PRODUCT CATALOG 2014

ekinex

ekinex® is a sbs brand

CONTROL

YOUR LIVING SPACE

We believe in technologies that make life simpler, producing devices that make everyday tasks simpler. Our scenario is the whole world: homes, offices, public buildings, schools, hospitals, industries.

Our concept of home automation is supported and made possible by the KNX standard, which allows the automated and decentralized management of technological systems of any type and size. We exploit the possibilities offered by the KNX system to guarantee high quality standards in a project, that we called eKiNeX®.

The control of buildings

ekinex® is an intelligent system for controlling homes and buildings, developed in accordance with the open KNX standard. Having an ekinex® system means to increase comfort and safety, reduce energy consumption and raise the long-term value of a building using products characterized by fine aesthetics and a great simplicity of use.

Setting up an ekinex® system is easy and accessible cost-wise: a signal network is arranged at project level, reaching all those areas where commands, sensors or loads to be system-controlled are expected. The arrangement, achieved by means of a simple signal cable, represents an authentic network for the exchange of information between ekinex® devices.

The scalability, typical of ekinex® building control systems, even allows to start off with a basic equipment, both in terms of functions and devices, which may be extended at a later stage, depending on individual requirements, the location's infill and economic availability. The investment is quickly paid back, and is protected in time. Thanks to the native openness and interoperability of the KNX standard, the system can even integrate functions that may not be available within the ekinex® range of products.

The KNX standard

Great developments in the field of home and building automation were made possible especially thanks to an open, modular and interoperable standard like KNX. This innovative standard was born from the merging of three European systems (EIB, BatiBUS and EHS), developed and brought to the market in the early 90's. The diffusion of the system was facilitated by an intense work of cooperation at normative level in the standard committee at European level. For this reason, too, KNX is a standard characterized by a total conformity with norm EN 50090 on electronic systems for the control of homes and buildings (HBES, Home and Building Electronic Systems).

The KNX standard is entirely compliant with norm EN 50090 on HBES (Home and Building Electronic Systems) systems

The twenty-year presence on the market of this standard offers the best guarantee in terms of reliability and consolidation of the technology used. The openness of the standard and that of the KNX Association, on the other hand, ensure availability of products in the long run and a constant development, both in terms of technology and offering of products, functions and applications. The vitality of KNX proposals is witnessed by the sustained expansion of the association, seeing the entry of manufacturers, coming from many different areas, and from the tens of thousands of technicians who chose it to specialize in the field of building automation. For customers, the variety and availability of KNX products has no comparison in other technological areas, and the system openness translates into the highest free choice, thereby avoiding the disadvantageous dependence of having to buy from a single supplier. Thanks to the modularity of the system, a project can be extended in time, starting with a basic configuration and adding more functions later. The native interoperability of KNX products is fundamental to technicians, as it allows to design a system by always choosing the most suitable technical options, reducing compromise and ties caused by isolated systems which do not converse with one another. Moreover, the system offers new professional opportunities to designers and system integrators, making it possible to receive a consistent and high-level technical training and become certified KNX Partners.

Achievable savings with the adoption of the KNX system for Home & Building control:

- 40% over shutters control
- 50% over individual ambient control
- 60% over ambient lighting control
- 60% over ventilation control

The ekinex® devices

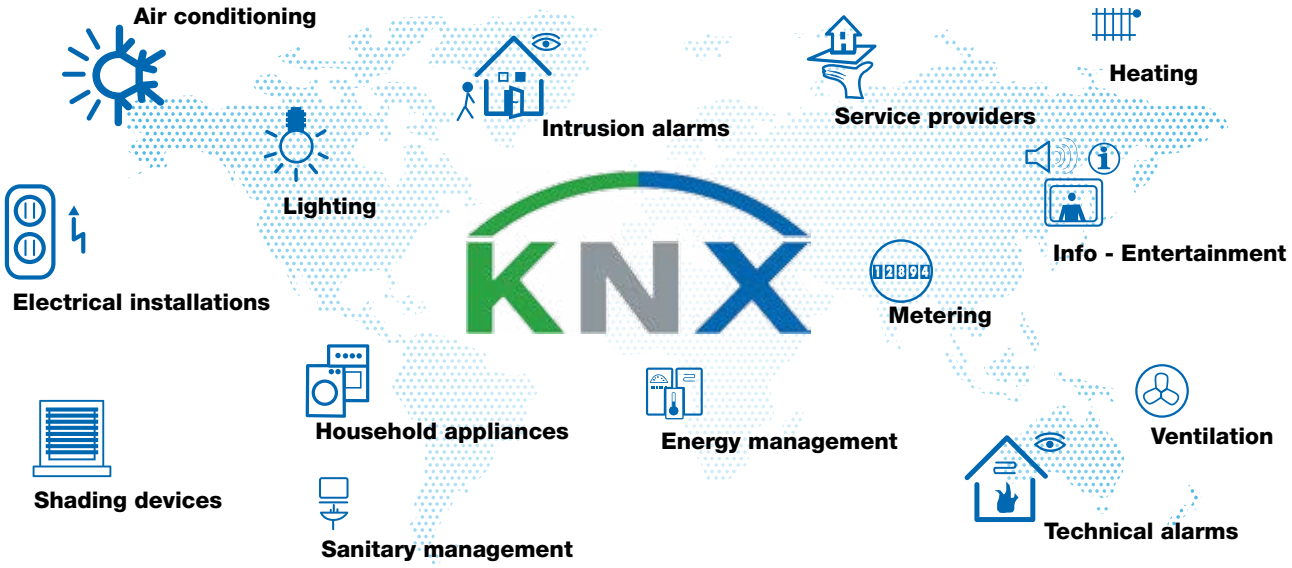
The range of ekinex® KNX devices includes system devices, devices dedicated to single application functions and accessories. System devices allow basic operation of the bus system, while the devices dedicated to single application functions are developed specifically to execute the command, control and/or monitoring the technical systems in the building, like lighting, heating or shading. They include switching, control and display units, sensors and actuators, etc. Each device is fitted internally with a communication module linking to the KNX bus. All devices are realized in multiple mounting versions (protruding or recessed walls, cabinets or electric cross-connection cabinets on DIN rails as per EN 60715) in accordance with their destination of use and with the main installation modality.

The KNX certification guarantees the interoperability among the devices of different KNX manufacturers. The entire procedure is disciplined by the certification system developed by the KNX Association and is based on conformity tests carried out by third-party laboratories. The tests verify that the devices support the KNX protocol and that any information is coded in accordance with KNX specifications.

The presence of a KNX trademark on ekinex® devices is a guarantee for the customer:

- SBS respects the quality management system in accordance with ISO 9001;
- The devices are compliant with the european norm EN 50090-2-2, concerning fundamental aspects like electromagnetic compatibility, electrical safety and environmental conditions of use;
- They comply with indications in volumes 3 and 6 of KNX specifications;
- They comply with KNX interoperability requirements concerning standardized data type and functional blocks.

The advantages



Design, realize and use a home & building control plant with the KNX system has many advantages.

Designer

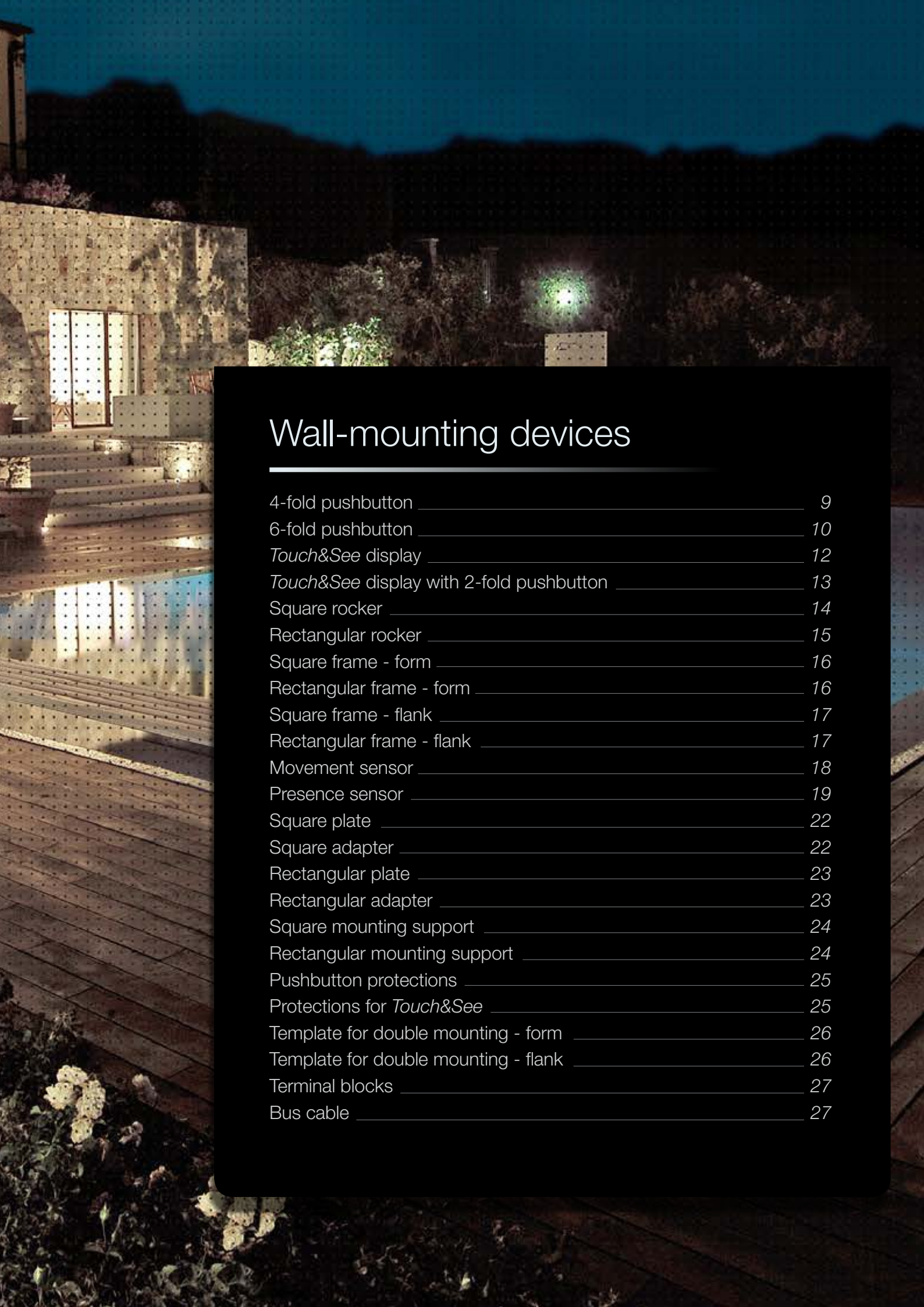
- Compliant, open, interoperable system
- Can be used in all types of buildings, from small residential to large service industry ones
- Devices, from over 300 manufacturers, communicating between each other in native mode
- Constant expansion of available functions and applications
- Projecting by means of standard software (ETS), single manufacturer-independent
- Easy realization of commands, controls, supervisions and displays
- Wide availability of complex logic
- Interfacing towards numerous other systems, protocols and standards
- Simple logic connections between functions and devices
- Large choice of device parametrizing options based on single requirements
- Reduction of building's fire load
- Certified training, standardized and available worldwide

Installer

- Reduced device assembly and cabling times
- Unique, fast connection system (cable and bus terminal block) for all manufactures
- High quality and reliability of products (consolidated system)
- Configuration and service commissioning by means of standard, manufacturer-independent software (ETS)
- Speed and flexibility in the expansion and the modification of use
- Remote access for maintenance and diagnosis interventions
- Reduction of cables needed for command, control and distribution circuits
- Certified training, standardized and available worldwide
- Opportunities for professional advancements
- Access to the world of innovative systems

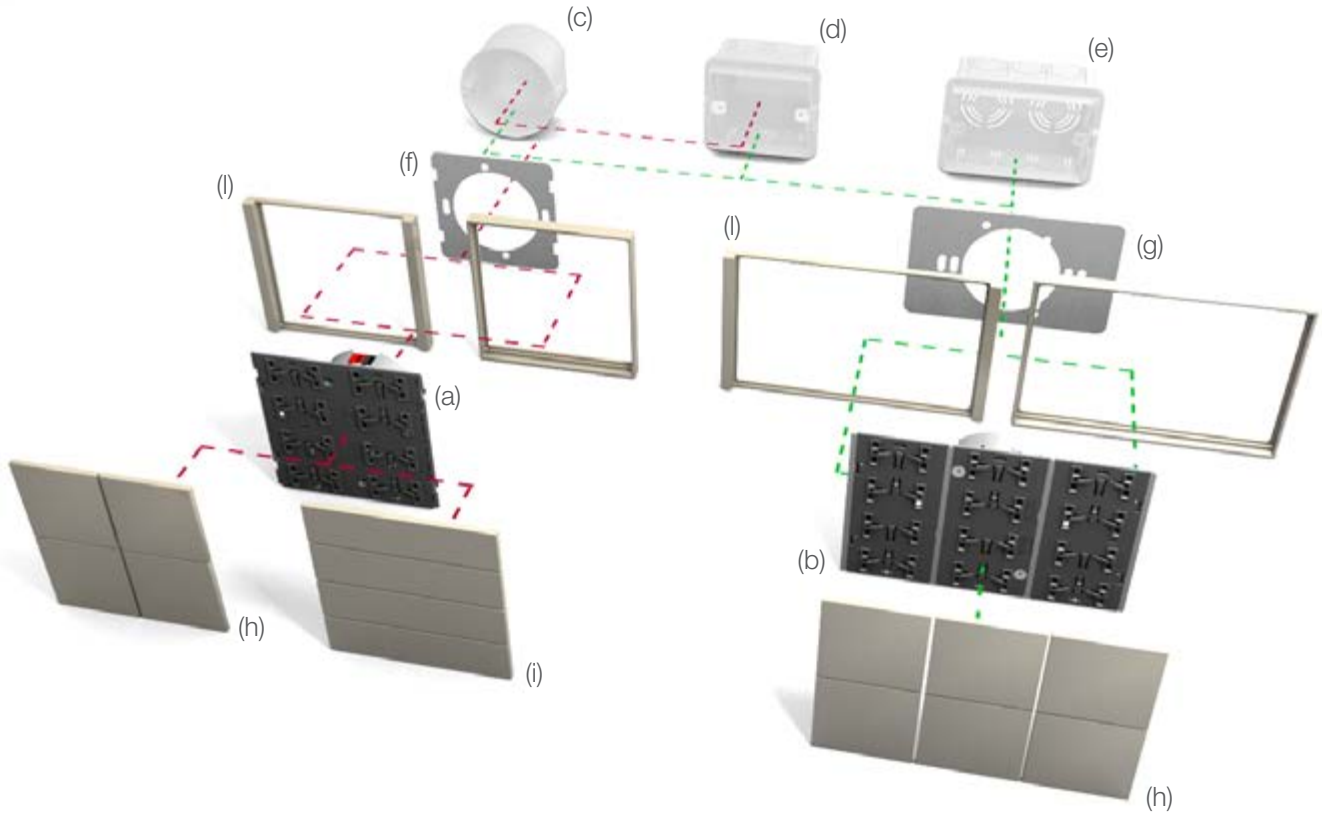
User

- Large choice of products
- High comfort, great operation safety
- More information, verification of own consumption habits
- Coordinated working of all building systems
- Multifunctional deployment of several devices
- System scalability and modularity
- Easy upgrading, without needing interventions on cabling nor masonry works
- Independence from single manufacturer
- More efficient building energy class (as per EN 15232)
- Easy system adaptations in case of changing needs
- Time-protected investment (open system)
- Building increase in value



Wall-mounting devices

Pushbuttons

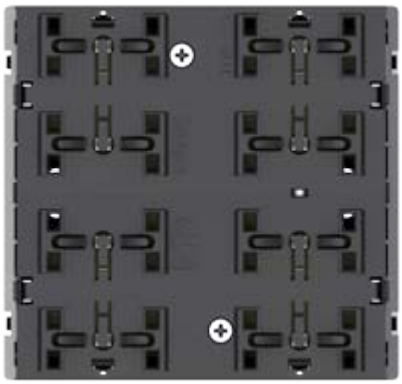


The ekinex® pushbutton commands range and related accessories offer the possibility to realize several variations that will satisfy the most diverse needs.

The base is represented by 4-fold (EK-EA2-TP) and 6-fold (EK-EB2-TP) pushbuttons; each one is fitted with a KNX communication module. The 4-fold pushbutton (a) is suitable for mounting into a flush mounting box, either round (c) or square (d), provided with fixing holes 60 mm apart; the 6-fold pushbutton (b) is also ideal for mounting into a rectangular wall mounting box (3 seater according to the Italian installation standard) provided with fixing holes 85mm apart (e). Each pushbutton is supplied with its relative metal support (f, g) which, in case of necessity, can also be ordered separately; the special site protection and terminal block complete the supply.

The pushbutton must be finished off with an operation surface (rocker) and a frame. The rockers are available in square (h) or rectangular shapes (i), plastic material or aluminium, in several colour and finishing variations. The frames, square and rectangular (l), are available in two stylish alternatives (form and flank) and share the same choice of materials, colours and finishings as for rockers. The rockers can be personalized with symbols and text, so to make their function immediately understandable. Each pushbutton has integrated LEDs which can be programmed freely: as an example, to feedback a status or as an orientation light at night time.

The pushbuttons simply get connected to the unique signal bus cable and do not require auxiliary power supply; the devices are supplied at SELV (Safety Extra Low Voltage) voltage, thus offering a much higher safety level than traditional commands. The configuration and commissioning is carried out by means of the ETS® software. The related application programs can be downloaded from the www.ekinex.com website.



4-fold pushbutton

Description

The ekinex® 4-fold pushbutton commands loads on/off switching, controls the dimming of lighting devices, controls motor drives for shutters or executes any other programmable command and control function. The device integrates a KNX bus communication module and is intended for mounting onto a wall mounting box; it is supplied by a SELV voltage directly from the KNX bus and does not require any auxiliary power supply.

For more information, see the STEKEA2TP_EN.pdf technical sheet available for download from www.ekinex.com

Technical data

- SELV power supply from KNX bus

Main characteristics

- 4 channels (up to 8 independent programmable functions)
- 4 LED for each channel, freely programmable (e.g. for status feedback or as orientation night light)
- Integrated temperature and brightness sensors
- Plastic casing
- Wall-mounting installation
- Bus line connection: KNX terminal block (black/red)
- Programming pushbutton and LED
- IP20 protection grade

Delivery

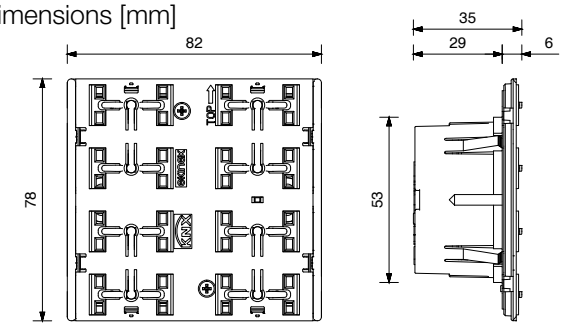
Delivery includes a terminal block for the connection to the bus line, a metal support for installation onto round or square mounting box (fixing holes 60 mm apart), two couples of fixing screws and a construction-site protection.

Accessories

The following accessories are available as finishings:

- square (page 14) or rectangular (page 15) rockers
- square frame, of the form (page 16) or flank (page 17) series

Dimensions [mm]



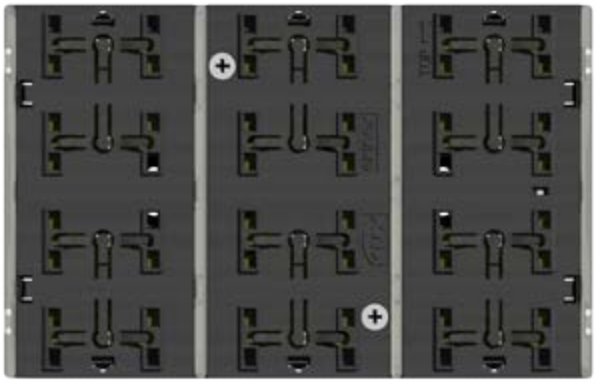
Order information

Ordering code	EK-EA2-TP
EAN	8018417181054
Package	1 piece

Configuration and commissioning

By means of ETS4 software (or later versions)

Application program: APEKEA2TP##.knxprod (## = version, downloadable from www.ekinex.com)



6-fold pushbutton

Description

The ekinex® 6-fold pushbutton commands on/off switching of loads, controls the dimming of lighting devices, controls motor drives for shutters or executes any other programmable command and control function. The device integrates a KNX bus communication module and is intended for mounting onto a wall mounting box; it is supplied by a SELV voltage directly from the KNX bus and does not require any auxiliary power supply.

