5 mA ... 2 A
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +75 °C
Relative humidity:	max. 93 % (no condensation)
Mounting width:	72 mm (4 rail units)

Ref.-no.

KNX power supply, 1280 mA
Rail mounting device, 6 rail units
ETS product family: System components
Product type: Power supply

21280 REG

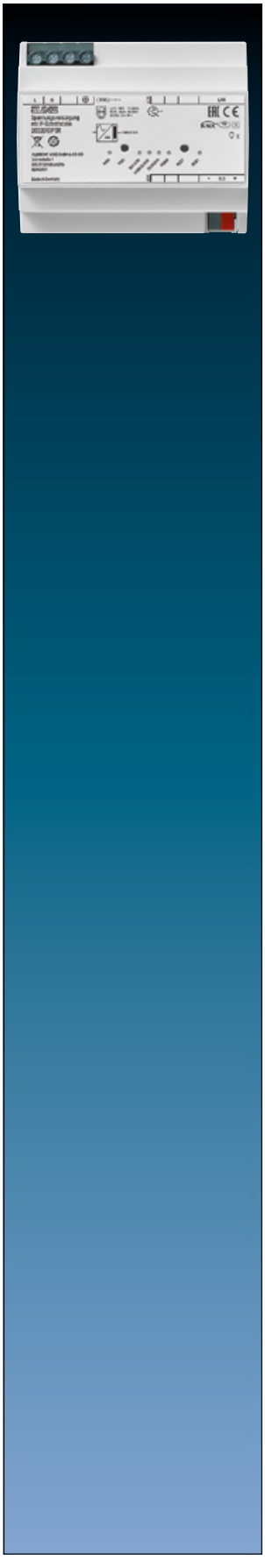
Intended use
- Supplying KNX devices with bus voltage
- Supplying devices with DC voltage
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Output with integrated choke for supplying KNX bus lines
- Output DC 30 V for supplying additional devices
- Nominal current can be subdivided to outputs as desired
- Reset button
- Short-circuit proof
- Overvoltage proof
- No-load protection
- Suitable for operation in systems with emergency power supply
- Floating signal contact for operating and diagnostic message

Technical data

Rated voltage:	AC 200 ... 240 V ~
Mains frequency:	50/60 Hz
Power loss (max. load on all outputs):	max. 6.4 W
Efficiency:	approx. 86 %
Rated voltage:	DC 240 ... 250 V
KNX	
KNX medium:	TP 256
Bus output voltage:	DC 28 ... 31 V SELV
Output current:	1,280 mA (all outputs)
Short-circuit current:	max. 3 A
Parallel operation with identical power supply:	no
Signal output	
Switching voltage AC:	AC 12 ... 230 V ~
Switching voltage DC:	DC 2 ... 30 V
Switching current:	5 mA ... 2 A
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +75 °C
Relative humidity:	max. 93 % (no condensation)
Mounting width:	108 mm (6 rail units)

		Ref.-no.
KNX power supply 320 mA with IP interface		
Rail mounting device, 6 rail units		
Project design and commissioning with ETS5 or a more recent version.		
ETS product family: System components		
Product type: Power supply		
	N	**20320 1S IPS R**



Intended use
- Supplying KNX devices with bus voltage
- Connection between KNX devices and PC or other data processing devices via IP
- Operation as data interface
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Output with integrated choke for supplying KNX bus lines
- Reset of KNX lines via reset button or communication object
- Short-circuit proof
- Overvoltage proof
- No-load protection
- KNX Data Secure compatible with ETS 5.7.3 or higher
- KNX IP Secure compatible with ETS 5.7.3 or higher
- LED display for KNX communication, Ethernet communication and programming mode
- Configuration via ETS
- SNTP server
- Max. 8 connections to IP terminal devices, e.g. for simultaneous visualisation and configuration
- Electrical isolation between KNX and IP network

Application program A (delivery state):
- Presence control: with key card holder or presence detector
- Welcome/Goodbye scenes

Or alternatively application program B (V02 or higher and in combination with remote access licence ref.-no. IPS-L):
- Encrypted access to KNX devices for configuration and maintenance outside the local network
- Enabling access via communication objects
- Feedback on access and programming processes via communication objects

Technical data

Rated voltage:	AC 110 ... 240 V (± 10 %)
Mains frequency:	50/60 Hz
Power loss (max. load on all outputs):	max. 1.4 W
Efficiency:	approx. 88 %
Rated voltage:	DC 230 V (± 10 %)
Rated capacity:	12 W
KNX	
KNX medium:	TP 256
Bus output voltage:	DC 28 ... 31 V SELV
Output current:	320 mA
Short-circuit current:	max. 1 A
Parallel operation with identical power supply:	no
Connection, KNX:	terminal
IP communication:	Ethernet 10/100 BaseT (10/100 Mbit/s)
IP connection:	RJ45 socket
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +75 °C
Relative humidity:	max. 93 % (no condensation)
Mounting width:	108 mm (6 rail units)
Connection mode:	screw terminals
single wire:	1 x 1 ... 4 mm^2
stranded without ferrule:	1 x 1 ... 4 mm^2
stranded with ferrule:	1 x 1 ... 2.5 mm^2

Ref.-no.

KNX USB data interface
Rail mounting device, 2 rail units

2131 USBS REG

Intended use
- Connecting PCs to KNX systems
- Addressing, programming and diagnostics of KNX devices
- KNX Data Secure compatible with ETS 5.7.3 or higher
- Support of long frames for ETS5
- Installation in small distributor board on DIN rail according to DIN EN 60715

Product characteristics
- Connection with device connection terminal
- Electrical separation of KNX and USB
- Temporary operation in unmounted condition permissible
- The firmware in the USB data interface can be updated via the ETS product database
- Power supply exclusively via the USB port

Technical data

KNX medium:	TP 256
Power supply:	via USB port of the PC
Connection	
Connection, KNX:	terminal
USB port:	USB socket, type B
Transfer rate:	9600 Baud
Transmission protocol:	compatible with USB 1.1/2.0
Length of USB cable:	max. 5 m
Ambient temperature:	–5 ... +45 °C
Storing temperature:	–25 ... +70 °C
Protection class:	II
Mounting width:	36 mm (2 rail units)

KNX USB data interface

2131 USBS

Intended use
- Connecting PCs to KNX systems
- Addressing, programming and diagnostics of KNX devices
- KNX Data Secure compatible with ETS 5.7.3 or higher
- Support of long frames for ETS5
- Installation in flush box according to DIN 49073

Product characteristics
- Connection with device connection terminal
- Electrical separation of KNX and USB
- Temporary operation in unmounted condition permissible
- The firmware in the USB data interface can be updated via the ETS product database
- Power supply exclusively via the USB port

Technical data

KNX medium:	TP 256
Power supply:	via USB port of the PC
Connection	
Connection, KNX:	terminal
USB port:	USB socket, type B
Transfer rate:	9600 Baud
Transmission protocol:	compatible with USB 1.1/2.0
Length of USB cable:	max. 5 m
Ambient temperature:	–5 ... +45 °C
Storing temperature:	–25 ... +70 °C
Protection class:	II

			Ref.-no.
Centre plate (screw fixing)			
for USB data interface ref.-no.: 2131 USBS			
for AS and A ranges			
Duroplastic (scratch-proof) glossy			
ivory	P		**A 569 PLT**
white	P		**A 569 PLT WW**
black			**A 569 PLT SW**
Duroplastic lacquered			
aluminium	P	L	**A 569 PLT AL**
champagne	P		**A 569 PLT CH**
mocha			**A 569 PLT MO**
Thermoplastic (breakproof) high-gloss			
ivory		L	**A 569 BFPLT**
white		L	**A 569 BFPLT WW**
black		L	**A 569 BFPLT SW**
matt lacquered			
matt snow white	N		**A 569 BFPLT WWM**
matt graphite black	N		**A 569 BFPLT SWM**
matt anthracite			**A 569 BFPLT ANM**
for CD range			
Thermoplastic (breakproof) high-gloss			
ivory		L	**569 T**
white		L	**CD 569 T WW**
grey		L	**CD 569 T GR**
light grey		L	**CD 569 T LG**
black		L	**CD 569 T SW**
Centre plate (screw fixing) with inscription field 6 x 37 mm			
Thermoplastic (breakproof) high-gloss			
ivory		L	**569 TNA**
white		L	**CD 569 TNA WW**
Centre plate (screw fixing)			
for USB data interface ref.-no.: 2131 USBS			
for LS range			
Thermoplastic (breakproof) high-gloss			
ivory		L	**LS 969 T**
white		L	**LS 969 T WW**
light grey		L	**LS 969 T LG**
black		L	**LS 969 T SW**
matt lacquered			
matt snow white	N		**LS 969 T WWM**
matt graphite black	N		**LS 969 T SWM**
metal versions			
aluminium	P	L	**AL 2969 T**
stainless steel		L	**ES 2969 T**
anthracite (aluminium lacquered)			**AL 2969 T AN**
dark (aluminium lacquered)			**AL 2969 T D**
chrome			**GCR 2969 T**
classic brass	P		**ME 2969 T C**
antique brass			**ME 2969 T AT**

Ref.-no.

KNX RF radio USB stick

USB 2130 RF

Intended use

- PC interface for the addressing, programming and diagnostics of KNX RF devices
- USB stick for coupling to a PC with a Windows-based operating system

Product characteristics

- Commissioning, programming, visualisation and diagnostics of KNX RF devices
- Automatic installation of PC communication via HID profile

Technical data

Rated voltage:	DC 5 V
USB version:	2.0
Connection USB:	type A
Ambient temperature:	–10 ... +70 °C
Relative humidity:	max. 80 % (no condensation)
Radio frequency:	868.0 ... 868.6 MHz
Transmitting power:	max. 20 mW
Transmission range in free field:	typical 100 m

KNX RF radio converter

Project design and commissioning with ETS5 or a more recent version.

MK 100 RF

Intended use

- KNX medium: TP 256
- KNX Data Secure compatible with ETS 5.7.3 or higher
- Connection of KNX radio networks with cabled KNX lines
- Extension of the radio range in KNX radio networks
  (repeater operation, external power supply with 24 V AC/DC, e.g. ref.-no. NT 2415 REG VDC)
- Installation in flush box according to DIN 49073 in combination with a suitable cover

Ref.-no.

KNX IP interface
Rail mounting device, 2 rail units
Project design and commissioning with ETS5 or a more recent version.

IPS 300 SREG

Intended use
- Connection between KNX devices and PC or other data processing devices via IP
- Operation as data interface
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- KNX Data Secure compatible with ETS 5.7.3 or higher
- KNX IP Secure compatible with ETS 5.7.3 or higher
- Max. 48 telegrams per second in IP secure mode
- LED display for KNX communication, Ethernet communication and programming mode
- Configuration via ETS, Telnet or software tool
- SNTP server, buffered
- Commissioning with display support
- Max. 8 connections to IP terminal devices, e.g. for simultaneous visualisation and configuration
- Outage message of the KNX system to the IP system
- Electrical isolation between KNX and IP network
- Power consumption max. 1 W

V05 or higher and in combination with remote access licence (ref.-no. IPS-L):
- Encrypted access to KNX devices for configuration and maintenance outside the local network
- Enabling access via communication objects
- Feedback on access and programming processes via communication objects

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Connection, KNX:	terminal
Current consumption:	max. 20 mA
Power consumption:	max. 1 W
IP communication:	Ethernet 10/100 BaseT (10/100 Mbit/s)
IP connection:	RJ45 socket
Resolution:	128 x 64, OLED display
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Relative humidity:	max. 95 %
Mounting width:	36 mm (2 rail units)

Remote access licence
for IP interface ref.-no.: IPS 300 SREG (V05 or higher)
for power supply with IP interface ref.-no.: 20320 1S IPS R (V02 or higher)

N **IPS-L**

Remote access to the building technology via JUNG server in Germany.
In combination with IP interface (ref.-no. IPS 300 SREG) or power supply with IP interface (ref.-no. 20320 1S IPS R):
- Encrypted access to KNX devices for configuration and maintenance outside the local network
- Enabling access via communication objects
- Feedback on access and programming processes via communication objects

IPS-REMOTE

Ref.-no.

KNX IP router
Rail mounting device, 2 rail units
Project design and commissioning with ETS5 or a more recent version.
ETS product family: System components
Product type: IP router

IPR 300 SREG

Intended use
- Connection between KNX devices and PC or other data processing devices via IP
- Operation as KNX area/line coupler or data interface
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- KNXnet/IP routing for communication between KNX lines, areas and systems via IP network
- KNX Data Secure compatible with ETS 5.7.3 or higher
- KNX IP Secure compatible with ETS 5.7.3 or higher
- Telegramm forwarding and filtering according to physical address or group address
- Max. 48 telegrams per second in IP secure mode
- LED display for KNX communication, Ethernet communication and programming mode
- Configuration via ETS, Telnet or software tool
- SNTP server, buffered
- Commissioning with display support
- Max. 8 connections to IP terminal devices, e.g. for simultaneous visualisation and configuration
- Outage message of the KNX system to the IP system
- Electrical isolation between KNX and IP network
- Power consumption max. 1 W

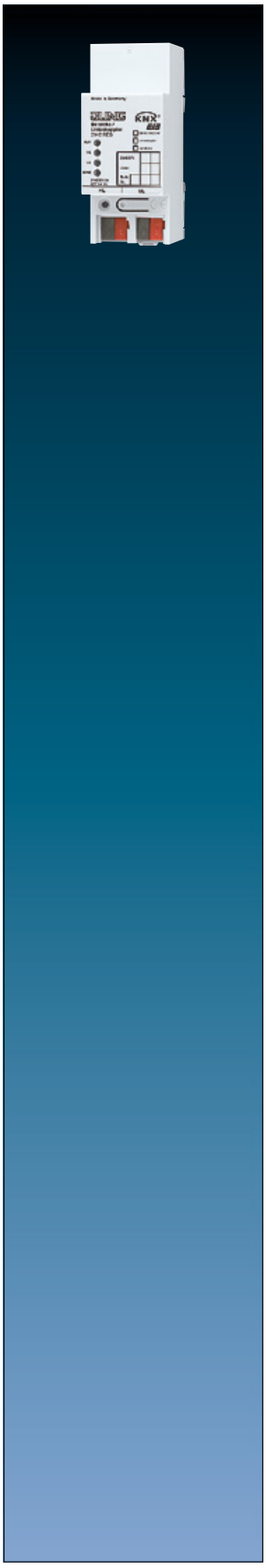
Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Connection, KNX:	terminal
Current consumption:	max. 20 mA
Power consumption:	max. 1 W
IP communication:	Ethernet 10/100 BaseT (10/100 Mbit/s)
IP connection:	RJ45 socket
Resolution:	128 x 64, OLED display
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Relative humidity:	max. 95 %
Mounting width:	36 mm (2 rail units)

Ref.-no.

KNX area / line coupler
Rail mounting device, 2 rail units
ETS product family: System components
Product type: Line coupler

2142 REG



• KNX Data Secure compatible with ETS 5.7.3 or higher

Function
The coupler connects two KNX data lines and ensures the electrical separation of these lines from one another. The definite functions of the device are defined by addressing and parameterisation.

Line coupler
Connection of a line with a main line. Alternatively with or without filter function.
The coupler belongs logically to the subordinate line (here: line).

Area coupler
Connection of a main line and an area line. Alternatively with or without filter function.
The coupler belongs logically to the subordinate line (here: main line).

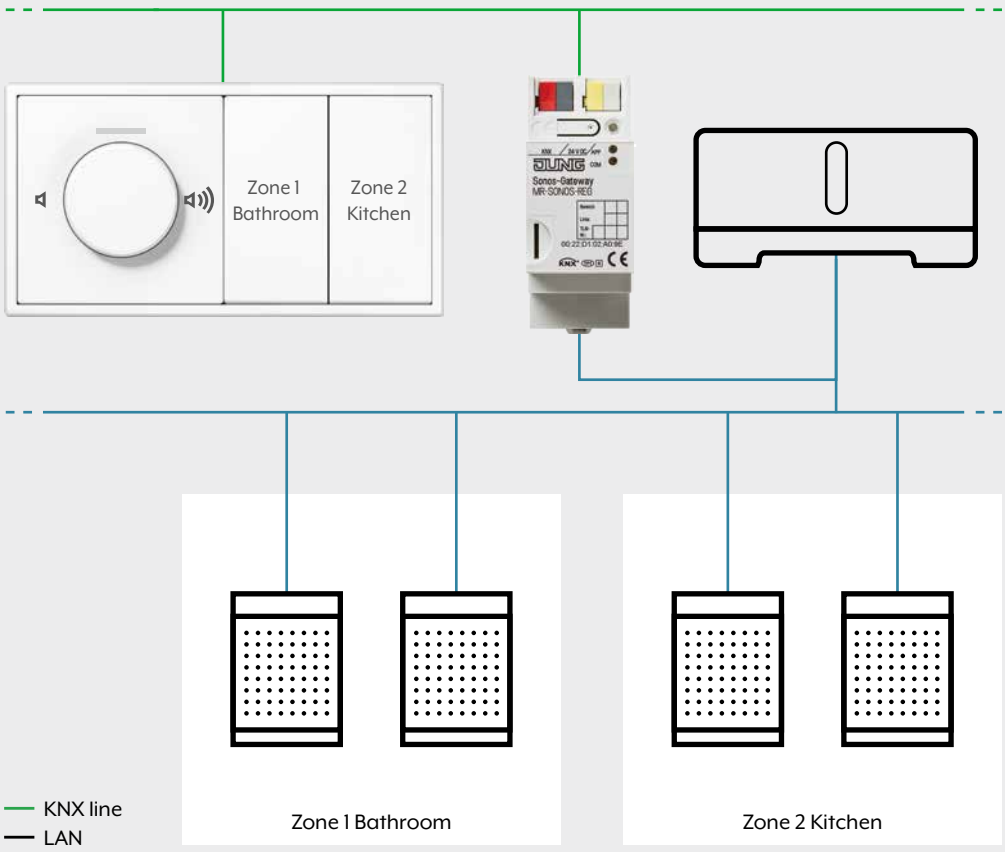
Amplifier
Preparation and repetition of telegrams on a line, no filter function. Division of a line into max. 4 independent line segments (max. 3 line amplifiers connected in parallel per line). Each line segment requires a separate power supply including a choke.

Technical data

KNX medium:	TP 256
Power supply:	DC 21 ... 32 V from superordinate line
Current consumption	
superordinate line:	approx. 6 mA
subordinate line:	approx. 8 mA
Connection mode:	connection terminal
Mounting:	on DIN rail
Ambient temperature:	–5 ... +45 °C
Storing temperature:	–25 ... +70 °C
Protection class:	III acc. EN 61 140
Mounting width:	36 mm (2 rail units)

KNX Sonos Gateway

Control volume, skip a song and much more: The JUNG KNX Sonos Gateway makes it possible.



Multiroom sound in the whole house, operated through JUNG control elements: by setting up dynamic groups, up to five zones can each be equipped with a master. These zones can then in turn be networked with up to five slave devices.

The new JUNG KNX Sonos Gateway connects the intelligent KNX technology with Sonos multiroom sound. Intuitively controlled using KNX sensors or smartphone/tablet in connection with the Smart VisuServer: up to 30 Sonos devices can be controlled via various operating elements. Title, artist and album are also shown on the displays of room controllers or Smart Control.

	Ref.-no.
KNX Sonos gateway Rail mounting device, 2 rail units ETS product family: Multimedia Product type: Multiroom	**MR-SONOS-REG**

Intended use
- Controlling of Sonos audio devices via KNX
- Installation in distribution boxes on DIN rail according to EN 60715

Product characteristics
- Control of up to 30 Sonos devices via KNX devices, independent of the Sonos App
- Dynamic group creation of up to 10 zones with one master and five slave devices each via KNX objects
- Party mode: same music for all rooms
- Volume control for master, slaves and the whole group
- Control of play lists
- Playing music from microSD card (not included) in the Sonos gateway
- Title, artist and album on KNX text objects
- Integrated data network switch with two RJ45 terminals
- Requires ETS version 4.2 or 5.0.2 or higher

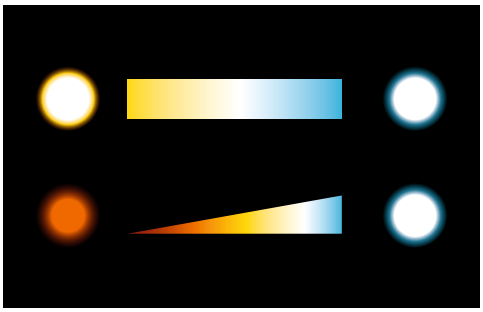
Technical data

KNX medium:	TP 256
External supply	
Rated voltage:	DC 24 ... 30 V ± 10 %
Connection:	connecting terminal yellow/white
Power consumption:	typical 2 W (at DC 24 V, two Ethernet cables connected)
IP communication:	Ethernet 10/100 BaseT (10/100 Mbit/s)
IP connection:	2 x RJ45
Protocols:	ARP, ICMP, IGMP, UDP/IP, DHCP, AutoIP, KNXnet/IP (Core, Device Management)
Memory card:	max. 32 GB microSDHC
Ambient temperature:	0 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Mounting width:	36 mm (2 rail units)
Rated voltage KNX:	DC 21 ... 32 V SELV
Connection, KNX:	terminal

KNX DALI gateway TW

Illuminate rooms in a targeted manner and use matching colour temperatures to promote performance of people. The KNX DALI gateway TW forms the interface to the control of DALI luminaires in a KNX installation (for max. 64 DALI nodes in max. 32 groups). As well as the regular brightness control, the control of the colour temperature of white light is also performed. The lighting can thus be adjusted as required at any time.

The basic idea of Tunable White is to control the colour temperature dynamically and seamlessly from warm white (1,000 Kelvin) to cold white (10,000 Kelvin). By adapting the colour temperature to the room, the perceived quality improves. Tunable White thus stands for a high level of lighting comfort thanks to its excellent colour reproduction – but also above all for its ability to adapt artificial light dynamically to human biorhythms. This can provably improve human performance and have a positive effect on their health. The JUNG KNX DALI gateway TW is the first KNX device that provides this capability with such scope and supports the DALI 2 standard.



COLOUR TEMPERATURE AND BRIGHTNESS

Using the KNX DALI gateway TW, colour temperature and brightness can be set independently of each other or combined as desired. In this way, the behaviour of an incandescent lamp can be adjusted by changing the colour temperature to the warmer range when dimming and changing to the colder range when making brighter.

Ref.-no.

KNX DALI gateway TW
Rail mounting device, 4 rail units
with manual electronic operation and LED status indication
ETS product family: Illumination
Product type: Dimmer
New in V 02: compatible with DALI-2 acc. to IEC 62386

2099 REGHE

Intended use
- Controlling of luminaires and other applications with DALI operating device in KNX installations e.g. electronic ballast
- Mounting on DIN rail according to EN 60715 in distribution boxes

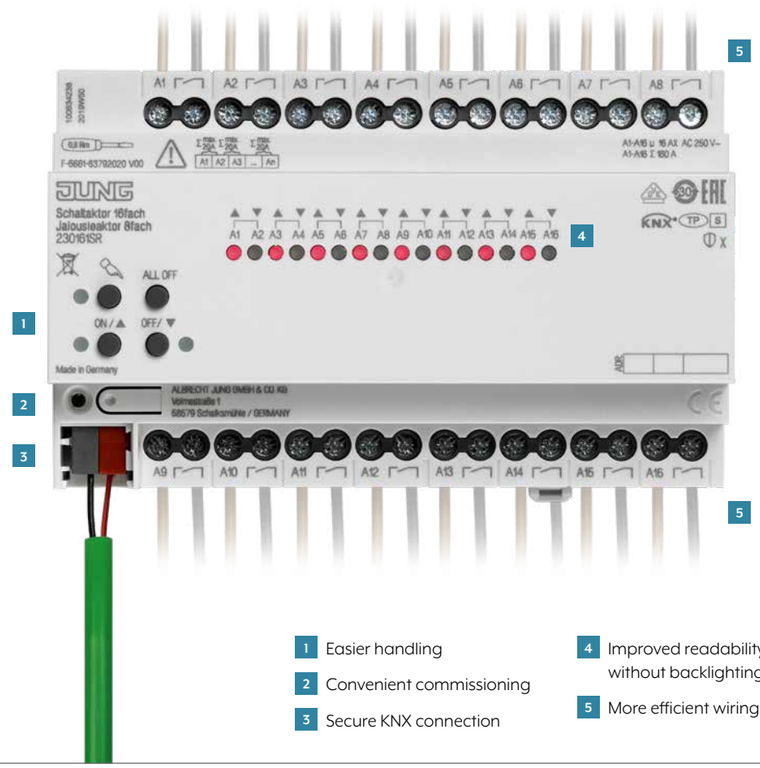
Product characteristics
• Control of up to 64 DALI devices in up to 32 groups • Setting of colour temperature for luminaires with DALI Device Type 8 for tunable white acc. to IEC 62386-209 • compatible with DALI-2 acc. to IEC 62386 • Suitable for operation in emergency lighting systems • Individual, group or central addressing • 16 light scenes • Effect control for dynamic lighting effects or colour games • Read out DALI device state via KNX, e.g. brightness or luminaire error • Manual operation of the DALI groups • Restraint function • Feedback of switching state and brightness value in bus and manual mode • Collective feedback • Central switching function • Disabling function for each DALI group • Separate ON and OFF delay • Staircase lighting timer with pre-warning function • Corridor function: when combined with motion detectors, reduced continuous lighting, if no motion is detected • Online or offline project design of the DALI devices with ETS plug-in • Short-circuit protection • Surge voltage protection • Overload protection • Operating hours counter • Signal of the global switching status of the DALI devices, e.g. to switch off the mains voltage of the DALI devices to avoid standby losses • An individual DALI device can be exchanged during operation without software • Linear or logarithmic dimming characteristic can be selected

Technical data

Rated voltage:	AC 110 ... 240 V ~, 50/60 Hz
Rated voltage:	DC 110 ... 240 V
Power loss:	max. 3 W
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Rated voltage DALI:	DC 16 V
Number of DALI devices:	max. 64
DALI transmission rate:	1.2 kbit/s
DALI protocol:	EN 62386
Cable type:	Sheathed cable 230 V, e,g. NYM
Cable length DALI	
with 1.5 mm²:	max. 300 m
with 1.0 mm²:	max. 238 m
with 0.75 mm²:	max. 174 m
with 0.5 mm²:	max. 116 m
Mounting width:	72 mm (4 rail units)
Connection, power supply and DALI	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm²
stranded without ferrule:	1 x 0.5 ... 4 mm²
stranded with ferrule:	1 x 0.5 ... 2.5 mm²
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Power consumption KNX:	typical 150 mW
Connection, KNX:	terminal

The new generation of the KNX switch and blind actuators

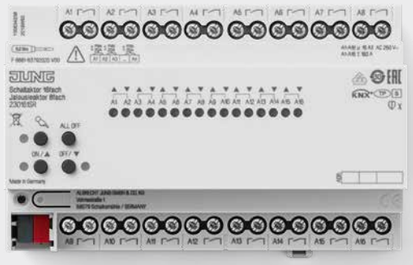
KNX SWITCH ACTUATOR, 16-GANG
KNX BLIND ACTUATOR, 8-GANG



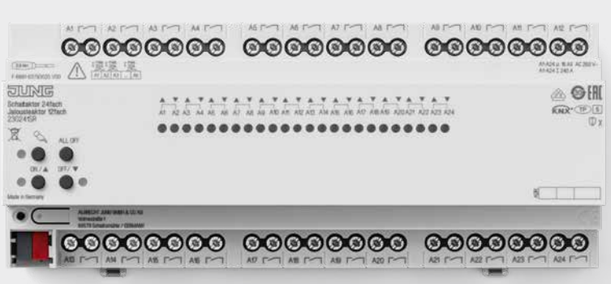
1 Easier handling
2 Convenient commissioning
3 Secure KNX connection
4 Improved readability without backlighting
5 More efficient wiring

The JUNG KNX switch and blind actuators have a holistically improved concept. They simplify installation and increase security: they work with KNX Data Secure and effectively encrypt all KNX telegrams as a result. You can get updates via the ETS Service app.