For more information, see the STEKEB2TP_EN.pdf technical sheet available for download from www.ekinex.com

Technical data

- SELV power supply from KNX bus

Main characteristics

- 6 channels (up to 12 independent programmable functions)
- 4 LED for each channel, freely programmable (e.g. for status feedback or as orientation night light)
- Integrated temperature and brightness sensors
- Plastic casing
- Wall-mounting installation
- Bus line connection: KNX terminal block (black/red)
- Programming pushbutton and LED
- IP20 protection grade

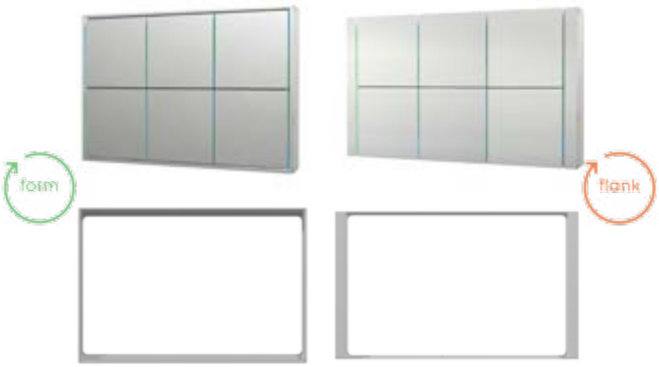
Delivery

Delivery includes a terminal block for connection to the bus line, a metal support for installation onto round or square mounting box (fixing holes 60mm apart) or rectangular, 3-seater box (holes 85 mm apart), two couples of fixing screws and a construction-site protection.

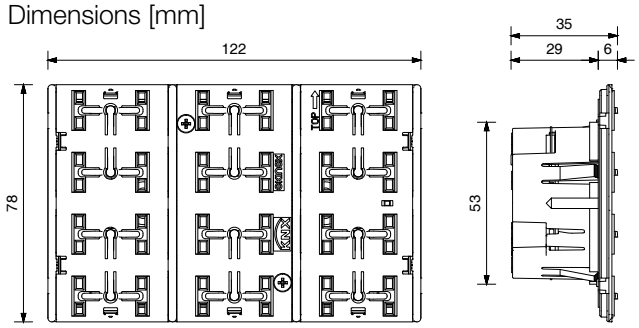
Accessories

The following accessories are available as finishings:

- square rockers (page 14)
- rectangular frame, of the form (page 16) or flank (page 17) series



Dimensions [mm]



Order information

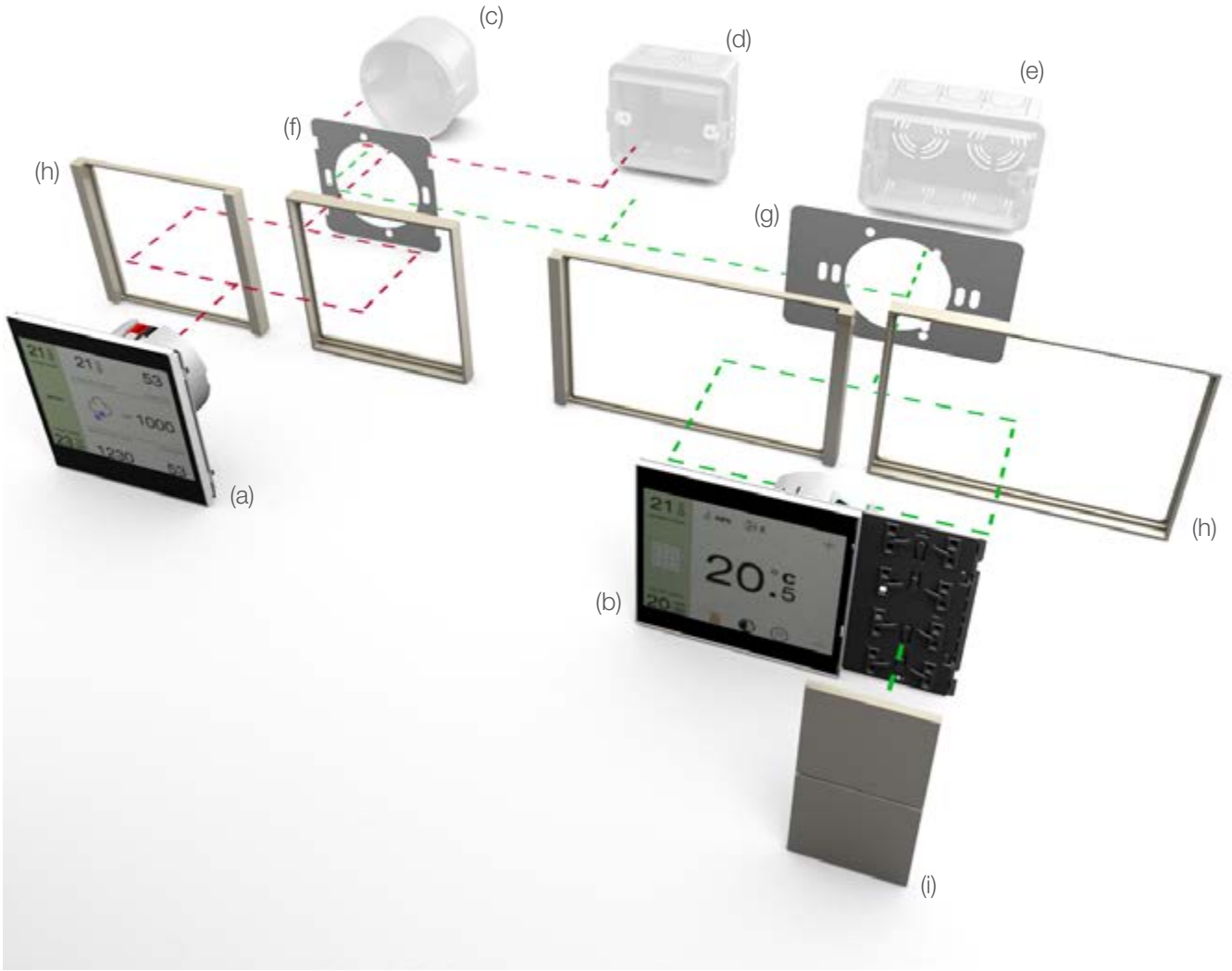
Ordering code	EK-EB2-TP
EAN	8018417181061
Package	1 piece

Configuration and commissioning

By means of ETS4 software (or later versions)

Application program: APEKEA2TP##.knxprod (## = version, downloadable from www.ekinex.com)

Touch&See display and control unit



The *Touch&See* ekinex® display and control units allow to perform a great number of switching, control and display bus functions, utilizing the easiest and most compact devices, with their 3.5" touch-screen and their graphic pages having a clear meaning and immediate understanding.

The base is represented by the control and display unit (EK-EC2-TP) and the control and display unit with integrated 2-fold pushbutton (EK-EF2-TP); each one integrates a KNX communication module. The control and display unit (a) is suitable for round (c) or square (d) wall mounting boxes and has fixing holes 60mm apart; the unit with the integrated 2-fold pushbutton (b) is also suitable for rectangular wall mounting boxes (e) provided with fixing holes 85mm apart (3 seater according to the Italian installation standard).

Each *Touch&See* unit is supplied with a metal mounting support (f, g) which, in case of necessity, can also be obtained separately; the special construction-site protection and terminal blocks complete the supply. The *Touch&See* unit needs to be finished with a frame (h); in the case of units with integrated 2-fold pushbuttons, it will also be necessary to provide it with two rockers (i) (operation surfaces for the 2-fold pushbutton) in square modularity (40x40 mm), available in plastic or aluminium and in several colours and finishings. The frames, either square or rectangular, are available in two alternative styles (form and flank) and share the same choice of materials, colours and finishing. The rockers can be personalized with symbols and text, so to make their function immediately understandable. The pushbutton has integrated LEDs which can be programmed freely: as an example, to feedback a status or as an orientation light at night time.

The *Touch&See* units have to be connected to the signal bus cable and an auxiliary 30 Vdc power supply; they are devices supplied at SELV (Safety Extra Low Voltage) voltage offering a superior safety level than traditional commands. The configuration and commissioning is carried out by means of the ETS® software. The related application programs can be downloaded from the www.ekinex.com website.

Touch&See control and display unit

Description

ekinex® *Touch&See* is a KNX device for the switching, control and display of bus functions. By means of its touch-screen and its graphical user interface, it is possible to control KNX actuators in an easy and intuitive way, to display the information coming from the KNX actuators and sensors and to perform as a room thermostat, receiving the measured room temperature value from the bus. The device integrates a KNX bus communication module and is designed for wall mounting boxes; it is supplied by a SELV voltage directly from the KNX bus and requires an auxiliary 30 Vdc power supply.

For more information, see the STEKEC2TP_EN.pdf technical sheet available for download from www.ekinex.com

Technical data

- SELV power supply from KNX bus (communication)
- 30 Vdc auxiliary power supply (screen)

Main characteristics

- 3,5" TFT back-lit touch display
- 320 x 240 pixel resolution, 65,536 colours
- Seven main graphic pages
- Integrated brightness sensor
- Plastic casing
- Wall-mounting installation
- Bus line connection: KNX terminal block (black/red)
- Aux. power supply: dedicated terminal block (yellow/white)
- Programming pushbutton and LED
- IP20 protection grade

Delivery

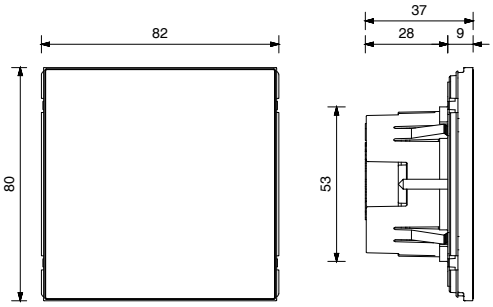
Delivery includes two terminal blocks for connection resp. to the bus and to the auxiliary power supply, a metal support for installation onto round or square mounting box (fixing holes 60mm apart), fixing screws and a construction-site protection.

Accessories

The following accessories are available as finishings:

- square frame, of the form (page 16) or flank (page 17) series

Dimensions [mm]



Order information

Ordering code	EK-EC2-TP
EAN	8018417181078
Package	1 piece

Configuration and commissioning

By means of ETS4 software (or later versions)

Application program: APEKEC2TP##.knxprod (## = version, downloadable from www.ekinex.com)

Touch&See control and display unit with 2-fold pushbutton

Description

ekinex® *Touch&See* with 2-fold pushbutton is a KNX device for the switching, control and display of bus functions. By means of its touch-screen and the graphical user interface, it is possible to control KNX actuators in an easy and intuitive way, to display information coming from KNX actuators and sensors and to perform as a room thermostat, receiving the measured room temperature value from the bus. The integrated 2-fold pushbutton allows the on/off command of loads, the dimming of lighting devices, the control of motor drives for shutters or the execution of any other programmable command and control function. The device integrates a KNX bus communication module and is designed for mounting onto a wall-mounting box; it is supplied by SELV voltage directly from the KNX bus and requires an auxiliary 30 Vdc power supply.

For more information, see the STEKEF2TP_EN.pdf technical sheet available for download from www.ekinex.com

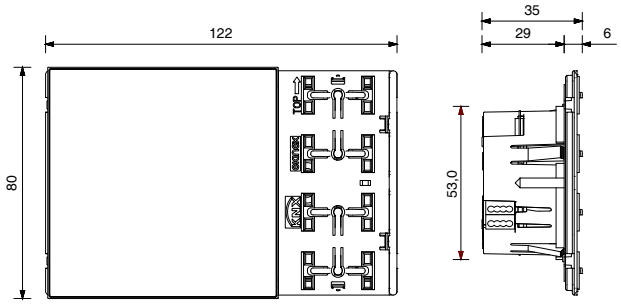
Technical data

- SELV power supply from KNX bus (communication)
- Auxiliary 30 Vdc power supply (screen)

Main characteristics

- 3.5” back-lit TFT touch display
- 320 x 240 pixel resolution, 65,536 colours
- Seven main graphic pages

Dimensions [mm]



- Integrated 2-fold pushbutton (up to a 4 independent programmable functions.
- LED for status feedback and orientation night light
- Integrated brightness sensor
- Plastic casing
- Wall-mounting installation
- Bus line connection: KNX terminal block (black/red)
- Aux. power supply: dedicated terminal block (yellow/white)
- Programming pushbutton and LED
- IP20 protection grade

Delivery

Delivery includes two terminal blocks for connection resp. to the bus and to the auxiliary power supply, a metal support with screws for mounting onto round or square mounting box (fixing holes 60mm apart) or rectangular, 3-seater box (holes 85 mm apart) and a construction-site protection.

Accessories

The following accessories are available as finishings:

- square rockers (page 14)
- rectangular frame, of the form (page 16) or flank (page 17) series

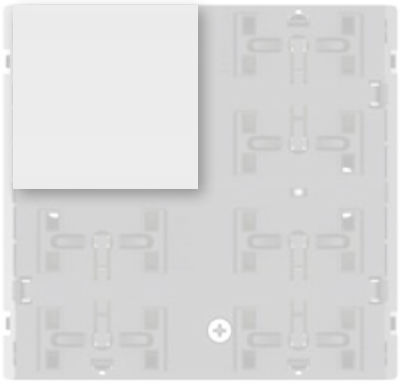
Order information

Ordering code	EK-EF2-TP
EAN	8018417181108
Package	1 piece

Configuration and commissioning

By means of ETS4 software (or later versions)

Application program: APEKEF2TP##.knxprod (## = version, downloadable from www.ekinex.com)



Square rocker

Description

40x40 mm square rocker for use as operation surface for 4 and 6-fold ekinex® pushbuttons and for *Touch&See* control and display unit with integrated 2-fold pushbutton. It can perform two independent functions by acting on either its upper or lower zones.

Rockers are available in several colour and material variations and are passive components: all working mechanisms and the communication function to/from the KNX bus system are carried out by pushbuttons or by control and display units.

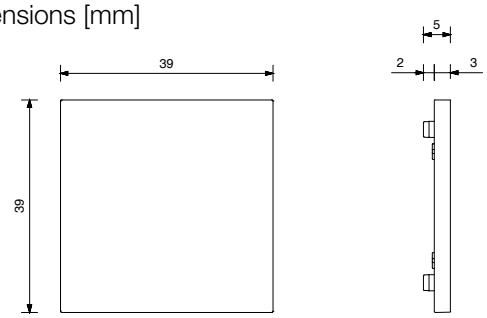
Main characteristics

- Made of plastic material or aluminium
- Pushbutton snap mounting
- Customizable with symbols and text (page 29)

For use with

- 4-fold (EK-EA2-TP) and 6-fold (EK-EB2-TP) pushbuttons
- Integrated 2-fold pushbutton of Touch&See (EK-EC2-TP) Control and display unit

Dimensions [mm]



Material	[Pcs]	Base code*		Extension for material, colour and finishing		Extension for symbols or text
Plastic	4	EK-TSQ	-	see page 28	-	see page 29
Aluminium	4	EK-TSQ	-	see page 28	-	see page 29

* Base-codes must be completed by adding extensions for material, colour and finishing (3 chars) plus symbols and text (3 characters).

For instance:
EK-TSQ-GAA-000 = Square rocker (EK-TSQ), in plastic material and ice-white colour (GAA), no symbols (000)
EK-TSQ-GBS-BAZ= Square rocker (EK-TSQ), in aluminium, titanium colour and brushed finishing (GBS), double empty arrows symbol (B), single shutter/blind symbol (AZ)

For further information refer to page 33.

Order information

Ordering code	see pages 28-33
Package	4 pieces

Rectangular rocker

Description

80x20 mm rectangular rocker for use as operation surface for ekinex® 4-fold pushbuttons. It can perform two independent functions by acting on either its right or left zones.

Rockers are available in several colour and material variations and are passive components: all working mechanisms and the communication function to/from the KNX bus system are carried out by pushbuttons or by control and display units.

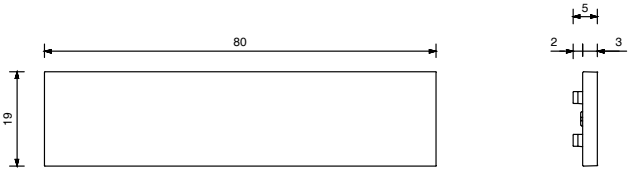
Main characteristics

- Made of plastic material or aluminium
- Pushbutton snap mounting
- Customizable with symbols and text (page 29)

For use with

- 4-fold pushbutton (EK-EA2-TP)

Dimensions [mm]



Material	[Pcs]	Base code*		Extension for material, colour and finishing		Extension for symbols or text
Plastic	4	EK-TSR	-	see page 28	-	see page 29
Alumin-ium	4	EK-TSR	-	see page 28	-	see page 29

* Base-codes must be completed by adding extensions for material, colour and finishing (3 chars) plus symbols and text (3 characters).

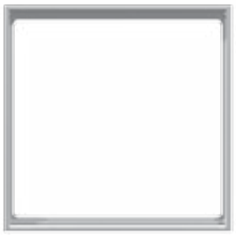
For instance:

EK-TSR-GAA-000 = Rectangular rocker (EK-TSR), in plastic material and ice-white colour (GAA), no symbols (000)
EK-TSR-GBS-QAM = Rectangular rocker (EK-TSR), in aluminium, titanium colour and brushed finishing (GBS), double on/off symbol (Q), single ceiling-light symbol (AM)

For further information refer to page 33.

Order information

Ordering code	see pages 28-33
Package	4 pieces



Square frame - form

Description

Square frame of the form series for finishing the 4-fold ekinex® pushbutton, the *Touch&See* control unit and the square plate/adapter for distribution sockets. Available in several colours and materials.

Two devices having form square frames can be mounted side to side using an EK-DFO template (page 26).

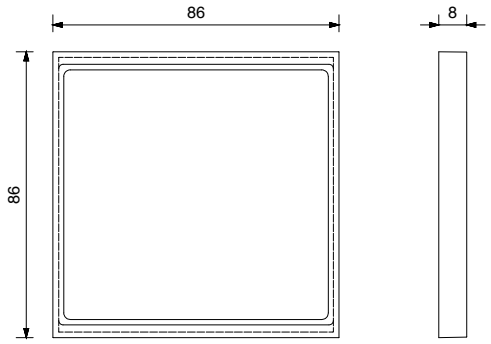
Main characteristics

- In plastic material or aluminium
- Snap-on mounting

Material	[Pcs]	Dimensions [mm]	Code		
			Base*		Extension for material, colour and finishing
Plastic	1	86 x 86 x 8	EK-FOQ	-	see page 28
Aluminium	1		EK-FOQ	-	see page 28

* Base-code (EK-FOQ) must be completed by adding extensions for material, colour and finishing (3 characters).

For instance:
EK-FOQ-GAA = form square frame (EK-FOQ), in plastic material, ice-white colour (GAA)
EK-FOQ-GBS = form square frame (EK-FOQ), in aluminium, titanium colour and brushed finishing (GBS)



Rectangular frame - form

Description

Rectangular frame of the form series for the finishing of 6-fold ekinex® pushbutton, *Touch&See* unit with 2-fold pushbutton and square plate/adapter for distribution sockets. Available in several colours and materials.

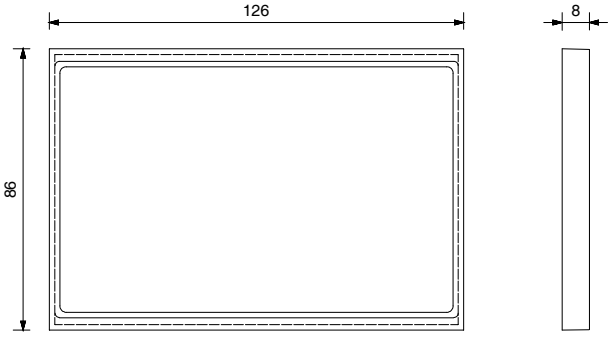
Main characteristics

- In plastic material or aluminium
- Snap-on mounting

Material	[Pcs]	Dimensions [mm]	Code		
			Base*		Extension for material, colour and finishing
Plastic	1	126 x 86 x 8	EK-FOR	-	see page 28
Aluminium	1		EK-FOR	-	see page 28

* Base-code (EK-FOR) must be completed by adding extensions for material, colour and finishing (3 characters).

For instance:
EK-FOR-GAA = form rectangular frame (EK-FOR), in plastic material, ice-white colour (GAA)
EK-FOR-GBS = form rectangular frame, in aluminium, titanium colour and brushed finishing (GBS)



Square frame - flank

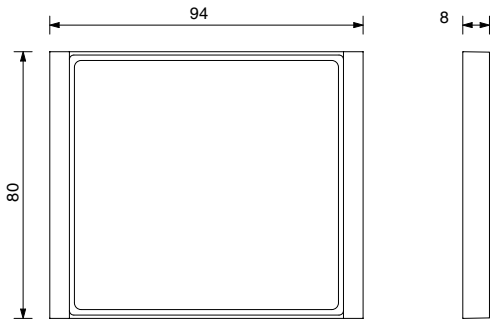
Description

Square frame of the flank series for finishing the 4-fold ekinex® pushbutton, the *Touch&See* control unit and the square plate/adapter for distribution sockets. Available in several colours and materials.

Two devices having form square frames can be mounted side to side using an EK-DFL template (page 26).

Main characteristics

- In plastic material or aluminium
- Snap-on mounting



Material	[Pcs]	Dimensions [mm]	Code		
			Base*		Extension for material, colour and finishing
Plastic	1	94 x 80 x 8	EK-FLQ	-	see page 28
Aluminium	1		EK-FLQ	-	see page 28

* Base-code (EK-FLQ) must be completed by adding extensions for material, colour and finishing (3 characters).

For instance:
EK-FLQ-GAA = form square frame (EK-FLQ), in plastic material, ice-white colour (GAA)
EK-FLQ-GBS = form square frame (EK-FLQ), in aluminium, titanium colour and brushed finishing (GBS)

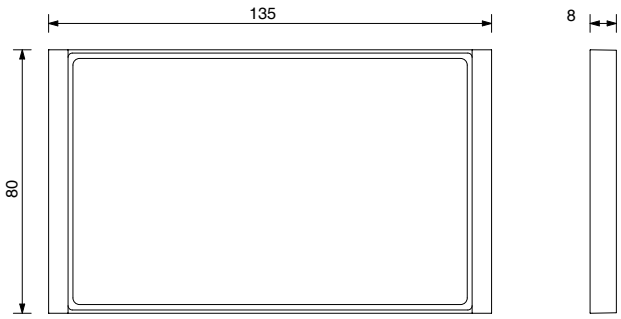
Rectangular frame - flank

Description

Rectangular frame in the flank series for the finishing of 6-fold ekinex® pushbutton, *Touch&See* unit with 2-fold pushbutton and square plate/adapter for distribution sockets. Available in several colours and materials.

Main characteristics

- In plastic material or aluminium
- Snap-on mounting



Material	[Pcs]	Dimensions [mm]	Code		
			Base*		Extension for material, colour and finishing
Plastic	1	135 x 80 x 8	EK-FLR	-	see page 28
Aluminium	1		EK-FLR	-	see page 28

* Base-code (EK-FLR) must be completed by adding extensions for material, colour and finishing (3 characters).

For instance:
EK-FLR-GAA = flank rectangular frame (EK-FOR), in plastic material, ice-white colour (GAA)
EK-FLR-GBS = flank rectangular frame, in aluminium, titanium colour and brushed finishing (GBS)

Movement sensor

Description

The ekinex® EK-SM2-TP movement sensor detects movement and the presence of people in a semi-circular area. It is ideally used in corridors, transit areas, toilets, staircases, elevators and, in general, all areas having occasional transit. The device has one channel for lighting, one channel for the control of HVAC devices. Movement/presence detection if operated by three PIR sensors (passive infra-red); one further sensor determines room luminosity. It works in semi-automatic and automatic modes. The device integrates a KNX bus communication module, is apt for flush wall-mounting boxes and is fed by a SELV voltage by means of the KNX bus.

For more information, see the STEKSM2TP_EN.pdf technical sheet available for download from www.ekinex.com

Power supply

- SELV voltage from KNX bus
- Power absorption 0,4 W

Note. The product represented in the image includes the lens with the cover (to be ordered separately, see table).

Main characteristics

- 180° Detection range (semi-circular)
- Max distance 10 m (mounted at 3 m height)
- Mounting height from 1 to 3 m
- 3 passive infra-red (PIR) sensors
- Adjustable sensitivity (10 levels)
- Master or slave configuration
- Connection to bus line by KNX terminal block
- Frontal programming pushbutton and LED
- Wall-mounting installation
- Metal support with screws for mounting on round or square mounting box (hole 60 mm apart)
- IP20 protection grade

Accessories

The following accessories are available as finishings:

- square frame in form (page 16) or flank (page 17) series
- square plate with window 55x55 mm (EK-PQG, page 22)
- lens with modular cover 55x55 mm (see table below)

Component	[Pcs]	Dimensions [mm]	Colour	Code
Sensor lens with cover EK-SM2-TP	1	55 x 55 (lens protrusion 21)	Ice white	EK-CLM-GAA
			Intense black	EK-CLM-GAE
			Silver	EK-CLM-GAG


EK-CLM-GAA


EK-CLM-GAE


EK-CLM-GAG

Order information

Ordering code	EK-SM2-TP
EAN	8018417181016
Packing	1 piece

Configuration and commissioning

By means of ETS3 software (or later versions)

Application program: APEKSM2TP##.vd4 (## = version, downloadable from www.ekinex.com)

Presence sensor

Description

The ekinex® EK-Dx2-TP presence sensor detects movement and the presence of people in a circular area. It is ideally used in open space, meeting rooms, halls, and, in general, all large rooms. The device has three separate channels for the control of lighting and one channel for HVAC device control. Movement/ presence detection if operated by three PIR sensors (passive infra-red); one further sensor determines ambiance luminosity. It works in semi-automatic and automatic modes. Constant luminosity regulation is performed by an ETS-configurable value or properly configured KNX pushbuttons. The device integrates a KNX bus communication module, is apt for ceiling fixture and is fed by a SELV voltage by means of the KNX bus.

For more information, see the STEKDX2TP_EN.pdf technical sheet available for download from www.ekinex.com

Power supply

- SELV voltage from KNX bus
- Power absorption 0,4 W

Main characteristics

- 360° Detection range (circular)
- 3 passive infra-red (PIR) sensors
- Adjustable sensitivity (10 levels)
- Measurement of natural and artificial light
- Master or slave configuration
- Connection to bus line by KNX terminal block
- Frontal programming pushbutton and LED
- Round or square frame
- Ceiling mounting installation
- Plastic material support for mounting in round or square box (holes 60 mm apart)
- IP20 protection grade

Versions

Max detection distance [m]	Mounting height [m]	Frame	[Pcs]	Code
16	2-6	round Ø 105 mm	1	EK-DB2-TP
		square 86 x 86 mm		EK-DC2-TP
30	2-8	round Ø 105 mm		EK-DD2-TP
		square 86 x 86 mm		EK-DE2-TP

EK-DB2-TP

EK-DC2-TP

EK-DD2-TP

EK-DE2-TP

Order information

Ordering code	See above
EAN	-
Package	1 piece

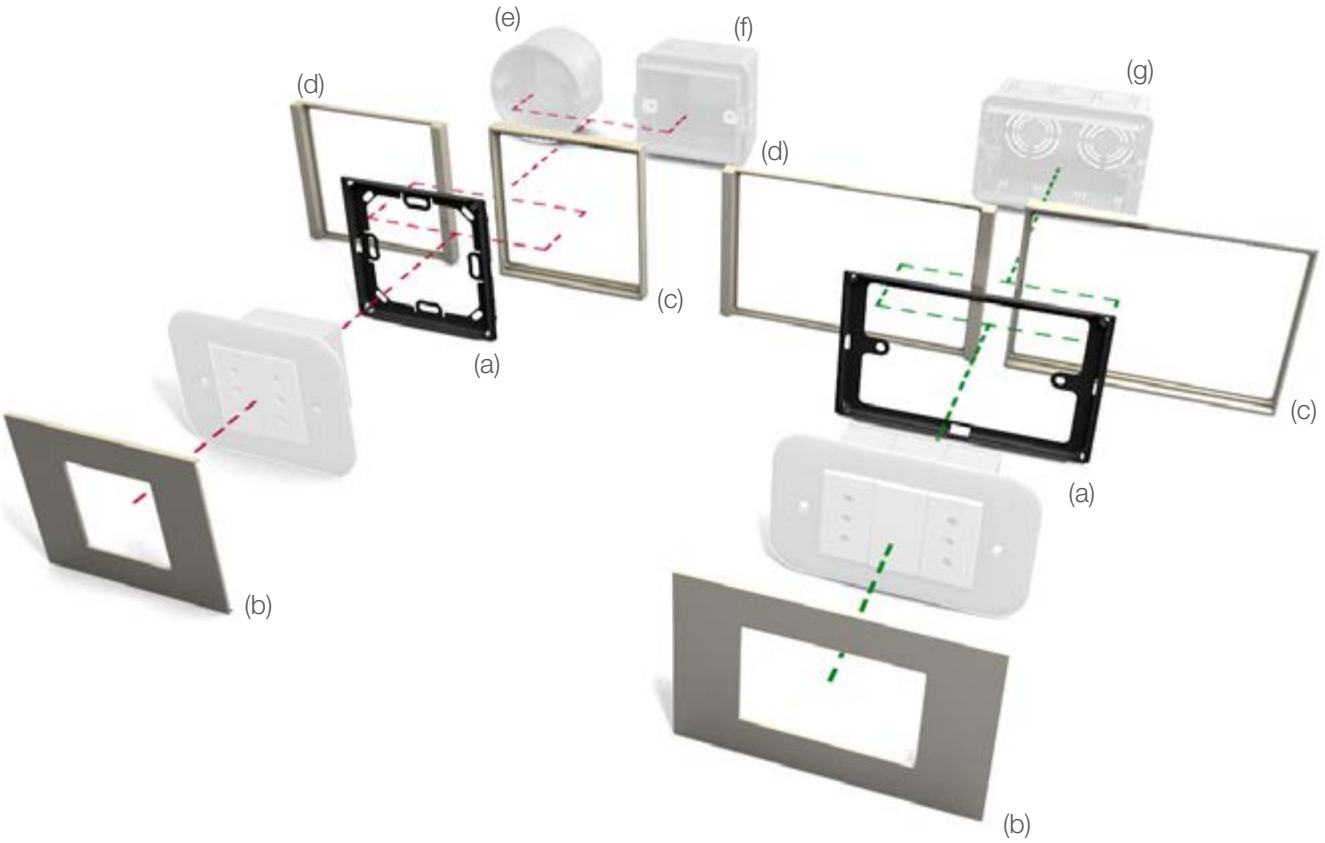
Configuration and commissioning

By means of ETS3 software (or later versions)

Application program: : APEKSP2TP##.vd4 (## = version, downloadable from www.ekinex.com)

Notes

Accessories for distribution sockets



The ekinex® accessories allow the creation of a system aesthetically coordinated with the ekinex® pushbuttons and *Touch&See* units. A distribution socket consists of a support and standard installation components normally on the market and can be mounted on the appropriate adapter (a), which is finished with a plate (b) and a frame at choice of the series form (c) or flank (d). Adapters, plates and frames are available in two modularities, according to the wall mounting box being used: square for round (e) or square (f) mounting box with fixing holes 60 mm apart; and rectangular for rectangular mounting box (g) (3 seater according to the Italian installation standard) with fixing holes 85 mm apart. Plates and frames are available in plastic material or aluminium, with several colour and finishing options.

Square plate

Dimensions [mm]		86 x 86 x 8	
Finish with		2 rectangular components* or 1 square component**	
Window		Small, 45 x 45 mm	Large, 55 x 55 mm
Compatibility		Bticino Axolute, Vimar Arké, Eikon and Eikon EVO	GEWISS (all), Biticino Livinlight Air
Material		Plastic or aluminium	
Code	Base***	EK-PQP	EK-PQG
	Extension for material, colour and finishing	see page 28	
[Pcs]		1	

* For instance: 3 aligned prongs (2P+E) 10 A and 16 A Italian standard sockets (or other components for civil use of same modularity).

** For instance: 16 A sockets (2P + E) with lateral earthing, “Schuko” type (or other installation components of same modularity).

*** The base code (EK-PQP or EK-PQG) must be completed by adding the appropriate extension code related to material, colour and finishing (3 characters).

For more information, please refer to pages 28 and 36-37.

Description

Square plate for finishing a distribution point equipped with installation components types normally found on the market. Available in several colours and materials. To be used in combination with a square adapter and a square frame of the form or flank series.

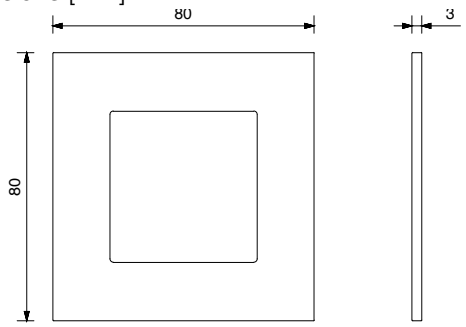
Delivery

The delivery includes a square adapter (EK-TAQ).

Main characteristics

- Plastic material or aluminium
- Small (45 x 45 mm) or large (55 x 55 mm) window
- Snap-on mounting onto EK-TAQ square adapter

Dimensions [mm]



Square adapter

Dimensions [mm]	78 x 78 x 7
Employ	Square plate EK-PQ...
Mounting box	Round or square (holes 60 mm apart)
Code	EK-TAQ
[Pcs]	10

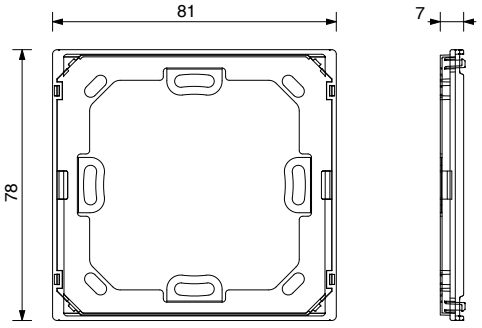
Description

Square adapter for the finishing of a distribution socket equipped with civil use components normally found on the market. For use in combination with a square plate (EK-PQP-… or EK-PQG-…) and a square frame of the form or flank series.

Main characteristics

- Plastic material
- Screw mounting onto round or square mounting box with fixing holes 60 mm apart

Dimensions [mm]



Rectangular plate

Dimensions [mm]		121 x 80 x 3	
Finish with		3 rectangular components* or 1 square component** and 1 rectangular component*	
Window		Small, 66 x 44 mm	Large, 68 x 45 mm
Compatibility		Bticino Axolute, Vimar Arké, Eikon and Eikon EVO	GEWISS (all), Biticino Livinlight Air
Material		Plastic or aluminium	
Code	Base***	EK-PRP (in preparation)	EK-PRG
	Extension for material, colour and finishing	see page 28	
[Pcs]		1	

* For instance: 3 aligned prongs (2P+E) 10 A and 16 A Italian standard sockets (or other components for civil use of same modularity).

** For instance: 16 A sockets (2P + E) with lateral earthing, “Schuko” type (or other installation components of same modularity).

*** The base code (EK-PRP or EK-PRG) must be completed by adding the appropriate extension code related to material, colour and finishing (3 characters).

For more information, please refer to pages 28 and 36-37.

Description

Rectangular plate for finishing a distribution point equipped with installation components types normally found on the market. Available in several colours and materials. To be used in combination with a square adapter and a square frame of the form or flank series.

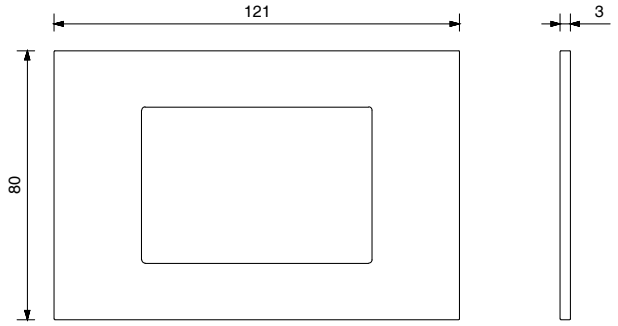
Delivery

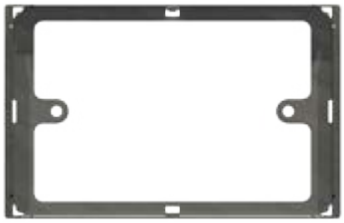
The delivery includes a rectangular adapter (EK-TAR).

Main characteristics

- Plastic material or aluminium
- Small (66 x 44 mm) or large (68 x 45 mm) window
- Snap-on mounting onto EK-TAR rectangular adapter

Dimensions [mm]





Rectangular adapter

Dimensions [mm]	122 x 78 x 7
Employ	Rectangular plate EK-PR...
Mounting box	Rectangular (fixing holes 85 mm apart)
Code	EK-TAR
[Pcs]	10

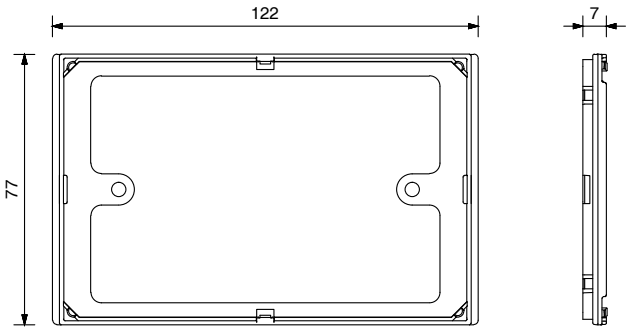
Description

Rectangular adapter for the finishing of a distribution socket equipped with civil use components normally found on the market. For use in combination with a rectangular plate (EK-PRP-… or EK-PRG-…) and a rectangular frame of the form or flank series.

Main characteristics

- Plastic material
- Screw mounting onto rectangular, 3-seater mounting box with fixing holes 85 mm apart

Dimensions [mm]



Square mounting support

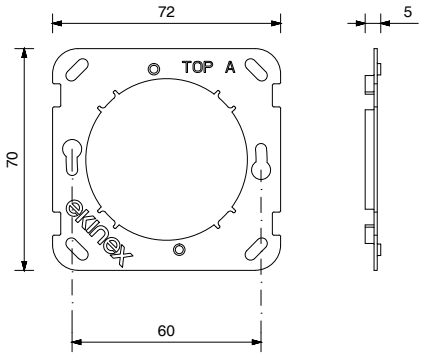
Modularity	Use in combination with	[Pcs]	Code
Square	4-fold pushbuttons (EK-EA2-TP) Touch&See Unit (EK-EC2-TP)	5	EK-SMQ

Description

Square metallic support for mounting ekinex® 4-fold (EK-EA2-TP) pushbuttons or *Touch&See* units (EK-EC2-TP) onto round or square mounting boxes with fixing holes 60 mm apart. Fixing screws are provided.

Note: a square mounting support is included in the delivery of every ekinex® 4-fold pushbutton or *Touch&See* unit.

Dimensions [mm]



Rectangular mounting support

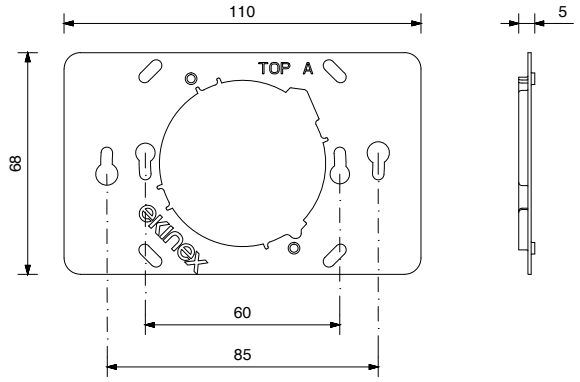
Modularity	Use in combination with	[Pcs]	Code
Rectangular	6-fold pushbuttons (EK-EB2-TP) *Touch&See* units with 2-fold pushbutton (EK-EF2-TP)	5	EK-SMR

Description

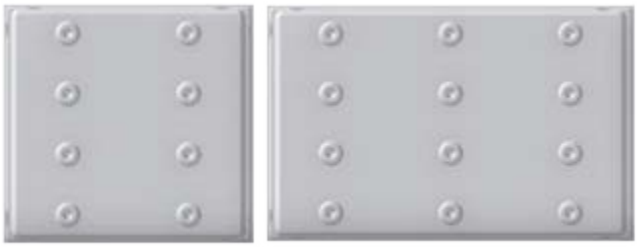
Rectangular metallic support for mounting ekinex® 6-fold (EK-EB2-TP) pushbuttons or *Touch&See* units (EK-EF2-TP) with 2-fold pushbutton onto rectangular, 3-seater mounting box with fixing holes 85 mm apart. Fixing screws are provided.

Note: a rectangular mounting support is included in the purchase of every ekinex® 6-fold pushbutton or *Touch&See* unit with 2-fold pushbutton.

Dimensions [mm]



Pushbutton protections



Description

Transparent construction-site protection made of thermoformed plastic material for ekinex® pushbuttons. Using the protection avoids device soiling or contamination, e.g. during wall painting. Two relieves in correspondence with each rocker position allow pushbutton operation while protection is mounted.