KNX switch actuator, 6-gang / KNX blind actuator, 3-gang



KNX switch actuator, 16-gang/ KNX blind actuator, 8-gang



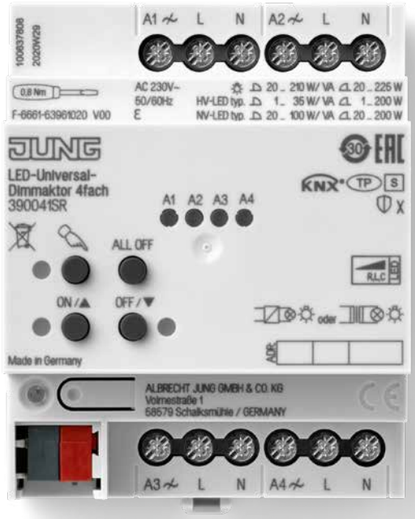
KNX switch actuator 24-gang / KNX blind actuator 12-gang

The JUNG KNX actuators in the 6-gang, 16-gang and 24-gang versions work with KNX Secure. Telegrams on the twisted pair line are tap-proof. The actuators receive updates via the ETS Service app. KNX new-generation actuators are more compact thanks to their single-layer design. They are clear and easy to read and their installation is simple.

Furthermore, once configured, actuators, for example for controlling blinds, can be multiplied using the teaching function: Installed once, copied several times – the work in the property is done quickly. Due to the bistable relays of the actuators, the power loss is reduced to a minimum. This makes the actuators more energy efficient.

The new KNX LED Universal dimming actuator, 4-gang

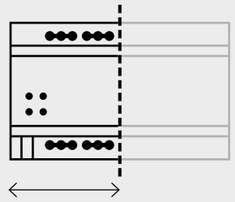
KNX LED UNIVERSAL DIMMING ACTUATOR, 4-GANG



Optimum lighting according to requirements and occasion significantly enhances comfort in a smart building. The JUNG KNX LED Universal dimming actuator, 4-gang, enables reliable dimming of energy-saving light sources. It is also future-proof, works with KNX Data Secure and effectively encrypts all KNX telegrams.

The advantages at a glance

REDUCED WIDTH

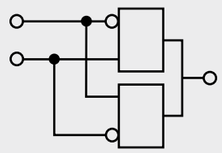


The width of the dimming actuator is only 4 TE. This effectively saves space in the distributor.

ETS 5 OPTIMISED DATABASE

The parametrisation is much more intuitive with the new actuator generation.

INTEGRATED LOGIC FUNCTIONS



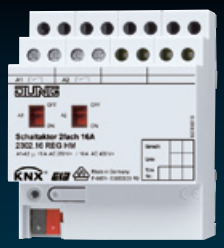
Logics can be set up decentrally and without a linking device.

MINIMUM LOAD FOR HV LED = 1 W

1W

Thanks to the reduced minimum load, users can choose from a wide range of compatible and dimmable luminaires.

The JUNG KNX dimming actuator is impressive due to its high functionality in a compact design. The dimming actuator has eight logics, converters, comparators as well as filter and time functions. It also has optimised and adjustable dimming characteristics in the time and value range. However, with only 4 TE, it is only half as wide as its predecessors. This results in clear cost advantages. Thanks to its update capability, the dimming actuator is future-proof. If a new firmware version is available, installers can install this via the JUNG ETS Service App. Communication on the twisted pair cable is secure thanks to KNX Data Secure and transmissions are protected against manipulation. With the dimming actuator, JUNG creates the best conditions for individual and safe lighting scenes.



Ref.-no.

KNX switch actuator, 2-gang
Rail mounting device, 4 rail units
2 NO contacts with manual mechanical operation and status indicator
ETS product family: Output
Product type: Binary output

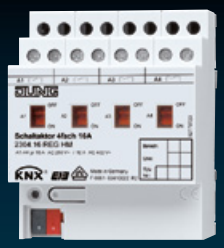
2302.16 REGHM

Intended use
- Switching of 110 ... 230 V AC or 24 V AC/DC electrical loads with floating contacts
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Manual switching of the relays is independent of the bus
- Operation as NO or NC contacts
- Logic operation and forcing function
- Switching feedback (bus operation only)
- Switch position display
- Central switching function with collective feedback
- Disabling function for each channel
- Time functions: switch-on delay, switch-off delay, staircase lighting timer with pre-warning function
- Integration into light scenes
- Operating hours counter, configurable via bus
- Input monitoring for cyclical updating with safety circuit
- No additional power supply necessary

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Connection, KNX:	terminal
Power consumption KNX:	typical 150 mW
Power loss:	max. 2 W
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Mounting width:	72 mm (4 rail units)
Connection, outputs	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Switching outputs	
Contact type:	floating relay contacts (µ contact)
Switching voltage AC:	AC 250 / 400 V
Switching current 230 V AC1:	16 A
Switching current 230 V AC3:	10 A
Switching current 400 V AC1:	10 A
Switching current 400 V AC3:	6 A
Fluorescent lamps:	10 AX
Ohmic load:	3680 W
Capacitive load:	10 A / 140 µF
Switching voltage DC:	DC 12 ... 24 V
Switching current DC:	16 A
Min. switching current:	100 mA
Switch-on current 150 µs:	400 A
Switch-on current 600 µs:	200 A
Lamp loads	
Incandescent lamps:	2500 W
HV halogen lamps:	2500 W
LV halogen lamps with	
inductive transformers:	1200 VA
electronic transformers:	1500 W
Fluorescent lamps T5/T8	
non-compensated:	2500 W
parallel compensated:	1300 W / 140 µF
lead-lag circuit:	2300 W / 140 µF
Compact fluorescent lamps	
non-compensated:	2500 W
parallel compensated:	1300 W / 140 µF
Mercury vapour lamps	
non-compensated:	2000 W
parallel compensated:	2000 W / 140 µF
Approvals:	VDE



Ref.-no.

KNX switch actuator, 4-gang
Rail mounting device, 4 rail units
4 NO contacts with manual mechanical operation and status indicator
ETS product family: Output
Product type: Binary output

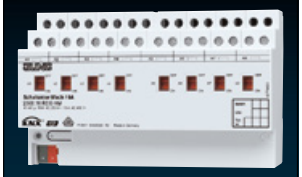
2304.16 REGHM

Intended use
- Switching of 110 ... 230 V AC or 24 V AC/DC electrical loads with floating contacts
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Manual switching of the relays is independent of the bus
- Operation as NO or NC contacts
- Logic operation and forcing function
- Switching feedback (bus operation only)
- Switch position display
- Central switching function with collective feedback
- Disabling function for each channel
- Time functions: switch-on delay, switch-off delay, staircase lighting timer with pre-warning function
- Integration into light scenes
- Operating hours counter, configurable via bus
- Input monitoring for cyclical updating with safety circuit
- No additional power supply necessary

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Connection, KNX:	terminal
Power consumption KNX:	typical 150 mW
Power loss:	max. 4 W
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Mounting width:	72 mm (4 rail units)
Connection, outputs	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Switching outputs	
Contact type:	floating relay contacts (µ contact)
Switching voltage AC:	AC 250 / 400 V
Switching current 230 V AC1:	16 A
Switching current 230 V AC3:	10 A
Switching current 400 V AC1:	10 A
Switching current 400 V AC3:	6 A
Fluorescent lamps:	10 AX
Ohmic load:	3680 W
Capacitive load:	10 A / 140 µF
Switching voltage DC:	DC 12 ... 24 V
Switching current DC:	16 A
Min. switching current:	100 mA
Switch-on current 150 µs:	400 A
Switch-on current 600 µs:	200 A
Lamp loads	
Incandescent lamps:	2500 W
HV halogen lamps:	2500 W
LV halogen lamps with	
inductive transformers:	1200 VA
electronic transformers:	1500 W
Fluorescent lamps T5/T8	
non-compensated:	2500 W
parallel compensated:	1300 W / 140 µF
lead-lag circuit:	2300 W / 140 µF
Compact fluorescent lamps	
non-compensated:	2500 W
parallel compensated:	1300 W / 140 µF
Mercury vapour lamps	
non-compensated:	2000 W
parallel compensated:	2000 W / 140 µF
Approvals:	VDE



Ref.-no.

KNX switch actuator, 8-gang
Rail mounting device, 8 rail units
8 NO contacts with manual mechanical operation and status indicator
Only with the ETS 3.0d version or later versions the full functionality will be available.
ETS product family: Output
Product type: Binary output

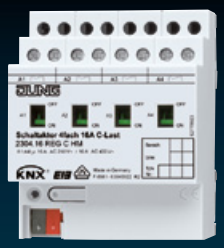
2308.16 REGHM

Intended use
- Switching of 110 ... 230 V AC or 24 V AC/DC electrical loads with floating contacts
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Manual switching of the relays is independent of the bus
- Operation as NO or NC contacts
- Logic operation and forcing function
- Switching feedback (bus operation only)
- Switch position display
- Central switching function with collective feedback
- Disabling function for each channel
- Time functions: switch-on delay, switch-off delay, staircase lighting timer with pre-warning function
- Integration into light scenes
- Operating hours counter, configurable via bus
- Input monitoring for cyclical updating with safety circuit
- No additional power supply necessary

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Connection, KNX:	terminal
Power consumption KNX:	typical 150 mW
Power loss:	max. 8 W
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Mounting width:	144 mm (8 rail units)
Connection, outputs	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Switching outputs	
Contact type:	floating relay contacts (µ contact)
Switching voltage AC:	AC 250 / 400 V
Switching current 230 V AC1:	16 A
Switching current 230 V AC3:	10 A
Switching current 400 V AC1:	10 A
Switching current 400 V AC3:	6 A
Fluorescent lamps:	10 AX
Ohmic load:	3680 W
Capacitive load:	10 A / 140 µF
Switching voltage DC:	DC 12 ... 24 V
Switching current DC:	16 A
Min. switching current:	100 mA
Switch-on current 150 µs:	400 A
Switch-on current 600 µs:	200 A
Lamp loads	
Incandescent lamps:	2500 W
HV halogen lamps:	2500 W
LV halogen lamps with	
inductive transformers:	1200 VA
electronic transformers:	1500 W
Fluorescent lamps T5/T8	
non-compensated:	2500 W
parallel compensated:	1300 W / 140 µF
lead-lag circuit:	2300 W / 140 µF
Compact fluorescent lamps	
non-compensated:	2500 W
parallel compensated:	1300 W / 140 µF
Mercury vapour lamps	
non-compensated:	2000 W
parallel compensated:	2000 W / 140 µF
Approvals:	VDE



Ref.-no.

KNX switch actuator with C-load, 4-gang
with current detection
Rail mounting device, 4 rail units
4 NO contacts with manual mechanical operation and status indicator
Only with the ETS 3.0d version or later versions the full functionality will be available.
ETS product family: Output
Product type: Binary output

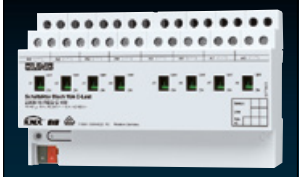
2304.16 REGCHM

Intended use
- Switching of 110 ... 230 V AC or 24 V AC/DC electrical loads with floating contacts
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Manual switching of the relays is independent of the bus
- Operation as NO or NC contacts
- Logic operation and forcing function
- Switching feedback (bus operation only)
- Switch position display
- Central switching function with collective feedback
- Disabling function for each channel
- Time functions: switch-on delay, switch-off delay, staircase lighting timer with pre-warning function
- Integration into light scenes
- Operating hours counter, configurable via bus
- Input monitoring for cyclical updating with safety circuit
- No additional power supply necessary
- Current detection: measurement of the load current for each output
- Monitoring of threshold values for load monitoring, e.g. for reporting load drop-out
- Switching of capacitive loads and the resulting high switch-on currents

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Connection, KNX:	terminal
Power consumption KNX:	typical 240 mW
Power loss:	max. 4 W
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Mounting width:	72 mm (4 rail units)
Connection, outputs	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Current detection (sine)	
Mains frequency:	50/60 Hz
Measuring range:	0.25 ... 16 A
Accuracy (≤ 1 A):	±100 mA
Accuracy (> 1 A):	±8 % of curr. val.
Switching outputs	
Contact type:	floating relay contacts (µ contact)
Switching voltage AC:	AC 250 / 400 V
Switching current 230 V AC1:	16 A
Switching current 230 V AC3:	10 A
Switching current 400 V AC1:	10 A
Switching current 400 V AC3:	6 A
Fluorescent lamps:	16 AX
Ohmic load:	3680 W
Capacitive load:	16 A / 200 µF
Switching voltage DC:	DC 12 ... 24 V
Switching current DC:	16 A
Min. switching current:	100 mA
Switch-on current 150 µs:	600 A
Switch-on current 600 µs:	300 A
Lamp loads	
Incandescent lamps:	3680 W
HV halogen lamps:	3680 W
LV halogen lamps with	
inductive transformers:	2000 VA
electronic transformers:	2500 W
Fluorescent lamps T5/T8	
non-compensated:	3680 W
parallel compensated:	2500 W / 200 µF
lead-lag circuit:	3680 W / 200 µF
Compact fluorescent lamps	
non-compensated:	3680 W
parallel compensated:	2500 W / 200 µF
Mercury vapour lamps	
non-compensated:	3680 W
parallel compensated:	3680 W / 200 µF
Approvals:	VDE



Ref.-no.

KNX switch actuator with C-load, 8-gang
with current detection
Rail mounting device, 8 rail units
8 NO contacts with manual mechanical operation and status indicator
Only with the ETS 3.0d version or later versions the full functionality will be available.
ETS product family: Output
Product type: Binary output

2308.16 REGCHM

Intended use
- Switching of 110 ... 230 V AC or 24 V AC/DC electrical loads with floating contacts
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Manual switching of the relays is independent of the bus
- Operation as NO or NC contacts
- Logic operation and forcing function
- Switching feedback (bus operation only)
- Switch position display
- Central switching function with collective feedback
- Disabling function for each channel
- Time functions: switch-on delay, switch-off delay, staircase lighting timer with pre-warning function
- Integration into light scenes
- Operating hours counter, configurable via bus
- Input monitoring for cyclical updating with safety circuit
- No additional power supply necessary
- Current detection: measurement of the load current for each output
- Monitoring of threshold values for load monitoring, e.g. for reporting load drop-out
- Switching of capacitive loads and the resulting high switch-on currents

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Connection, KNX:	terminal
Power consumption KNX:	typical 240 mW
Power loss:	max. 8 W
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Mounting width:	144 mm (8 rail units)
Connection, outputs	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Current detection (sine)	
Mains frequency:	50/60 Hz
Measuring range:	0.25 ... 16 A
Accuracy (≤ 1 A):	±100 mA
Accuracy (> 1 A):	±8 % of curr. val.
Switching outputs	
Contact type:	floating relay contacts (µ contact)
Switching voltage AC:	AC 250 / 400 V
Switching current 230 V AC1:	16 A
Switching current 230 V AC3:	10 A
Switching current 400 V AC1:	10 A
Switching current 400 V AC3:	6 A
Fluorescent lamps:	16 AX
Ohmic load:	3680 W
Capacitive load:	16 A / 200 µF
Switching voltage DC:	DC 12 ... 24 V
Switching current DC:	16 A
Min. switching current:	100 mA
Switch-on current 150 µs:	600 A
Switch-on current 600 µs:	300 A
Lamp loads	
Incandescent lamps:	3680 W
HV halogen lamps:	3680 W
LV halogen lamps with	
inductive transformers:	2000 VA
electronic transformers:	2500 W
Fluorescent lamps T5/T8	
non-compensated:	3680 W
parallel compensated:	2500 W / 200 µF
lead-lag circuit:	3680 W / 200 µF
Compact fluorescent lamps	
non-compensated:	3680 W
parallel compensated:	2500 W / 200 µF
Mercury vapour lamps	
non-compensated:	3680 W
parallel compensated:	3680 W / 200 µF
Approvals:	VDE

Ref.-no.

KNX switch actuator 6-gang
KNX blinds actuator 3-gang
Rail mounting device, 4 rail units
with manual electronic operation and LED status indication
Project design and commissioning with ETS5 or a more recent version.
ETS product family: Output
Product type: Binary output

N **23006 1S R**

Intended use
- Switching of electrical loads with floating contacts
- Switching of electrically-driven blinds, shutters, awnings and similar hangings
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Outputs can be operated manually, construction site mode
- Feedback in manual mode and in bus mode
- Disabling of individual outputs manually or via bus
- Central functions
- Cyclical monitoring
- KNX Data Secure compatible with ETS 5.7.3 or higher
- Can be updated with the ETS Service App

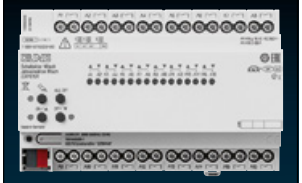
Characteristics switching operation
- Operation as NO or NC contacts
- Feedback function
- Logic operation and forcing function
- Central switching function with collective feedback
- Time functions: switch-on delay, switch-off delay, staircase lighting timer with pre-warning function
- Scene function
- Operating hours counter

Characteristics blinds operation
- Suitable for 230 V AC motors
- Operation modes ‘Blind with slats’, ‘Shutter/awning’, ‘Ventilation flap/skylight’
- Blind/shutter position directly controllable
- Slat position directly controllable
- Feedback of movement status, blind/shutter position and slat position
- Cyclical feedback during movement
- Forced position through higher-level controller
- Safety function: rain alarm, frost alarm, 3 independent wind alarms
- Sun protection function with auto Heating/Cooling
- Scene function

The total current of two adjacent outputs must not exceed 20 A.

Technical data

Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
KNX	
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	4 ... 18 mA
Outputs	
Switching voltage:	AC 250 V ~
Switching current AC1 (cos φ > 0.8):	16 A
Fluorescent lamps:	16 AX
Current carrying capacity	
Neighbouring outputs:	Σ 20 A
Loads per output	
Ohmic load:	3000 W
Capacitive load:	16 A / 140 µF
Motors:	1380 VA
Switch-on current 200 µs:	max. 800 A
Switch-on current 20 ms:	max. 165 A
Lamp loads 230 V	
Incandescent lamps:	3000 W
HV halogen lamps:	2500 W
HV LED lamps:	max. 400 W
LV halogen lamps with	
electronic transformers:	1500 W
inductive transformers:	1200 VA
Fluorescent lamps T5/T8	
non-compensated:	1000 W
parallel compensated:	1160 W / 140 µF
lead-lag circuit:	2300 W / 140 µF
Compact fluorescent lamps	
non-compensated:	1000 W
parallel compensated:	1160 W / 140 µF
Mercury vapour lamps	
non-compensated:	1000 W
parallel compensated:	1160 W / 140 µF
Mounting width:	72 mm (4 rail units)
Connection, power supply and load	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
KNX:	KNX bus connection block



Ref.-no.

KNX switch actuator 16-gang
KNX blinds actuator 8-gang
Rail mounting device, 8 rail units
with manual electronic operation and LED status indication
Project design and commissioning with ETS5 or a more recent version.
ETS product family: Output
Product type: Binary output

N **23016 1S R**

Intended use
- Switching of electrical loads with floating contacts
- Switching of electrically-driven blinds, shutters, awnings and similar hangings
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Outputs can be operated manually, construction site mode
- Feedback in manual mode and in bus mode
- Disabling of individual outputs manually or via bus
- Central functions
- Cyclical monitoring
- KNX Data Secure compatible with ETS 5.7.3 or higher
- Can be updated with the ETS Service App

Characteristics switching operation
- Operation as NO or NC contacts
- Feedback function
- Logic operation and forcing function
- Central switching function with collective feedback
- Time functions: switch-on delay, switch-off delay, staircase lighting timer with pre-warning function
- Scene function
- Operating hours counter

Characteristics blinds operation
- Suitable for 230 V AC motors
- Operation modes ‘Blind with slats’, ‘Shutter/awning’, ‘Ventilation flap/skylight’
- Blind/shutter position directly controllable
- Slat position directly controllable
- Feedback of movement status, blind/shutter position and slat position
- Cyclical feedback during movement
- Forced position through higher-level controller
- Safety function: rain alarm, frost alarm, 3 independent wind alarms
- Sun protection function with auto Heating/Cooling
- Scene function

The total current of two adjacent outputs must not exceed 20 A.

Technical data

Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
KNX	
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	4 ... 18 mA
Outputs	
Switching voltage:	AC 250 V ~
Switching current AC1 (cos φ > 0.8):	16 A
Fluorescent lamps:	16 AX
Current carrying capacity	
Neighbouring outputs:	Σ 20 A
Loads per output	
Ohmic load:	3000 W
Capacitive load:	16 A / 140 µF
Motors:	1380 VA
Switch-on current 200 µs:	max. 800 A
Switch-on current 20 ms:	max. 165 A
Lamp loads 230 V	
Incandescent lamps:	3000 W
HV halogen lamps:	2500 W
HV LED lamps:	max. 400 W
LV halogen lamps with	
electronic transformers:	1500 W
inductive transformers:	1200 VA
Fluorescent lamps T5/T8	
non-compensated:	1000 W
parallel compensated:	1160 W / 140 µF
lead-lag circuit:	2300 W / 140 µF
Compact fluorescent lamps	
non-compensated:	1000 W
parallel compensated:	1160 W / 140 µF
Mercury vapour lamps	
non-compensated:	1000 W
parallel compensated:	1160 W / 140 µF
Mounting width:	144 mm (8 rail units)
Connection, power supply and load	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
KNX:	KNX bus connection block

Ref.-no.

KNX switch actuator 24-gang
KNX blinds actuator 12-gang
Rail mounting device, 12 rail units
with manual electronic operation and LED status indication
Project design and commissioning with ETS5 or a more recent version.
ETS product family: Output
Product type: Binary output

N **23024 1S R**

Intended use
- Switching of electrical loads with floating contacts
- Switching of electrically-driven blinds, shutters, awnings and similar hangings
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Outputs can be operated manually, construction site mode
- Feedback in manual mode and in bus mode
- Disabling of individual outputs manually or via bus
- Central functions
- Cyclical monitoring
- KNX Data Secure compatible with ETS 5.7.3 or higher
- Can be updated with the ETS Service App

Characteristics switching operation
- Operation as NO or NC contacts
- Feedback function
- Logic operation and forcing function
- Central switching function with collective feedback
- Time functions: switch-on delay, switch-off delay, staircase lighting timer with pre-warning function
- Scene function
- Operating hours counter

Characteristics blinds operation
- Suitable for 230 V AC motors
- Operation modes ‘Blind with slats’, ‘Shutter/awning’, ‘Ventilation flap/skylight’
- Blind/shutter position directly controllable
- Slat position directly controllable
- Feedback of movement status, blind/shutter position and slat position
- Cyclical feedback during movement
- Forced position through higher-level controller
- Safety function: rain alarm, frost alarm, 3 independent wind alarms
- Sun protection function with auto Heating/Cooling
- Scene function

The total current of two adjacent outputs must not exceed 20 A.

Technical data

Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
KNX	
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	4 ... 24 mA
Outputs	
Switching voltage:	AC 250 V ~
Switching current AC1 (cos φ > 0.8):	16 A
Fluorescent lamps:	16 AX
Current carrying capacity	
Neighbouring outputs:	Σ 20 A
Loads per output	
Ohmic load:	3000 W
Capacitive load:	16 A / 140 µF
Motors:	1380 VA
Switch-on current 200 µs:	max. 800 A
Switch-on current 20 ms:	max. 165 A
Lamp loads 230 V	
Incandescent lamps:	3000 W
HV halogen lamps:	2500 W
HV LED lamps:	max. 400 W
LV halogen lamps with	
electronic transformers:	1500 W
inductive transformers:	1200 VA
Fluorescent lamps T5/T8	
non-compensated:	1000 W
parallel compensated:	1160 W / 140 µF
lead-lag circuit:	2300 W / 140 µF
Compact fluorescent lamps	
non-compensated:	1000 W
parallel compensated:	1160 W / 140 µF
Mercury vapour lamps	
non-compensated:	1000 W
parallel compensated:	1160 W / 140 µF
Mounting width:	216 mm (12 rail units)
Connection, power supply and load	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
KNX:	KNX bus connection block

Ref.-no.

KNX blinds actuator, 4-gang DC 12 – 48 V
Rail mounting device, 4 rail units
with manual electronic operation and LED status indication
Only with the ETS 3.0d version or later versions the full functionality will be available.
ETS product family: Shutter
Product type: Shutter

2424 REGHE

Intended use
- Switching of electrically driven blinds, shutters, awnings and similar hangings for AC 110 – 230 V mains voltage or DC 12 – 48 V extra-low voltage.
- Mounting on DIN rail in distribution boxes

Product characteristics
- Suitable for 110 ... 230 V AC motors and 12 ... 48 V DC motors
- Automatic operation time detection for 230 V motors can be set
- Slat position directly controllable
- Acknowledgement of travelling state and slat position in bus and manual mode
- Scene function
- Top and bottom forced position via higher-level controller
- Sun protection function

Technical data

KNX medium:	TP 256
Outputs:	4 independent channels for one blind/shutter motor each
Contact type:	floating NO contact
Switching voltage DC:	DC 12 ... 48 V
Breaking capacity DC 12 V:	6 A
Breaking capacity DC 24 V:	6 A
Breaking capacity DC 48 V:	3 A
Min. switching current DC:	100 mA
Connection	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2

Ref.-no.

KNX blinds actuator, 2-gang AC 110 – 230 V, 1-gang DC 12 – 48 V
Rail mounting device, 4 rail units
with manual electronic operation and LED status indication
Only with the ETS 3.0d version or later versions the full functionality will be available.
ETS product family: Shutter
Product type: Shutter

2502 REGHE

Intended use
- Switching of electrically driven blinds, shutters, awnings and similar hangings for AC 110 – 230 V mains voltage or DC 12 – 48 V extra-low voltage.
- Mounting on DIN rail in distribution boxes

Product characteristics
- Suitable for 110 ... 230 V AC motors and 12 ... 48 V DC motors
- Automatic operation time detection for 230 V motors can be set
- Slat position directly controllable
- Acknowledgement of travelling state and slat position in bus and manual mode
- Scene function
- Top and bottom forced position via higher-level controller
- Sun protection function

Technical data

KNX medium:	TP 256
Outputs:	2 channels AC 110 ... 230 V, 1 channel DC 12 ... 48 V
Power supply mains:	AC 110 V (–10 %) ... 240 V (+10 %)
Mains frequency:	50/60 Hz
Connection	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Breaking capacity AC1:	6 A (230 V)
Switching current DC 12/24 V:	6 A
Switching current DC 48 V:	3 A
Max. blind/shutter running time:	20 min
Power loss:	max. 4.5 W
Ambient temperature:	–5 ... +45 °C
Storing temperature:	–25 ... +70 °C
Approvals:	VDE

Ref.-no.

KNX blinds actuator, 4-gang AC 110 – 230 V, 2-gang DC 12 – 48 V
Rail mounting device, 4 rail units
with manual electronic operation and LED status indication
Only with the ETS 3.0d version or later versions the full functionality will be available.
ETS product family: Shutter
Product type: Shutter

2504 REGHE

Intended use
- Switching of electrically driven blinds, shutters, awnings and similar hangings for AC 110 – 230 V mains voltage or DC 12 – 48 V extra-low voltage.
- Mounting on DIN rail in distribution boxes

Product characteristics
- Suitable for 110 ... 230 V AC motors and 12 ... 48 V DC motors
- Automatic operation time detection for 230 V motors can be set
- Slat position directly controllable
- Acknowledgement of travelling state and slat position in bus and manual mode
- Scene function
- Top and bottom forced position via higher-level controller
- Sun protection function

Technical data

KNX medium:	TP 256
Outputs:	4 channels AC 110 ... 230 V, 2 channels DC 12 ... 48 V
Power supply mains:	AC 110 V (–10 %) ... 240 V (+10 %)
Mains frequency:	50/60 Hz
Connection	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Breaking capacity AC1:	6 A (230 V)
Switching current DC 12/24 V:	6 A
Switching current DC 48 V:	3 A
Max. blind/shutter running time:	20 min
Power loss:	max. 4.5 W
Ambient temperature:	–5 ... +45 °C
Storing temperature:	–25 ... +70 °C
Approvals:	VDE

Ref.-no.

KNX blinds actuator, 4-gang AC 110 – 230 V, 2-gang DC 12 – 48 V
Rail mounting device, 4 rail units
with manual electronic operation and LED status indication
Blind/shutter correction for lower end position (e.g. for ventilation position for roller blinds)
Only with the ETS 3.0d version or later versions the full functionality will be available.
ETS product family: Shutter
Product type: Shutter

2514 REGHE

Intended use
- Switching of electrically driven blinds, shutters, awnings and similar hangings for AC 110 – 230 V mains voltage or DC 12 – 48 V extra-low voltage.
- Mounting on DIN rail in distribution boxes

Product characteristics
- Suitable for 110 ... 230 V AC motors and 12 ... 48 V DC motors
- Automatic operation time detection for 230 V motors can be set
- Slat position directly controllable
- Acknowledgement of travelling state and slat position in bus and manual mode
- Scene function
- Top and bottom forced position via higher-level controller
- Sun protection function

Technical data

KNX medium:	TP 256
Outputs:	4 channels AC 110 ... 230 V, 2 channels DC 12 ... 48 V
Power supply mains:	AC 110 V (–10 %) ... 240 V (+10 %)
Mains frequency:	50/60 Hz
Connection	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Breaking capacity AC1:	6 A (230 V)
Switching current DC 12/24 V:	6 A
Switching current DC 48 V:	3 A
Max. blind/shutter running time:	20 min
Power loss:	max. 4.5 W
Ambient temperature:	–5 ... +45 °C
Storing temperature:	–25 ... +70 °C
Approvals:	VDE

Ref.-no.

KNX blinds actuator, 8-gang AC 110 – 230 V, 4-gang DC 12 – 48 V
Rail mounting device, 8 rail units
with manual electronic operation and LED status indication
Only with the ETS 3.0d version or later versions the full functionality will be available.
ETS product family: Shutter
Product type: Shutter

2508 REGHE

Intended use
- Switching of electrically driven blinds, shutters, awnings and similar hangings for AC 110 – 230 V mains voltage or DC 12 – 48 V extra-low voltage.
- Mounting on DIN rail in distribution boxes

Product characteristics
- Suitable for 110 ... 230 V AC motors and 12 ... 48 V DC motors
- Automatic operation time detection for 230 V motors can be set
- Slat position directly controllable
- Acknowledgement of travelling state and slat position in bus and manual mode
- Scene function
- Top and bottom forced position via higher-level controller
- Sun protection function

Technical data

KNX medium:	TP 256
Outputs:	8 channels AC 110 ... 230 V, 4 channels DC 12 ... 48 V
Power supply mains:	AC 110 V (–10 %) ... 240 V (+10 %)
Mains frequency:	50/60 Hz
Connection	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Breaking capacity AC1:	6 A (230 V)
Switching current DC 12/24 V:	6 A
Switching current DC 48 V:	3 A
Max. blind/shutter running time:	20 min
Power loss:	max. 6 W
Ambient temperature:	–5 ... +45 °C
Storing temperature:	–25 ... +70 °C
Approvals:	VDE

Ref.-no.

KNX shutter actuator 4-gang AC 110 – 230 V
Rail mounting device, 4 rail units
with manual electronic operation and LED status indication
ETS product family: Shutter
Product type: Shutter

2504 REGHER

Product characteristics

- Outputs can be operated manually, construction site mode
- Blind/shutter position directly controllable
- Acknowledgement of the blind/shutter position in bus and manual mode
- Safety function: rain alarm, frost alarm, 3 independent wind alarms
- Integration into the temperature management of the building
- Disabling of individual outputs manually or via bus

- No central function
- No end position detection
- No feedback for drive movement
- No sun protection
- No scene function
- No forced position
- No fabric-stretching

Technical data

KNX medium:	TP 256
Rated voltage:	AC 110 V (–10 %) ... 240 V (+10 %)
Mains frequency:	50/60 Hz
Switching voltage:	AC 250 V ~
Switching current AC 250 V:	6 A
Switching current DC 12/24 V:	6 A
Switching current DC 48 V:	3 A
Connection, power supply and load	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Max. blind/shutter running time:	20 min
Mounting width:	72 mm (4 rail units)
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Power loss:	max. 4.5 W
Rated voltage KNX:	DC 21 ... 32 V SELV
Power consumption KNX:	typical 150 mW
Connection, KNX:	terminal
Approvals:	VDE

Ref.-no.

KNX LED universal dimming actuator / speed regulator, 1-gang
1 x 500 W, HV LED lamps typ. 3 ... 100 W
Rail mounting device, 4 rail units
ETS product family: Illumination
Product type: Dimmer

3901 REGHE

Intended use

- Switching and dimming of incandescent lamps, HV halogen lamps, dimmable HV LED lamps, dimmable compact fluorescent lamps, dimmable inductive transformers with LV halogen or LV LED lamps, dimmable electronic transformers with LV halogen or LV LED lamps
- Mounting on DIN rail according to EN 60715 in distribution boxes
- Speed controller for regulating the speed of single-phase motors e.g. induction motors, shaded pole motors or universal motors

Product characteristics

- Automatic or manual setting of the dimming principle suitable for the load
- Protected against no-load, short-circuit and overheating
- Signal in the event of a short-circuit
- Outputs can be operated manually
- Feedback of the switching position and the dimming value
- Parameterisable switch-on and dimming behaviour
- Time functions: switch-on delay, switch-off delay, staircase lighting timer with pre-warning function
- Light scene operation
- Disabling of individual outputs manually or via bus
- Status indication of the outputs via LED
- Operating hours counter
- Mains failure longer than approx. 5 seconds leads to switch-off of the dimmer actuator. Depending on the parameter setting, the connected load is calibrated after resumption of power supply.
- Power extension possible by means of power boosters (ref.-no. ULZ 1755 REG)
- Optional accessory: compensation module LED, ref.-no.: KM LED 230 U

Technical data

KNX medium:	TP 256
Rated voltage:	AC 110 ... 230 V ~, 50/60 Hz
Power loss:	max. 4 W
Stand-by power:	max. 0.5 W
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Contact type:	ε, MOSFET
Motor loads	
Motor switching current:	2.3 A
Lamp loads	
Connected load, 230 V per output	
Incandescent lamps:	20 ... 500 W
HV halogen lamps:	20 ... 500 W
Inductive transformers:	20 ... 500 VA
Inductive transformers with LV LED:	20 ... 100 VA
Electronic transformers:	20 ... 500 W
Electronic transformers with LV LED:	20 ... 100 W
Dimmable HV LED lamps:	typical 3 ... 100 W
Dimmable compact fluorescent lamps:	typical 3 ... 100 W
With setting "LED trailing edge phase control" the max. connection power for HV LED lamps and electronic transformers with LV LED doubles.	
Ohmic-inductive:	20 ... 500 VA
Ohmic-capacitive:	20 ... 500 W
Capacitive-inductive:	not permitted
Connected load, 110 V per output	
Incandescent lamps:	20 ... 250 W
HV halogen lamps:	20 ... 250 W
Inductive transformers:	20 ... 250 VA
Inductive transformers with LV LED:	20 ... 50 VA
Electronic transformers:	20 ... 250 W
Electronic transformers with LV LED:	20 ... 50 VA
Dimmable HV LED lamps:	typical 3 ... 50 W
Dimmable compact fluorescent lamps:	typical 3 ... 50 W
With setting "LED trailing edge phase control" the max. connection power for HV LED lamps and electronic transformers with LV LED doubles.	
Ohmic-inductive:	20 ... 250 VA
Ohmic-capacitive:	20 ... 250 W
Capacitive-inductive:	not permitted
Connection	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Mounting width:	72 mm (4 rail units)
Approvals:	VDE

Ref.-no.

KNX LED universal dimming actuator, 2-gang
2 x 300 W, HV LED lamps typ. 2 x 3 ... 60 W
Rail mounting device, 4 rail units
ETS product family: Illumination
Product type: Dimmer

3902 REGHE

Intended use
- Switching and dimming of incandescent lamps, HV halogen lamps, dimmable HV LED lamps, dimmable compact fluorescent lamps, dimmable inductive transformers with LV halogen or LV LED lamps, dimmable electronic transformers with LV halogen or LV LED lamps
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Automatic or manual setting of the dimming principle suitable for the load
- Protected against no-load, short-circuit and overheating
- Signal in the event of a short-circuit
- Outputs can be operated manually
- Feedback of the switching position and the dimming value
- Parameterisable switch-on and dimming behaviour
- Time functions: switch-on delay, switch-off delay, staircase lighting timer with pre-warning function
- Light scene operation
- Disabling of individual outputs manually or via bus
- Status indication of the outputs via LED
- Operating hours counter
- Mains failure longer than approx. 5 seconds leads to switch-off of the dimmer actuator. Depending on the parameter setting, the connected load is calibrated after resumption of power supply.
- Power extension possible by means of power boosters (ref.-no. ULZ 1755 REG)
- Optional accessory: compensation module LED, ref.-no.: KM LED 230 U

Technical data

KNX medium:	TP 256
Rated voltage:	AC 110 ... 230 V ~, 50/60 Hz
Power loss:	max. 4 W
Stand-by power:	max. 0.8 W
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Contact type:	ε, MOSFET
Lamp loads	
Connected load, 230 V per output	
Incandescent lamps:	20 ... 300 W
HV halogen lamps:	20 ... 300 W
Inductive transformers:	20 ... 300 VA
Inductive transformers with LV LED:	20 ... 100 VA
Electronic transformers:	20 ... 300 W
Electronic transformers with LV LED:	20 ... 100 W
Dimmable HV LED lamps:	typical 3 ... 60 W
Dimmable compact fluorescent lamps:	typical 3 ... 60 W
With setting "LED trailing edge phase control" the max. connection power for HV LED lamps and electronic transformers with LV LED doubles.	
Ohmic-inductive:	20 ... 300 VA
Ohmic-capacitive:	20 ... 300 W
Capacitive-inductive:	not permitted
Connected load, 110 V per output	
Incandescent lamps:	20 ... 150 W
HV halogen lamps:	20 ... 150 W
Inductive transformers:	20 ... 150 VA
Inductive transformers with LV LED:	20 ... 50 VA
Electronic transformers:	20 ... 150 W
Electronic transformers with LV LED:	20 ... 50 W
Dimmable HV LED lamps:	typical 3 ... 30 W
Dimmable compact fluorescent lamps:	typical 3 ... 30 W
With setting "LED trailing edge phase control" the max. connection power for HV LED lamps and electronic transformers with LV LED doubles.	
Ohmic-inductive:	20 ... 150 VA
Ohmic-capacitive:	20 ... 150 W
Capacitive-inductive:	not permitted
Connection	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Mounting width:	72 mm (4 rail units)
Approvals:	VDE

Ref.-no.

KNX LED universal dimming actuator, 4-gang
4 x 225 W, HV LED lamps typ. 4 x 1 ... 35 W (leading edge phase control),
4 x 1 ... 200 W (trailing edge phase control)
1 x 855 W
with manual electronic operation and LED status indication
Project design and commissioning with ETS5 or a more recent version.
Rail mounting device, 4 rail units
ETS product family: Illumination
Product type: Dimmer

N **39004 1S R**

Intended use
• Switching and dimming of incandescent lamps, HV halogen lamps, dimmable HV LED lamps, dimmable compact fluorescent lamps, dimmable inductive transformers with LV halogen or LV LED lamps, dimmable electronic transformers with LV halogen or LV LED lamps • Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
• Outputs can be operated manually, construction site mode • Feedback in manual mode and in bus mode • Disabling of individual outputs manually or via bus • Status feedback • KNX Data Secure compatible with ETS 5.7.3 or higher • Can be updated with the ETS Service App

Dimming operation characteristic
• Automatic or manual setting of the dimming principle suitable for the load • Protected against no-load, short-circuit and overheating • Signal in the event of a short-circuit, power failure and overload • Feedback of the switching position and the dimming value • Parameterisable switch-on and dimming behaviour • Time functions: switch-on delay, switch-off delay, staircase lighting timer with pre-warning function • Light scene operation • Status indication of the outputs via LED • Operating hours counter • Mains failure longer than approx. 5 seconds leads to switch-off of the dimmer actuator. Depending on the parameter setting, the connected load is calibrated after resumption of power supply.
• Increase in output power possible through parallel switching of multiple outputs
• Power extension possible by means of power boosters (ref.-no. ULZ 1755 REG)
• Optional accessory: compensation module LED, ref.-no.: KM LED 230 U

Logic function characteristics
• Logic gates • Transformer (conversion) • Disabling element • Comparator • Limit value switch

Technical data

Rated voltage:	AC 110 ... 230 V ~
Mains frequency:	50/60 Hz
Power loss:	max. 7 W
Stand-by power:	approx. 0.16 W per channel
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Lamp loads	
Connected load, 230 V per output	
If the maximum connected load is lowered to 110 V, the lamp loads fall by 50 %.	
Leading edge phase control	
Incandescent / HV halogen lamps	20 ... 210 W
Inductive transformers:	20 ... 210 VA
Electronic transformers:	20 ... 210 W
Dimmable LV LED lamps:	20 ... 100 VA
Dimmable HV LED lamps:	1 ... 35 W
Dimmable compact fluorescent lamps:	20 ... 80 W
Trailing edge phase control	
Incandescent / HV halogen lamps	20 ... 225 W
Electronic transformers:	20 ... 225 W
Dimmable LV LED lamps:	20 ... 200 VA
Dimmable HV LED lamps:	1 ... 200 W
Dimmable compact fluorescent lamps:	20 ... 150 W
Mixed load types	
Capacitive-inductive:	not permitted
Mounting width:	72 mm (4 rail units)
KNX	
KNX medium:	TP 256
Commissioning mode:	S-mode
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	15 mA
Connection	
Connection mode:	connection terminal
single wire:	1 x 0.5 ... 4 mm²
stranded without ferrule:	1 x 0.5 ... 4 mm²
stranded with ferrule:	1 x 0.5 ... 2.5 mm²

Ref.-no.

Amplifier LED
Rail mounting device, 2 rail units

ULZ 1755 REG

Intended use
- Power extension of the listed dimmers (ref.-no.: 3901 REGHE, 3902 REGHE, 3904 REGHE, 39004 1S R)
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Connection of several amplifiers to a single dimmer
- The total power of the connected loads is divided between the dimmer and amplifiers
- Power is supplied to the connected loads via a common power cable
- Operation using upstream dimmer
- Electronic over-temperature protection
- Optional accessory: compensation module LED, ref.-no.: KM LED 230 U

Technical data

Rated voltage:	AC 230 V ~
Mains frequency:	50/60 Hz
Stand-by power:	approx. 0.5 W
Power loss:	approx. 4.3 W
Ambient temperature:	–5 ... +45 °C
Connection:	screw terminals
single wire:	1 x 0.75 ... 4.0 mm^2
	2 x 0.75 ... 2.5 mm^2
stranded without ferrule:	1 x 0.75 ... 4.0 mm^2
	2 x 0.75 ... 2.5 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Total length power cable:	max. 100 m
Mounting width:	36 mm (2 rail units)

Permissible load depends on dimmer, operation mode and type of load, see operating instructions

Ref.-no.

KNX LED dimming actuator 4-gang
Rail mounting device, 4 rail units

3904 REG LED

Intended use
- LED dimmer for controlling LEDs and LED modules 12 – 24 V (pulse width-modulated PWM)
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- 4 individually configurable LED dimming channels
- Maximum output current of 5 A per channel
- At 24 V DC up to 480 W LED output
- Possible channel combinations:
  - 4 x independent channels
  - 2 x Tunable White channels
  - 2 x independent channels, 1 x Tunable White channel
  - 1 x RGB channel, 1 x independent channel
  - 1 x RGBW channel
- Activation of the colour channels via "HSV" or "RGB"
- Integrated 230 V C-load relay to switch the LED power supply
- Integrated protection with on-site display against:
  - Overcurrent
  - Overvoltage
  - Overtemperature
  - Reverse polarity

Technical data

Rated voltage:	AC 230 V ~
Mains frequency:	50 Hz
Rated current:	16 A (C load)
Power loss:	max. 6 W
Connection	
Connection mode:	screw terminals
single wire:	1 x 2.5 ... 4 mm^2
stranded without ferrule:	4 mm^2
stranded with ferrule:	2.5 mm^2
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	max. 18.9 mA
Connection, KNX:	terminal
LED	
Connection:	DC 12 ... 24 V SELV < 20 A from device acc. to EN 61347-2-13 for LED modules with constant output voltage
Current consumption:	20 mA
Outputs	
Number:	4
Max. current per output:	5 A
For LED modules with constant input voltage to EN 62031.	
LED modules with shared anode.	
PWM frequency:	488 / 600 Hz
Cable length:	depending on the cable resistance (voltage drop)
Connection	
Connection mode:	screw terminals
single wire:	4 mm^2
stranded without ferrule:	4 mm^2
Mounting width:	72 mm (4 rail units)
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C

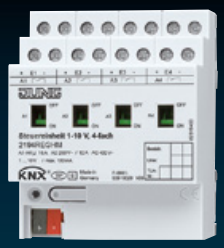
	Ref.-no.
KNX LED dimming actuator 4-gang	
	3904 EB LED

Intended use
- LED dimmer for controlling LEDs and LED modules 12 – 24 V (pulse width-modulated PWM)
- Mounting in false ceilings, surface mounting or in/ under furniture

Product characteristics
- 4 individually configurable LED dimming channels
- Maximum output current of 5 A per channel
- At 24 V DC up to 480 W LED output
- Possible channel combinations:
  - 4 x independent channels
  - 2 x Tunable White channels
  - 2 x independent channels, 1 x Tunable White channel
  - 1 x RGB channel, 1 x independent channel
  - 1 x RGBW channel
- Activation of the colour channels via "HSV" or "RGB"
- Integrated 230 V C-load relay to switch the LED power supply
- Integrated protection with on-site display against:
  - Overcurrent
  - Overvoltage
  - Overtemperature
  - Reverse polarity

Technical data

Rated voltage:	AC 230 V ~
Mains frequency:	50 Hz
Rated current:	16 A (C load)
Power loss:	max. 6 W
Connection	
Connection mode:	screw terminals
single wire:	1 x 2.5 ... 4 mm^2
stranded without ferrule:	4 mm^2
stranded with ferrule:	2.5 mm^2
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	max. 18.9 mA
Connection, KNX:	terminal
LED	
Connection:	DC 12 ... 24 V SELV < 20 A from device acc. to EN 61347-2-13 for LED modules with constant output voltage
Current consumption:	20 mA
Outputs	
Number:	4
Max. current per output:	5 A
For LED modules with constant input voltage to EN 62031.	
LED modules with shared anode.	
PWM frequency:	488 / 600 Hz
Cable length:	depending on the cable resistance (voltage drop)
Connection	
Connection mode:	screw terminals
single wire:	4 mm^2
stranded without ferrule:	4 mm^2
Dimensions (L x W x H):	196 x 40 x 32 mm
Protection level:	IP 20
Protection class:	II
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C



Ref.-no.

KNX control unit 1 – 10 V, 4-gang
Rail mounting device, 4 rail units
ETS product family: Illumination
Product type: Dimmer

2194 REGHM

Intended use
- Switching and brightness setting for lamps with operating devices with 1 – 10 V interface
- Switching of electrical loads
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Manual switching of the relays is independent of the bus
- Switching of capacitive loads and the resulting high switch-on currents
- Flexible assignment of control inputs to switching outputs, e.g. to control RGBW lamps
- Operation of the switching outputs as a switching actuator
- Connection of different external conductors possible
- No additional power supply necessary
- Feedback of switching state and brightness value
- Switch position display
- Burn-in function for fluorescent lamps
- Switch-on and dimming behaviour can be set
- Time functions: switch-on delay, switch-off delay, staircase lighting timer with pre-warning function
- Integration into light scenes
- Operating hours counter

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	max. 6 mA
Power loss:	max. 4 W
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Control outputs	
Control voltage:	1 ... 10 V
Control current per output:	max. 100 mA
Cable length:	max. 500 m (0.5 mm^2)
Switching outputs	
Contact type:	floating relay contacts (µ contact)
Switching voltage AC:	AC 250 / 400 V
Switching current 230 V AC1:	16 A
Switching current 230 V AC3:	10 A
Switching current 400 V AC1:	10 A
Switching current 400 V AC3:	6 A
Fluorescent lamps:	16 AX
Switching voltage DC:	DC 12 ... 24 V
Switching current DC:	16 A
Min. switching current:	100 mA
Switch-on current 150 µs:	600 A
Switch-on current 600 µs:	300 A
Ohmic load:	3680 W
Capacitive load:	16 A / 200 µF
Lamp loads	
Incandescent lamps:	3680 W
HV halogen lamps:	3680 W
LV halogen lamps with	
inductive transformers:	2000 VA
electronic transformers:	2500 W
Fluorescent lamps T5/T8	
non-compensated:	3680 W
parallel compensated:	2500 W / 200 µF
lead-lag circuit:	3680 W / 200 µF
Compact fluorescent lamps	
non-compensated:	3680 W
parallel compensated:	2500 W / 200 µF
Mercury vapour lamps	
non-compensated:	3680 W
parallel compensated:	3680 W / 200 µF
Connection, outputs	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.34 ... 4 mm^2
stranded with ferrule:	1 x 0.14 ... 2.5 mm^2
Mounting width:	72 mm (4 rail units)

Ref.-no.

KNX DALI gateway TW
Rail mounting device, 4 rail units
with manual electronic operation and LED status indication
ETS product family: Illumination
Product type: Dimmer
New in V 02: compatible with DALI-2 acc. to IEC 62386

2099 REGHE

Intended use
- Controlling of luminaires and other applications with DALI operating device in KNX installations e.g. electronic ballast
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Control of up to 64 DALI devices in up to 32 groups
- Setting of colour temperature for luminaires with DALI Device Type 8 for tunable white acc. to IEC 62386-209
- compatible with DALI-2 acc. to IEC 62386
- Suitable for operation in emergency lighting systems
- Individual, group or central addressing
- 16 light scenes
- Effect control for dynamic lighting effects or colour games
- Read out DALI device state via KNX, e.g. brightness or luminaire error
- Manual operation of the DALI groups
- Restraint function
- Feedback of switching state and brightness value in bus and manual mode
- Collective feedback
- Central switching function
- Disabling function for each DALI group
- Separate ON and OFF delay
- Staircase lighting timer with pre-warning function
- Corridor function: when combined with motion detectors, reduced continuous lighting, if no motion is detected
- Online or offline project design of the DALI devices with ETS plug-in
- Short-circuit protection
- Surge voltage protection
- Overload protection
- Operating hours counter
- Signal of the global switching status of the DALI devices, e.g. to switch off the mains voltage of the DALI devices to avoid standby losses
- An individual DALI device can be exchanged during operation without software
- Linear or logarithmic dimming characteristic can be selected

Technical data

Rated voltage:	AC 110 ... 240 V ~, 50/60 Hz
Rated voltage:	DC 110 ... 240 V
Power loss:	max. 3 W
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Rated voltage DALI:	DC 16 V
Number of DALI devices:	max. 64
DALI transmission rate:	1.2 kbit/s
DALI protocol:	EN 62386
Cable type:	Sheathed cable 230 V, e,g. NYM
Cable length DALI	
with 1.5 mm^2:	max. 300 m
with 1.0 mm^2:	max. 238 m
with 0.75 mm^2:	max. 174 m
with 0.5 mm^2:	max. 116 m
Mounting width:	72 mm (4 rail units)
Connection, power supply and DALI	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Power consumption KNX:	typical 150 mW
Connection, KNX:	terminal

Ref.-no.