Versions

- Square, for 4-fold pushbuttons (EK-EA2-TP)
- Rectangular, for 6-fold pushbuttons (EK-EB2-TP)

Note

A construction-site protection is supplied with the delivery of each ekinex® pushbutton.

Modularity	Use in combination with	[Pcs]	Code
Square	4-fold pushbuttons (EK-EA2-TP)	10	EK-PPQ
Rectangular	6-fold pushbuttons (EK-EB2-TP)	10	EK-PPR

Touch&See unit protections

Description

Transparent construction-site protection made of thermoformed plastic material for *Touch&See* control and display unit. Using the protection avoids device soiling or contamination, e.g. during wall painting. The rectangular version has two relieves in correspondence with each rocker position allowing operation while protection is mounted.

Versions

- Square, for *Touch&See* unit (EK-EC2-TP)
- Rectangular, for *Touch&See* unit with integrated 2-fold pushbutton (EK-EF2-TP)

Note

A construction-site protection is supplied with the delivery of each ekinex® *Touch&See* unit.

Modularity	Use in combination with	[Pcs]	Code
Square	*Touch&See* unit (EK-EC2-TP)	5	EK-PTQ
Rectangular	*Touch&See* unit with 2-fold pushbutton (EK-EF2-TP)	5	EK-PTR

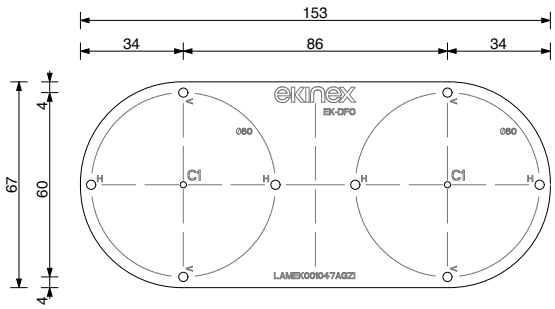
Template for double-mounting (form)

Series	Use in combination with	[Pcs]	Code
form	2 ekinex® devices finished with square frames of the form series	5	EK-DFO

Description

Template for horizontal or vertical double-mounting of two ekinex® devices with square frame of the form series. Made of zinc-plated metal sheet, 1 mm thick. Employ depends on wall type (brick or panels).

Dimensions [mm]



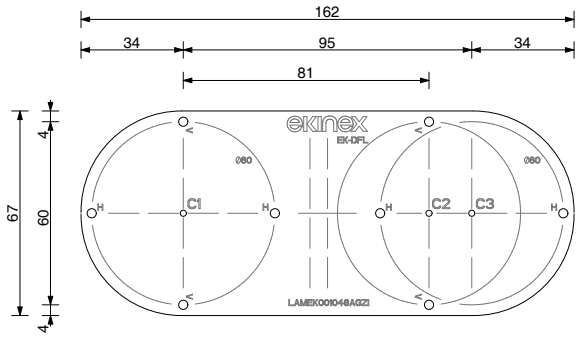
Template for double-mounting (flank)

Series	Use in combination with	[Pcs]	Code
flank	2 ekinex® devices finished with square frames of the flank series	5	EK-DFL

Description

Template for horizontal or vertical double-mounting of two ekinex® devices with square frame of the flank series. Made of zinc-plated metal sheet, 1 mm thick. Employ depends on wall type (brick or panels).

Dimensions [mm]



Terminal block

Description

Bus terminal block for connections to the bus line or SELV auxiliary power supply. It allows the connection of up to 4 wire pairs. Can also be used as distribution block in mounting boxes.

Chromatic coding:

EK-MNR-TP: red = + (positive), black = - (negative)
EK-MGB-TP: yellow = + (positive), white = - (negative)

Note: a terminal block for connection to the bus line (EK-MNR-TP) is supplied with the purchase of every ekinex® device. A terminal block for connection to auxiliary power supply (EK-MGB-TP) is supplied with the purchase of EK-AG1-TP, EK-EC2-TP and EK-EF2-TP devices.

Version	Suggested use	[Pcs]	Code
Black/red	Bus line	50	EK-MNR-TP
Yellow/white	Auxiliary SELV supply	50	EK-MGB-TP

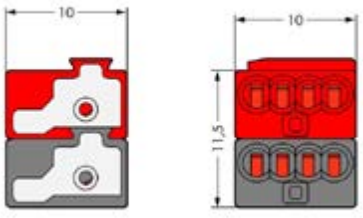
Technical data

- Rated voltage 100 V
- Nominal current 6 A

Main characteristics

- 4 seats per polarity
- Quick spring cable locking
- Ideal for rigid 0,6÷0,8 mm diameter cables
- Mechanical coding for block seat in devices
- Cable stripping (suggested) 5-6 mm

Dimensions [mm]



Bus cable

Description

Bus cable for networking bus devices and bus line branching. Available with 1 or 2 twisted single-cable pairs 0,8 mm in diameter. Aluminium shielding. For indoor use (dry premises).

Technical data

- Nominal voltage 50 V
- Test voltage 4 kV

Main characteristics

- Cable for KNX TP1 standard applications
- Twisted pairs cable Ø 0,8 mm
- Black/red conductors for linking to KNX bus
- Yellow/white conductors for linking to auxiliary SELV or spare power supply

Version	Conductors [N.]	Pack [m]	Code
YCMY 1 x 2 x 0,8	2	100	EK-102-TP
YCMY 2 x 2 x 0,8	4	100	EK-104-TP

Colours and finishings for pushbuttons, frames and plates

Plastic material

Colours and finishings

Aluminium

Colours and finishings

Note. Colour representation is purely indicative and can differ from reality due to printing on paper and limitations imposed by typographical press.
Pushbutton, see pages 14-15; frames, see pages 16-17, plates, see pages 22-23.

Symbol library

Square and rectangular rockers can be customized with symbols as shown in the library at pages 30-31. Upon request, it is also possible to customize rockers with symbols and text provided by the customer.

Square rockers

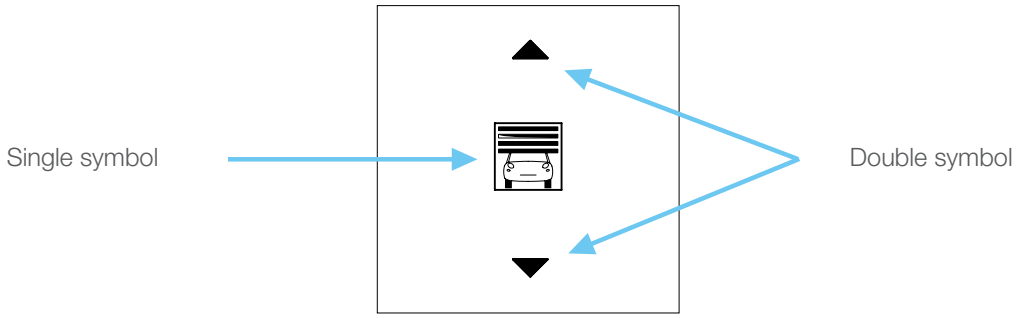
Square rockers have base-code EK-TSQ (also see page 14). The code extension includes 3 characters identifying material, colour and finishing and 3 more characters identifying symbols. Within the last 3-character group, the first character identifies a double symbol, while the second and third characters identify a single symbol. Also see page 33 for the construction of codes.

Single symbol

The single symbol is reproduced in the central part of the square rocker, centred both horizontally and vertically. If the second and third characters of the extension-code equal “0”, the rocker has no single symbol.

Double symbol

The double symbol is reproduced in the upper and lower part of the square rocker, both centred horizontally. If the first character in the extension-code equals “0”, the rocker has no double symbol.



Rectangular rockers

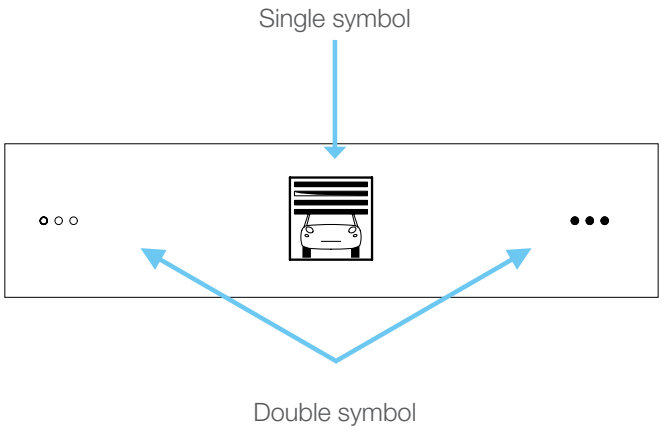
Rectangular rockers have base code EK-TSR (also see page 15); they may have a single symbol in the centre like those available for square rockers, plus a double symbol positioned on the sides. The code extension includes 3 characters identifying material, colour and finishing and 3 more characters identifying symbols. Within the last 3-character group, the first character identifies a double symbol, while the second and third characters identify a single symbol. Also see page 33 for the construction of codes.

Single symbol

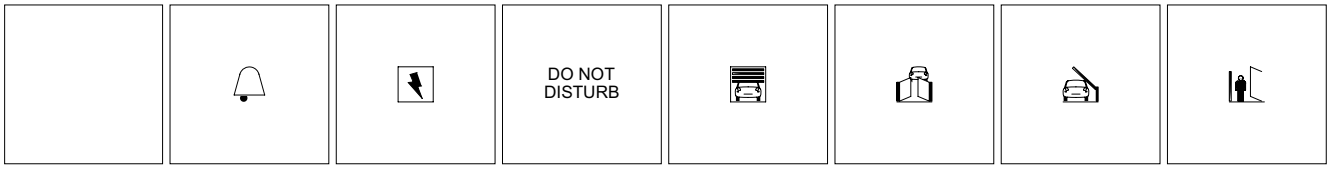
The single symbol is reproduced in the central part of the rectangular rocker, centred both horizontally and vertically. If the second and third characters of the extension-code equal “0”, the rocker has no single symbol.

Double symbol

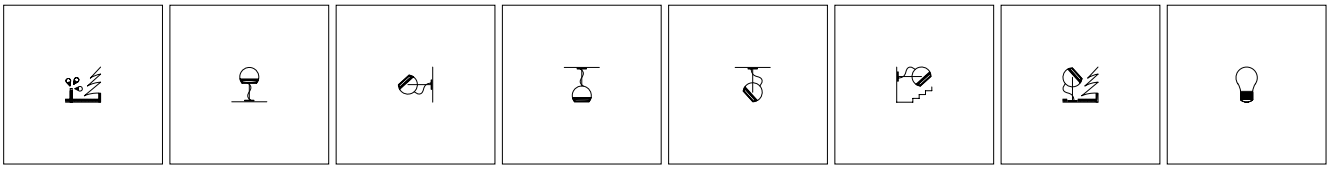
The double symbol is reproduced on the left and right sides of the rectangular rocker, vertically centred. If the first character in the extension-code equals “0”, the rocker has no double symbol.



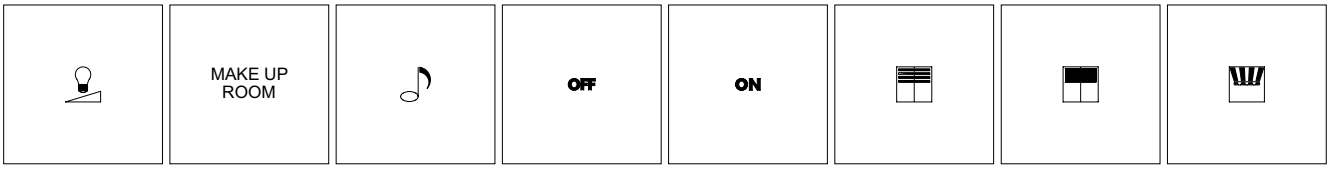
Single symbols



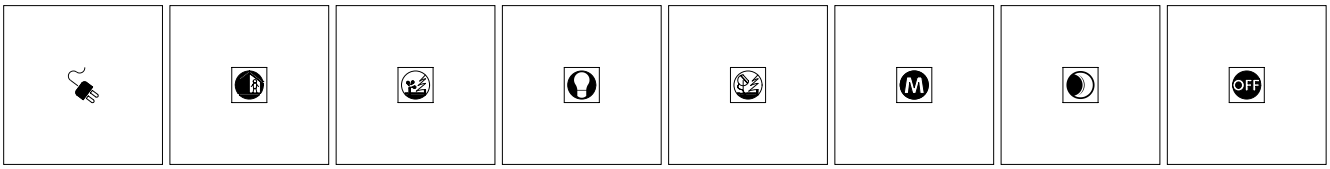
00 *No symbol* | AA *Buzzer* | AB *Electrical load* | AC *Do not disturb* | AD *Garage door* | AE *Gate* | AF *Barrier* | AG *Pedestrian entrance*



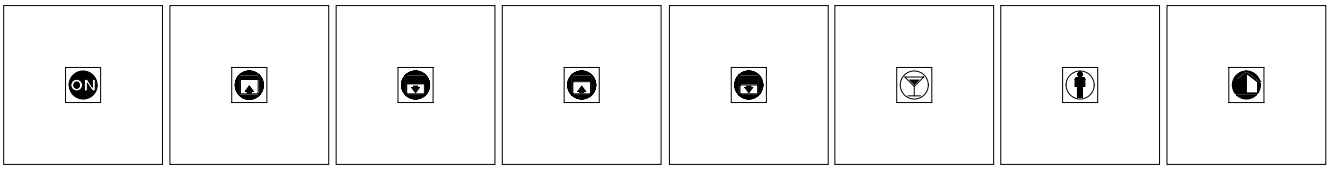
AH *Irrigation* | AI *Floor lamp* | AL *Wall lamp* | AM *Ceiling lamp* | AN *Spotlight* | AO *Staircase light* | AP *External lights* | AQ *Generic light*



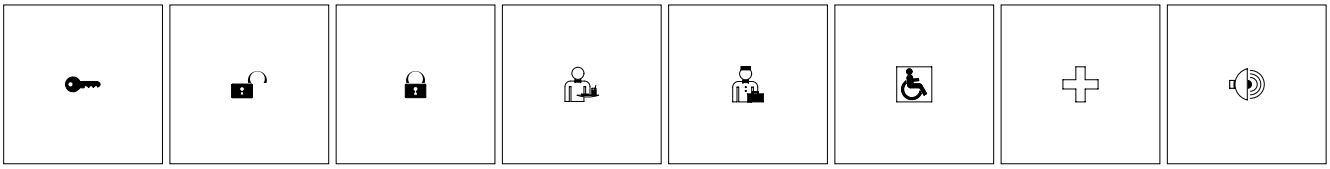
AR *Dimming* | AS *Make up room* | AT *Sound system* | AU *Power off* | AV *Power on* | AZ *Roller, blind* | BA *Indoor curtain* | BB *Outdoor curtain*



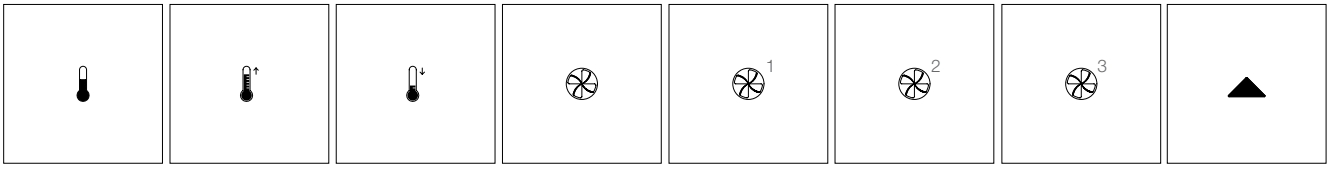
BC *Portable electrical load* | BD *Comfort scene* | BE *Irrigation scene* | BF *Lighting scene* | BG *Outdoor lighting scene* | BH *Manual scene* | BI *Night scene* | BL *Off scene*



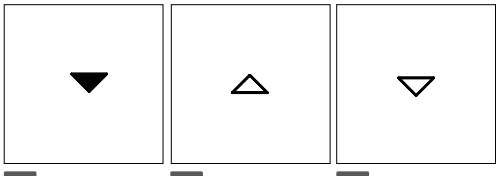
BM *On scene* | BN *Roller opening scene* | BO *Roller closing scene* | BP *Curtain opening scene* | BQ *Curtain closing scene* | BR *Party scene* | BS *Presence scene* | BT *Stand-by scene*



BU *Door lock* | BV *Unlock* | BZ *Lock* | CA *Room service* | CB *Service* | CC *Disabled* | CD *Assistance* | CE *Loudspeaker*



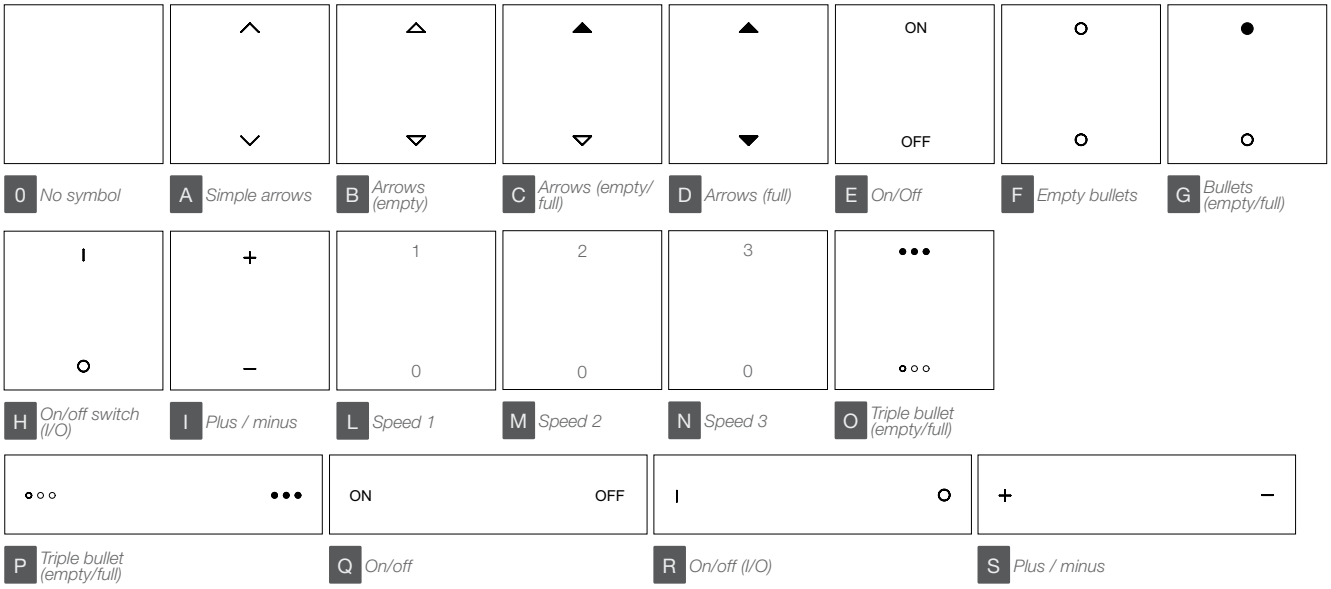
CF *Temperature* | CG *Temperature increase* | CH *Temperature reduction* | CI *Fan* | CL *Fan speed 1* | CM *Fan speed 2* | CN *Fan speed 3* | CO *Increment (full arrow up)*



CP *Decrement (full arrow down)* | CQ *Increment (empty arrow up)* | CR *Decrement (empty arrow down)*

Note. For convenience, all the symbols in this page are shown as they appear on square rockers. The same symbols may also be requested for rectangular rockers.

Double symbols



0 *No symbol* A *Simple arrows* B *Arrows (empty)* C *Arrows (empty/full)* D *Arrows (full)* E *On/Off* F *Empty bullets* G *Bullets (empty/full)*

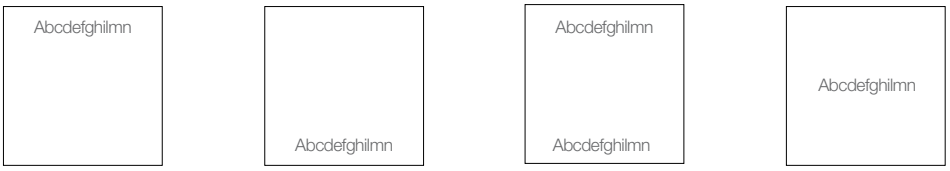
H *On/off switch (I/O)* I *Plus / minus* L *Speed 1* M *Speed 2* N *Speed 3* O *Triple bullet (empty/full)*

P *Triple bullet (empty/full)* Q *On/off* R *On/off (I/O)* S *Plus / minus*

Rockers may also be customized using any other symbol at customer's choice; for modalities (dimensions, resolution, file format, etc.) please refer to the indications reported on the www.ekinex.com website.