DALI transformer for LV halogen lamps

D SNT 105

Intended use

- Power supply for LV halogen lamps
- Switching and brightness adjustment is performed with DALI control units or push-buttons
- Installation in false ceilings or surface mounting

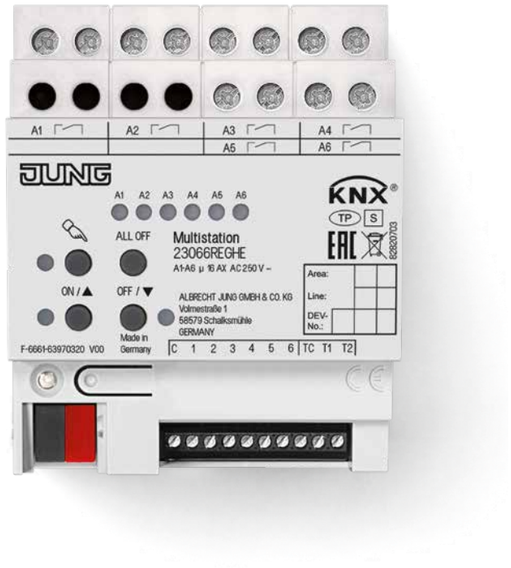
Product characteristics

- No-load proof
- Electronic short-circuit protection
- Electronic overload protection
- Electronic overtemperature protection
- Suitable for emergency current installation

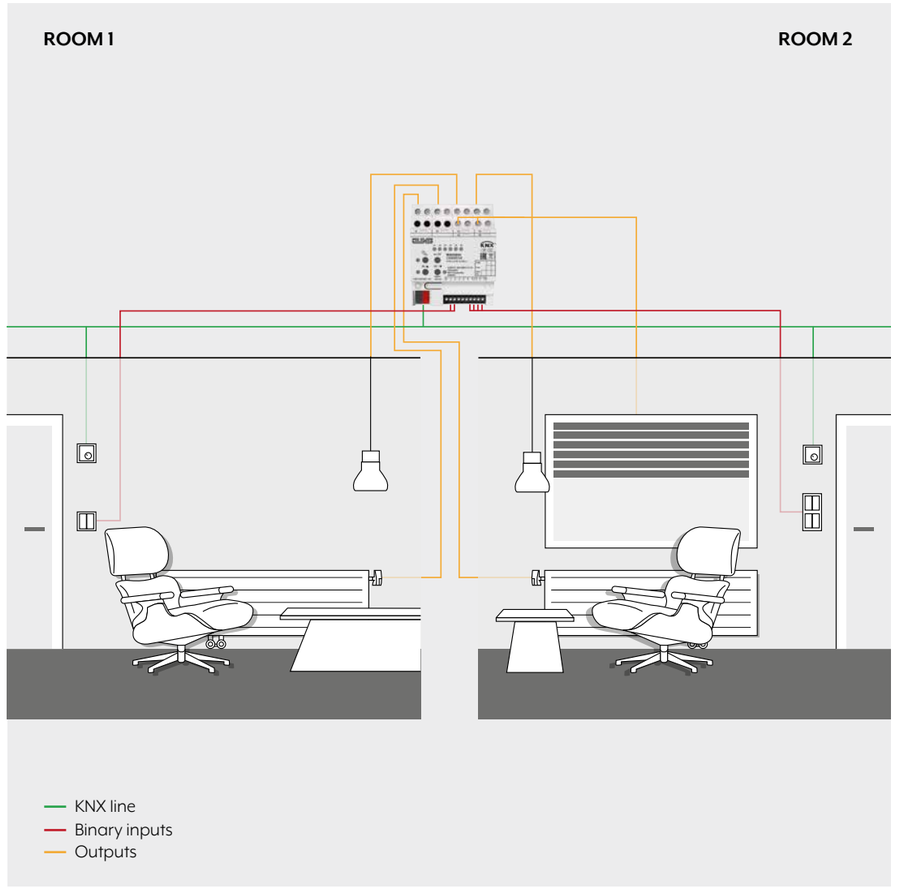
Technical data

Rated capacity:	35 ... 105 W
Rated voltage:	AC 230/240 V ~, 50/60 Hz
Output voltage:	11.5 V eff. ~ 40 kHz
Short-circuit protection:	electronic protection without fuse
Output cable length:	max. 2 m
Dimensions:	170 x 44 x 34 mm
Ambient temperature:	max. 50 °C
Terminals:	screw terminals
primary	1 x 0.5 ... 1.5 mm^2
secondary	1 x 0.75 ... 2.5 mm^2
Approvals:	VDE

KNX Multistation



KNX Multistation
Compact device for the distribution board



The KNX Multistation combines input and output channels in one compact device. Using logic functions, inter-device connections to the building control system are possible. In this way, functions are combined in one unit that otherwise can only be provided using multiple individual devices. This makes it optimal for rooms whose equipment is frequently repeated.

The JUNG KNX Multistation is a real problem solver. The REG housing has only 4 TE and offers a unique combination of six push-button interface, six switch outputs, two integrated room temperature controllers and two inputs for temperature sensors. This allows, for example, a complete office, hotel or hospital room to be equipped with all necessary functions. The configuration can be achieved if desired without ETS group addresses and can then simply be duplicated for all subsequent rooms. The Multistation is also ideal for retrofitting. Due to the low requirement for power supplies, the costs are of course also lower than for the use of individual actuators.

Ref.-no.

KNX multi station
Rail mounting device, 4 rail units

23066 REGHE

Intended use
• Switching of electrical loads with floating contacts • Switching of electrically-driven blinds, shutters, awnings and similar hangings • Switching of electrothermal drives • Polling of conventional switching or push-button contacts, window contacts etc. in KNX systems, for reporting of states, meter levels, operation of loads, etc. • Polling of external temperature sensors for heating control • Logic functions to control building functions • Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
• Actuator functions: switching, blinds, electrothermal drives • Actuator function can be switched in pairs • Integrated push-button interface with 6 inputs • 2 integrated room temperature controllers • 2 inputs for temperature sensors (ref.-no. FF 7.8) • Outputs can be operated manually, construction site mode • Feedback in manual mode and in bus mode • Scene function • Disabling of individual outputs manually or via bus

Switching function
• Max. 6 switching outputs
• Operation as NO or NC contacts
• Logic operation and forcing function
• Feedback function
• Central switching function with collective feedback
• Time functions: switch-on delay, switch-off delay, staircase lighting timer with pre-warning function

Blinds function
• Max. 3 blinds outputs
• Suitable for 230 V AC motors
• Blind/shutter position directly controllable
• Slat position directly controllable
• Feedback of movement status, blind/shutter position and slat position
• Forced position through higher-level controller
• Safety function: rain alarm, frost alarm, 3 independent wind alarms
• Sun protection function

Function of valve drives
• Max. 2 outputs for electrothermal drives
• Switching operation or PWM operation
• Actuators with characteristics "normally open" or "normally closed" can be controlled
• Emergency operation in case of bus voltage failure for summer and winter
• Protection against jamming valves
• Forced position
• Cyclical monitoring of the input signals can be parameterised

Heating controller
• 2 internal controllers to control two independent rooms
• Control for heating or cooling, optionally with additional level
• On-off, PWM or PI control
• Predefined heating types (hot water heating, fan coil unit ...) or individual parameters possible

Inputs
• 6 inputs for push-buttons
• Input functions: switching, dimming, blinds control, light scene extension unit, brightness or temperature value transmitter
• 2 inputs for external temperature sensors

Logic functions
• Up to 10 logic operations with up to 8 inputs each, e.g. for AND, OR and XOR operations
• Conversion of data point types, e.g. from 1-bit to 8-bit
• Comparative operations, e.g. <, >, ≤, ≥
• Arithmetic functions, e.g. +, –, *, :

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	4 ... 20 mA
Connection, KNX:	terminal
Power loss:	max. 6 W
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Relay outputs	
Contact type:	floating relay contacts (µ contact)
Switch type:	NO contact
Switching voltage:	AC 250 V ~
Min. switching current AC:	100 mA
Switching current AC1 (cos φ > 0.8):	16 A
Switching current AC3 (cos φ < 0.8):	6 A
Fluorescent lamps:	16 AX
Switch-on current 200 µs:	max. 800 A
Switch-on current 20 ms:	max. 165 A
Switching voltage DC:	DC 12 ... 24 V
Switching current DC 24 V:	6 A
Connected load, 230 V	
Ohmic load:	3000 W
Blind / Fan motors:	1380 VA
Lamp loads 230 V	
Incandescent lamps:	3000 W
HV halogen lamps:	2500 W
HV LED lamps:	max. 400 W
Electronic transformers:	1500 W
Inductive transformers:	1200 VA
Fluorescent lamps T5/T8	
non-compensated:	1000 W
parallel compensated:	1160 W / 140 µF
lead-lag circuit:	2300 W / 140 µF
Compact fluorescent lamps	
non-compensated:	1000 W
parallel compensated:	1160 W / 140 µF
Mercury vapour lamps	
non-compensated:	1000 W
parallel compensated:	1160 W / 140 µF
Electrothermal valve drives	
Cycle time:	min. 15 min
Connection, load	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Inputs	
Rated voltage:	DC 3.3 V SELV
Signal duration:	min. 100 ms
NO contacts:	max. 50
NC contacts:	max. 50
Cable length:	max. 30 m
For cable lengths > 3 m, use shielded cables.	
Connection, inputs:	
Connection mode:	screw terminals
single wire:	1 x 0.08 ... 1.5 mm^2
stranded without ferrule:	1 x 0.08 ... 1 mm^2
stranded with ferrule:	1 x 0.14 ... 0.5 mm^2
Mounting width:	72 mm (4 rail units)

Ref.-no.

KNX room actuator 110 – 230 V
Rail mounting device, 4 rail units
with manual electronic operation and LED status indication
Only with the ETS 3.0d version or later versions the full functionality will be available.
ETS product family: Output
Product type: Binary output

RA 23024 REGHE

Intended use
- Switching of AC 110 ... 230 V electrical loads with floating contacts
- Switching of electrically-driven blinds, shutters, awnings and similar hangings
- Heating outputs: electronic outputs for switching electro-thermal valve drives

Product characteristics
- Outputs can be operated manually, construction site mode
- Feedback in manual mode and in bus mode
- Scene function
- Disabling of individual outputs manually or via bus

Switching function
- Operation as NO or NC contacts
- Logic operation and forcing function
- Feedback function
- Central switching function with collective feedback
- Time functions: switch-on delay, switch-off delay, staircase lighting timer with pre-warning function

Blinds function
- Suitable for 110 ... 230 V AC motors
- Blind/shutter position directly controllable
- Slat position directly controllable
- Feedback of movement status, blind/shutter position and slat position
- Forced position through higher-level controller
- Safety function: rain alarm, frost alarm, 3 independent wind alarms
- Sun protection function

Control of valve drives 230 V
- Switching operation or PWM operation
- Actuators with characteristics "normally open" or "normally closed" can be controlled
- Overload-protected, short circuit-protected
- Emergency operation in case of bus voltage failure for summer and winter
- Protection against jamming valves
- Forced position
- Cyclical monitoring of the input signals can be parameterised

Technical data

KNX medium:	TP 256
KNX supply:	DC 21 ... 32 V SELV
Power consumption KNX:	max. 150 mW
Power supply mains:	AC 110 ... 230 V ~, 50/60 Hz
Power loss:	max. 6 W
Ambient temperature:	–5 ... +45 °C
Storing temperature:	–25 ... +70 °C
Mounting width:	72 mm (4 rail units)
Connection, KNX:	terminal
Connection, mains and outputs	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Heating outputs	
Number:	2
Contact type:	semiconductor, ε
Switching voltage:	AC 230/240 V ~
Switching current:	5 ... 50 mA
Switch-on current:	max. 1.5 A (2 s)
Number of drives per output:	max. 4
Relay outputs	
Number:	4 (2 channels for operating blinds)
Contact type:	floating NO contact (µ contact)
Switching voltage:	AC 230/240 V ~
Breaking capacity AC1:	16 A
Breaking capacity AC3:	6 A
Breaking capacity fluorescent lamps:	16 AX
Switching capacities per output	
Ohmic load:	3000 W
Capacitive load:	16 A / max. 140 µF
Motors:	1380 VA
Lamp loads	
Incandescent lamps:	3000 W
HV halogen lamps:	2500 W
LV halogen lamps with electronic transformers:	1500 W
inductive transformers:	1200 VA
Fluorescent lamps non-compensated:	1000 W
parallel compensated:	1160 W / max. 140 µF
– lead-lag circuit:	2300 W / max. 140 µF
Approvals:	VDE

Ref.-no.

KNX fan coil actuator 2-gang
Rail mounting device, 4 rail units
with manual electronic operation and LED status indication
Only with the ETS 3.0d version or later versions the full functionality will be available.
ETS product family: Heating, A/C, Ventilation
Product type: Fan-coil

FCA 2 REGHE

Product characteristics
- Connection of a fan coil unit with up to 6 fan speeds or connection of fan coil units with up to 3 fan speeds respectively
- Outputs can be operated manually, construction site mode
- Modes for heating, cooling or combined heating/cooling operations
- 2-pipe or 4-pipe operation
- Individual or hierarchical switching of fan speeds
- Feedback
- Disabling function for each channel

Operation modes
- Bus operation: operation via touch sensors or room controller
- Temporary manual control: manual operation locally with keypad, automatic return to bus operation
- Permanent manual control mode: only manual operation locally on device

Technical data

KNX medium:	TP 256
KNX supply:	DC 21 ... 32 V SELV
Power consumption KNX:	typical 150 mW
Rated voltage:	AC 230/240 V ~, 50/60 Hz
Power loss:	max. 3 W
Ambient temperature:	–5 ... +45 °C
Storing temperature:	–25 ... +70 °C
Connection, KNX:	terminal
Connection, mains and outputs	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Switch type:	NO contact
Contact type:	floating relay contacts (µ contact)
Switching voltage:	AC 230/240 V ~
Breaking capacity AC1:	10 A
Breaking capacity AC3:	10 A
Switching capacities per output	
Ohmic load:	2300 W
Capacitive load:	10 A / max. 140 µF
Motors:	1380 VA
Lamp loads	
Incandescent lamps:	2300 W
HV halogen lamps:	2300 W
LV halogen lamps with inductive transformers:	1200 VA
electronic transformers:	1500 W
Fluorescent lamps non-compensated:	1000 W
parallel compensated:	1160 W / 140 µF
lead-lag circuit:	2300 W / 140 µF
Approvals:	VDE

Ref.-no.

KNX heating actuator, 6-gang
Rail mounting device, 4 rail units
6 outputs "TRIAC"
with manual electronic operation and LED status indication
ETS product family: Heating, A/C, Ventilation
Product type: Valve

2336 REG HZ HE

Intended use
- Switching of electrothermal actuators for heaters or cooling ceilings
- Installation in distribution boxes on DIN rail according to EN 60715

Product characteristics
- Switching operation or PWM operation
- Actuators with characteristics "normally open" or "normally closed" can be controlled
- Valve drives for 230 V or 24 V controllable
- Outputs can be operated manually, construction site mode
- Feedback in manual mode and in bus mode
- Disabling of individual outputs manually or via bus
- Overload-protected, short circuit-protected; error indication with LED
- Protection against jamming valves
- Forced position
- Various setpoints for forced position or emergency operation in case of bus failure for summer or winter
- Cyclical monitoring of the input signals can be parameterised
- Feedback via bus, e.g. in case of mains failure, overload or sensor failure

Technical data

Rated voltage:	AC 110 ... 230 V ~, 50/60 Hz
Stand-by power:	max. 0.4 W
Power loss:	max. 1 W
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Power consumption KNX:	max. 250 mW
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Heating outputs	
Contact type:	semiconductor (triac), ε
Switching voltage:	AC 24 / 230 V ~
Mains frequency:	50/60 Hz
Switching current:	5 ... 160 mA
Switch-on current:	max. 1.5 A (2 s)
Switch-on current:	max. 0.3 A (2 min)
Number of drives per output	
230 V drives:	max. 4
24 V drives:	max. 2
Mounting width:	72 mm (4 rail units)
Connection, outputs	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2

Ref.-no.

KNX heating actuator, 6-gang with controller
Rail mounting device, 4 rail units
6 outputs "TRIAC"
with manual electronic operation and LED status indication
ETS product family: Heating, A/C, Ventilation
Product type: Valve

2336 REG HZR HE

Intended use
- Switching of electrothermal actuators for heaters or cooling ceilings
- Installation in distribution boxes on DIN rail according to EN 60715

Product characteristics
- Integrated room temperature control with setpoint value specification
- Six independent controllers to control up to six independent rooms
- Controller function for heating and cooling
- Switching operation or PWM operation
- Actuators with characteristics "normally open" or "normally closed" can be controlled
- Valve drives for 230 V or 24 V controllable
- Outputs can be operated manually, construction site mode
- Feedback in manual mode and in bus mode
- Disabling of individual outputs manually or via bus
- Overload-protected, short circuit-protected; error indication with LED
- Protection against jamming valves
- Forced position
- Various setpoints for forced position or emergency operation in case of bus failure for summer or winter
- Cyclical monitoring of the input signals can be parameterised
- Feedback via bus, e.g. in case of mains failure, overload or sensor failure

Technical data

Rated voltage:	AC 110 ... 230 V ~, 50/60 Hz
Stand-by power:	max. 0.4 W
Power loss:	max. 1 W
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Power consumption KNX:	max. 250 mW
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Heating outputs	
Contact type:	semiconductor (triac), ε
Switching voltage:	AC 24 / 230 V ~
Mains frequency:	50/60 Hz
Switching current:	5 ... 160 mA
Switch-on current:	max. 1.5 A (2 s)
Switch-on current:	max. 0.3 A (2 min)
Number of drives per output	
230 V drives:	max. 4
24 V drives:	max. 2
Mounting width:	72 mm (4 rail units)
Connection, outputs	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2

Ref.-no.

KNX analogue actuator, 4-gang
Rail mounting device, 4 rail units
ETS product family: Output
Product type: Analogue output 4-gang

2204.01 REGA

The analogue output needs 24 V AC for operation.
The necessary power can be supplied by the power supply unit ref.-no.: WSSV 10.

Function

- The analogue output converts measuring data received via KNX telegrams (1-byte and 2-byte telegrams) into analogue output signals.
- The analogue output signals enable heating, ventilation and air conditioning units to adapt their output values to information received from the bus and thus to take part in control processes.
- The outputs are software-parameterized for voltage or current signals.
  Voltage signals: 0 ... 1 V, 0 ... 10 V
  Current signals: 0 ... 20 mA, 4 ... 20 mA
- Voltage outputs are monitored for short circuits.
- The output state is indicated by status LEDs.
- With the analogue actuator module, 4-gang (ref.no. 2204.01 REGAM), the number of analog outputs can be increased from 4 to 8. The connection is made via a system plug.
- The output variables can be forced.
- Outputs that are not required can be switched off.

Connectable analogue actuators

- Do not connect electronic ballasts or electronic transformers with 1 – 10 V control input to the outputs.
- Do not connect external voltages to the outputs. All connected components must ensure safe separation from other voltages.
- Current outputs may be loaded with 500 Ω max.
- Voltage outputs must be loaded with 1 kΩ min.
- The GND terminals of the outputs K1 ... K4 are connected internally.
- In the event of a short-circuit between a voltage output K1 ... K4 and GND, the respective output is deactivated.

Technical data

Power supply	
Supply voltage:	AC 24 V ~ ± 10 %
Current consumption:	max. 308 mA
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Power consumption KNX:	typical 150 mW
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Humidity	
Ambient/storage/transport:	max. 93 % r. h., no condensation
Mounting width:	72 mm (4 rail units)
Weight:	approx. 180 g
Terminals	
Outputs, power supply:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Connection, KNX:	bus connection block
Analogue outputs	
Number:	4
Ranges:	0 ... 1 V DC, 0 ... 10 V DC, 0 ... 20 mA DC, 4 ... 20 mA, DC
Voltage signal load:	≥ 1 kW
Current signal load:	≤ 500 W
Power supply analogue actuator module:	DC 24 V via system bus max. 80 mA

Ref.-no.

Analogue actuator module, 4-gang
Rail mounting device, 4 rail units

2204.01 REGAM

Extension module for analogue actuator 4-gang ref.-no.: 2204.01 REGA

Function

- The analogue actuator module extends a KNX analogue actuator 4-gang by four additional sensor outputs, which can be parameterised by software.
- Received data are converted into the output signals 0 ... 1 V, 0 ... 10 V, 0 ... 20 mA, or 4 ... 20 mA
- The analogue output signals enable heating, ventilation and air conditioning units to adapt their output values to information received from the bus and thus to take part in control processes.
- The output variables can be forced.
- The evaluation of the module data itself and the processing of the forced operation takes place in the KNX analog output.
- The analogue output module is connected to the KNX device via a system plug included in the scope of delivery.
- Outputs that are not required can be switched off.
- Voltage outputs are monitored for short circuits.
- The output state is indicated by status LEDs.

Connectable analogue actuators

- Do not connect electronic ballasts or electronic transformers with 1 – 10 V control input to the outputs.
- Do not connect external voltages to the outputs. All connected components must ensure safe separation from other voltages.
- Current outputs may be loaded with 500 Ω max.
- Voltage outputs must be loaded with 1 kΩ min.
- The GND terminals of the outputs K1 ... K4 are connected internally.
- In the event of a short-circuit between a voltage output K1 ... K4 and GND, the respective output is deactivated.

Technical data

Power supply	
Supply voltage:	AC 24 V ~ ± 10 %
Current consumption:	max. 120 mA
Current consumption at system connector:	6 mA
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Humidity	
Ambient/storage/transport:	max. 93 % r. h., no condensation
Mounting width:	72 mm (4 rail units)
Weight:	approx. 155 g
Terminals	
Outputs, power supply:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2
Connection KNX device:	KNX bus connection block
Analogue outputs	
Number:	4
Ranges:	0 ... 1 V DC, 0 ... 10 V DC, 0 ... 20 mA DC, 4 ... 20 mA, DC
Voltage signal load:	≥ 1 kW
Current signal load:	≤ 500 W

Discontinued
Delivery capacity is ensured until April 2021.
Successor: 23001 1S U

Ref.-no.

Flush-mounted KNX switch actuator, 1-gang with satellite input
1 NO contact, 2 binary inputs
ETS product family: Output
Product type: Binary output

2131.16 UP

Intended use
- Switching of electrical loads for AC 230 V mains voltage
- Installation in flush box according to DIN 49073
- Connection with enclosed terminals

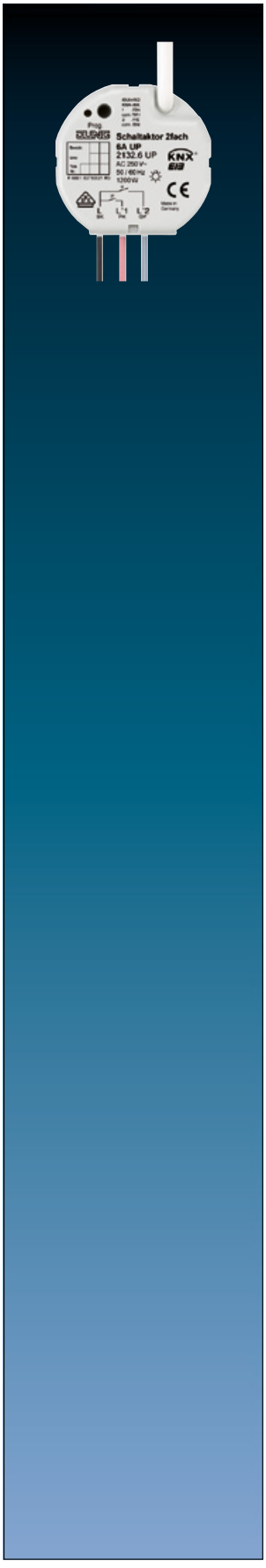
Product characteristics
- Two binary inputs for potential-free contacts, usable as extension inputs for local operation
- Operation as NO or NC contacts
- Feedback function
- Additional function: logical, forced-position or time function
- Time functions: switch-on delay, switch-off delay, staircase lighting timer
- Supply via bus, no additional power supply necessary

Technical data

Output	
Number:	1
Switch type:	floating NO contact (µ contact)
Max. switching voltage:	AC 230 V ~
Max. switching current:	16 A at 230 V AC
Switching capacity	
Incandescent lamps:	2200 W
HV halogen lamps:	2200 W
Capacitive load:	AC 230 V, 10 A, max. 105 µF
Inductive transformers:	1000 VA
Terminals	
Output cable:	L and L', colour brown, 1.5 mm², length approx. 20 cm
Bus and control cable:	KNX + red KNX – black binary input 1 green GND white binary input 2 yellow GND brown length approx. 33 cm, extendible to 5 m max.
Satellite input:	depending on parameterisation either as extension inputs for push-button local control of the actuator or as independent binary inputs acting on the bus
Dimensions (Ø x H):	53 x 28 mm
KNX medium:	TP 64
Rated voltage KNX:	DC 21 ... 32 V SELV
Connection, KNX:	terminal
Power consumption KNX:	typical 150 mW
Approvals:	VDE

Discontinued
Delivery capacity is ensured until April 2021.
Successor: 23002 1S U

	Ref.-no.
Flush-mounted KNX switch actuator, 2-gang with satellite input 2 NO contacts, 2 binary inputs ETS product family: Output Product type: Binary output	
	2132.6 UP



Intended use
- Switching of electrical loads for AC 230 V mains voltage
- Installation in flush box according to DIN 49073
- Connection with enclosed terminals

Product characteristics
- Two binary inputs for potential-free contacts, usable as extension inputs for local operation
- Operation as NO or NC contacts
- Feedback function for each output
- An additional function for each output: logical, forced-position or time function
- Time functions: switch-on delay, switch-off delay, staircase lighting timer
- Supply via bus, no additional power supply necessary

Technical data

Output	
Number:	2
Contact type:	floating relay contacts (µ contact)
Switch type:	NO contact
Max. switching voltage:	AC 230 V ~
Max. switching current:	2 x 6 A at 230 V AC
Switching capacity	
Incandescent lamps:	1200 W
HV halogen lamps:	1200 W
Capacitive load:	AC 230 V, 6 A, max. 14 µF
Inductive transformers:	500 VA
Electronic transformers:	500 W
Terminals	
Output cable:	L, L'1, L'2, black, pink, grey, 1.5 mm^2, length approx. 20 cm
Bus and control cable:	KNX + red KNX – black binary input 1 green GND white binary input 2 yellow GND brown length approx. 33 cm, extendible to 5 m max.
Satellite input:	depending on parameterisation either as extension inputs for push-button local control of the actuator or as independent binary inputs acting on the bus
Dimensions (Ø x H):	53 x 28 mm
KNX medium:	TP 64
Rated voltage KNX:	DC 21 ... 32 V SELV
Connection, KNX:	terminal
Power consumption KNX:	typical 150 mW
Approvals:	VDE

Discontinued
Delivery capacity is ensured until April 2021.

Ref.-no.