Text customization

Square rockers can be customized with text to be shown in the upper, central or lower areas. Texts must be specified at order time.



Text added to upper area only (Max 12 characters)

Text added to lower area only (Max. 12 characters)

Text added to both upper and lower areas (Max. 12 chars each)

Text added to central area only (1 or 2 lines, Max. 12 chars each)

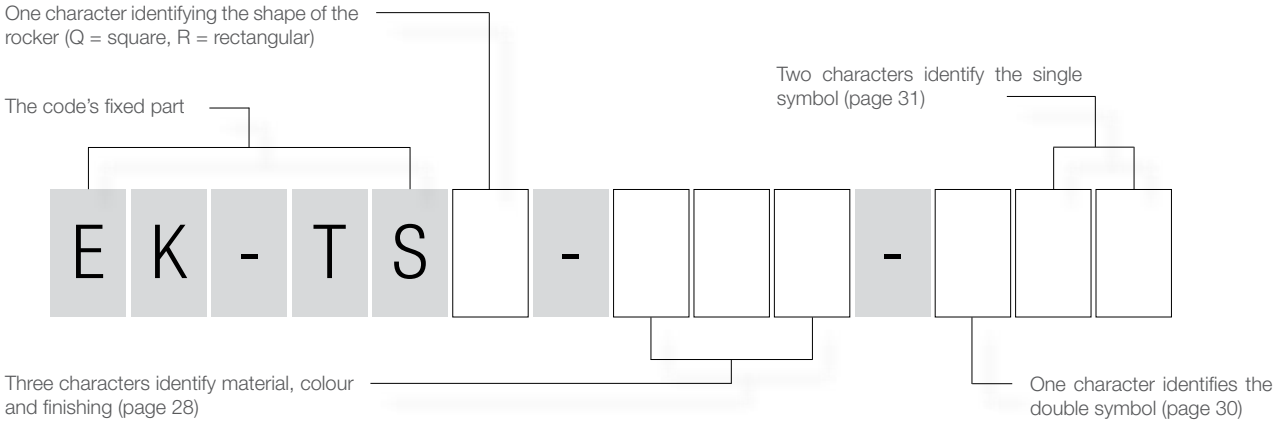
Rectangular rockers can be customized by means of text in their central area.

Text added to central area only (1 or 2 lines, Max. 12 chars each)

Notes

How to order a rocker

The ordering code of a rocker is formed by a fixed part (EK-TS) plus a variable part which represents modularity, material, colour and customization codes as shown in symbol library (pages 30-31).



Rocker codes

Plastic material

Shape	Colour	Finishing	Code
square	ice white	normal	EK-TSQ-GAA
		soft-touch	EK-TSQ-GAB
	fire white	normal	EK-TSQ-GAC
		soft-touch	EK-TSQ-GAD
	intense black	normal	EK-TSQ-GAE
		soft-touch	EK-TSQ-GAF
	silver	normal	EK-TSQ-GAG
	bronze	normal	EK-TSQ-GAH
	hematite	normal	EK-TSQ-GAI
	graphite	normal	EK-TSQ-GAL
rectangular	ice white	normal	EK-TSR-GAA
		soft-touch	EK-TSR-GAB
	fire white	normal	EK-TSR-GAC
		soft-touch	EK-TSR-GAD
	intense black	normal	EK-TSR-GAE
		soft-touch	EK-TSR-GAF
	silver	normal	EK-TSR-GAG
	bronze	normal	EK-TSR-GAH
	hematite	normal	EK-TSR-GAI
	graphite	normal	EK-TSR-GAL

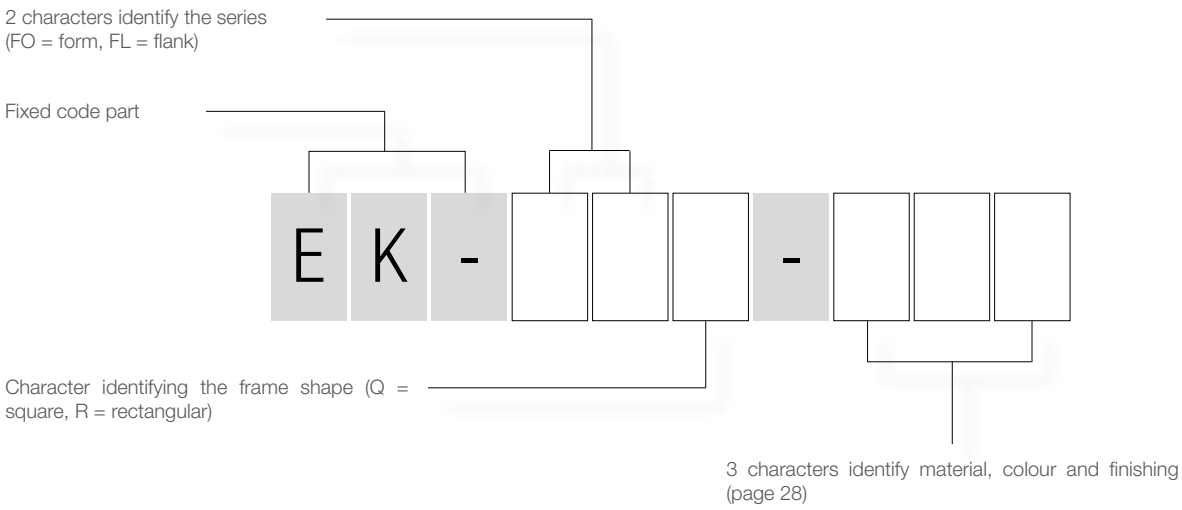
Aluminium

Shape	Colour	Finishing	Code
square	aluminium	normal	EK-TSQ-GBL
		brushed	EK-TSQ-GBQ
	nickel	normal	EK-TSQ-GBM
		brushed	EK-TSQ-GBR
	titanium	normal	EK-TSQ-GBN
		brushed	EK-TSQ-GBS
	anthracite	normal	EK-TSQ-GBO
		brushed	EK-TSQ-GBT
	carbon	normal	EK-TSQ-GBP
		brushed	EK-TSQ-GBU
rectangular	aluminium	normal	EK-TSR-GBL
		brushed	EK-TSR-GBQ
	nickel	normal	EK-TSR-GBM
		brushed	EK-TSR-GBR
	titanium	normal	EK-TSR-GBN
		brushed	EK-TSR-GBS
	anthracite	normal	EK-TSR-GBO
		brushed	EK-TSR-GBT
	carbon	normal	EK-TSR-GBP
		brushed	EK-TSR-GBU

Note. The code shown in the table includes information for the shape of the rocker (square or rectangular), the material (plastic or aluminium), colour and finishing. The given codes must be completed with the extension regarding symbols (see pages 29-31).

How to order a frame

The ordering number of frames comprises a fixed part (EK-) and a variable part which depends on the series (form or flank), shape (square or rectangular), material, colour and finishing.



Frame codes

Plastic material

Shape	Series	Colour	Finishing	Code
square	form	ice white	normal	EK-FOQ-GAA
			soft-touch	EK-FOQ-GAB
		fire white	normal	EK-FOQ-GAC
			soft-touch	EK-FOQ-GAD
		intense black	normal	EK-FOQ-GAE
			soft-touch	EK-FOQ-GAF
		silver	normal	EK-FOQ-GAG
		bronze	normal	EK-FOQ-GAH
		hematite	normal	EK-FOQ-GAI
		graphite	normal	EK-FOQ-GAL
	flank	ice white	normal	EK-FLQ-GAA
			soft-touch	EK-FLQ-GAB
		fire white	normal	EK-FLQ-GAC
			soft-touch	EK-FLQ-GAD
		intense black	normal	EK-FLQ-GAE
			soft-touch	EK-FLQ-GAF
		silver	normal	EK-FLQ-GAG
		bronze	normal	EK-FLQ-GAH
		hematite	normal	EK-FLQ-GAI
		graphite	normal	EK-FLQ-GAL

Aluminium

Shape	Series	Colour	Finishing	Code
rectangular	form	ice white	normal	EK-FOR-GAA
			soft-touch	EK-FOR-GAB
		fire white	normal	EK-FOR-GAC
			soft-touch	EK-FOR-GAD
		intense black	normal	EK-FOR-GAE
			soft-touch	EK-FOR-GAF
		silver	normal	EK-FOR-GAG
		bronze	normal	EK-FOR-GAH
		hematite	normal	EK-FOR-GAI
		graphite	normal	EK-FOR-GAL
	flank	ice white	normal	EK-FLR-GAA
			soft-touch	EK-FLR-GAB
		fire white	normal	EK-FLR-GAC
			soft-touch	EK-FLR-GAD
		intense black	normal	EK-FLR-GAE
			soft-touch	EK-FLR-GAF
		silver	normal	EK-FLR-GAG
		bronze	normal	EK-FLR-GAH
		hematite	normal	EK-FLR-GAI
		graphite	normal	EK-FLR-GAL

Frame codes (follows)

Aluminium

Shape	Series	Colour	Finishing	Code
square	form	aluminium	normal	EK-FOQ-GBL
			brushed	EK-FOQ-GBQ
		nickel	normal	EK-FOQ-GBM
			brushed	EK-FOQ-GBR
		titanium	normal	EK-FOQ-GBN
			brushed	EK-FOQ-GBS
		anthracite	normal	EK-FOQ-GBO
			brushed	EK-FOQ-GBT
		carbon	normal	EK-FOQ-GBP
			brushed	EK-FOQ-GBU
	flank	aluminium	normal	EK-FLQ-GBL
			brushed	EK-FLQ-GBQ
		nickel	normal	EK-FLQ-GBM
			brushed	EK-FLQ-GBR
		titanium	normal	EK-FLQ-GBN
			brushed	EK-FLQ-GBS
		anthracite	normal	EK-FLQ-GBO
			brushed	EK-FLQ-GBT
		carbon	normal	EK-FLQ-GBP
			brushed	EK-FLQ-GBU

Shape	Series	Colour	Finishing	Code
rectangular	form	aluminium	normal	EK-FOR-GBL
			brushed	EK-FOR-GBQ
		nickel	normal	EK-FOR-GBM
			brushed	EK-FOR-GBR
		titanium	normal	EK-FOR-GBN
			brushed	EK-FOR-GBS
		anthracite	normal	EK-FOR-GBO
			brushed	EK-FOR-GBT
		carbon	normal	EK-FOR-GBP
			brushed	EK-FOR-GBU
	flank	aluminium	normal	EK-FLR-GBL
			brushed	EK-FLR-GBQ
		nickel	normal	EK-FLR-GBM
			brushed	EK-FLR-GBR
		titanium	normal	EK-FLR-GBN
			brushed	EK-FLR-GBS
		anthracite	normal	EK-FLR-GBO
			brushed	EK-FLR-GBT
		carbon	normal	EK-FLR-GBP
			brushed	EK-FLR-GBU

How to order a plate

The ordering code of a plate consists of a fixed part (EK-P) and a variable part depending on shape (square or rectangular), window size (small or large), material, colour and finishing.

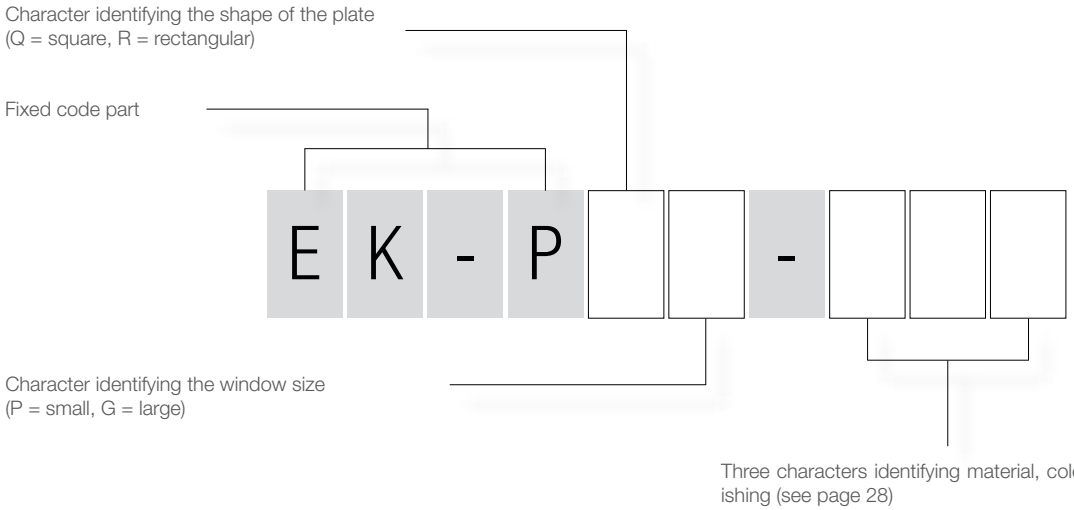


Plate codes

Plastic material

Shape	Window	Colour	Finishing	Code
square	small (45 x 45 mm)	ice white	normal	EK-PQP-GAA
			soft-touch	EK-PQP-GAB
		fire white	normal	EK-PQP-GAC
			soft-touch	EK-PQP-GAD
		intense black	normal	EK-PQP-GAE
			soft-touch	EK-PQP-GAF
		silver	normal	EK-PQP-GAG
		bronze	normal	EK-PQP-GAH
		hematite	normal	EK-PQP-GAI
		graphite	normal	EK-PQP-GAL
	large (55 x 55 mm)	ice white	normal	EK-PQG-GAA
			soft-touch	EK-PQG-GAB
		fire white	normal	EK-PQG-GAC
			soft-touch	EK-PQG-GAD
		intense black	normal	EK-PQG-GAE
			soft-touch	EK-PQG-GAF
		silver	normal	EK-PQG-GAG
		bronze	normal	EK-PQG-GAH
		hematite	normal	EK-PQG-GAI
		graphite	normal	EK-PQG-GAL

Shape	Window	Colour	Finishing	Code
rectangular	small * (66 x 44 mm)	ice white	normal	EK-PRP-GAA
			soft-touch	EK-PRP-GAB
		fire white	normal	EK-PRP-GAC
			soft-touch	EK-PRP-GAD
		intense black	normal	EK-PRP-GAE
			soft-touch	EK-PRP-GAF
		silver	normal	EK-PRP-GAG
		bronze	normal	EK-PRP-GAH
		hematite	normal	EK-PRP-GAI
		graphite	normal	EK-PRP-GAL
	large (68 x 45 mm)	ice white	normal	EK-PRG-GAA
			soft-touch	EK-PRG-GAB
		fire white	normal	EK-PRG-GAC
			soft-touch	EK-PRG-GAD
		intense black	normal	EK-PRG-GAE
			soft-touch	EK-PRG-GAF
		silver	normal	EK-PRG-GAG
		bronze	normal	EK-PRG-GAH
		hematite	normal	EK-PRG-GAI
		graphite	normal	EK-PRG-GAL

*) In preparation

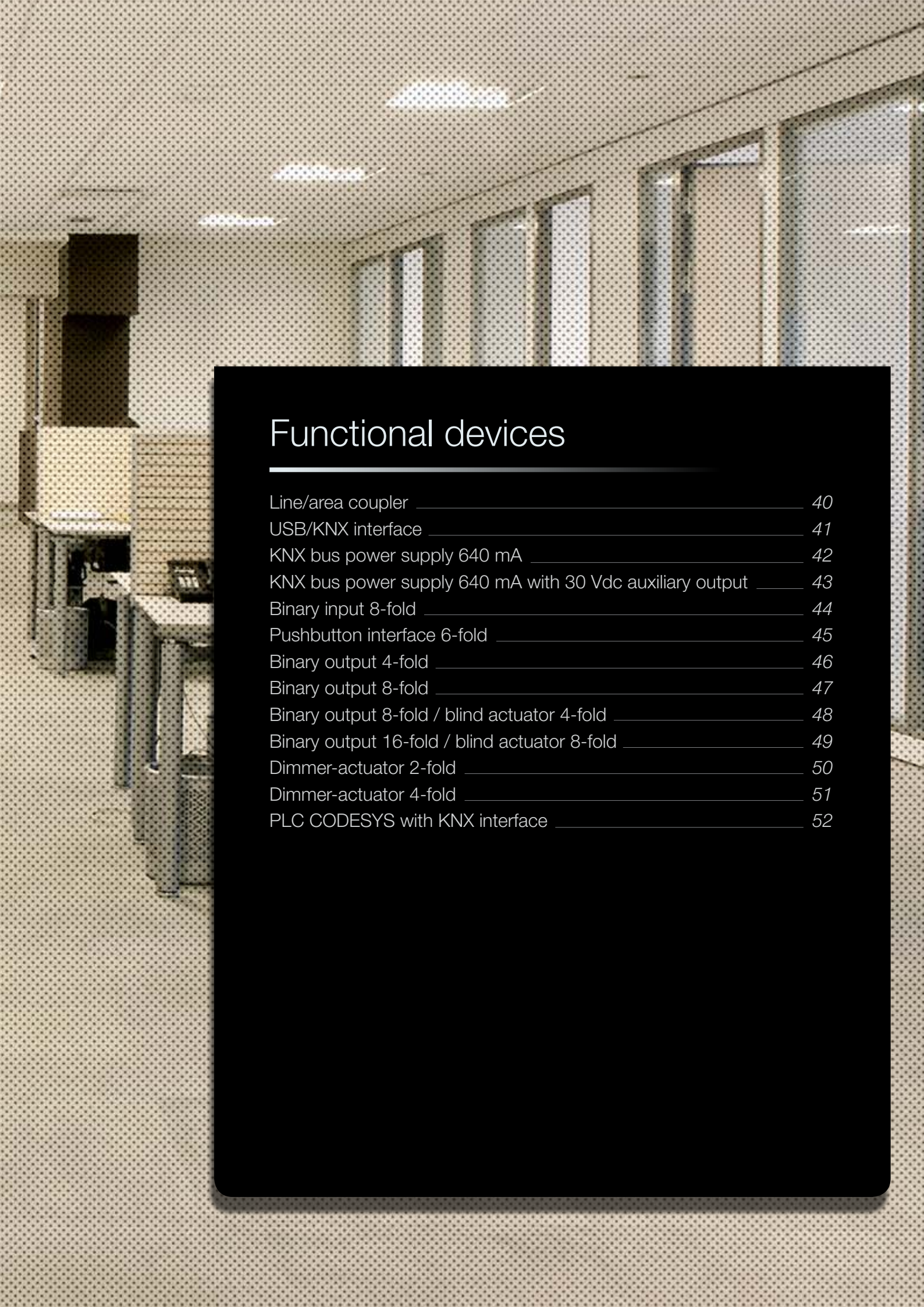
Plate codes (follows)

Aluminium

Shape	Window	Colour	Finishing	Code
square	small (45 x 45 mm)	aluminium	normal	EK-PQP-GBL
			brushed	EK-PQP-GBQ
		nickel	normal	EK-PQP-GBM
			brushed	EK-PQP-GBR
		titanium	normal	EK-PQP-GBN
			brushed	EK-PQP-GBS
		anthracite	normal	EK-PQP-GBO
			brushed	EK-PQP-GBT
		carbon	normal	EK-PQP-GBP
			brushed	EK-PQP-GBU
	large (55 x 55 mm)	aluminium	normal	EK-PQG-GBL
			brushed	EK-PQG-GBQ
		nickel	normal	EK-PQG-GBM
			brushed	EK-PQG-GBR
		titanium	normal	EK-PQG-GBN
			brushed	EK-PQG-GBS
		anthracite	normal	EK-PQG-GBO
			brushed	EK-PQG-GBT
		carbon	normal	EK-PQG-GBP
			brushed	EK-PQG-GBU

Shape	Window	Colour	Finishing	Code
rectangular	small * (66 x 44 mm)	aluminium	normal	EK-PRP-GBL
			brushed	EK-PRP-GBQ
		nickel	normal	EK-PRP-GBM
			brushed	EK-PRP-GBR
		titanium	normal	EK-PRP-GBN
			brushed	EK-PRP-GBS
		anthracite	normal	EK-PRP-GBO
			brushed	EK-PRP-GBT
		carbon	normal	EK-PRP-GBP
			brushed	EK-PRP-GBU
	large (68 x 45 mm)	aluminium	normal	EK-PRG-GBL
			brushed	EK-PRG-GBQ
		nickel	normal	EK-PRG-GBM
			brushed	EK-PRG-GBR
		titanium	normal	EK-PRG-GBN
			brushed	EK-PRG-GBS
		anthracite	normal	EK-PRG-GBO
			brushed	EK-PRG-GBT
		carbon	normal	EK-PRG-GBP
			brushed	EK-PRG-GBU

*) In preparation.