Flush-mounted KNX room climate interface with satellite input
3 binary inputs
1 blinds output, 1 output "TRIAC" (heating)

2531 UP

Intended use
• Switching of electrically-driven blinds, awnings and similar blinds for AC 230 V mains voltage • Switching of electrothermal actuators • Installation in flush box according to DIN 49073 • Connection with enclosed terminals

Product characteristics
• Control of blinds, awnings and similar blinds • Control of electrothermal actuators • Three binary inputs for potential-free contacts, usable as extension inputs for local operation • Supply via bus, no additional power supply necessary

Blinds function
• Blind/shutter position directly controllable • Slat position directly controllable • Feedback of movement status, blind/shutter position and slat position • Forced position through higher-level controller • Safety function: rain alarm, frost alarm, 3 independent wind alarms • Sun protection function

Function of valve drives
• Switching operation or PWM operation • Actuators with characteristics "normally open" or "normally closed" can be controlled • Overload-protected, short circuit-protected • Protection against jamming valves • Forced position • Cyclical monitoring of the input signals can be parameterised

PWM operation: electrothermal actuators only have the positions Open and Closed. In PWM operation, switch-on and switch-off during the drive's cycle time achieves an almost constant behaviour.

Technical data

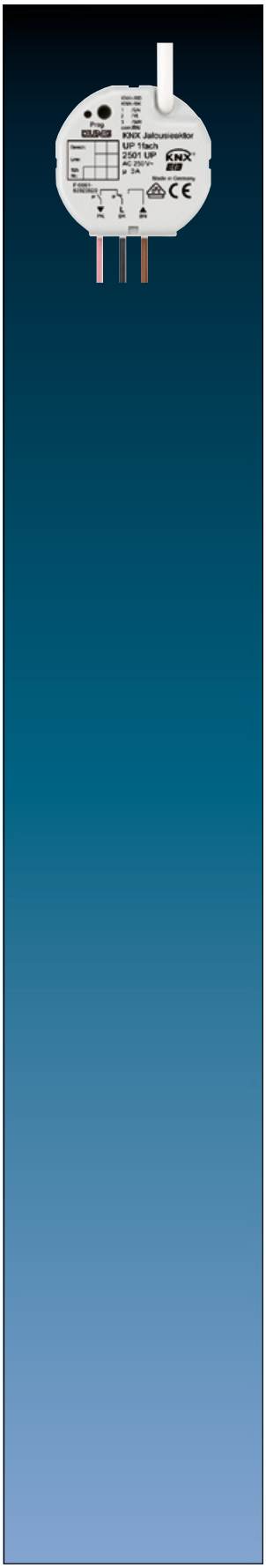
Rated voltage:	AC 230/240 V ~, 50/60 Hz
Switching voltage:	AC 250 V ~
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Blinds output	
Contact type:	µ
Switching current AC1 (cos φ > 0.8):	3 A
Min. switching current AC:	100 mA
Motors (230 V):	600 VA
Heating output	
Contact type:	semiconductor (triac), ε
Switching current:	5 ... 25 mA
Switch-on current:	max. 600 mA (2 s)
Number of drives per output:	max. 2
Control cable	
Cable type:	YY6x0.6
Input type:	floating contact
Total cable length:	max. 5 m
Voltage satellite inputs:	approx. 5 V
Dimensions (Ø x H):	53 x 28 mm
Connection:	screwles terminals
single wire:	1 x 1 ... 2.5 mm²
KNX medium:	TP 64
KNX supply:	DC 21 ... 32 V SELV
Power consumption KNX:	max. 240 mW
Connection, KNX:	terminal
Approvals:	VDE

Discontinued
Delivery capacity is ensured until April 2021.
Successor: 23002 1S U

Ref.-no.

Flush-mounted KNX blinds actuator, 1-gang with satellite input
3 binary inputs
ETS product family: Shutter
Product type: Shutter

2501 UP



Intended use
- Switching of electrically-driven blinds, awnings and similar blinds for AC 110 ... 230 V mains voltage
- Installation in flush box according to DIN 49073
- Connection with enclosed terminals

Product characteristics
- Control of blinds, awnings and similar blinds
- Three binary inputs for potential-free contacts, usable as extension inputs for local operation
- Supply via bus, no additional power supply necessary
- Blind/shutter position directly controllable
- Slat position directly controllable
- Feedback of movement status, blind/shutter position and slat position
- Forced position through higher-level controller
- Safety function: rain alarm, frost alarm, 3 independent wind alarms
- Sun protection function

Technical data

Rated voltage:	AC 110 ... 240 V ~, 50/60 Hz
Switching voltage:	AC 250 V ~
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Blinds output	
Contact type:	µ
Switching current AC1 (cos φ > 0.8):	3 A
Min. switching current AC:	100 mA
Motors (230 V):	600 VA
Motors (110 V):	300 VA
Control cable	
Cable type:	YY6x0.6
Input type:	floating contact
Total length of control cable:	max. 5 m
Voltage satellite inputs:	approx. 5 V
Dimensions (Ø x H):	53 x 28 mm
Connection	
Connection mode:	screwles terminals
single wire:	1 x 1 ... 2.5 mm^2
KNX medium:	TP 64
KNX supply:	DC 21 ... 32 V SELV
Power consumption KNX:	max. 240 mW
Connection, KNX:	terminal
Approvals:	VDE

Discontinued
Delivery capacity is ensured until April 2021.
Successor: 39001 1S U

Ref.-no.

Flush-mounted KNX dimming actuator, 1-gang, 50 – 210 W/VA with satellite input
2 binary inputs
ETS product family: Illumination
Product type: Dimmer

3210 UP

Intended use
- Switching of electrothermal actuators
- Installation in flush box according to DIN 49073
- Connection with enclosed terminals

Product characteristics
- Three binary inputs for potential-free contacts, usable as extension inputs for local operation
- Supply via bus, no additional power supply necessary
- Switching operation or PWM operation
- Actuators with characteristics "normally open" or "normally closed" can be controlled
- Overload-protected, short circuit-protected
- Protection against jamming valves
- Forced position
- Cyclical monitoring of the input signals can be parameterised

Technical data

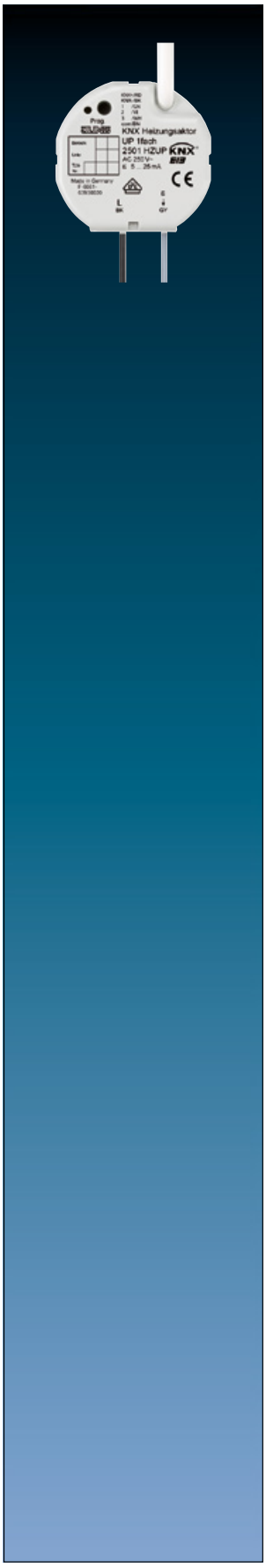
Output:	1 Power MOS-FET
Dimming method:	trailing edge or leading edge phase control
Terminals	
Output cable:	L = black, dimming output = brown, 0.75 mm²
	length approx. 20 cm
Bus and control cable:	KNX + red
	KNX – black
	binary input 1 green
	GND white
	binary input 2 yellow
	GND brown
	length approx. 33 cm, extendible to 5 m max.
Satellite input:	depending on parameterisation either as extension inputs for push-button local control of the actuator or as independent binary inputs acting on the bus
Dimensions (Ø x H):	63 x 25 mm
Rated voltage:	AC 230 V ~, 50/60 Hz
Rated current:	0.9 A
Minimum load:	50 W
Power loss:	2 W
Connected load	
Total connected load:	210 W/VA
Ohmic load:	50 ... 210 W
Incandescent lamps:	50 ... 210 W
HV halogen lamps:	50 ... 210 W
LV halogen lamps with	
inductive transformers:	50 ... 210 VA
electronic transformers:	50 ... 210 VA

Mix of the specified load types (do not mix capacitive loads with inductive loads).
When using mixed loads with inductive transformers, the ohmic load must not exceed 50 %.

KNX medium:	TP 64
Rated voltage KNX:	DC 21 ... 32 V SELV
Power consumption KNX:	typical 150 mW
Connection, KNX:	terminal
Approvals:	VDE

Discontinued
Delivery capacity is ensured until March 2021.

	Ref.-no.
Flush-mounted KNX heating actuator, 1-gang with satellite input 3 binary inputs 1 output "TRIAC" ETS product family: Heating, A/C, Ventilation Product type: Valve	
	2501 HZ UP



Intended use
- Switching of electrothermal actuators
- Installation in flush box according to DIN 49073
- Connection with enclosed terminals

Product characteristics
- Three binary inputs for potential-free contacts, usable as extension inputs for local operation
- Supply via bus, no additional power supply necessary
- Switching operation or PWM operation
- Actuators with characteristics "normally open" or "normally closed" can be controlled
- Overload-protected, short circuit-protected
- Protection against jamming valves
- Forced position
- Cyclical monitoring of the input signals can be parameterised

PWM operation: electrothermal actuators only have the positions Open and Closed. In PWM operation, switch-on and switch-off during the drive's cycle time achieves an almost constant behaviour.

Technical data

Rated voltage:	AC 230/240 V ~, 50/60 Hz
Switching voltage:	AC 250 V ~
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Heating output	
Contact type:	semiconductor (triac), ε
Switching current:	5 ... 25 mA
Switch-on current:	max. 600 mA (2 s)
Number of drives per output:	max. 2
Control cable	
Cable type:	YY6x0.6
Input type:	floating contact
Total length of control cable:	max. 5 m
Voltage satellite inputs:	approx. 5 V
Dimensions (Ø x H):	53 x 28 mm
Connection	
Connection mode:	screwles terminals
single wire:	1 x 1 ... 2.5 mm^2
KNX medium:	TP 64
Rated voltage KNX:	DC 21 ... 32 V SELV
Power consumption KNX:	max. 240 mW
Connection, KNX:	terminal
Approvals:	VDE

Ref.-no.

KNX valve drive (motor-operated) with controller
electromechanical servo drive
ETS product family: Heating, A/C, Ventilation
Product type: Valve

2177 SV R

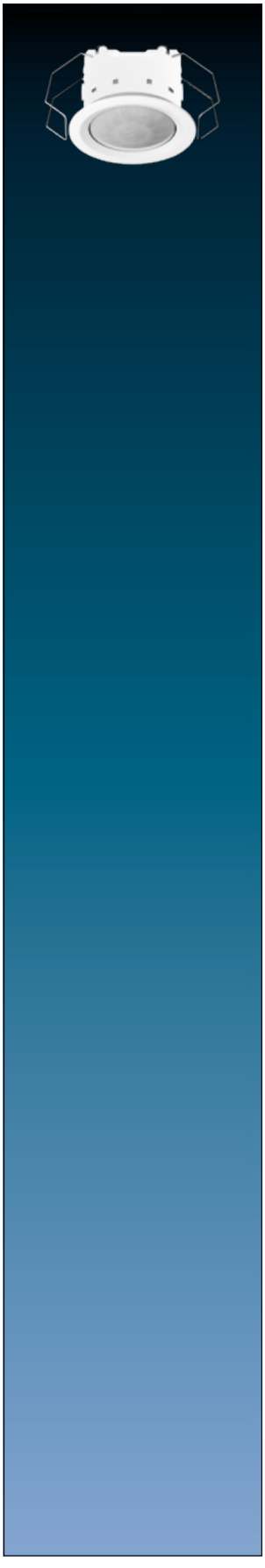
Intended use
- Motor-operated valve drive for heating or cooling valves
- To be screwed on valve head

Product characteristics
- Integrated temperature sensor
- Room temperature control
- Mechanical indication of valve lift
- Automatic detection of valve lift
- One input, can be used as binary input or for an external temperature sensor (ref.-no.: FF 7.8)
- Use in heating circles possible
- Integrated bus coupling unit
- Valve protection function

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	max. 20 mA
Protection class:	III
Valve connection:	M 30 x 1.5
Valve lift:	1.0 ... 4.2 mm
Actuating power:	80 ... 120 N
Dimensions (L x W x H):	76 x 47 x 85 mm
Connection cable	
Cable type:	J-YY 1 × 2 × 0.6 mm
Cable length:	1 m
Total length per line:	max. 30 m
Number of drives per line:	max. 30
Connection cable, binary input/external sensor	
Voltage satellite inputs:	approx. 3.3 V
Cable length:	max. 10 m
single wire:	1 x 0.08 ... 1.5 mm^2
stranded without ferrule:	1 x 0.08 ... 1 mm^2
stranded with ferrule:	1 x 0.14 ... 0.5 mm^2
Protection level:	IP 40
Ambient temperature:	0 ... +50 °C
Storage/transport temperature:	–20 ... +70 °C
Relative humidity:	5 ... 95 % (no condensation)

		Ref.-no.
Motion detector mini basic		
white	N IP	**BM 360 MB WW**



Intended use

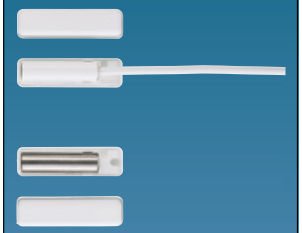
- Brightness-independent detection of motions in interior areas
- Connection to KNX e.g. multi station or push-button interface for automatic switching of loads
- Power supply via unchoked output of a (KNX) power supply with SELV
- Clamp mounting in suspended ceilings
- Ceiling installation on fixed ceilings in appliance box according to DIN 49073 with flush mounting set (ref.-no.: PMM-UP-SET-WW)
- Surface-mounted ceiling installation with surface mounting set (ref.-no.: PMM-AP-SET-WW)

Product characteristics

- Brightness-independent detection of motions in the detection field
- Switch on: After detection of a motion
- Switch off: No motion in the detection field and shut-off delay elapsed
- Floating electronic switching contact

Technical data

Rated voltage:	DC 24 ... 32 V SELV
Stand-by power:	< 0.1 W
Current consumption:	max. 4 mA
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Relative humidity:	10 ... 100 % (no condensation)
Protection class:	III
Protection level:	IP 44
Motion detection	
Detection angle:	360°
Range:	Ø approx. 6 m (mounting height 3 m)
Shut-off delay:	approx. 10 s
Switching output	
Electric strength:	40 V
Current carrying capacity of device:	max. 50 mA
Connected load:	max. 0.15 W
Dimensions	
Ceiling cut-out (Ø x D):	44 x 35 mm
Dimensions (Ø x H):	53.5 x 38 mm (with design ring)
Cable length:	max. 30 m
Max. thickness of the suspended ceiling:	approx. 25 mm
Installation depth:	min. 35 mm
Distance between concrete ceiling and suspended ceiling:	min. 20 mm
Design ring Ø inside:	35.6 mm
Design ring Ø outside:	53.5 mm
Profile height design ring:	1.8 mm
Profile height lens:	5.5 mm



Ref.-no.

Condensation sensor

BTS 01

Intended use

• Detection of water condensation on coolant lines in residential or functional buildings • Connection to KNX push-button interfaces or other binary inputs with 5 V polling voltage (e.g. 2177 SV R, 2076-2 T, 2076-4 T, .. 2178 TS .., .. 2178 ORTS .., CO2 .. 2178 ..) • Fitting on the coolant line

Technical data

Rated voltage:	DC 3.3 ... 5 V SELV
Current consumption:	typical 0.5 mA
Short-circuit current:	max. 100 mA
Protection class:	III
Ambient temperature:	0 ... +50 °C
Length of connected cable:	2 m
Protection level:	IP 67

Leakage sensor

LES 01

Intended use

• Detection of water penetration and leaks • Connection to KNX push-button interfaces or other binary inputs with 5 V polling voltage (e.g. 2177 SV R, 2076-2 T, 2076-4 T, .. 2178 TS .., .. 2178 ORTS .., CO2 .. 2178 ..) • Fitting to the surface to be monitored

Application examples

• Below or next to the bathtub or shower • Under the kitchen unit • Below or behind washing machines • In boiler rooms • In supply shafts with water pipes • In cellar rooms with a risk of backflow • Below or behind aquariums • In the heating manifold of floor heating systems

Technical data

Rated voltage:	DC 3.3 ... 5 V SELV
Current consumption:	typical 0.5 mA
Short-circuit current:	max. 100 mA
Protection class:	III
Ambient temperature:	0 ... +50 °C
Length of connected cable:	2 m
Protection level:	IP 67

Magnet contact

white	similar RAL 9016	**FUS 4410 WW**
brown		**FUS 4410 BR**

A sealed tubular glass envelope protects the magnet contact (reed contact) against dust and water.
The reed contact is actuated by means of a permanent magnet.
For installation in steel profiles (magnetic material) only block reed contacts can be used.
Included in delivery:
2 surface-mounted housings, 2 caps,
3 spacers 2 mm
1 spacer 6 mm
To be integrated into the signalling system of the Smart Panels by the KNX system via binary inputs / push-button interfaces.

Technical data

Contact type:	1-pole, 1-way (NO contact)
Switching voltage:	max. 100 V DC
Switching current:	max. 0.5 A
Contact rating:	max. 10 W or 10 VA
Transition resistance:	0.15 Ω
Permissible operating voltage:	max. 40 V
Connection cable:	LIYY 2 x 0.14 mm, Ø 3.2 mm (length 3 m)
Dimensions:	Contact = 32 mm x Ø 8 mm Magnet = 30 mm x Ø 6 mm AlNiCo 5 Housing (LxWxH) = 54 x 13 x 13 mm

Ref.-no.

KNX binary input, 6-gang
Rail mounting device, 2 rail units
6 inputs AC/DC 10 ... 230 V ~
(different L conductors possible, e.g.: E1-3 = L1 and E4-E6 = L2)
with status indicator
ETS product family: Input
Product type: Binary input

2116 REG

Intended use
- Polling of conventional switching or push-button contacts, window contacts etc. in KNX systems, for reporting of states, meter levels, operation of loads, etc.
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Status LED for each input
- Detection of voltage levels and changes on the input
- Transmitting of input status to the bus
- Transmitting behaviour freely adjustable
- Functions: switching, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Impulse and switch counter function
- Inputs can be blocked separately
- Connection of external AC or DC voltages

Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	max. 7.5 mA
Connection, KNX:	terminal
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +75 °C
Relative humidity:	max. 93 % (no condensation)
Inputs	
Rated voltage:	AC/DC 10 ... 230 V
Signal level "0" signal:	AC/DC 0 ... 2 V
Signal level "1" signal:	AC/DC 7 ... 265 V
Input current at rated voltage:	
Input current:	approx. 0.7 mA
Rated frequency AC signal:	30 ... 60 Hz
Signal duration pulse counter:	min. 100 ms
Cable length:	max. 100 m
Number of contacts per input	
NO contacts:	max. 50
NC contacts:	max. 50
Mounting width:	36 mm (2 rail units)
Power loss:	max. 1 W
Connection	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 4 mm^2
stranded without ferrule:	1 x 0.5 ... 4 mm^2
stranded with ferrule:	1 x 0.5 ... 2.5 mm^2

Ref.-no.

KNX binary input, 8-gang
Rail mounting device, 4 rail units
8 inputs 12 ... 48 V AC/DC
Auxiliary voltage output DC 24 V (SELV) for polling potential-free contacts
with status indicator
ETS product family: Input
Product type: Binary input

2128 REG

Intended use
- Polling of conventional switching or push-button contacts, window contacts etc. in KNX systems, for reporting of states, meter levels, operation of loads, etc.
- Mounting on DIN rail according to EN 60715 in distribution boxes

Product characteristics
- Status LED for each input
- Detection of voltage levels and changes on the input
- Transmitting of input status to the bus
- Transmitting behaviour freely adjustable
- Functions: switching, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Inputs can be blocked separately
- Connection of external AC or DC voltages
- Auxiliary voltage output for polling potential-free contacts
- No separate power supply required
- Separate reference potentials for inputs
- Pulse counter (firmware version V02 or higher), also suitable for S0 pulses

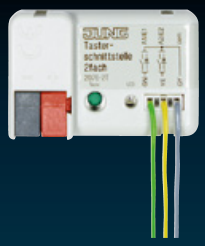
Technical data

KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Power consumption KNX:	max. 350 mW
Stand-by:	max. 200 mW
Connection, KNX:	terminal
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Inputs	
Rated voltage:	AC/DC 12 ... 48 V
Signal level "0" signal:	AC/DC –48 ... +2 V
Signal level "1" signal:	AC/DC 8 ... 48 V
Input current at rated voltage:	
Input current:	2 mA
Signal duration:	min. 30 ms
Rated frequency AC signal:	30 ... 60 Hz
Number of contacts per input	
NO contacts:	unlimited
NC contacts:	max. 20
Output voltage:	DC 24 V SELV
Mounting width:	72 mm (4 rail units)
Stand-by power:	max. 200 mW
Power loss:	max. 1 W
Connection	
Connection mode:	screw terminals
single wire:	1 x 0.2 ... 4 mm^2
stranded without ferrule:	1 x 0.34 ... 4 mm^2
stranded with ferrule:	1 x 0.14 ... 2.5 mm^2
Cable length:	max. 100 m

Ref.-no.

KNX push-button interface, 2-gang
ETS product family: Input
Product type: Binary input

2076-2 T



Product characteristics
- Can be used as binary input
- Can be used as switching output, e.g. for LEDs, max. 0.8 mA

Technical data

KNX medium:	TP 256
Inputs	
Number:	2
Signal voltage:	5 V
Signal current:	> 1 mA
Connection mode:	branching terminal, 5 pins
Length of input cable:	25 cm prefabricated, extendable to 5 m max
Outputs	
Output voltage:	5 V with 3.9 kΩ series resistor (open-circuit voltage)
Output current:	2 mA for red low-current LED (at approx. 1.4 V)
Dimensions (W x H x D):	28 x 43 x 16 mm

KNX push-button interface, 4-gang
ETS product family: Input
Product type: Binary input

2076-4 T

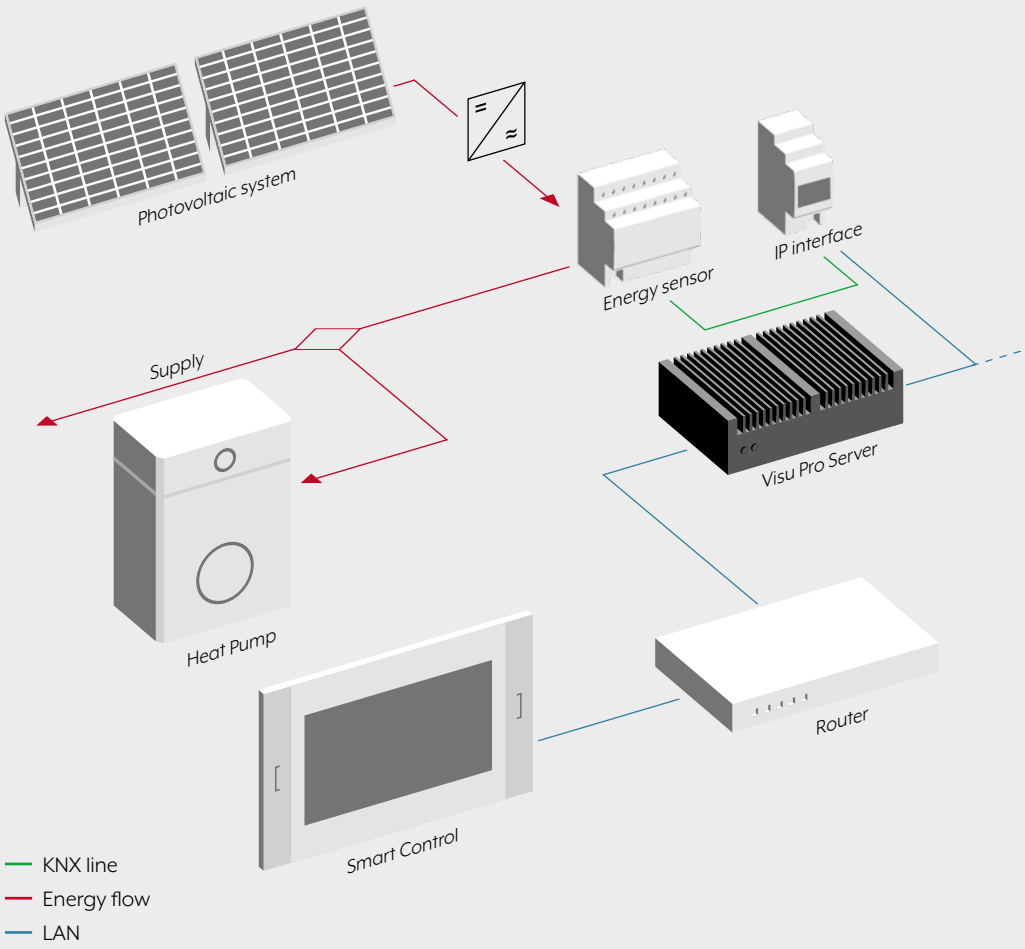
Product characteristics
- Can be used as binary input
- Can be used as switching output, e.g. for LEDs, max. 0.8 mA

Technical data

KNX medium:	TP 256
Inputs	
Number:	4
Signal voltage:	5 V
Signal current:	> 1 mA
Connection mode:	branching terminal, 5 pins
Length of input cable:	25 cm prefabricated, extendable to 5 m max
Outputs	
Output voltage:	5 V with 3.9 kΩ series resistor (open-circuit voltage)
Output current:	2 mA for red low-current LED (at approx. 1.4 V)
Dimensions (W x H x D):	28 x 43 x 16 mm

KNX energy sensor

APPLICATION EXAMPLE



The KNX energy sensor has three channels for connecting to consumers. For each channel, energy amounts, voltage, current and effective and reactive power are measured. Alternatively, it also records three-phase current levels. The sensor cyclically sends the data for evaluation and visualisation to the KNX bus. With the converter measurement function, it can also measure the complete consumption up to 75 ampere – as well as the existing three circuits with up to 16 ampere. The visualisation of the data received and the energy monitoring is then carried out on the JUNG Smart Control touch display or on a smartphone. Together with the JUNG Visu Pro Server, the values can be displayed clearly using graphics and statistics. This enables users to identify savings at a glance and to optimise their deployment of energy accordingly.

Ref.-no.

KNX energy detector, 3-gang
Rail mounting device, 4 rail units
ETS product family: Physical sensors
Product type: Energy detector

2103 REG ES

Product characteristics
The energy detector has three channels for connecting loads to up to three separate phases with a common neutral conductor. Each channel can measure:
- Voltage (eff.)
- Current (eff.)
- Active power
- Reactive power

Additionally, the active power and reactive power of all channels will be summed up and displayed as three-phase power values along with the mains frequency.
According to the parameterisation the measured values will be transmitted on the KNX bus, either cyclically and / or when the value changes. An additional telegram will be transmitted if certain values exceed or fall below a specified limit.

The following meters exist for each channel and for the three-phase values:
- 1 x energy meter total
- 1 x energy meter ¼ h value
- 3 x energy meter (3 tarifs)
- 3 x energy intermediate meter (3 tarifs)

New in version 01
- Direct measurement (without transformer)
- Transformer measurement (with external 75 A transformer, ratio 75:5, e.g. Phoenix Contact order key 2277611)

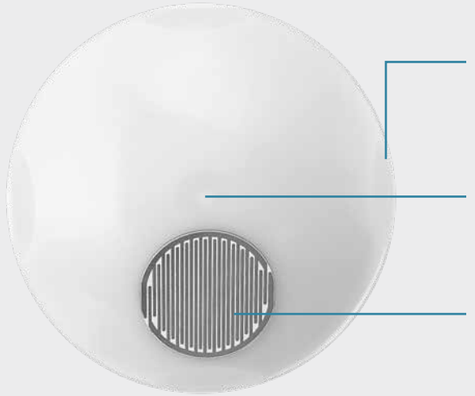
Technical data

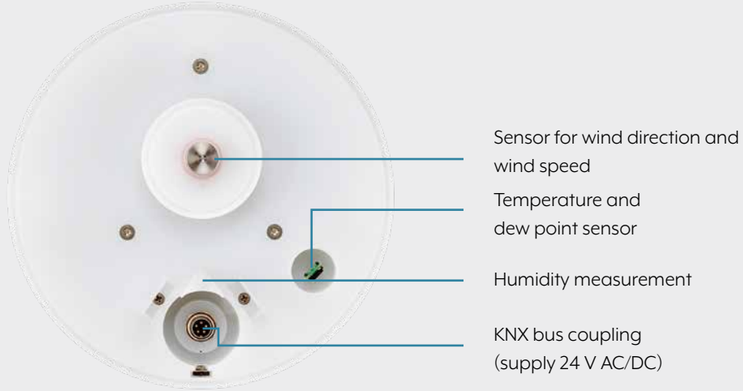
Power supply via E1/N	
Rated voltage:	AC 110 ... 240 V ~
Mains frequency:	50/60 Hz
Power consumption:	max. 2 W
Inputs E1 ... E3	
Rated voltage range:	AC 110 ... 240 V ~
Rated current range:	4 mA ... 16 A
Rated frequency:	50/60 Hz
Measurands:	voltage (rms value) current (rms value) frequency active power (signed +/–) reactive power (signed +/–) active energy (signed +/–)
External transformer	
Transformation ratio:	75:5
Secondary current:	0 ... 5 A
Accuracy	
Direct measurement (without transformer):	1 % of 200 mA ... 16 A
Transformer measurement (75 A transformer, class 1):	2 % of 7.5 A ... 75 A
Pulses LED	
Direct measurement (without transformer):	6400 / kWh
Transformer measurement (75 A transformer):	427 / kWh
Pulse duration:	4.9 ms
Power loss	
Voltage measurement:	≤ 0.03 W / phase
Current measurement:	≤ 0.8 W / phase
Power consumption from mains:	< 1 W
Connection	
Connection mode:	screw terminals
single wire:	1 x 0.5 ... 2.5 mm²
stranded without ferrule:	1 x 0.5 ... 2.5 mm²
stranded with ferrule:	1 x 0.5 ... 2.5 mm²
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
Mounting width:	72 mm (4 rail units)
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	typical 10 mA
Connection, KNX:	terminal

All important sensors for recording and evaluation of meteorological data combined in compact design: the JUNG KNX Weather Station for weather-dependent automatic shading control for façade protection.

KNX Universal Weather Station
Compact design, precise measurement

Universal Weather Station





Wind speed, wind direction, brightness – in four directions, twilight, global radiation, precipitation, relative air humidity and air pressure are measured using the integrated sensors. The calculation of further data such as absolute humidity and perceived temperature is also carried out. Operating interdependently with each other, values are also determined in terms of the mugginess curve and comfort characteristic that can then be used to optimise the ventilation control. These features are enhanced with a GPS/GLONASS receiver for the date and time and an astro function for determining the position of the sun. This makes it no-longer necessary to set the time manually. The installation of the weather station is carried out with its own fastening arm on the installation mast. This ensures the best capture and measurement of the weather data. The weather station can also be mounted onto the façade by means of the fastening arm.

Ref.-no.

KNX universal weather station
compact housing
including fastening arm and connection cable
ETS product family: Physical sensors
Product type: Weather station

2225 WS U

Intended use
- Measurement and evaluation of weather data: wind speed, wind direction, precipitation, brightness, global radiation, twilight, temperature, relative air humidity and air pressure
- Installation on the outside of buildings, preferable in the roof and facade area
- Operation with additional power supply (ref.-no.: WSSV 10)

Product characteristics
- Integrated GPS/GLONASS receiver for automated positioning
- Calculation of additional weather data: absolute air humidity, chill temperature, comfort
- Function for shading control
- Integrated KNX bus coupling unit
- Measuring and limit value monitoring
- Software logic modules for linking events
- Integrated heating

The weather station needs an operating voltage supply of 24 V AC, for example power supply module ref.-no. WSSV 10.

Fastening arm
(Spare part)
for installation of the universal weather station, ref.-no.: 2225 WSU

2225 BFA

Connection cable
(Spare part)
for universal weather station, ref.-no.: 2225 WSU

2225 CAB

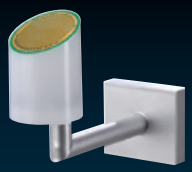
Technical data

Cable type:	LiYCY 4xAWG26
Cable length:	5 m

Technical data ref.-no. 2225 WS U

Power supply	
Rated voltage:	AC 24 V SELV (± 10 %) DC 21 ... 32 V SELV
Current consumption:	100 ... 400 mA (dependent on the weather)
Protection class:	III
Cable type:	LiYCY 4xAWG26
Cable length:	5 m
Total length per line:	15 m
Number of weather stations:	max. 3 (per line)
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Current consumption KNX:	max. 5 mA
Ambient temperature:	–30 ... +60 °C
Storage/transport temperature:	–25 ... +70 °C
Protection level:	IP 44 (in position for use)
Dimensions (Ø x H):	130 x 68 mm
Wind direction sensor	
Measuring range:	1 ... 360°
Resolution:	1°
Accuracy:	± 10 % (laminar wind stream)
Wind speed sensor	
Measuring range:	approx. 0 ... 40 m/s
Resolution:	0.1 m/s
Accuracy (≤ 10 m/s):	± 1 m/s
Accuracy (> 10 m/s):	± 5 %
Temperature sensor	
Measuring range:	–30 ... +60 °C
Resolution:	0.1 K
Accuracy:	± 1 K (wind > 2 m/s, for –5 ... +25 °C)
Precipitation sensor	
Measuring range:	yes / no
Accuracy:	fine drizzle
Brightness sensors	
Number:	4
Measuring range:	approx. 0 ... 150 klx
Resolution:	1 klx
Accuracy:	± 3 %
Spectral range:	475 ... 650 nm
Dawn sensor	
Measuring range:	approx. 0 ... 900 lx
Resolution:	1 lx
Accuracy:	± 10 lx
Air pressure sensor	
Measuring range:	300 ... 1100 hPa
Resolution:	0.01 hPa
Accuracy:	± 0.5 hPa (20 °C)
Humidity sensor	
Measuring range:	0 ... 100 % relative humidity (r. h.)
Resolution:	0.1 % relative humidity (r. h.)
Accuracy:	± 10 % rel. humidity (20 °C)
Absolute humidity:	0 ... 400 g/m^3
Resolution:	0.01 g/m^3
Global radiation	
Measuring range:	0 ... 1300 W/m^2
Resolution:	1 W/m^2
Accuracy:	± 10 %
Spectral range:	350 ... 1100 nm

All accuracy specifications relate to the respective measuring range end value.



	Ref.-no.
KNX weather station "home"	
	2224 WH

The KNX weather station detects the meteorological data "Wind speed", "Precipitation", "Twilight", "Temperature" and the brightness in three directions.
Its main area of application is the automatic, weather-dependent control of shading. It is specially designed for use in homes.
To increase functional reliability, the weather station monitors itself in some important functions, and reports any corresponding errors to the bus automatically via indicator objects.
It is intended for outdoor installation on a mast or on a wall. The bus coupling to the KNX/EIB is integrated (monoblock).
Evaluation of the data themselves, in particular the limiting value processing, is performed already in the weather station.
A built-in heater protects against degradation of function from frost and moisture condensation down to –20 °C.
The heating system further ensures that the sensor surface of the precipitation sensor will dry off quickly after rain, and also melts snow and ice. Power is supplied to the unit via the bus, except for the heating system and the power supply for the precipitation sensor.
The weather station requires an external 24 V AC/DC power supply for the heating system, without which precipitation detection is not possible.
Logic gates are available for cascading a number of weather stations and for linking the limiting values and the monitoring functions. Blocking elements make it possible to block individual functions at the installation location.

Intended use
- Measurement and evaluation of weather data: wind speed, precipitation, twilight, temperature and brightness
- Vertical mounting on the outside of buildings, preferably on roofs and at façades

Product characteristics
- Integrated KNX bus coupling unit
- Compact housing
- Low-maintenance device
- Measured-value acquisition and limit value monitoring

The power supply ref.-no.: WSSV 10 is necessary for precipitation detection.

Technical data

KNX medium:	TP 64
Rated voltage KNX:	DC 21 ... 32 V SELV
Power consumption KNX:	typical 450 mW
Connection, KNX:	terminal
External power supply	
Rated voltage:	AC/DC 24 V SELV
Power consumption:	typical 7.5 W
Connection:	connecting terminal yellow/white
Ambient temperature:	–20 ... 55 °C (free of ice and dirt)
Storing temperature:	–40 ... +70 °C
Protection level:	IP 44 (in position for use)
Protection class:	III
Dimensions (W x H x D):	approx. 88 x 170 x 204 mm (with assembly arm)
Weight:	approx. 240 g
Sensor signals:	
Temperature sensor	
Measuring range:	–20 ... +55 °C
Accuracy:	± 1 K (for wind speeds > 0.5 m/s)
Wind sensor	
Measuring range:	approx. 0 ... 40 m/s
Accuracy:	± 2 m/s
Precipitation sensor	
Measuring range:	precipitation yes / no
Sensitivity:	fine drizzle
Switch-off delay:	adjustable
Brightness sensor	
Direction:	east, south, west
Measuring range:	approx. 1 ... 110 klx
Spectral range:	approx. 700 ... 1050 nm
Accuracy:	10 % (of measuring range end value)
Dawn sensor	
Direction:	south
Measuring range:	approx. 0 ... 674 lx
Spectral range:	approx. 700 ... 1050 nm
Accuracy:	10 % (of measuring range end value)

	Ref.-no.
Connection set	
for weather station home ref.-no.: 2224 WH	
for pole mounting 50 – 120 mm Ø	**MM 100**

Ref.-no.

KNX analogue input, 4-gang
Rail mounting device, 4 rail units
ETS product family: Input
Product type: Analogue input 4-gang

2214 REG A

The analogue input processes measured-value data supplied by analogue sensors.
Four analogue transducers in any combination can be connected to the input.
The analogue input evaluates voltage and current signals.
Voltage signals: 0 ... 1 V DC 0 ... 10 V DC
Current signals: 0 ... 20 mA DC 4 ... 20 mA DC
The 4 ... 20 mA current inputs can be monitored for open-circuit conditions.
The analogue input needs a separate power supply, for example the power supply module ref.-no. WSSV 10.

Technical data

KNX medium:	TP 256
Supply voltage:	AC 24 V ~ ± 10 %
Analogue inputs:	4
Format:	EIS 5 (2 Byte) or EIS 6 (1 Byte)
Ranges:	voltage 0 ... 1 V, 0 ... 10 V; current 0 ... 20 mA, 4 ... 20 mA; depending on parameterisation
Limit values:	2 per channel
Supply output for sensor:	2 terminal pairs
Voltage:	DC 24 V ± 25 %
Total current:	max. 100 mA

Analogue input extension module, 4-gang
Rail mounting device, 4 rail units
extension module for analogue input

2214 REGAM

The analogue input extension module provides a KNX analogue input 2214 REG A with four additional sensor inputs. The evaluation of the measured data and the limiting values will be handled by the connected KNX device.
The analogue input extension module evaluates voltage and current signals.
Voltage signals: 0 ... 1 V DC 0 ... 10 V DC
Current signals: 0 ... 20 mA DC 4 ... 20 mA DC

Technical data

External supply	
Voltage:	AC 24 V ~ ± 15 %
Current consumption:	max. 170 mA (incl. sensors)
Analogue inputs:	4
Measuring ranges per channel	
Voltage:	0 ... 1 V, 0 ... 5 V, 0 ... 10 V (DC) Impedance approx. 18 kΩ
Current:	0 ... 20 mA, 4 ... 20 mA Impedance approx. 100 kΩ
A/D converter:	14 Bit
Power supply for sensors:	DC 24 V max. 100 mA

Ref.-no.

Power supply AC 24 V ~
for universal weather station ref.-no.: 2225 WS U
for weather station home ref.-no.: 2224 WH
for analogue input ref.-no.: 2214 REG A
for analogue actuator ref.-no.: 2204.01 REGA
Rail mounting device, 4 rail units

WSSV 10

Intended use
- Supplying devices with 24 V AC
- Mounting on DIN rail according to EN 60715 in distribution boxes

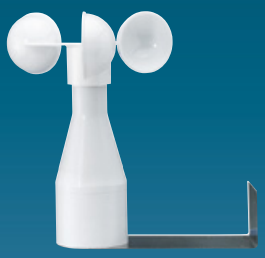
Product characteristics
- Two internally connected 24 V outputs
- Overload and short-circuit protection via thermo switch

Technical data

Rated voltage:	AC 230 V ~, 50/60 Hz
Output current:	max. 1 A
Output voltage:	AC 24 V ~
Storage/transport temperature:	–25 ... +70 °C
Ambient temperature:	–5 ... +40 °C
Relative humidity:	max. 93 % r. h., no condensation
Mounting width:	72 mm (4 rail units)
Connection:	screw terminals
single wire:	1 x 0.5 ... 4 mm²
stranded with ferrule:	1 x 0.14 ... 2.5 mm²
stranded without ferrule:	1 x 0.34 ... 4 mm²

Wind sensor

WS 10 W

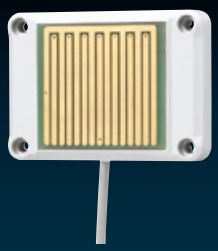


Intended use
- Sensor for measuring weather data
- Sensor signals are evaluated via additional electronics, e.g. analogue input (ref. no. 2214 REG A)
- Detection of the horizontal wind speed
- Vertical installation in outdoor areas, e.g. on walls of buildings, using the supplied mounting bracket

Product characteristics
- Measurement of the rotational speed of the anemometer
- Output with analogue output signal 0 ... 10 V
- Maintenance-free
- Operation without additional power supply possible
- To avoid dew and condensation, use a separate power supply (ref-no. WSSV 10) for heating

Technical data

Power supply	
Rated voltage:	DC 18 ... 32 V SELV
Current consumption:	6 ... 12 mA
Heating	
Rated voltage:	AC/DC 24 V
Switch-on current:	max. 1 A
Ambient temperature:	–25 ... +60 °C
Protection class:	III
Protection level:	IP 65 (in position for use)
Output signal	
Measuring range:	0.9 ... 40 m/s
Strain:	max. 60 m/s (for short periods)
Output voltage:	DC 0 ... 10 V
Load:	min. 1.5 kΩ
Cable type:	LiYY 6 x 0.25 mm²
Cable length:	approx. 3 m
can be extended up to:	max. 100 m
Dimensions (Ø x H):	134 x 160 mm



	Ref.-no.
Rain sensor	
	WS 10 R

Intended use

- Sensor for measuring weather data
- Sensor signals are evaluated via additional electronics, e.g. analogue input (ref. no. 2214 REG A)
- Detection of precipitation
- Vertical installation in outdoor areas, e.g. on walls of buildings, using the supplied mounting bracket

Product characteristics

- Measurement of the electrical conductivity on the sensor surface
- Output using analogue output signal: 0 = dry, 10 V = rain
- Heating of the sensor surface with separate 24 V AC/DC power supply, ref.-no.: WSSV 10

Technical data

Power supply	
Rated voltage:	DC 15 ... 30 V
Current consumption:	approx. 10 mA
Heating	
Rated voltage:	AC/DC 24 V
Power consumption:	max. 4.5 W
Ambient temperature:	–30 ... +70 °C
Protection class:	III
Protection level:	IP 65
Output signal	
Output voltage:	DC 0 / 10 V
Load:	min. 1 kΩ
Reaction time:	max. 4 min
Cable type:	LiYY 5 x 0.25 mm^2
Cable length:	approx. 3 m
can be extended up to:	max. 100 m
Dimensions (W x H x D):	58 x 83 x 17 mm

	Ref.-no.
Brightness sensor Rated voltage 24 V DC range 0 ... 60 000 lux, linear 58 x 35 x 64 mm	**WS 10 H**
Dawn sensor Rated voltage 24 V DC range 0 ... 255 lux, linear 58 x 35 x 64 mm	**WS 10 D**
Temperature sensor Rated voltage 24 V DC range –30 °C ... +70 °C, linear 58 x 35 x 64 mm	**WS 10 T**

The brightness sensor is used for the measuring and evaluation of the brightness.
The dawn sensor is used for the measuring and evaluation of the brightness (dawn/dusk).
The temperature sensor is used for the measuring and evaluation of the temperature.
The value measured by the sensor is transmitted to an analogue output signal of 0 ... 10 V by the electronics.

Connections:
Plastic housing with PG7 thread + screw and pressure / moisture compensation
(recommended cable 3 x 0.25 mm^2)
+UB: operating voltage 24 V DC
GND: corresponding ground
OUT: output 0 ... 10 V

Technical data

Supply voltage:	DC 24 V (DC 15 ... 30 V)
Connection:	screw terminals
Terminals for:	2.5 mm^2
Connection cable:	through screwed conduit entry PG 7
Recommended cable:	3 x 0,25 mm^2
Cable length:	max. 100 m
Output:	0 ... 10 V DC (into a load of at least 1 kΩ, short-circuit protected)
Ambient temperature:	–30 ... +70 °C
Protection level:	IP 65
Mounting position:	optional

KNX signal panel

The KNX signal panel (MBT 2424) is ideal for use in supermarkets, shops and offices: The panel, with aluminium housing and high-quality glass front, has 24 independent, capacitive sensor buttons and 24 RGB LEDs for status display that are identified with foil strips. Alongside the switching/push-button, dimming, blind and scene functions, transducer functions are also possible. The LEDs can be separately parametrised and can light red, green or blue and thus, for example, indicate different states of the KNX system according to limit values. With a locking function, specific buttons, columns or the complete panel can be locked. Acoustic signals for presses and as alarm signalling can be set. The MBT 2424 is installed in a flush-mounted, 2-gang wall box or in a surface-mounted installation housing and can be configured completely in the ETS. A drilling template is available for the installation. The identification of the functions allocated is done using replaceable labelling strips. Printing is done with the help of the JUNG printing tool. The front glass sheet is attached with four M3 snake-eye security screws. The bit required for installation is supplied.

		Ref.-no.
KNX signal panel		
ETS product family: Display		
Product type: Signal panel		
glass green		**MBT 2424**
glass white		**MBT 2424 WW**
glass black		**MBT 2424 SW**

Product characteristics

- Push-button functions switching, dimming, blind control, value transmitter, scene recall, etc.
- High quality glass surface with 24 sensor buttons
- Operation via touching the sensor buttons
- Labelling with exchangeable labelling foil
- Status indication with 24 LEDs; the colours red, green and blue can be configured
- Acoustical feedback for touching sensor
- Fault message on dismantling
- Logic and time functions
- Integrated bus coupling unit
- Supply via separate power supply (ref.-no. NT 2405 VDC) or the auxiliary voltage output of the KNX power supply

Technical data

External power supply	
Rated voltage:	AC/DC 24 V SELV
Power consumption:	approx. 2.2 W
Connection, power supply:	connecting terminal yellow/white
single wire:	1 x 0.6 ... 0.8 mm²
Front plate (W x H x D):	ca. 236 x 156 x 14 mm
Installation depth:	approx. 39 mm
Ambient temperature:	–20 ... +70 °C
Storage/transport temperature:	–20 ... +75 °C
Relative humidity:	15 ... 95 % (no condensation)
Protection level:	IP 54 flush-mounted IP 20 surface-mounted
Protection class:	III
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Connection, KNX:	bus connection block
Power consumption KNX:	typical 150 mW

Surface-mounted housing

for signal panel ref.-no.: MBT 2424 ..

light grey	similar RAL 7035	**EBG 2424**

Technical data

Dimensions:	236 x 156 x 52 mm (W x H x D)
Protection level:	IP 20

Flush-mounted power supply

for signal panel ref.-no.: MBT 2424 ..

	NT 2405 VDC

KNX Smart Panel

Operating comfort on 14.5 cm screen diagonal: Thanks to integrated control software, the functions are displayed and controlled using the colour TFT touch screen with the KNX Smart Panel 5.1.

JUNG USER INTERFACE

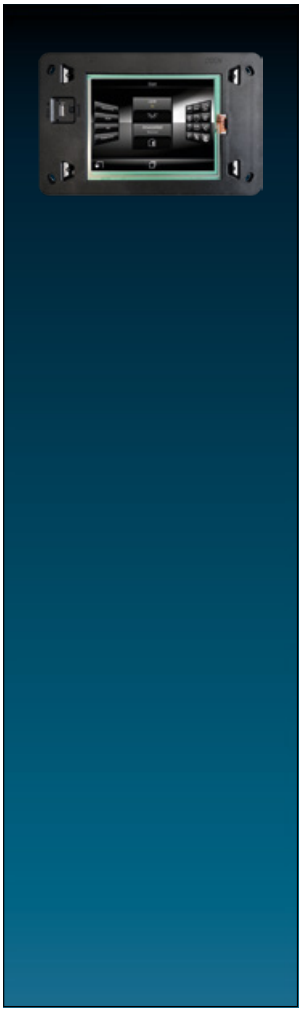
Visualisation and operation are performed using the uniform JUNG user interface that allows logical and intuitive operation of the various functions. This is generated quickly using the Smart Panel Designer as a planning tool.

FREELY CONFIGURABLE USER INTERFACE

As an alternative or in addition, a freely configurable user interface can be created. This enables the realisation of an individual display for the user.

Additional security is provided by the integrated alarm system in the Smart Panel for up to 40 detectors for interior and exterior perimeter protection. Additional functions are the 64-channel week timer with random and astro functions, the pre-configured lighting scene management, data logger for consumption data, limit value modules, and logic and time gates. These optimise the features and are quickly integrated.

Discontinued
Delivery capacity is ensured until May 2021.
Successor: SP 0081 U



Ref.-no.

KNX Smart Panel
with integrated BCU
aspect ratio 4:3
for installation in walls, touch screen
fanless, without rotating parts

SP 5.1 KNX

Intended use
• Operation and visualisation of system statuses and information on building automation • Flush-mounted fitting indoors
Product characteristics
• Illuminated graphic colour screen TFT, 640 x 480 pixels, 262 000 colours • Touchscreen • KNX Interface • Interfaces – accessible from front: 1 x USB 2.0 • Interfaces – accessible from behind: Ethernet • Graphical user interface for visualisation and operation of KNX devices • Predefined graphical user interface • Free graphical user interface • KNX special functions, e.g. scenes, forced position, timer, presence simulation • Fast access to pages and functions • Remote access (remote function) • Acoustic signal encoder, configurable • Combination of predefined and free graphical user interface • Master pages: max. 10 • Free pages: max. 50 • Elements: max. 400 • Copy & Paste functions • 50 rooms • 10 function units
• 240 functions, e.g.:
  – Scene recalls: max. 40
  – Signalling system: max. 40 detectors (internal and external skin together)
  – Datalogger: max. 20 datalogger channels
  – Logic gates: max. 80 gates with up to 8 inputs and one output each
  – Timers: max. 40
  – Limiting value modules: max. 40
  – Demultiplexer "1 to 2" and "1 to 4": max. of 7 each
  – Timer: max. 64 switching channels with a total of 128 switching times
  – Scenes: max. of 24 scenes, max. of 32 scene functions
  – Presence simulation: max. 8 simulations, max. 32 functions (15 functions per simulation)
  – Fault messages: max. 50
  – Event e-mails: max. 50
  – Video messages: max. 8
  – System time: max. 40

Technical data

Power supply	
Rated voltage:	AC 230 V ~, 50/60 Hz
Current consumption:	max. 100 mA
Fine-wire fuse:	Littelfuse/Wickmann 372 1160 T 1.6 L 250
Power consumption (Display off):	approx. 2.5 W
Power consumption:	max. 11.5 W
Typical power consumption (40 % brightness):	4.5 W
Ambient conditions	
Ambient temperature:	0 ... +40 °C
Storage/transport temperature:	–10 ... +70 °C
Relative humidity:	15 ... 85 % (no condensation)
Protection class:	II
Screen diagonal:	145 mm / 5.7”
Resolution:	VGA (640 x 480)
Colours:	262,000
Viewing angle horizontal:	± 70°
Viewing angle vertical:	± 60°
Touchscreen:	resistive

USB	
USB version:	2.0
Connection:	1 x type A
Network	
Type:	10/100/1000 Mbit/s Ethernet
Connection:	RJ45 socket8/4-pin
Dimensions (W x H x D), without design frame	220 x 140 x 48 mm
Dimensions screen (W x H):	approx. 115 x 86.5 mm
KNX medium:	TP 256
Rated voltage KNX:	DC 21 ... 32 V SELV
Power consumption KNX:	typical 150 mW
Connection, KNX:	terminal

	Ref.-no.
Frame	
for Smart Panel ref.-no.: SP 5.1 KNX	
white	**R 5 WW**
black	**R 5 SW**
aluminium	**R 5 AL**
Dimension: 236 x 170 x 8 mm (W x H x D) Acrylic glass with printed rear side	

R 5 WW

Frame	
for Smart Panel ref.-no.: SP 5.1 KNX	
aluminium	**FP AL 781**
stainless steel	**FP ES 781**
Dimension: 236 x 170 x 10 mm (W x H x D)	

FP AL 781

Glass frame	
for Smart Panel ref.-no.: SP 5.1 KNX	
glass green	**FP GLAS 781**
glass white	**FP GLAS 781 WW**
glass black	**FP GLAS 781 SW**
Dimension: 236 x 170 x 10 mm (W x H x D) safety glass acc. DIN 1249	

FP GLAS 781

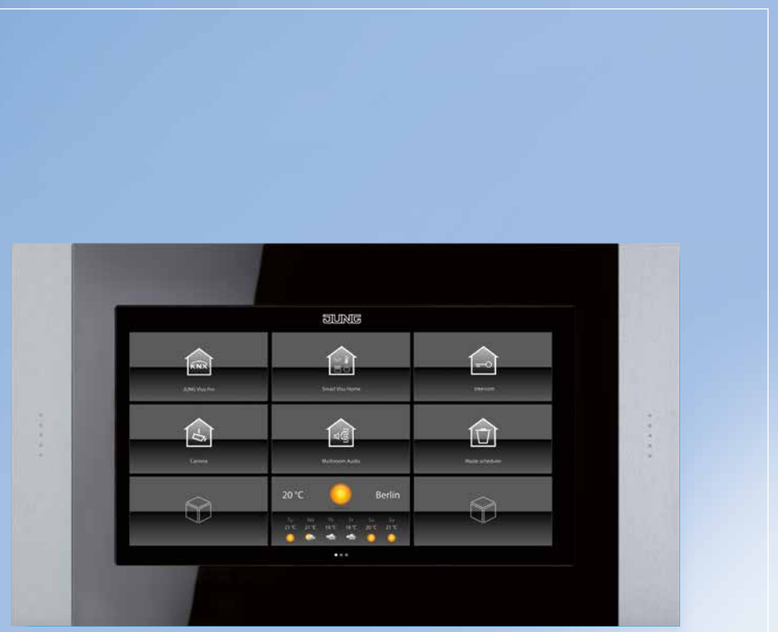
Frame	
for Smart Panel ref.-no.: SP 5.1 KNX	
aluminium	**R 5 AL E**
white (aluminium lacquered)	**R 5 WW E**
Dimension: 232 x 152 x 7 mm (W x H x D)	

R 5 WW E

Frame	
for Smart Panel ref.-no.: SP 5.1 KNX	
industrial version	
anthracite	**FPI 781 AN**
Dimension: 236 x 170 x 6 mm (W x H x D)	

FPI 781 AN

Flush-mounted recessed box	
for Smart Panel ref.-no.: SP 5.1 KNX	
cut-out dimensions (W x H): 212 x 124 mm	
installation depth: 75 mm	
	EBG 24
can also be used for hollow wall mounting	



Smart Control 19

Smart Controls

Multifunctional control panels for smart buildings: The Smart Controls take over the control and visualisation of various systems for building automation using apps. Thanks to the JUNG Launcher, all available applications are clearly displayed and can be called up directly by tapping on the respective icon. The control panels in the Smart Control family are available in various sizes and designs, depending on space available and intended use. The seven-inch version can be mounted vertically if desired. The Smart Control 5 with vertical display allows installation in a deep standard wall box due to its compact design.