Functional devices

Line/area coupler

Description

The ekinex® line/area coupler EK-BA1-TP can be used as a line coupler to connect a secondary line to a main line, as an area coupler to connect a main line to a backbone line or as a repeater. The device assures galvanic insulation between the two connected lines and filters the traffic based on installation position or on filter tables in case of group-oriented communications. Six LEDs indicate the status of each bus line and facilitate the tracing of communication problems due to bus load or to re-transmission on both lines. The device is supplied by the KNX bus and requires no auxiliary power supply.

For more information, see the STEKBA1TP_EN.pdf technical sheet available for download from www.ekinex.com

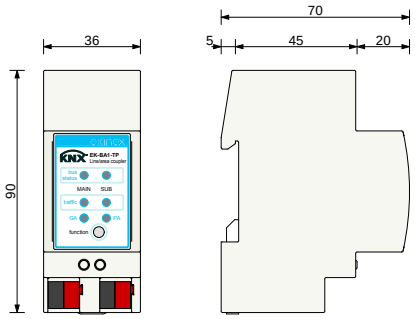
Technical data

- Power supply by KNX bus
- Current consumption (from main bus line) ca.10 mA

Main Characteristics

- Plastic casing
- 35 mm rail mounting (as per EN 60715)
- Bus line connections: KNX terminal blocks (black/red)
- IP20 protection grade (installed device)
- Weight 100 g
- 2 modular units (1 MU = 18 mm)

Dimensions [mm]



Order information

Ordering number	EK-BA1-TP
EAN	8018417180880
Packing	1 piece

Configuration and commissioning

By means of ETS4 (or later versions)
Application program: APEKBA1TP##.knxprod
(## = version, download from www.ekinex.com)

USB/KNX interface

Description

The ekinex® USB/KNX interface EK-BD1-TP allows a bidirectional data connection between a PC and a KNX bus system. The device handles the addressing, parameter setting, display, protocol management and diagnosis of KNX bus devices. Communication between the USB/KNX interface and linked devices is performed using the common EMI protocol; connection between KNX and the PC, by means of standard ETS, EITT and other software, is handled by the Falcon driver.

For more information, see the STEKBD1TP_EN.pdf technical sheet available for download from www.ekinex.com

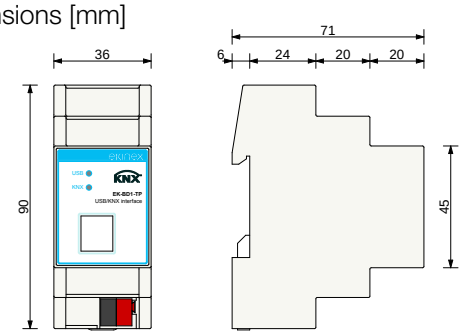
Technical data

- Power supply (bus side): 30 Vdc SELV
- Current consumption (from bus): max. 10 mA
- Power supply (PC side): from USB
- Energy consumption (from USB): max. 100 mW

Main Characteristics

- Plastic casing
- 35 mm rail mounting (as per EN 60715)
- Bus line connection: KNX terminal block (black/red)
- IP20 protection grade (installed device)
- Weight 100 g
- 2 modular units (1 MU = 18 mm)

Dimensions [mm]



Order information

Ordering number	EK-BD1-TP
EAN	8018417180910
Packing	1 piece

Configuration and commissioning

Not required

Power supply 640 mA

Description

The ekinex® 640 mA KNX bus power supply EK-AB1-TP supplies and monitors a 30Vdc current required by the KNX bus for operation. An integrated choke provides for decoupling power supply and bus line. Up to 64 KNX devices may be connected to a single bus line supplied by the 640 mA power supply. Output is protected from overload and short-circuit. The device sustains short network voltage interruptions (max. 200 ms).

For more information, see the STEKAB1TP_EN.pdf technical sheet available for download from www.ekinex.com

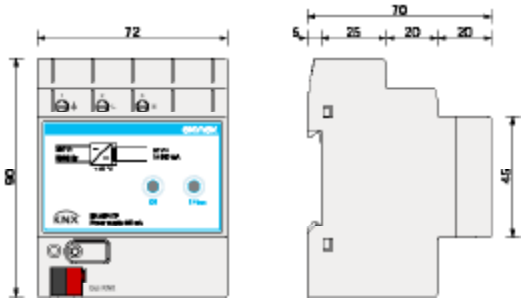
Technical data

- Input voltage 230 Vac, 50/60 Hz
- Output voltage (KNX bus): 30 Vdc +1/-2 Vdc
- Nominal current: 640 mA
- Power absorption 22 W
- Loss < 3 W
- Buffer time: 200 ms

Main Characteristics

- Plastic casing
- 35 mm rail mounting (as per EN 60715)
- Bus line connection: KNX terminal block (black/red)
- IP20 protection grade (installed device)
- Climatic class 3K5 and mechanical 3M2 (as per EN 50491-2
- Pollution degree 2 (as per IEC 60664-1)
- Appliance class II
- Weight 150 g
- 4 modular units (1 MU = 18 mm)

Dimensions [mm]



Order information

Ordering number	EK-AB1-TP
EAN	8018417180828
Packing	1 piece

Configuration and commissioning

Not required.

Power supply 640 mA with 30 Vdc auxiliary output

Description

The ekinex® EK-AG1-TP power supply produces and monitors the 30 Vdc current required by the KNX bus for operation. An integrated choke provides for decoupling power supply and bus line. Additional 30 Vdc output can be used for auxiliary power supply of other devices requiring SELV very low safety voltage. The total current provided by the two outputs (KNX bus line and auxiliary feed) cannot exceed 640 mA. Output is protected from overload and short-circuit. The device sustains short network voltage interruptions (max. 200 ms).

For more information, see the STEKAG1TP_EN.pdf technical sheet available for download from www.ekinex.com

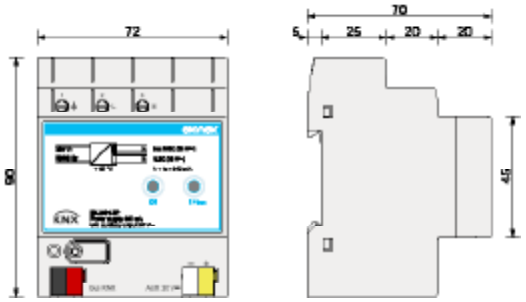
Technical data

- Input voltage: 230 Vac, 50/60 Hz
- Output voltage (KNX bus): 30 Vdc
- Output voltage (auxiliary output): 30 Vdc
- Nominal current (output total): 640 mA
- Buffer time: 200 ms

Main Characteristics

- Plastic casing
- 35 mm rail mounting (as per EN 60715)
- Bus line connection: KNX terminal block (black/red)
- Auxiliary output connection: dedicated terminal block (yellow/white)
- IP20 protection grade (installed device)
- Climatic class 3K5 and mechanical 3M2 (as per EN 50491-2
- Pollution degree 2 (as per IEC 60664-1)
- Appliance class II
- Weight 165 g
- 4 modular units (1 MU = 18 mm)

Dimensions [mm]



Order information

Ordering number	EK-AG1-TP
EAN	8018417180873
Packing	1 piece

Configuration and commissioning

Not required

8-fold binary input

Description

The ekinex® EK-CA1-TP binary input allows connecting to the KNX bus commands and sensors of traditional type, having potential-free contacts. Thanks to the binary input, it is possible to command and control bus functions with standard switches, pushbuttons or sensors (not natively communicating with the KNX bus) or binary signals made available by other devices. The device has 8 independent input channels and integrates a KNX bus communication module. The device is supplied by the KNX bus and does not require auxiliary power supply. The query voltage of input channels is produced within the device.

For more information, see the STEKCA1TP_EN.pdf technical sheet available for download from www.ekinex.com

Technical data

Power supply

- Voltage 30 Vdc by KNX bus
- Current consumption from bus < 13 mA
- Power on bus 320 mW

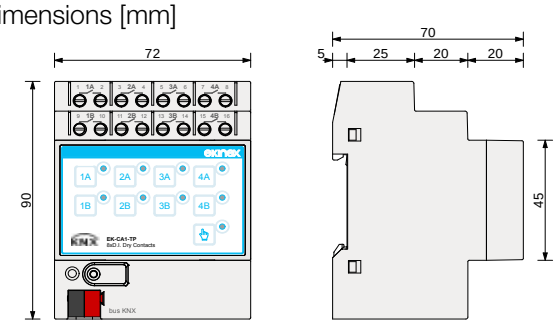
Output

- Number: 8
- Query tension: > 11 V
- Query current: > 5 mA

Main Characteristics

- Plastic casing
- 35 mm rail mounting (as per EN 60715)
- Bus line connection: KNX terminal block (black/red)
- IP20 protection grade (installed device)
- Weight 100 g
- 2 modular units (1 MU = 18 mm)

Dimensions [mm]



Order information

Ordering number	EK-CA1-TP
EAN	8018417180958
Packing	1 piece

Configuration and commissioning

By means of ETS4 (or later versions)
Application program: APEKCA1TP##.knxprod
(## = version, download from www.ekinex.com)

6-fold pushbutton interface

Description

The ekinex® 6-fold EK-CB2-TP pushbutton interface is a KNX device that can be used for either input or output. The device has 6 independent channels, integrates a KNX bus communication module and is compact enough for mounting onto wall flush mounting boxes. Each of the 6 channels may be used alternatively:

- as input, for the connection of switches, pushbuttons or sensors which do not communicate natively with the KNX bus (e.g. signalling contacts);
- as output, to pilot low consumption LED's.

The device is supplied by the KNX bus and does not require auxiliary power supply. The query voltage of input channels is produced within the device. An 8-conductor connection cable with one connection-ready tip is included.

For more information, see the STEKCB2TP_EN.pdf technical sheet available for download from www.ekinex.com

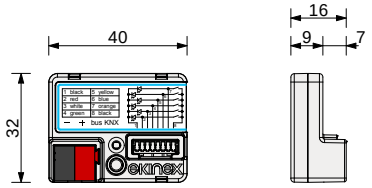
Technical data

- Power supply by KNX bus
- Current consumption from bus < 15 mA

Main Characteristics

- Plastic casing
- Fit for wall-mounting
- IP20 protection grade
- Bus line connection: KNX terminal block (black/red)
- Inputs/outputs connections with 250 mm 8-conductor cable
- Programming pushbutton and LED

Dimensions [mm]



Order information

Ordering number	EK-CB2-TP
EAN	8018417180965
Packing	1 piece

Configuration and commissioning

By means of ETS4 (or later versions)

Application program: APEKCB2TP##.knxprod (## = version, download from www.ekinex.com)

4-fold binary output

Description

The ekinex® EK-FA1-TP binary output allows to command 4 groups of loads independently; to this purpose, the device has outputs fitted with potential-free relays. The device's latching relays guarantee the upkeep of command status even in the case of bus power failures. The front levers allow manual command (by means of a special tool) and indicate the status of each output channel. The device is supplied by the KNX bus and does not require auxiliary power supply.

For more information, see the STEKFA1TP_EN.pdf technical sheet available for download from www.ekinex.com

Technical data

Power supply

- 30 Vdc voltage by KNX bus
- Current consumption from bus < 12 mA
- Power from bus 360 mW

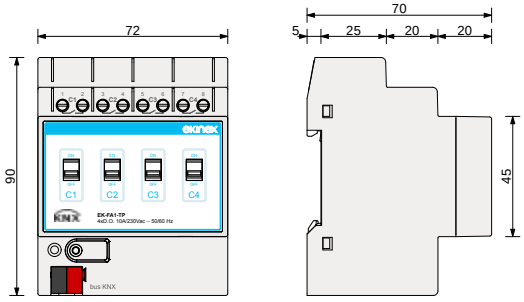
Outputs

- 4 latch relays
- Nominal voltage (Un): 230 Vac
- Nominal current (In): 10 A
- Switched power: 2200 W

Main Characteristics

- Plastic casing
- 35 mm rail mounting (as per EN 60715)
- Bus line connection: KNX terminal block (black/red)
- IP20 protection grade (installed device)
- Climatic class 3K5 and mechanical class 3M2 (as per EN 50491-2)
- Surge category III (as per EN 60664-1)
- Pollution degree 2 (as per IEC 60664-1)
- 4 modular units (1 MU = 18 mm)
- Weight 205 g

Dimensions [mm]

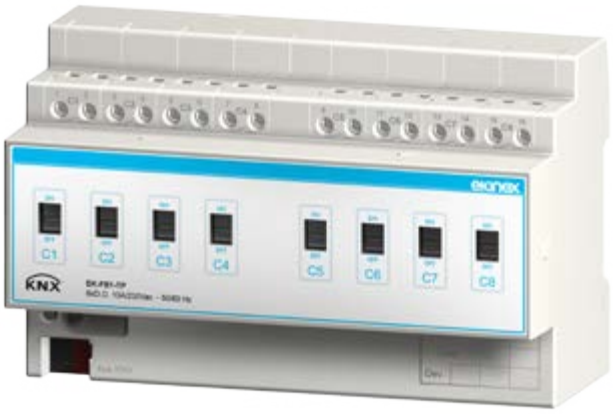


Order information

Ordering number	EK-FA1-TP
EAN	8018417181139
Packing	1 piece

Configuration and commissioning

By means of ETS4 (or later versions)
Application program: APEKFA1TP##.knxprod
(## = version, download from www.ekinex.com)



8-fold binary output

Description

The ekinex® EK-FB1-TP binary output allows to command 8 groups of loads independently; to this purpose, the device has outputs fitted with potential-free relays. The device's latching relays guarantee the upkeep of command status even in the case of bus power failures. The front levers allow manual command (by means of a special tool) and indicate the status of each output channel. The device is supplied by the KNX bus and does not require auxiliary power supply.

For more information, see the STEKFB1TP_EN.pdf technical sheet available for download from www.ekinex.com

Technical data

Power supply

- 30 Vdc voltage by KNX bus
- Current consumption from bus < 12 mA
- Power from bus 360 mW

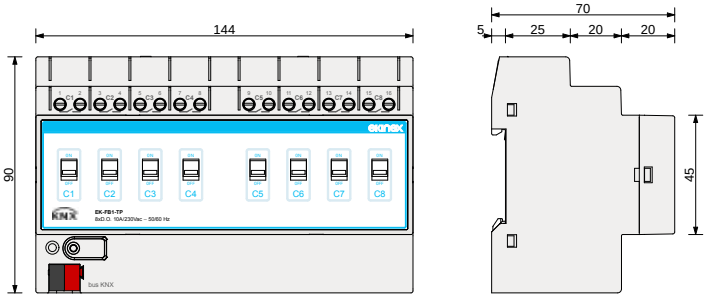
Outputs

- 8 latch relays
- Nominal tension (Un): 230 Vac
- Nominal current (In): 10 A
- Switched power: 2200 W

Main Characteristics

- Plastic casing
- 35 mm rail mounting (as per EN 60715)
- Bus line connection: KNX terminal block (black/red)
- IP20 protection grade (installed device)
- Climatic class 3K5 and mechanical class 3M2 (as per EN 50491-2
- Surge category III (as per EN 60664-1))
- Pollution degree 2 (as per IEC 60664-1)
- 8 modular units (1 MU = 18 mm)
- Weight 385 g

Dimensions [mm]



Order information

Ordering number	EK-FB1-TP
EAN	8018417181146
Packing	1 piece

Configuration and commissioning

By means of ETS4 (or later versions)
Application program: APEKFB1TP##.knxprod
(## = version, download from www.ekinex.com)

8-fold binary output / 4-fold blind actuator

Description

The ekinex® EK-FE1-TP binary output / blind actuator allows to command 8 groups of loads or control 4 drives for motorised blinds independently. The device is fitted with membrane pushbuttons for manual command (even in the absence of bus power) and LED's for status indication; a pushbutton switches between automatic and manual operation modes. The device is supplied by the KNX bus and requires an additional 230 Vac power supply to operate.

For more information, see the STEKFE1TP_EN.pdf technical sheet available for download from www.ekinex.com

Technical data

Power supply

- Voltage (loads) 230 Vac 50/60 Hz
- Voltage (electronics) 30 Vdc by KNX bus
- Current consumption from bus < 10 mA
- Power on bus < 240 mW

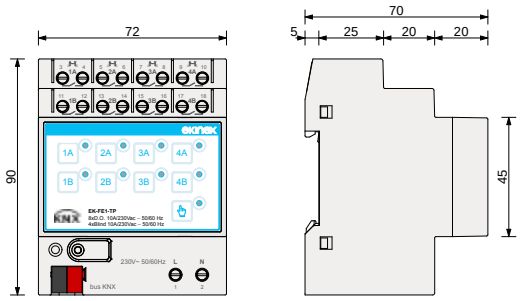
Outputs

- Number: 8 or 4 independent (according to employment)
- Nominal tension (Un): 230 Vac
- Nominal current (In): 10 A
- Switched power: 2200 W

Main Characteristics

- Plastic casing
- 35 mm rail mounting (as per EN 60715)
- Bus line connection: KNX terminal block (black/red)
- IP20 protection grade (installed device)
- Climatic class 3K5 and mechanical class 3M2 (as per EN 50491-2
- Surge category III (as per EN 60664-1))
- Pollution degree 2 (as per IEC 60664-1)
- 4 modular units (1 MU = 18 mm)
- Weight 315 g

Abmessungen [mm]



Order information

Ordering number	EK-FE1-TP
EAN	8018417181177
Packing	1 piece

Configuration and commissioning

By means of ETS4 (or later versions)
Application program: APEKFE1TP##.knxprod
(## = version, download from www.ekinex.com)

16-fold binary output / 8-fold blind actuator

Description

The ekinex® EK-FF1-TP binary output / blind actuator allows to command 16 groups of loads or control 8 drives for motorised blinds independently. The device is fitted with membrane pushbuttons for manual command (even in the absence of bus power) and LED's for status indication; a pushbutton switches between automatic and manual operation modes. The device is supplied by the KNX bus and requires an additional 230 Vac power supply to operate.

For more information, see the STEKFF1TP_EN.pdf technical sheet available for download from www.ekinex.com

Technical data

Power supply

- Voltage (loads) 230 Vac 50/60 Hz
- Voltage (electronics) 30 Vdc by KNX bus
- Current consumption from bus < 10 mA
- Power on bus < 240 mW

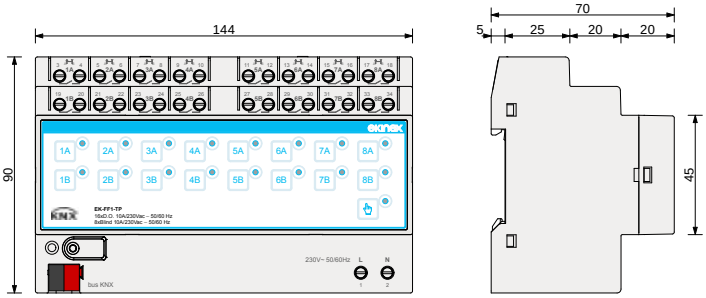
Outputs

- Number: 16 or 8 independent (depending on employment)
- Nominal tension (Un): 230 Vac
- Nominal current (In): 10 A
- Switched power: 2200 W

Main Characteristics

- Plastic casing
- 35 mm rail mounting (as per EN 60715)
- Bus line connection: KNX terminal block (black/red)
- IP20 protection grade (installed device)
- Climatic class 3K5 and mechanical class 3M2 (as per EN 50491-2
- Surge category III (as per EN 60664-1))
- Pollution degree 2 (as per IEC 60664-1)
- 8 modular units (1 MU = 18 mm)
- Weight 595 g

Abmessungen [mm]



Order information

Ordering number	EK-FF1-TP
EAN	8018417181184
Packing	1 piece

Configuration and commissioning

By means of ETS4 (or later versions)
Application program: APEKFF1TP##.knxprod
(## = version, download from www.ekinex.com)

2-fold dimmer-actuator

Description

The ekinex® EK-GA1-TP dimmer/actuator allows to command and regulate the light intensity of 2 groups of lighting devices. The device is suitable for the control of resistive, inductive and capacitive loads. The device is fitted with membrane pushbuttons for manual command (even in the absence of bus power) and LED's for status indication; a pushbutton allows the switching between automatic or manual operation modes. The device is supplied by the KNX bus and requires an additional 230 Vac power supply to operate.

For more information, see the STEKGA1TP_EN.pdf technical sheet available for download from www.ekinex.com

Technical data

Power supply

- Voltage (loads command): 230 Vac 50/60 Hz
- Voltage (electronics): 30 Vdc by KNX bus
- Current consumption from bus: <13 mA
- Max. power from bus: 320 mW

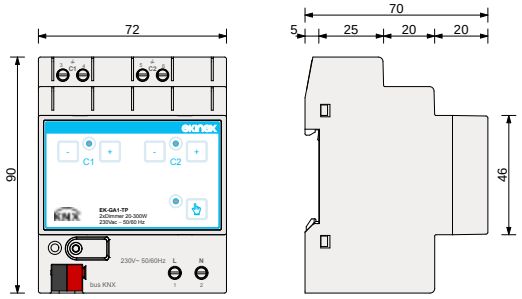
Outputs

- Max. controlled power: 300 W
- Min. controlled power: 10 W

Main Characteristics

- Plastic casing
- 35 mm rail mounting (as per EN 60715)
- Bus line connection: KNX terminal block (black/red)
- IP20 protection grade (installed device)
- Climatic class 3K5 and mechanical class 3M2 (as per EN 50491-2)
- Surge category III (as per EN 60664-1))
- Pollution degree 2 (as per IEC 60664-1)
- 4 modular units (1 MU = 18 mm)
- Weight 160 g

Abmessungen [mm]



Order information

Ordering number	EK-GA1-TP
EAN	8018417181214
Packing	1 piece

Configuration and commissioning

By means of ETS4 (or later versions)
Application program: APEKGA1TP##.knxprod
(## = version, download from www.ekinex.com)

4-fold dimmer-actuator

Description

The ekinex® EK-GB1-TP dimmer/actuator allows to command and regulate the light intensity of 4 groups of lighting devices. The device is suitable for the control of resistive, inductive and capacitive loads. The device is fitted with membrane pushbuttons for manual command (even in the absence of bus power) and LED's for status indication; a pushbutton allows the switching between automatic or manual operation modes. The device is supplied by the KNX bus and requires an additional 230 Vac power supply to operate.

For more information, see the STEKGB1TP_EN.pdf technical sheet available for download from www.ekinex.com

Technical data

Power supply

- Voltage (loads command): 230 Vac 50/60 Hz
- Voltage (electronics): 30 Vdc by KNX bus
- Current consumption from bus: <15 mA
- Max. power from bus: 360 mW

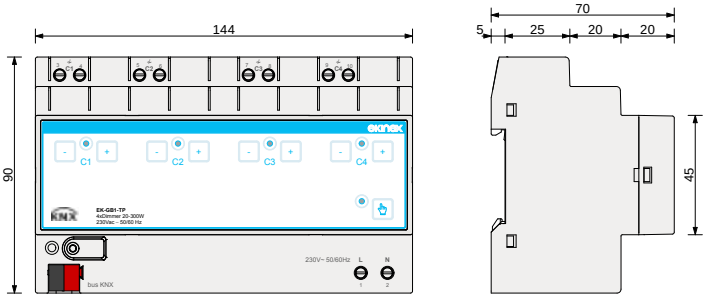
Outputs

- Max. controlled power: 300 W
- Min. controlled power: 10 W

Main Characteristics

- Plastic casing
- 35 mm rail mounting (as per EN 60715)
- Bus line connection: KNX terminal block (black/red)
- IP20 protection grade (installed device)
- Climatic class 3K5 and mechanical class 3M2 (as per EN 50491-2)
- Surge category III (as per EN 60664-1))
- Pollution degree 2 (as per IEC 60664-1)
- 8 modular units (1 MU = 18 mm)
- Weight 300 g

Abmessungen [mm]



Order information

Ordering number	EK-GB1-TP
EAN	8018417181221
Packing	1 piece

Configuration and commissioning

By means of ETS4 (or later versions)
Application program: APEKGB1TP##.knxprod
(## = version, download from www.ekinex.com)

CODESYS PLC with KNX interface

Description

The ekinex® EK-IA1-TP PLC realizes complex control logics and regulates the automation of homes and buildings, integrating basic KNX functions. The device is completely programmable by using the CODESYS* development environment (V3 release); it incorporates an interface to the KNX bus and a USB port for programming. The device is entirely supplied at SELV voltage by the KNX bus and does not require auxiliary power supply. It is delivered with a plug-in to list all variables used for programming the device.

* CODESYS (COntroller DEvelopment SYStem) is a trademark of 3S-Smart Software Solutions GmbH, Kempten (Germany). The CODESYS platform complies with standard IEC 61131-3 Programmable controllers - Part 3: Programming languages. For more information, also consult www.codesys.com

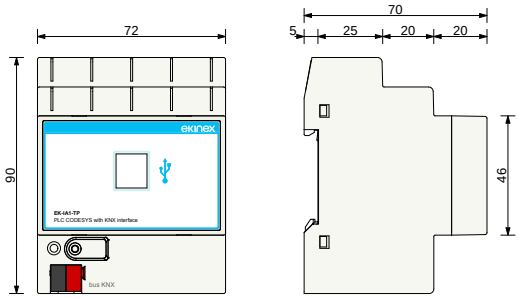
Technical data

- Power supply by KNX bus

Main Characteristics

- Plastic casing
- 35 mm rail mounting (as per EN 60715)
- IP20 protection grade (installed device)
- Bus line connection: KNX terminal block (black/red)
- Climatic class 3K5 and mechanical class3M2 (as per EN 50491-2)
- Surge category III (as per EN 60664-1))
- Pollution degree 2 (as per IEC 60664-1)
- 4 modular units (1 MU = 18 mm)

Dimensions [mm]



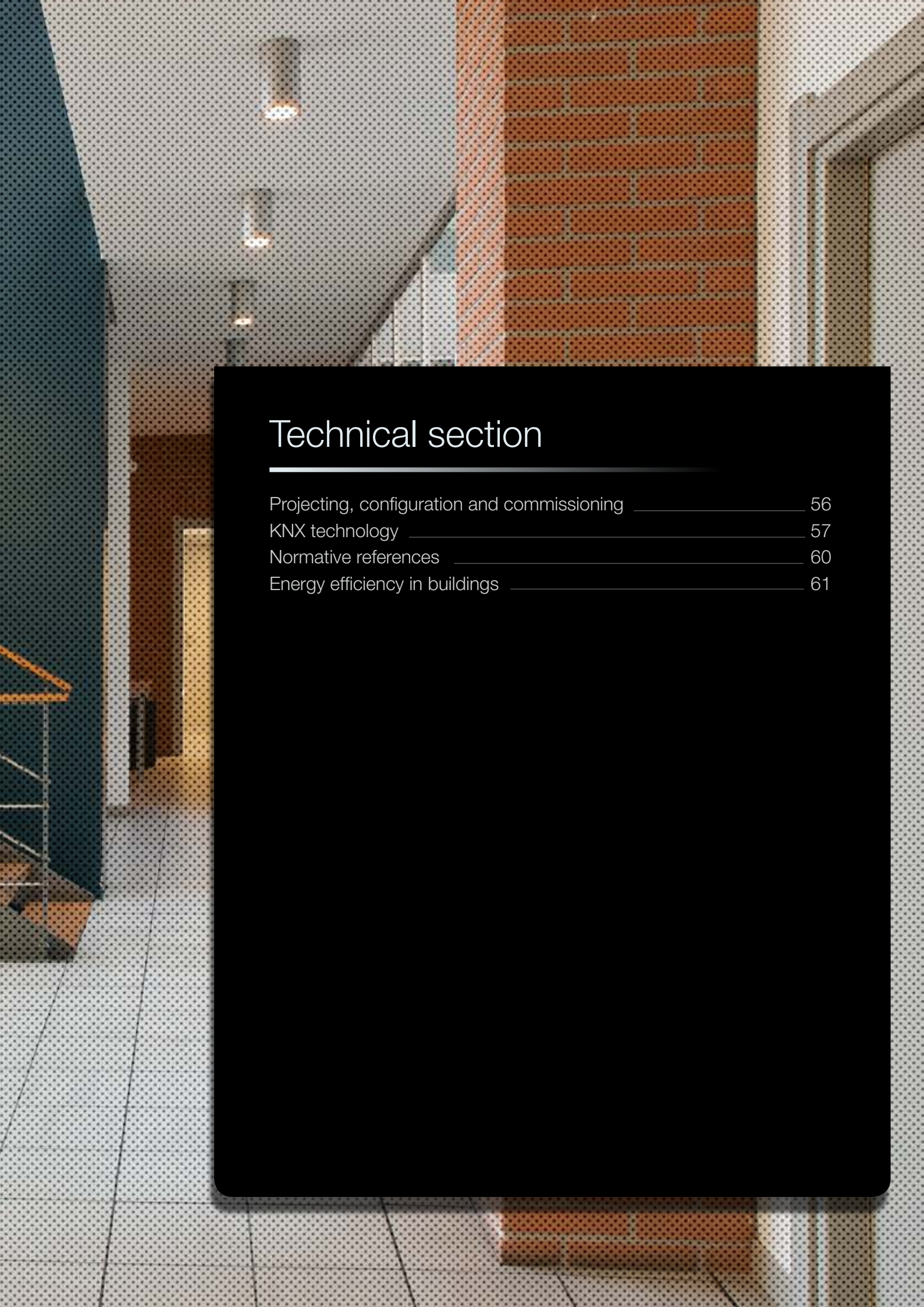
Order information

Ordering number	EK-IA1-TP
EAN	8018417181306
Packing	1 piece

Configuration and commissioning

Import of ETS database by means of plug-in

Notes



Technical section

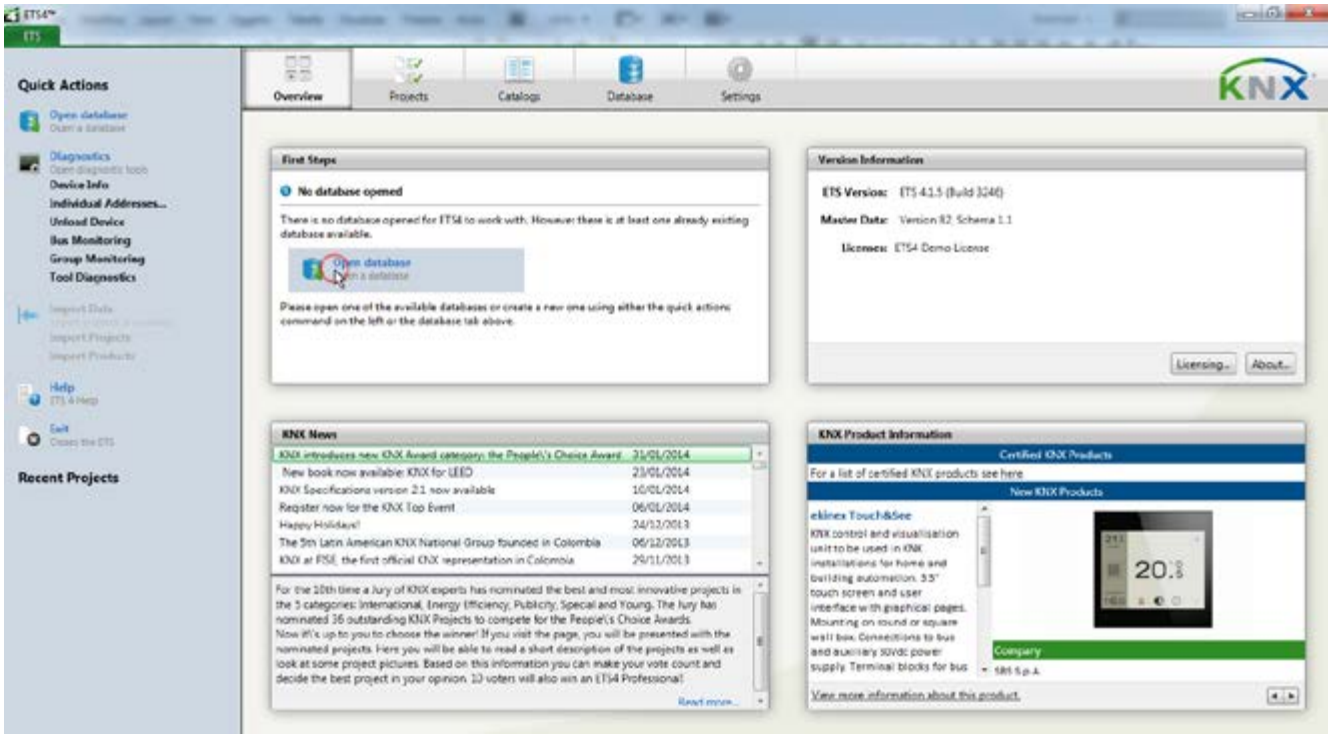
Projecting, configuration and commissioning

The ekinex® home and buildings automation system was developed in accordance with the KNX open standard; therefore, the planning and the commissioning of a system as well as the configuration of its devices can be carried out easily by means of a PC and the ETS® software.

ETS® (Engineering Tool Software) is the manufacturer-independent software, marketed by KNX Association (www.knx.org).

Available in its ETS4 version, the software allows to program ekinex® devices, as well as thousands of other interoperable devices produced by companies which are members of KNX Association. All is needed to use ekinex® devices in a system project, is the download from the www.ekinex.com website of either the application programs general file, the ekinex® product database containing software for all devices, or the single, specific-application program as necessary. After importing product data into the internal ETS® database, one may start laying out the home automation project.

The first activity required consists of assigning a name to the project, along with general descriptive information, which will permit to re-use the same project without problems, even after a long time. The next step is to define the building's structure and the topology required by the home automation project. The devices are looked up in the database, copied into the structure and assigned a unique id, corresponding to their physical address. At this point, each device may be configured independently, by setting a series of parameters, which vary according to the function to be performed. For example, independent function can be attributed to each different channel of a single push-button command, e.g. switching on or off an electrical appliance, a dimmer for a light source or the opening/closing control for a roll-up shutter. The next step is to define the interaction between multiple devices; unlike traditional installations, where this is achieved by physically laying cables, in a home automation system this action is performed by means of virtual connections generated by the ETS® program. It is then possible to upload the application program to each device, thereby including all the settings required to perform the expected function within the system. ETS® also has utility functions for diagnoses and error search; for instance, it is possible to verify physical addresses and to check the status of each single devices on the connected bus. Lastly, the program can produce the necessary project documentation for the end user, so that it may be further expanded and adapted in the future.



The constant attention of KNX towards the world of professionals developed into a wide offer of training courses. Courses for experts have been offered for years in numerous countries and KNX constantly monitors the activity of all certified training centres, where it is possible to become KNX Partners. The professional role of a KNX Partner is to guarantee a high level of system expertise in order to achieve the best results. Among KNX Partners are designers, installers and system integrators, who offer expert advice to plan, install, run and maintain a KNX-standard control system for homes and buildings.

In order to become KNX Partner, one must withstand a 40-hours theory and practise exam at a KNX-certified Training Centre

A complete list of KNX Partner is available on the website of KNX Association (www.knx.org).

KNX technology

KNX systems realize decentralized building automation; therefore, neither have a central unit nor a supervising PC for control are required. Each device is fitted with an electronic part, which allows bus communication with all other devices on the bus, processes the received information or transmits the stored working parameters and the logics required for the completion of its task.

Communication

Communication between KNX devices occurs in digital form, by means of serial transmissions of organized information, called “telegrams”. A telegram includes the main information to be transmitted – e.g. a switch on or switch off command, a numerical value corresponding to a physical size detected by a sensor, etc. – and a series of accessory information required to guarantee an efficient, error-free communication. Any telegram, which is not duly received, can be repeated up to three times by the transmitting device. In order to avoid collisions between telegrams being sent out at the same time along the same bus from different devices, the CSMA/CA (Carrier Sense Multiple Access / Collision Avoidance) protocol is used. The information transmission speed occurs at 9600 bit/s, which makes it possible to avoid bus line resistor terminations.

Transmission Medium

The family of ekinex® TP bus devices uses twisted-pair signal cables to transmit data; the correct communication is guaranteed by employing bus cables with 1 or 2 conductor pairs made in accordance with KNX Association’s TP1 specifications.

The transmission medium utilized by ekinex® devices are standard KNX TP1 cables in the 2 or 4 conductors version

Connecting the devices

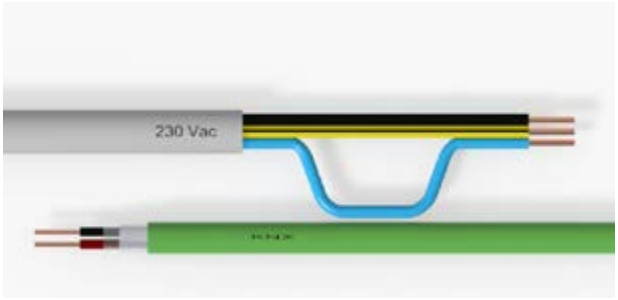
ekinex® devices are connected to the signal bus cable by means of the KNX bus termination block. The termination block and the cable form part of a convenient, fast-connection system aimed at eliminating errors: the cable has rigid connectors and the termination block is fitted with holding springs (instead of screws); besides, the termination block is formed by two elements having the same color-coding (black/red) of the conductors to be connected.

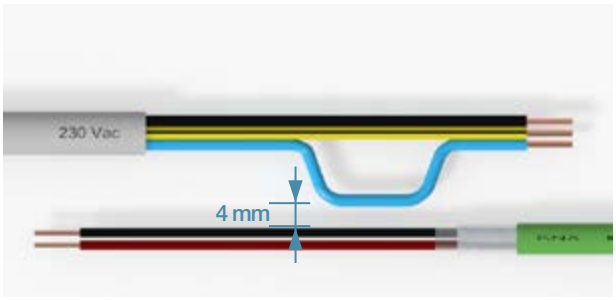
The connection of ekinex® devices to a KNX network is achieved by using the bus termination block included in the supply of each device

Each stripped bus conductor will be simply inserted in place, where it will stay firm thanks to the provided holding spring. Each polarity has 4 connection areas and the termination block may be extracted from its seat; Thanks to these two characteristics, the removal of any device from the bus cabling does not determine the interruption of communications with the remaining devices. The termination block is also used for branching cable segments on the same bus.

Installation

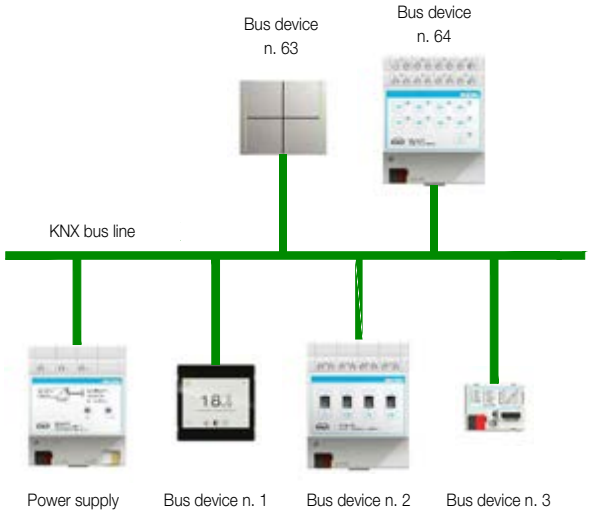
KNX bus cables can be laid underneath the 230 Vac power cables along the same duct, provided they are kept isolated. Should the insulating sheath be removed, a distance of at least 4 mm between cable types must be guaranteed.



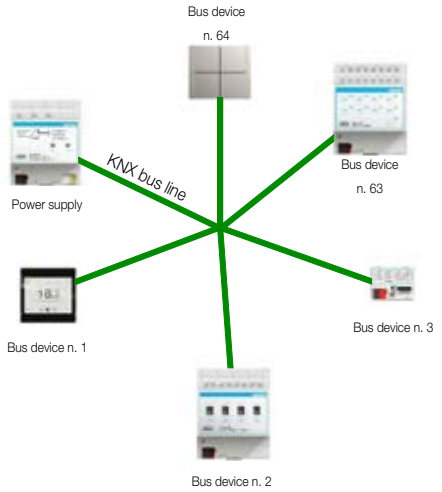


Topology

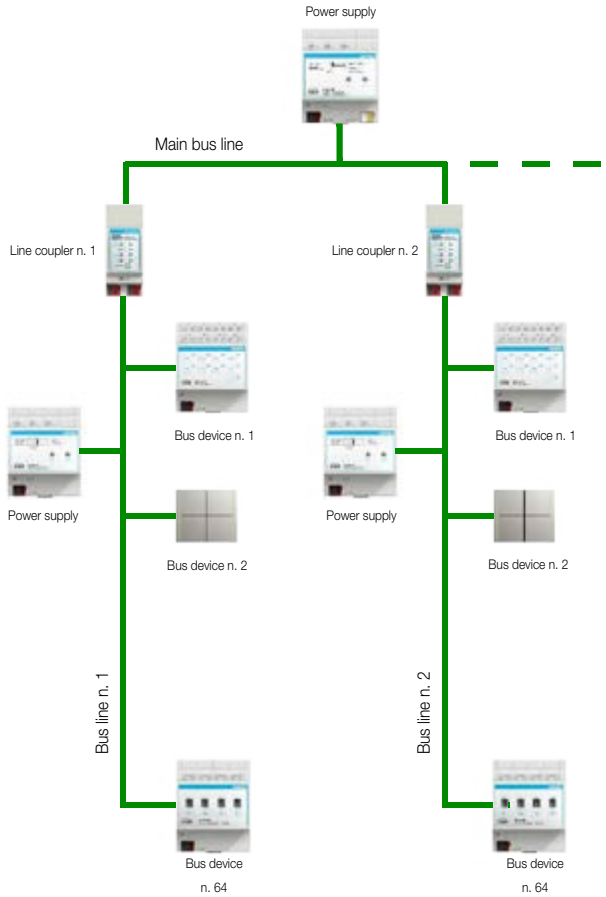
The smallest KNX system may include a single bus line along which up to 64 devices can be connected. The line must be equipped with the special bus power supply, which provides the necessary SELV voltage for the system to work. The effective number of bus devices that can be connected to the line is determined at project level and may vary depending on the voltage supplied by the bus power supply and on the electrical absorption of each device on the bus. Since each ekinex® device can process multiple functions, a single-bus line can suffice to control an apartment, a detached house or even a larger building with a limited number of bus functions.