VARIANTS

The Smart Controls for wall mounting are available in various sizes as required.

Smart Control 19
470mm / 18.5"

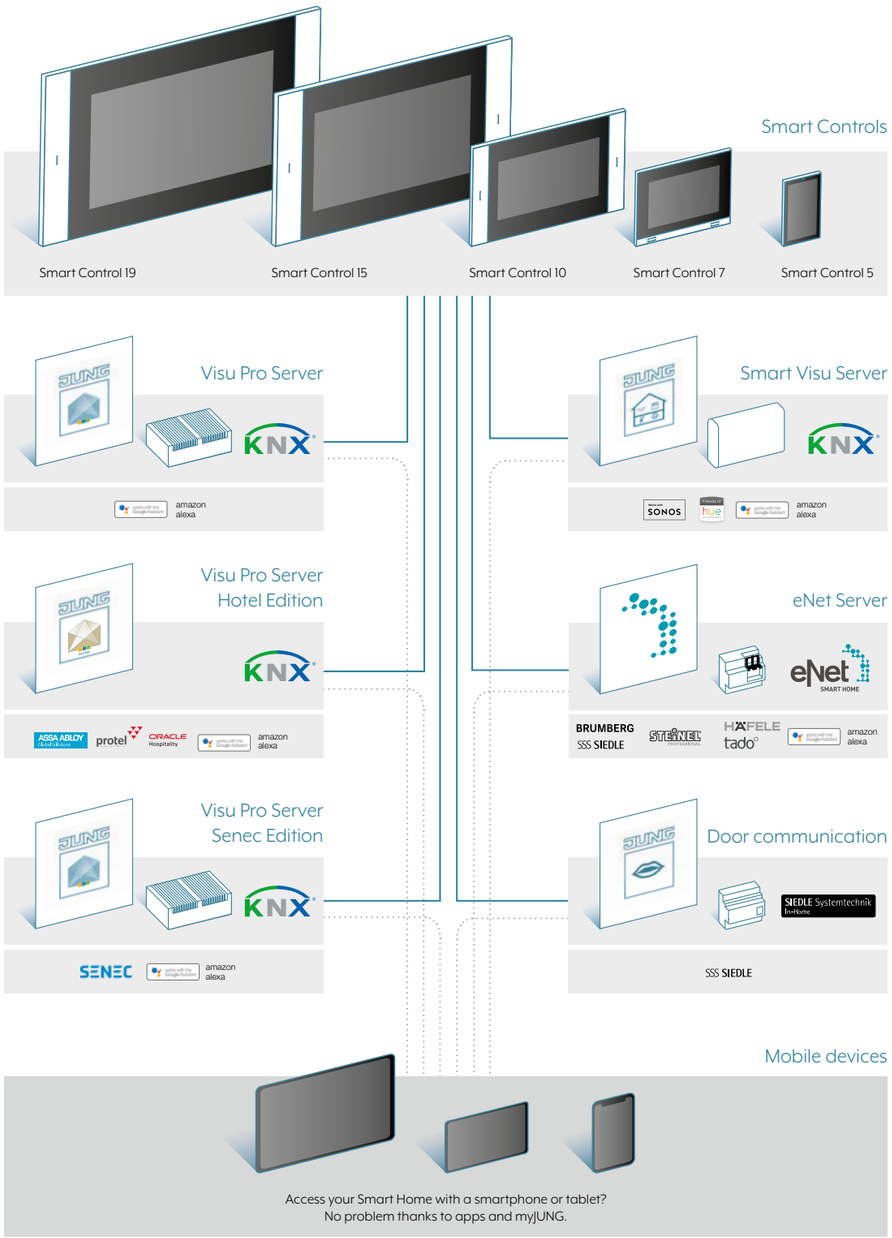
Smart Control 15
396mm / 15.6"

Smart Control 10
256mm / 10.1"

Smart Control 7
178mm / 7"

Smart Control 5
127mm / 5"

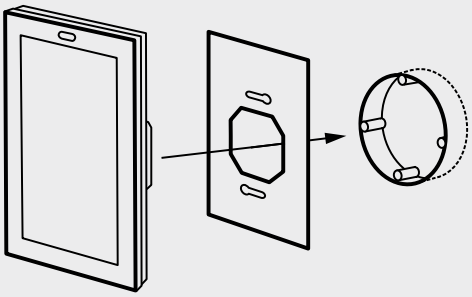
Server and clients

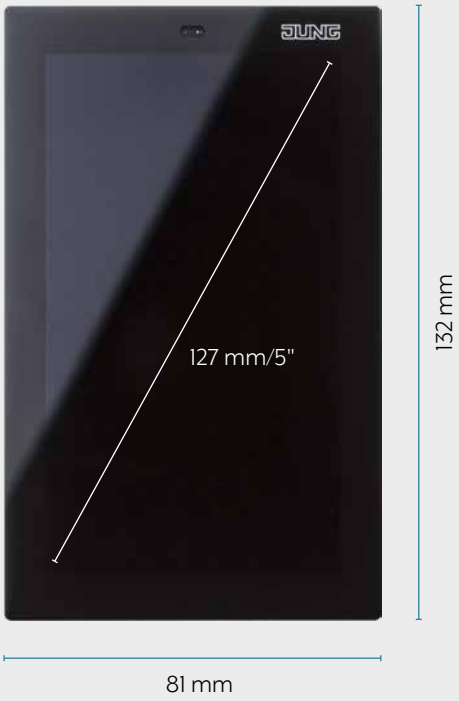


With the Smart Controls, KNX and eNet SMART HOME installations and door intercom functions can be operated using only one device, including in parallel. In combination with various system servers, all settings and functions are then conveniently controlled using the apps via Launcher. Thereby, options for use in private as well as commercial construction can be selected.

Compact design

EASY INSTALLATION





The Smart Control 5 fits every standard flush-mounted box.

Thanks to a slim, compact design, the SC 5 fits into a deep wall box. With the high-resolution touch display, the functions can be conveniently operated.

With a high-resolution touch display, users operate all functions conveniently and intuitively. The high-resolution graphic display is reminiscent of the newest smartphones in respect of its appearance, brightness of the colours and sharpness. With an integrated proximity sensor, the display wakes up from standby mode when the user wants to operate it. A brightness sensor automatically adapts the display brightness to the current light conditions in the room. With the pre-installed apps for the “JUNG Visu Pro” visualisation server, “Smart Visu Server” and “eNet Server”, the operation of the building technology is made simply convenient. Using the combination with the Siedle Smart Gateways, the connection to the door communication can be implemented as normal.

	Ref.-no.
Smart Control 5	
for installation in walls, capacitive touch screen	
fanless, without rotating parts	
black	**SC 5 SW**

Intended use

- Visualisation and operation of system statuses and information on building automation
- For vertical installation
- Installation in flush box according to DIN 49073
- Ensure correct orientation when installing the appliance box. Mounting screws must be in vertical alignment.

Product characteristics

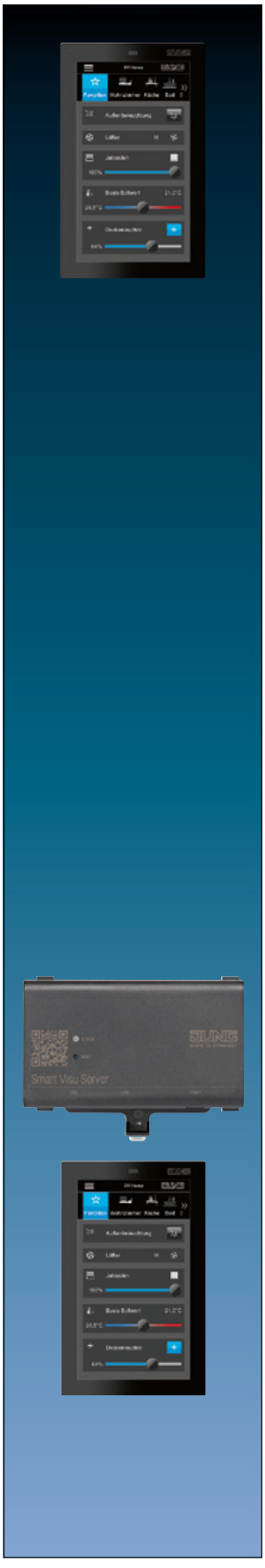
- KNX visualisation in combination with Visu Pro Server (ref.-no.: JVP-SERVER-H2)
- KNX visualisation in combination with Smart Visu Server (ref.-no.: SV-SERVER-INT)
- eNet visualisation in combination with eNet server for rail mounting (ref.-no.: ENET-SERVER) with software version 2.2 or higher
- Door call function only in combination with Siedle Smart Gateway SG 650-.. or SG 150-..
- High performance HD screen
- Proximity sensor
- Graphical user interface
- Brightness level of display adapts automatically to ambient brightness
- Smart Gateway with integrated image storage

Technical data

Rated voltage:	DC 24 V SELV
Rated capacity:	< 1.5 W
Screen diagonal:	127 mm / 5”
Resolution:	720 x 1280
Frame dimensions (W x H):	81 x 132 mm
Power supply:	PoE acc. to IEEE 802.3af or DC 24 V via external power supply (ref.-no. NT 2415 REG VDC, not included)
Processor:	Cortex-A53
Loudspeaker:	integrated
Microphone:	integrated
LAN connections:	1 x 10/100 Mbit/s
Ambient temperature:	0 ... +30 °C

SV-Server set Smart Control 5

consists of Smart Visu Server (ref.-no.: SV-SERVER-..) and Smart Control 5 (ref.-no.: SC 5 SW)	
black	**SV-S-SC 5 SW**



	Ref.-no.
Smart Control 7 **aspect ratio 16:9** for installation in walls, capacitive touch screen fanless, without rotating parts	
aluminium	**SC 7.1 AL**
black	**SC 7.1 SW**

Intended use

- Visualisation and operation of system statuses and information on building automation
- For vertical or horizontal installation
- Mounting in flush-mounted recessed box

Product characteristics

- KNX visualisation in combination with Visu Pro Server (ref.-no.: JVP-SERVER-H2)
- KNX visualisation in combination with Smart Visu Server (ref.-no.: SV-SERVER-INT)
- eNet visualisation in combination with eNet server for rail mounting (ref.-no.: ENET-SERVER) with software version 2.2 or higher
- Door call function only in combination with Siedle Smart Gateway SG 650-.. or SG 150-..
- Pre-installed weather page
- Display of up to six IP camera images
- Cleaning function
- Smart Gateway with integrated image storage

Please check Release Notes.

Technical data

Screen diagonal:	178 mm / 7”
Resolution:	WSVGA (1024 x 600), LED backlight display
Frame dimensions (W x H):	206 x 150 mm
Power consumption:	max. 7 W
Power supply:	PoE+ acc. to IEEE 802.3at, with Cat5e/Cat6 cable, length max. 100 m or DC 12 ... 32 V via external power supply (ref.-no. NT 2415 REG VDC, not included)
Operating system:	Android 6
Processor:	Cortex-A53
Main memory:	2 GB
Mass storage:	16 GB Flash (available disc space depends on operating system)
Loudspeaker:	integrated
Microphone:	integrated
USB ports:	2 x USB 2.0 1 x Mini-USB OTG
LAN connections:	1 x 10/100/1000 Mbit/s
Ambient temperature:	0 ... +30 °C

Flush-mounted recessed box for Smart Control ref.-no.: SC 7.1 .. cut-out dimensions (W x H): 202 x 141 mm installation depth: 67 mm	
	SC 7 EBG

Power supply for rail mounting for Smart Control ref.-no.: SC 5 SW, SC 7.1 .., SC 10.1, SC 15.1, SC 19.1 Rail mounting device, 4 rail units	
	NT 2415 REG VDC

	Ref.-no.
Smart Control 10 **aspect ratio 16:9** for installation in walls, capacitive touch screen fanless, without rotating parts	
25.6 cm – 10.1”	**SC 10.1**

Intended use
- Visualisation and operation of system statuses and information on building automation
- For horizontal installation
- Mounting in flush-mounted recessed box

Product characteristics
- KNX visualisation in combination with Visu Pro Server (ref.-no.: JVP-SERVER-H2)
- KNX visualisation in combination with Smart Visu Server (ref.-no.: SV-SERVER-INT)
- eNet visualisation in combination with eNet server for rail mounting (ref.-no.: ENET-SERVER) with software version 2.2 or higher
- Door call function only in combination with Siedle Smart Gateway SG 650-.. or SG 150-..
- Pre-installed weather page
- Display of up to six IP camera images
- Cleaning function
- Smart Gateway with integrated image storage

Please check Release Notes.

Technical data

Screen diagonal:	256 mm / 10.1”
Resolution:	WSVGA (1024 x 600), LED backlight display
Frame dimensions (W x H):	333 x 200 mm
Power consumption:	max. 16 W
Power supply:	PoE+ acc. to IEEE 802.3at, with Cat5e/Cat6 cable, length max. 100 m or DC 12 ... 32 V via external power supply (ref.-no. NT 2415 REG VDC, not included)
Operating system:	Android 6
Processor:	Cortex-A53
Main memory:	2 GB
Mass storage:	16 GB Flash (available disc space depends on operating system)
Slot of memory card:	microSD
Loudspeaker:	integrated
Microphone:	integrated
USB ports:	2 x USB 2.0 1 x Mini-USB OTG (accessible from the front)
LAN connections:	1 x 10/100/1000 Mbit/s
Ambient temperature:	0 ... +30 °C

Flush-mounted recessed box for Smart Control ref.-no.: SC 10.1 cut-out dimensions (W x H): 315 x 182 mm installation depth: 80 mm profile height: approx. 17 mm	
	SC 10 EBG

Flush-mounted recessed box, flat version for Smart Control ref.-no.: SC 10.1 cut-out dimensions (W x H): 329 x 196 mm installation depth: 82 mm profile height: approx. 3 mm	
N	**SC 10 EBGF**

Installation note: Due to the small overlap, the wall cut-outs must be processed very accurately.
No additional power supplies may be installed in the installation box.

Ref.-no.

Smart Control 15
aspect ratio 16:9
for installation in walls, capacitive touch screen
fanless, without rotating parts
39.6 cm – 15.6” **SC 15.1**

Intended use
- Visualisation and operation of system statuses and information on building automation
- For horizontal installation
- Mounting in flush-mounted recessed box

Product characteristics
- KNX visualisation in combination with Visu Pro Server (ref.-no.: JVP-SERVER-H2)
- KNX visualisation in combination with Smart Visu Server (ref.-no.: SV-SERVER-INT)
- eNet visualisation in combination with eNet server for rail mounting (ref.-no.: ENET-SERVER) with software version 2.2 or higher
- Door call function only in combination with Siedle Smart Gateway SG 650-.. or SG 150-..
- Pre-installed weather page
- Display of up to six IP camera images
- Cleaning function
- Smart Gateway with integrated image storage

Please check Release Notes.

Technical data

Screen diagonal:	396 mm / 15.6”
Resolution:	WXGA (1366 x 768), LED backlight display
Frame dimensions (W x H):	510 x 306 mm
Power consumption:	max. 25 W
Power supply:	PoE+ acc. to IEEE 802.3at, with Cat5e/Cat6 cable, length max. 100 m or DC 12 ... 32 V via external power supply (ref.-no. NT 2415 REG VDC, not included)
Operating system:	Android 6
Processor:	Cortex-A53
Main memory:	2 GB
Mass storage:	16 GB Flash (available disc space depends on operating system)
Slot of memory card:	microSD
Loudspeaker:	integrated
Microphone:	integrated
USB ports:	2 x USB 2.0 1 x Mini-USB OTG (accessible from the front)
LAN connections:	1 x 10/100/1000 Mbit/s
Ambient temperature:	0 ... +30 °C

Flush-mounted recessed box
for Smart Control ref.-no.: SC 15.1
cut-out dimensions (W x H): 492 x 288 mm
installation depth: 80 mm
profile height: approx. 17 mm
SC 15 EBG

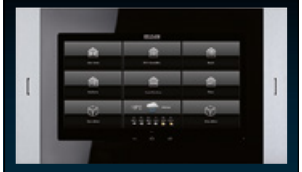
Flush-mounted recessed box, flat version
for Smart Control ref.-no.: SC 15.1
cut-out dimensions (W x H): 506 x 302 mm
installation depth: 82 mm
profile height: approx. 3 mm
N **SC 15 EBGF**

Installation note: Due to the small overlap, the wall cut-outs must be processed very accurately.
No additional power supplies may be installed in the installation box.

Ref.-no.

Smart Control 19
aspect ratio 16:9
for installation in walls, capacitive touch screen
fanless, without rotating parts

47 cm – 18.5” **SC 19.1**



Intended use
• Visualisation and operation of system statuses and information on building automation • For horizontal installation • Mounting in flush-mounted recessed box

Product characteristics
• KNX visualisation in combination with Visu Pro Server (ref.-no.: JVP-SERVER-H2) • KNX visualisation in combination with Smart Visu Server (ref.-no.: SV-SERVER-INT) • eNet visualisation in combination with eNet server for rail mounting (ref.-no.: ENET-SERVER) with software version 2.2 or higher • Door call function only in combination with Siedle Smart Gateway SG 650-.. or SG 150-.. • Pre-installed weather page • Display of up to six IP camera images • Cleaning function • Smart Gateway with integrated image storage

Please check Release Notes.

Technical data

Screen diagonal:	470 mm / 18.5”
Resolution:	WXGA (1366 x 768), LED backlight display
Frame dimensions (W x H):	600 x 345 mm
Power consumption:	max. 30 W
Power supply:	DC 12 ... 32 V via external power supply (ref.-no. NT 2415 REG VDC, not included)
Operating system:	Android 6
Processor:	Cortex-A53
Main memory:	2 GB
Mass storage:	16 GB Flash (available disc space depends on operating system)
Slot of memory card:	microSD
Loudspeaker:	integrated
Microphone:	integrated
USB ports:	2 x USB 2.0 1 x Mini-USB OTG (accessible from the front)
LAN connections:	1 x 10/100/1000 Mbit/s
Ambient temperature:	0 ... +30 °C

Flush-mounted recessed box
for Smart Control ref.-no.: SC 19.1
cut-out dimensions (W x H): 582 x 327 mm
installation depth: 80 mm
profile height: approx. 17 mm

SC 19 EBG

Flush-mounted recessed box, flat version
for Smart Control ref.-no.: SC 19.1
cut-out dimensions (W x H): 596 x 341 mm
installation depth: 82 mm
profile height: approx. 3 mm

N **SC 19 EBGF**

Installation note: Due to the small overlap, the wall cut-outs must be processed very accurately.
No additional power supplies may be installed in the installation box.

Power supply for rail mounting
for Smart Control ref.-no.: SC 5 SW, SC 7.1 .., SC 10.1, SC 15.1, SC 19.1
Rail mounting device, 4 rail units

NT 2415 REG VDC

Simply live smarter

SMART VISU SERVER

For wall or DIN rail mounting

Intelligent, easy, secure: the Smart Visu Server visualises KNX processes on smartphones, tablets and touch displays. Users can use it to integrate existing building technology into smart KNX technology, make intelligent building control more convenient and operate it using their voice.

The nerve centre of a Smart Home

LIGHT
Dimmed or brightly lit: the Smart Visu Server allows comprehensive lighting control using KNX and is additionally compatible with Philips Hue.

BLINDS AND SHUTTERS
Shading is easy to provide – selectively per room or on complete floors at the same time. Manually, automatically or timer controlled.

HEATING
Occupiers of a Smart Home enjoy constant feel-good temperatures. Thanks to remote access to the Smart Visu Server, they can pre-warm the home while still travelling.

PRESENCE SIMULATION
Dynamic, automated living-room light or external lighting controlled remotely: thanks to the Smart Visu Server, the house always looks occupied.

SCENES
With the press of a button, create your preferred mood. Blinds move down to provide shade and at the same time the lighting is individually dimmed.

ENTERTAINMENT
The server supports the integration of the Sonos sound system. As a result the volume can even be controlled with a rotary sensor on the wall.

When the occupiers come home in the evening, the heating has already ensured a warm living room. Beyond that, the JUNG Smart Visu Server provides even more convenience and control, as many processes run automatically in a KNX system. It visualises and precisely controls these smart processes. Together with the app, users can control many functions with a smartphone, tablet or by voice. The light isn't optimal in the living room? Then adapt the lighting to your requirements – conveniently from the sofa.

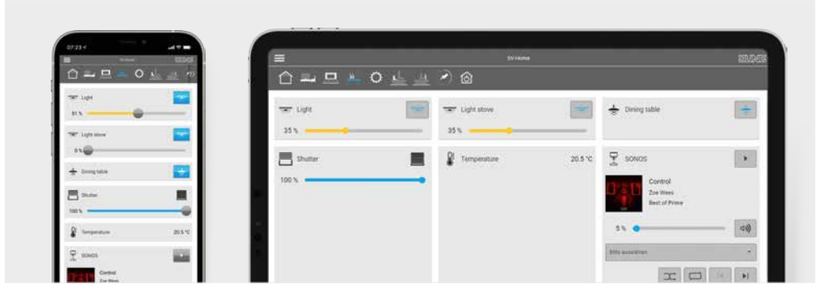
Intuitive control according to your wishes

MANUALLY

Switching and dimming light, controlling blinds or shutters, storing light scenes and much more: with the JUNG KNX push-button sensors, users can control the intelligent building technology conveniently with the press of a button. With clear symbols, the function assignment is self-explanatory. You can change reserved push-buttons for scenes quickly and easily using the Smart Visu Server.

SMART VISU SERVER APP

At home or on the move: with the Smart Visu Server app, users can control all Smart Visu Server functions. The app is available for iOS and Android. The access from outside the home network uses a myJUNG account with secure remote access. Additionally, the app is responsive: the display is impressive both on a smartphone and a tablet.



OPTIMUM VIEW ON ALL END DEVICES

SV-Home is the user interface of the JUNG Smart Visu Server. Well organised, it shows all the possibilities around the home, simply and clearly. Users can immediately see all states in the Smart Home and individually control the functions.

VOICE CONTROL

Control modern building technology intelligently – that is the strength of the Smart Visu Server in a KNX system. In conjunction with a smart speaker from Amazon or Google, JUNG makes it possible to control the sub-systems by voice. Once integrated, Alexa or Google Assistant receive the commands of the Smart Home occupier.

SONOS

Using the connection to the Sonos sound system, users hear their favourite music everywhere. Furthermore, they can also configure their personal settings using the Smart Visu Server, such as the volume, their saved playlists and much more. With building functions joined up and combined into actions, their own party mode is created.

Works with SONOS

PHILIPS HUE

The Smart Visu Server detects a Philips Hue Bridge as soon as it is installed in the network. All lights linked to it then become visible in the Smart Visu Server app user interface. Using SV Control (the configuration area), the users can link the individual light sources with their favourites: in this way they can quickly and easily control the light. With rotary sensor, push-button sensors or with an app.

Friends of hue personal wireless lighting

In the JUNG KNX system, components such as Philips Hue, Sonos, Amazon Echo and much more are unified by the Smart Visu Server.

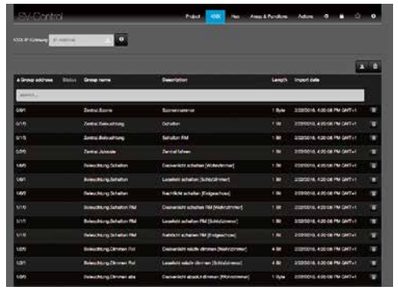
Strong TV sound in the living room, a relaxed radio play in the bedroom and jazz in the kitchen: everything completely according to individual wishes.

Flexible configuration

The Smart Visu Server is integrated into the home network via the router. The installation is accomplished quickly with ETS Import, and the system is always current thanks to updates.

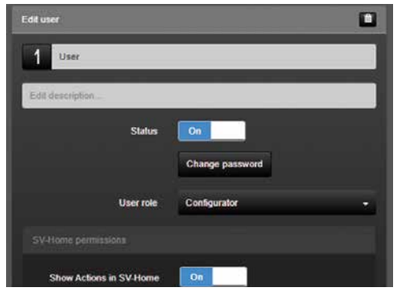
ETS IMPORT

An existing KNX installation is imported directly from the ETS using an OPC file. The group addresses are presented in a sortable list for an optimum overview and simple allocation. The integration of the existing technology is thus accomplished quickly and easily.



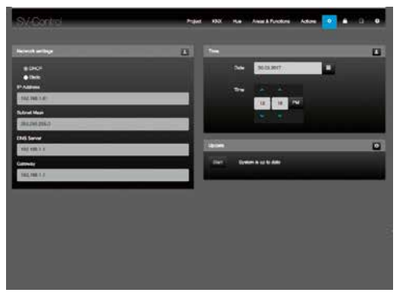
USER MANAGEMENT

Everything configured and the customer is happy? Then it is time for the handover: In the control area of the Smart Visu Server, system integrators specify roles, allocate passwords and decide which user roles can or would like to edit which functions.



UPDATE CAPABILITY KEEPS THE SYSTEM CURRENT

New features and continuous improvements: JUNG works continuously on new upgrades for the Smart Visu Server. As soon as a new version is available, the update is available in the SV Control area. All updates are summarised chronologically in the “Change log” and are available to download at jung.de/svs.



Numerous sources of assistance

JUNG offers extensive additional information online: From instructions to webinars, everything to do with the Smart Visu Server is available at jung.de/svs.

JUNG WEB SITE

On the JUNG web site you can find all the information on the Smart Visu Server, including brochures, pictures and press articles to download. Clearly presented and illustrated. Naturally also with further links. **JUNG.DE/SVS**

QUICK START GUIDES

Integrating voice control with Alexa and Google Assistant, setting up remote access or creating a presence simulation: the JUNG Quick Start Guides are free PDFs and provide comprehensive help for the Smart Visu Server.

VIDEO TUTORIALS

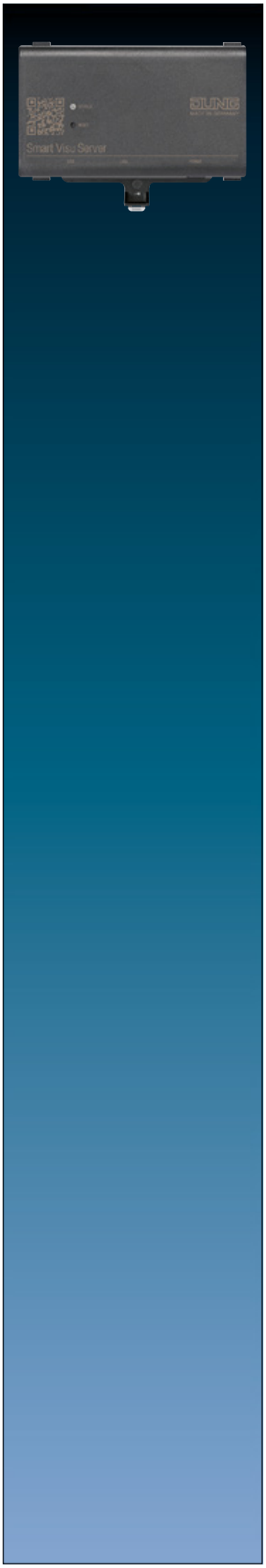
On the JUNG web site you can find the video tutorials that make the integration and installation of the Smart Visu Server easier. Here you can find out everything about commissioning, configuration, system maintenance and updates.

WEBINARS

In the interactive webinars, JUNG provides everything worth knowing, including about the Smart Visu Server. Participation is free and there is the possibility during the webinar to ask the JUNG training team questions.

JUNG ONLINE CATALOGUE

The individual items have technical information attached in the JUNG online catalogue that can be viewed and downloaded. You can find operating instructions, tender texts, datasheets, product documentation and more with a mouse click using the Info button.



	Ref.-no.
Smart Visu Server	
with mounting plate for wall or rail mounting installation	
including plug-in power supply	
with Europlug	**SV-SERVER**
including adapter for UK and China	**SV-SERVER-INT**

Intended use

- Visualisation and operation of KNX systems via devices with HTML5 browser or app (iOS, Android), e.g. Smart Control (ref.-no.: SC 5 SW, SC 7.1 .., SC 10.1, SC 15.1, SC 19.1), smartphone, tablet, laptop, PC, etc.
- Visualisation and operation of Philips Hue systems
- Operation in local IP networks that support DHCP (Dynamic Host Configuration Protocol), or with static IP address (IPv4)
- Operation indoors

Product characteristics

- Web visualisation of KNX system for status indication and operation (SV-Home)
- Access from max. 10 different clients to SV-Home recommended
- Integrated web-based commissioning tool (SV-Control)
- Easy to create a pre-configured user interface, optimised for domestic applications and small commercial facilities
- Graphical control elements: symbols can be selected from supplied libraries
- Import of group addresses (three-stage) via OPC import (ETS3, ETS4, ETS5)
- Manual input of group addresses possible
- 24 areas
- 240 dynamic functions (max. 1200 data points)
- 25 action groups
- 250 configurable actions (max. 16 functions per action)
  - Customised
  - Switching times
  - Status logic
  - Depending on events
  - Astro
- Connection to KNX bus via KNX IP router (ref.-no. IPR 200 REG, IPR 300 SREG), KNX IP interface (ref.-no. IPS 200 REG, IPS 300 SREG) or power supply with IP interface (ref-no. 20320 1S IPS R)
- Integration of Philips Hue systems in the KNX installation
- Connection to Philips Hue via Philips Hue Bridge
- Integration of SONOS loudspeakers in the KNX installation
- Integration of Amazon Alexa voice control via MyJUNG account
- Integration of Google Home voice control via MyJUNG account
- Secure remote access via MyJUNG account
- Update and upgrade compatible

Technical data ref.-no. SV-SERVER...

Rated voltage:	DC 12 V SELV
Power consumption:	typical 3 W, max. 7 W
Ambient temperature:	–5 ... +45 °C
Storage/transport temperature:	–25 ... +70 °C
LAN:	RJ45-socket (10/100 Mbit/s Fast Ethernet)
USB:	USB 2.0 Host
Dimensions:	124 x 72 x 31 mm (without mounting plate) 124 x 92 x 40 mm (with mounting plate)
Plug-in power supply	
Primary voltage:	AC 100 ... 240 V ~
Mains frequency:	50/60 Hz
Rated current:	max. 1 A
Secondary voltage:	DC 12 V SELV
Protection class:	II
Length of connected cable:	1.5 m

		Ref.-no.
Smart Visu Server remote access licence		
unlimited	N	**SV-SERVER-L**

Remote access to the building technology via JUNG server in Germany.

JUNG Visu Pro

Compact, secure, versatile: JUNG Visu Pro visualises the KNX system in the smart building using end devices with an HTML5-capable browser or the app. Connected with the KNX installation and the local network, it makes comprehensive individual adaptations of the complete system possible.

The JUNG Visu Pro software is a flexible system without data point limits and is thus also perfectly suited to complex applications, whether in the private or trade field. Particularly the option to include multiple independent KNX systems parallel in one process model via KNXnet/IP protocol creates comprehensive possibilities for property-spanning projects. The Visu Pro software can be displayed on all HTML5-capable browsers, and naturally also using mobile end devices. Voice control provides even more convenience.

Overview of function modules:

PROCESS MODEL

The process model is the logical core of the system. Here the function modules, the so-called process connections, are connected internally. Dependencies, complex processes and logic, as well as time functions or scenes can be defined here. In the same way, data can be archived and presented using various diagrams.

VISUALISATION EDITOR

The visualisations are created here using individual worksheets. The controls can be placed and individualised completely freely. Alongside form factor, the transparency and inscriptions can be set in addition. Personal background images can likewise be used and individual symbols imported.

KNX EDITOR

This function module establishes the connection to the KNX installation. The system supports the latest communication standards in accordance with KNX Secure. For large projects, the KNX Multieditor is available. This extension of the KNX Editor allows the operation of up to 150 parallel KNX tunnel connections.

DEVICE EDITOR

System integrators can implement the widest range of special applications here. Numerous applications, for example for working with the JUNG KNX DALI gateway or an online weather service, are supplied. Based on the LUA scripting language, the specialist can develop individual process connections and thus extend the JUNG Visu Pro software with individual functions.

SMART ASSISTANT

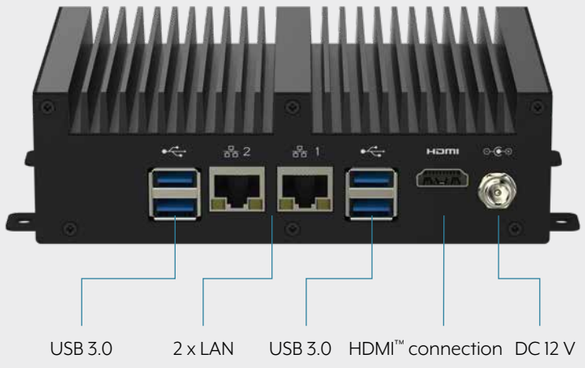
To save time and to support project planning: this free additional tool minimises the production effort required with automatically generated worksheets for the visualisation. System integrators can quickly create user interfaces, structures and templates and apply to the JUNG Visu Pro software.

JUNG Visu Pro software

From the planner version for pre-planning to the full version for hotels: JUNG offers the appropriate Visu Pro software for all applications.

Voice control for the smart home or the configuration of access control in smart hotels: with the planner version, system integrators can completely configure and set up every customer system in advance – independently of the hardware required later. The final porting to the customer system follows only when all requirements have been finally decided. For entering the home area, the JUNG Visu Pro server is appropriate. For particularly complex KNX systems, on the one hand integrators turn to a full version of JUNG Visu Pro (JUNG Visu Pro full version or JUNG Visu Pro Hotel). On the other hand, they need a tailored hardware solution in order to implement their individual KNX building system. Regular updates keep all systems constantly up-to-date. As soon as a new version is available, the update is available as a download in the JUNG online catalogue. Documentation of all changes made is listed in the "Change log" document, which is available in the myJUNG area.

JUNG Visu Pro Server – numerous interfaces to other systems



The JUNG Visu Pro Server is the compact solution for controlling building automation in conjunction with the pre-installed Visu Pro software. Ideal for applications in challenging private construction.

Application examples

"Alexa, switch on the light". Or: "Hey, Google. Set the temperature in the living room to 24 degrees". The JUNG Visu Pro Server is compatible with both the Alexa and Google Assistant voice services. KNX in the smart home is versatile and flexible with the JUNG Visu Pro.

VOICE CONTROL

JUNG Visu Pro combines modern and future-proof smart-home technology with particularly convenient control – the JUNG Visu Pro Server allows the voice control of all subsystems. All residents need is the Visu Pro Server and a smart speaker from Google or Amazon: Once integrated, Alexa or the Google Assistant are available for voice control.

INTUITIVE OPERATION

KNX installations with individual adaptations can be displayed and controlled using JUNG Visu Pro. As a result of consistent use of HTML5 pages, the desired visualisation can be displayed on all JUNG smart controls, tablets or smartphones. Practical templates for the user interface can be adapted completely individually. Since the update to version 4.6, JUNG Visu Pro supports a day and night mode.

VISU PRO REMOTE ACCESS

The whole JUNG Visu Pro system naturally supports remote access (JVP Remote) to the building technology. With the remote access for Jung Visu Pro, users of the KNX installation can visualise, control and adapt their KNX system to their requirements at any time and from any location. Since the update to version 4.6, multiple people can access the system simultaneously. The servers are located in Germany.

KNX in the hotel sector

LINK WITH POWERFUL HOTEL SOFTWARE

protel hotel software®

ORACLE® Hospitality

ASSA ABLOY Global Solutions

The front office works with the familiar user interfaces. In the background, hotel and control software are connected with each other. Pre-set profiles are activated directly at check-in and the wishes of the guest reach the personnel via notification on the monitor.

KNX SECURE

JUNG Visu Pro encrypts the communication in the network with KNX IP Secure and KNX Data Secure.

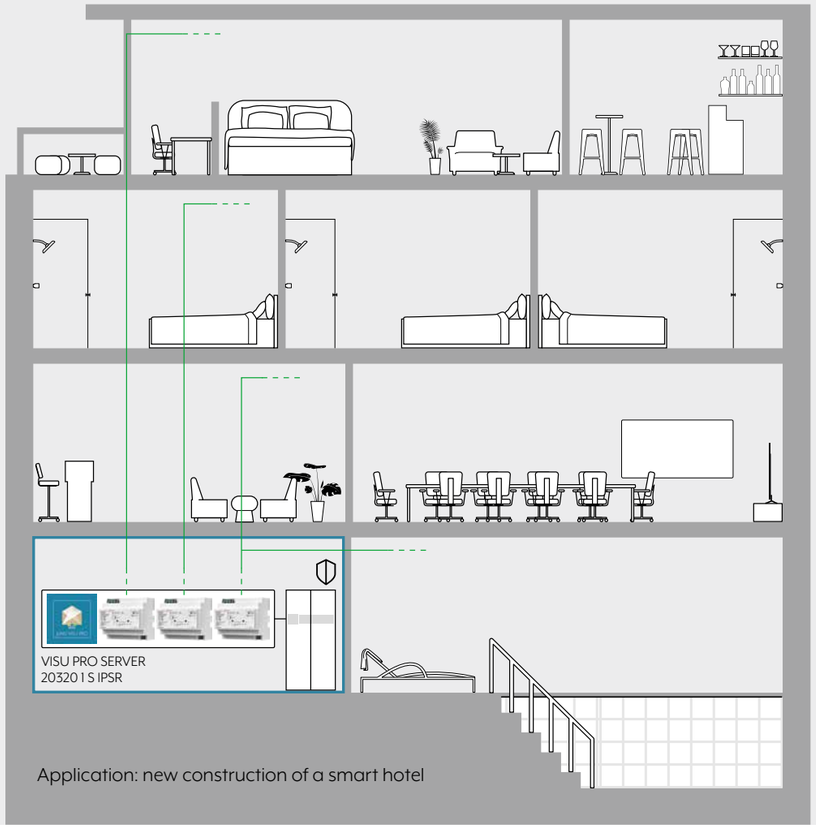
CENTRAL DISPLAY

The room states are clearly displayed on centrally positioned panels in the storage or personnel areas.

From Reception to Housekeeping: The future-proof field bus system allows more efficient processes.

With modern hotel software, reservation and guest details are always ready to hand – this provides efficiency for the processing. The service is ideally adapted to the needs of personnel and guests via the connection to the smart KNX building technology. It has interfaces to established property management systems. There is also an interface to Visionline available, the modern hotel locking system from Assa Abloy. In this way, hotel and control software are linked intelligently with each other. Secure data exchange is ensured thanks to KNX Secure.

Use in hotels



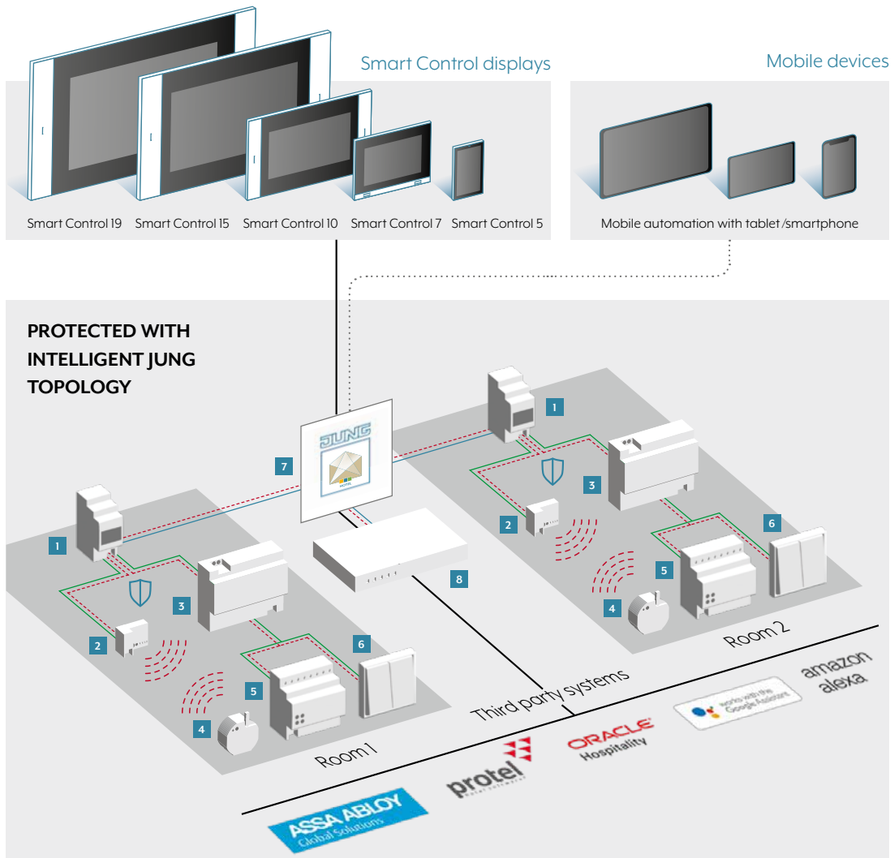
Application: new construction of a smart hotel

Modern hotels set new standards for individual comfort. The smart hotel offers guests even more luxury and relieves the hotel personnel.

As sensitive data are also transmitted in such a hotel, those responsible should protect the data. Operation using a fully encrypted KNXnet/IP network and KNX Secure ensures customer data are protected. Scan the QR code on the right: at jung.de you will find concrete application examples.

JUNG.DE

Secure exchange of the data



1 KNX system device
2 KNX RF media coupler
3 KNX power supply insert
4 KNX RF node
5 KNX TP actuator
6 KNX TP sensor
7 JUNG Visu Pro Server Hotel Edition
8 LAN router

IP Secure
KNX bus line
Data Secure
IP (WLAN, https encrypted)
IP (LAN, https encrypted)
KNX Secure

The interplay of JUNG Visu Pro and clients (e.g. the JUNG Smart Control touch display) is optimised to the smallest detail. Intuitive operation, comprehensive compatibility and regular extension of the functional scope place the user and the user's needs at the core. JUNG Visu Pro is optimised for all smart controls and mobile devices. The contemporary operation of all important building functions is completely simple and intuitive as a result. JUNG KNX Secure and HTTPS encrypt the data exchange.

Numerous sources of assistance

JUNG offers extensive additional information online: From instructions to webinars, everything to do with the Visu Pro software is available at jung.de.

JUNG WEB SITE

On the JUNG web site you can find all the information on JUNG Visu Pro, including brochures, pictures and press articles to download. Clearly presented and illustrated. Naturally also with further links. **JUNG.DE**

QUICK START GUIDES

Integrating voice control with Alexa and Google Assistant, setting up remote access or creating a presence simulation: the JUNG quick start guides provide extensive help about the JUNG Visu Pro and are available online as PDF to download.

WEBINARS

In the interactive webinars, JUNG provides everything worth knowing, including about Visu Pro. Participation is free and there is the possibility during the webinar to ask the JUNG training team questions.

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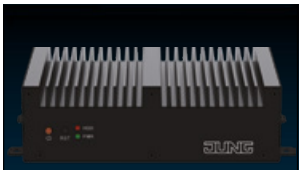


		Ref.-no.
Visu Pro Server		
fanless, without rotating parts		
including plug-in power supply		
German	with Europlug	**JVP-SERVER-H2**
English	including adapter for UK and China	**JVP-SERVER-H2GB**

Intended use

- Visualisation and operation of KNX systems via devices with HTML5 browser or app (iOS, Android), e.g. Smart Control (ref.-no.: SC 5 SW, SC 7.1 .., SC 10.1, SC 15.1, SC 19.1), smartphone, tablet, laptop, PC, etc.
- Support of KNX IP Secure and KNX Data Secure (as of version 4.5)
- Operation in local IP networks that support DHCP (Dynamic Host Configuration Protocol), or with static IP address (IPv4)
- Desktop device, mounting on DIN rail according to EN 60715 possible
- Max. size of the visualisation project as template in JUNG Smart Assistant
- Connection to KNX bus via interfaces (ref.-no. IPR 200 REG, IPS 200 REG, IPR 300 SREG, IPS 300 SREG, 20320 1S IPS R, 2131 USBS REG, 2131 USBS), not included

Product characteristics

- Fanless mini PC
- JUNG Visu Pro software pre-installed and activated
- Windows 10 pre-installed
- Quadcore Intel Celeron processor
- 4 GB RAM
- 64 GB internal memory, partly used by operating system
- 1 x HDMI
- 4 x USB 3.0
- 2 x LAN RJ45 (LAN 1: static IP address, LAN 2: DHCP)
- The visualisation can be realised with devices with a browser suitable for HTML5 (e.g. latest version of Chrome, Firefox or Safari)
- Access from max. 10 different clients possible
- Integration of Amazon Alexa voice control via MyJUNG account
- Integration of Google Home voice control via MyJUNG account
- Secure remote access via MyJUNG account
- Update and upgrade compatible

Process connections
- KNX editor/ KNX editor 2.0
- instalight editor
- Device editor
- vitaLED editor
- XPL editor
- SENEC energy storage
- Process model
- Visualization editor
- Work sheet generator
- Calendar
- JUNG Visu Pro Starter

Data import from ETS
- ETS5: use of project export of ETS
- ETS4: use of project export of ETS
- ETS3: use of OPC export of ETS
- ETS2 version 1.1, 1.2 and 1.3: files generated by "print export" can be read
- Previous ETS versions: not possible

JUNG Visu Pro Software and JUNG Visu Pro Software Hotel

Note: The software can only be downloaded from the JUNG website https://www.jung.de/en/1508/service/get-your-software-licence/. When downloading, you can choose between the English and the German version. Each installation will run in demo mode for 20 days or 400 starts. For an unrestricted use the software must be activated via a MyJUNG account.

Intended use
- Visualisation and operation of KNX systems via devices with HTML5 browser or app (iOS, Android), e.g. Smart Control (ref.-no.: SC 5 SW, SC 7.1 .., SC 10.1, SC 15.1, SC 19.1), smartphone, tablet, laptop, PC, etc.
- Support of KNX IP Secure and KNX Data Secure (as of version 4.5)
- Connection to KNX bus via interfaces (ref.-no.IPR 200 REG, IPS 200 REG, IPR 300 SREG, IPS 300 SREG, 20320 1S IPS R, 2131 USBS REG, 2131 USBS), not included

Product characteristics
- Access from max. 20 different clients possible (with Windows 10)
- Integration of Amazon Alexa voice control via MyJUNG account
- Integration of Google Home voice control via MyJUNG account
- Secure remote access via MyJUNG account
- Update and upgrade compatible

Process connections
- KNX editor/ KNX editor 2.0
- instalight editor
- Device editor
- vitaLED editor
- XPL editor
- SENEC energy storage
- Process model
- Visualization editor
- Work sheet generator
- Calendar
- JUNG Visu Pro Starter

Requirements

Hardware
as for Visu Pro Server (ref.-no.: JVP-SERVER-H2) or better
Please note: The performance of the hardware is one of the limiting factors for the project size.

Operating systems
Windows 10

KNX editor
The Falcon driver of the KNX Association is used for the KNX bus. The KNX connection requires a suitable version of the Falcon driver and the respective interfaces.

Data import from ETS
ETS5: use of project export of ETS
ETS4: use of project export of ETS
ETS3: use of OPC export of ETS
ETS2 version 1.1, 1.2 and 1.3: files generated by "print export" can be read
Previous ETS versions: not possible

	Ref.-no.
JUNG Visu Pro Software	
Full version	**JVP-V**
Planner version	**JVP-P**

JUNG Visu Pro Software Hotel

Full version	**JVP-HOTEL**

Special function HOTEL
Extension of the KNX editor to max. 150 KNX tunnel connections
Communication via KNX IP Secure Tunnelling
Integration of third-party systems:
- Door locking systems of Assa Abloy
  - Guest card identification
  - Staff card identification
  - Access counter / documentation
  - Evaluation of the door locking system

- Hotel booking software Protel PMS
  - Guest identification per room
  - Receive requests from the hotel room (e.g. Do not disturb, Make up room etc.)
  - Change the room temperature of the PMS system

- Oracle Hospitality OPERA or Oracle Hospitality Suite 8 PMS
  - Guest ientification per room
  - Receive requests from the hotel room (e.g. Do not disturb, Make up room etc.)
  - Change the room temperature of the PMS system

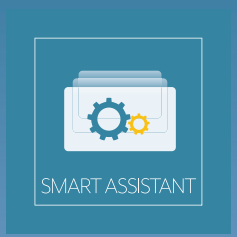
JUNG Visu Pro remote access licence

unlimited	N	**JVP-L**

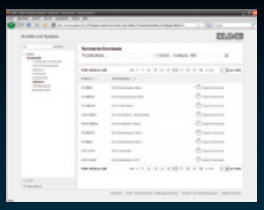
Remote access to the building technology via JUNG server in Germany.

Smart Assistant

Smart Assistant is a planning tool for the simple creation of visualisation projects for the JUNG Visu Pro software or other automation applications. The use of conventions and schemes (trade, floor, room, function) does not require knowledge of KNX group addresses.
Export formats are available for JUNG Visu Pro software and ETS group addresses.



Requirements
Server/client-based software, but can be used with one PC
Operating systems for server: Windows 10
Clients: Browser suitable for HTML5 (e.g. latest version of Chrome, Firefox or Safari)



	Ref.-no.
KNX product data base Database for ETS www.jung.de/en > Downloads > Technical Downloads	

Bus connection block

red/black (for KNX)	**2050 RT SW**
yellow/white	**2050 GE WS**

Connection cover
for bus terminal of rail mounting devices

	2050 K

Button lever
for the simple and gentle deinstallation of rockers and covers

	W-KEIL

KNX catalogue

DATED 01/01/2021

The current terms of sale and delivery can always be found on our web site at: **jung.de/terms**

JUNG ON-LINE CATALOGUE

This and many other items are available in the JUNG online catalogue. Operating instructions, tender texts, datasheets, product documentation, prices and much more can be found with just one click: **jung.de/katalog**

Our terms of sale, delivery and payment apply exclusively. The images shown are not binding, particularly with respect to colour, size and equipment of the products presented. The prices given here do not apply once a new price list has appeared.

JUNG only supplies specialist electrical businesses via electrical wholesalers.

LEGEND

- N News
- IP Protection type IP 44 possible
- L High-quality laser engraving with the Graphic Tool is possible
- P Colour printing with the Graphic Tool is possible