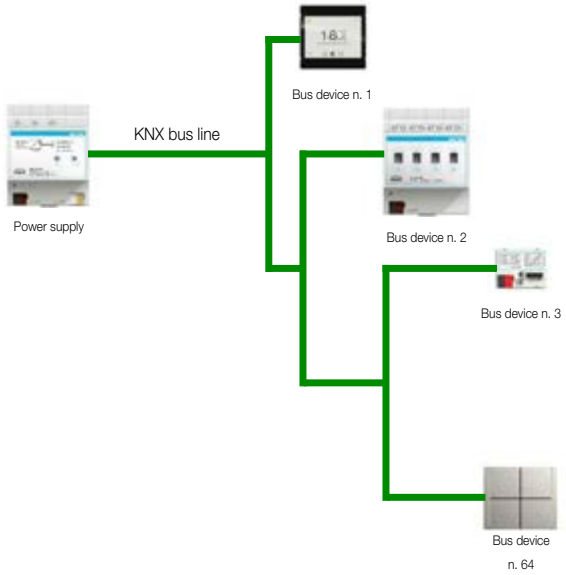


Next to a simple single-line configuration, a bus line can be subdivided into more segments, thus obtaining a star-shaped or a tree-shaped topology, or any combinations of the two.



Adding line couplers, allows the system to expand to accommodate for larger buildings and/or higher numbers of required bus functions. Connecting more lines between them by means of couplers and a backbone line constitutes an area. An area is formed by a backbone line, up to 15 secondary lines and by all the devices connected along them. A unique number between 1 and 15 characterizes each secondary line. With little fewer than 1000 connectible KNX devices, an area permits the handling of a medium/large size system.





It is necessary to respect KNX topology prescriptions while projecting the system, in order to guarantee communication within the system:

- the maximum allowed line length is 1000 m, including any and all branches;
- up to 64 bus devices can be connected to one line;
- the maximum distance between 2 devices is 700 meters;
- no bus device may be more than 350 meters apart from a bus power supply;
- in case of high numbers of bus devices (>30) along limited sections lengths (10m), a second bus power supply can be installed, provided it sits at least 200 meters away from the first.

Should the demand increase, a KNX system can be further extended by connecting one another up to 15 areas.

The main lines of each single area are connected to a backbone line by means of area couplers. Areas and main lines are numbered 1 to 15, while the backbone line bears number 0.

The most extended KNX system permits to connect tens of thousands of devices, thus satisfying the necessities of very large buildings

Device addressing

The bus is a shared communication medium and each connected device must be be exclusively distinguished from all others.

The ETS® program takes care of that by assigning a physical address to each device; the address is represented in the form “area.line.device”. Thanks to that, the topology of the entire system is mirrored into the devices’ physical addresses, making it easy to locate a device in the whole topology, by simply knowing its physical address. For instance:

3.5.12	is the physical address of the bus device number 12, installed along line 5 in area 3
7.11.4	is the physical address of bus device number 4 on line 11 in area 7

A line coupler connects a secondary line to the backbone line; the device forms an integral part of the secondary line and conventionally assumes the device number “0”. The physical address of a line coupler can be, for instance:

3.5.0	is the physical address of the coupler connecting the secondary line n. 5 to the main line of area 3

The area coupler connects an area's main line to the backbone line; the device is part of the main line and conventionally assumes device number "0" and line number "0". The physical address of an area coupler is, for example:

3.0.0 is the physical address of the coupler connecting the main line of area 3 to the system's backbone line

The physical address of the transmitting device is always present in a telegram, working as the "source address" of the message.

3.5.12

The physical address (area. line.device) is used in programming and during device testing

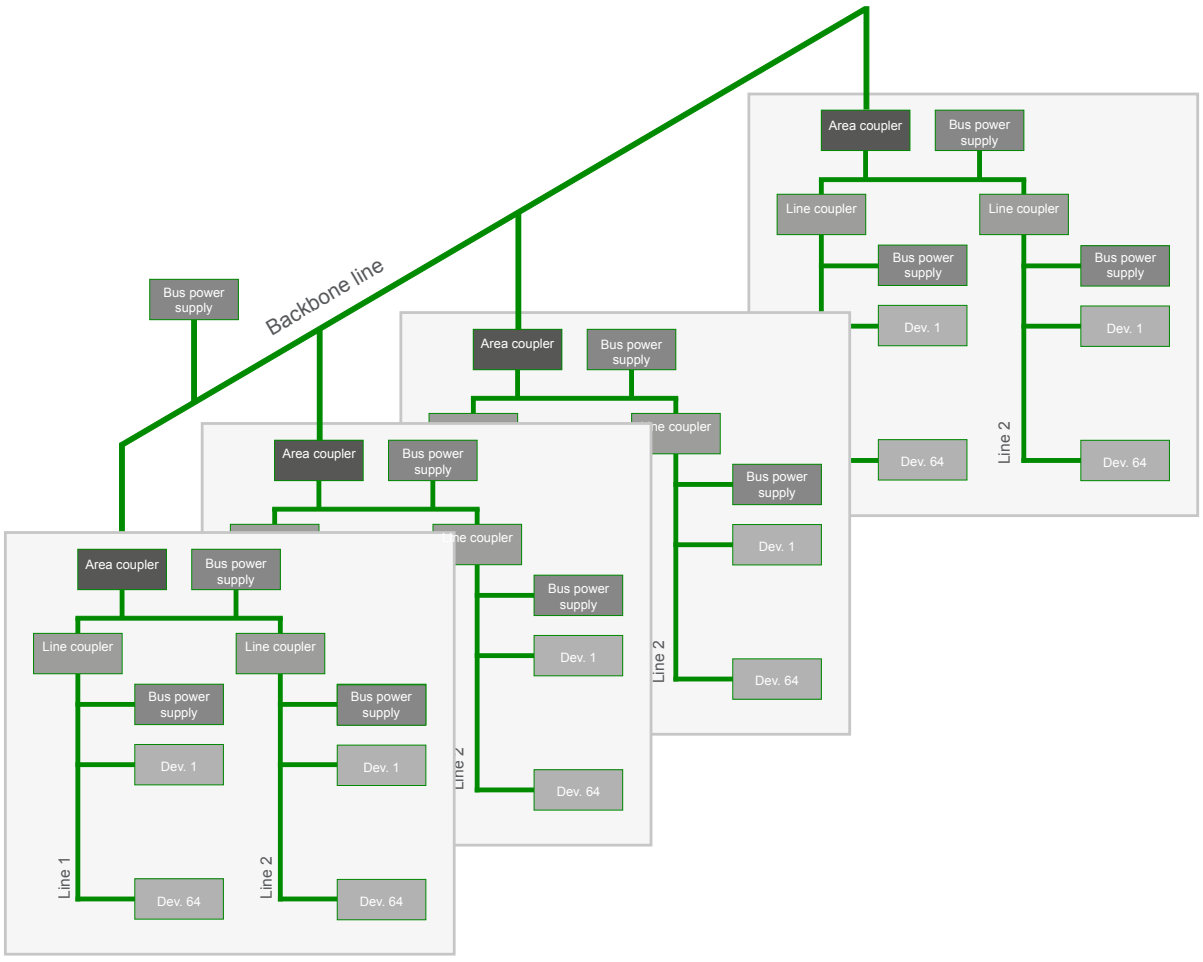
To coordinate the performance of several devices over a particular bus function, a so-called group address is used; this is represented by a two levels structure "main group/subgroup" (e.g. "2/15") or by a three level structure "main group/middle group/subgroup" (e.g. "2/6/54"). This type of address is almost exclusively used as a "destination" address for telegrams.

2/6/54

The group address is used in the command phase and while controlling the devices

Power

KNX systems work with the 30 Vdc SELV (Safety Extra Low Voltage) voltage, supplied by the bus power supply present on each line; this power feeds the electronic parts of the devices and provides for the transmission of information over the bus. Normally, KNX commands and sensors are exclusively connected to the bus line, while parts of KNX actuators require a separate 230 Vac power supply for commanding connected loads. Some devices may require an auxiliary SELV power supply for their operation.



Normative references

Norms are, by nature, voluntary application dispositions; anyhow, complying with norms constitutes the best guarantee in the choice of a product for designers, installers and end users. In fact, norms are "state-of-the-art" developments in their technology sector and precisely define quality, performance and safe conditions of use for a product.

Beyond safety norms regarding all products, the systems for the control of houses and buildings are more often requested to integrate energetic efficiency models, consistently abiding to recent tendencies aiming at global system-envelope system efficiency, more so than seek optimization of single parts.

KNX represents an open and interoperable system for the automation of houses and buildings, normed at global level thanks to its conformity with international (ISO/IEC 14543-3), European (CENELEC EN 50090, CEN EN 13321-1 e 13321-2), Chinese (GB/Z 20965) and American (ANSI/ASHRAE 135) norms.

Norm	Title	Notes
ISO/IEC 14543-3	Information technology - Home electronic system (HES) architecture	In sight of the great interest towards KNX compatible products and the technology by them consolidated well beyond European markets, the KNX Association took all necessary steps to obtain approval of its own KNX standards at international levels. At the end of 2004, active CENELEC member countries proposed the European EN 50090 norm for ISO/IEC standardization. In November 2006, the KNX protocol and all transmission media (TP, PL, RF and IP) became approved and published under the international ISO/IEC 14543-3-x normative
EN 50090	Home and Building Electronic Systems (HBES)	In December 2003, the KNX protocol and the two TP (twisted pair) and PL (power line) transmission media were approved by the European national committees and ratified by the CENELEC Bureau Technique under the European EN 50090 norm. The transmission medium KNX RF (radio frequency) was approved the month of may 2006
CEN EN 13321-1	Open data communication in building automation, controls and building management. Home and building electronic system. Product and system requirements	Since KNX supplies more and more technical specifications used not only for the automation of electrical devices, but also for HVAC (Heating, Ventilation and Air Conditioning) applications, the KNX Association submitted its specifications to CEN for publishing a European normative for building control systems. CEN accepted the proposal and KNX specifications where published by CEN as EN 13321-1 and EN13321-2
CEN EN 13321-2	Open data communication in building automation, controls and building management. Home and building electronic systems. KNXnet/IP Communication	
GB/Z 20965	Control network HBES technology specification - Home and building control	The great interest demonstrated by China for KNX products and technology was the main reason for the KNX Association to have the international ISO/IEC 14543 norm translated into Chinese. The chinese standardization committee SAC TC 124 introduced the KNX standard into China and adopted it under the GB/Z 20965 norm in July 2007.
ANSI/ASHRAE 135	BACnet - A Data Communication Protocol for Building Automation and Control Networks (ANSI Approved)	Even the interfacing of KNX with other automation systems is now internationally standardized: the norms US ANSI/ASHRAE 135 and ISO 16484-5 support mapping between KNX and BACnet.

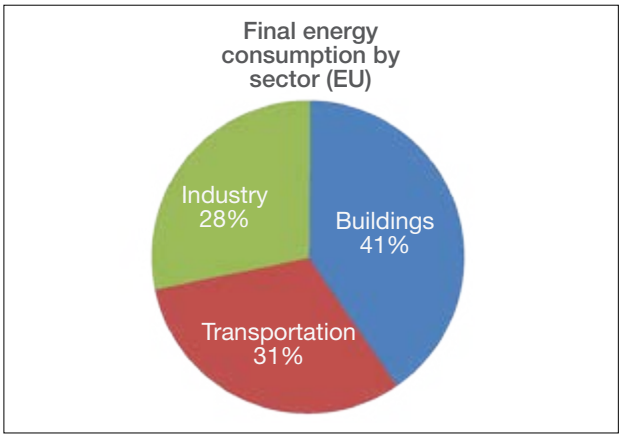
The EN 50090 norm

The European EN 50090 norm "Home and Building Electronic Systems (HBES)" was developed at CENELEC from the TC 205 Technical Committee, specifically established in 1996 to write norms covering all relevant aspects of electronic systems dedicated to the control of homes and buildings. Parts of the norm were progressively released and published by the standard committee of several European countries giving birth to the national norms about the electronic systems for homes and buildings. Beyond the requirements for the development of HBES systems and components, aimed at builders, the norm also defines the criteria for designing, installing and testing an HBES system. The KNX standard is entirely compliant with the EN 50090 norm.

Section	Home and Building Electronic Systems (HBES) - Title of the part	Year
EN 50090-1	Part 1: Standardization structure	2011
EN 50090-2-1	Part 2-1: System overview - Architecture	1994
EN 50090-2-2/A2	Part 2-2/A2: System overview - General technical requirements	2007
EN 50090-2-3	Part 2-3: System overview - General functional safety requirements for products intended to be integrated in HBES	2005
EN 50090-3-1	Part 3-1: Aspects of application - Introduction to the application structure	1994
EN 50090-3-2	Part 3-2: Aspects of application - User process for HBES Class 1	2004
EN 50090-3-3	Part 3-3: Aspects of application - HBES Interworking model and common HBES data types	2009
EN 50090-4-1	Part 4-1: Media independent layers - Application layer for HBES Class 1	2004
EN 50090-4-2	Part 4-2: Media independent layers - Transport layer, network layer and general parts of data link layer for HBES Class 1	2004
EN 50090-4-3	Part 4-3: Media independent layers - Communication over IP	2007
EN 50090-5-1	Part 5-1: Media and media dependent layers - Power line for HBES Class 1	2005
EN 50090-5-2	Part 5-2: Media and media dependent layers - Network based on HBES Class 1, Twisted Pair	2004
EN 50090-5-3	Part 5-3: Media and media dependent layers - Radio frequency	2006
EN 50090-7-1	Part 7-1: System management - Management procedures	2004
EN 50090-8	Part 8: Conformity assessment of products	2000
EN 50090-9-1	Part 9-1: Installation requirements - Generic cabling for HBES Class 1 Twisted Pair	2004
CLC/TR 50090-9-2	Part 9-2: Installation requirements - Inspection and testing of HBES installation	2007

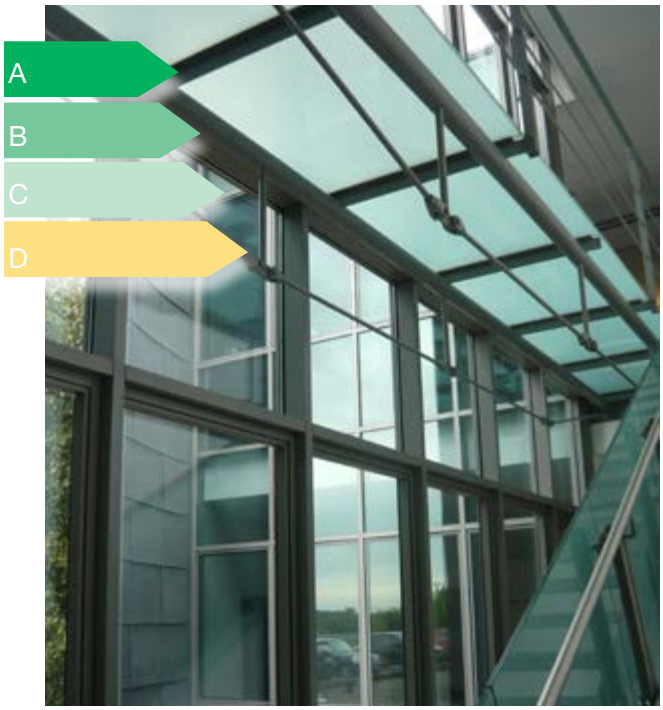
Energy Efficiency in buildings

Based on the fact that buildings in Europe account for over 40% of total energy consumption, the European Union intensified its efforts over the last years so that buildings be projected and re-qualified, thereby restraining consumptions as much as possible. The declared objective is to reduce energy dependence and the emission of polluting and climate-changing gases. The starting point was the publishing of Directive 91 in 2002 about energy performance in building (known as EPBD – Energy Performance Building Directive) - a mandatory implementation for European Union countries – which introduced important new facts, such as the energy performance certification, aimed at informing users about the building's energy performance and leaving up to national measures the identification of the most appropriate interventions needed to increase energy efficiency. The innovative approach required coordinated interventions on the envelope-system integrated system.



The EN 15232 norm

Following the Directive 2002/91/EC, the next step is to pay attention to efficiency recovery in individual behaviours and to concentrate on the relationship between the rate of automation in a building's plan and the corresponding achievable energy saving. This has brought CENELEC to publish the EN 15232 norm, later acknowledged by the standard committee of several European countries. The norm evaluates the savings achievable through the adoption of growing automation levels – both during planning and energy verification operations – and to place buildings in one of four energy efficiency classes: from A (the most efficient) to D (the least efficient).



BACS: Building Automation Control System
TBM: Technical Building Management System

A class

A class includes highly energy-efficient buildings, fitted with control and automation systems (BACS) and technical system management (TBM), characterized by high levels of precision and completeness in terms of automatic control.

B class

B class includes energetically advanced buildings, fitted with control and automation systems (BACS) and technical system management (TBM) allowing a centralized-type of control.

C class

C class includes buildings, which are standard from an energy point of view and are fitted with basic control and automation systems (BACS). This class is also used as a reference for the calculation of efficiency factors.

D class

D class includes buildings, which are not energy-efficient, having technical systems exclusively of a traditional type, lacking any kind of automation.

The EN 15232 norm also specifies:

- a structured list of regulation functions, automation and technical management which have a certain effect on the energy efficiency of buildings;
- a method to define minimal requirements to apply for regulation, automation and technical management of buildings of different complexity;
- detailed methods to evaluate the effects of such functions on a specific building;
- a simplified method to reach a first impact estimate of such functions on representative buildings.

The 2010/31/EU Directive

The European Parliament invited to strengthen the dispositions of their 2002/91/EC Directive in several occasions; based on a key reconsideration of energy politics, it also requested to render the objective to improve energy efficiency by 20% within 2020 legally-binding.

The 2010/31/EU Directive was born in this context, about energy performance in building (EPBD 2) and with the declared intent to have "next-to-zero energy" buildings in the future, i.e. buildings characterized by a very high energy performance and, consequently, a very low –next to null- energy requirement.

By the end of 2020 all newly-constructed buildings will have to be of "next to zero energy" type; the deadline is anticipated to 2018 for new public-authorities buildings. Unlike in previous dispositions, the energy performance of buildings defined by 2010/31/EU is not limited to the quantity of energy used for heating, but it also includes cooling, ventilation, hot-water and lighting; the role of home automation in buildings is therefore crucial. It coordinates and integrates the operation of all systems, making available usual command functions, control and regulation, plus all possible optimizations aiming at energy savings: from timed programming to automatic handling based on presence, from remote controlling to the exploitation of free energy supplies. The 2010/31/EU Directive was adopted by several European countries.

Quality certification

The ekinex® products described in this catalogue are developed and built in conformity with the quality management system adopted by SBS S.p.A. and certified by DNV – Det Norske Veritas – in accordance ISO EN 9001:2008.

DNV

DET NORSKE VERITAS

QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No. / Certificate No. CERT-02337-97-AQ-TRI-SINCERT

Si attesta che / This certifies that

Il sistema di gestione per la qualità di / the quality management system of

SBS S.p.A.

Via Circonvallazione, s/n - 28010 Miasino (NO) - Italy
Via Roma, 64 - 28028 Pettenasco (NO) - Italy

È conforme ai requisiti della norma per i sistemi di gestione per la qualità
Conforms to the quality management systems standard

UNI EN ISO 9001:2008 (ISO 9001:2008)

Questa certificazione è valida per il seguente campo applicativo:
This certificate is valid for the following products or services:

Progettazione, sviluppo, confezionamento e commercializzazione di prodotti per la telefonia, l'informatica (IT) e per l'Home entertainments

Design, development, packing and sale of products for telecommunications, information technologies and Home entertainments

Data Prima Emissione / First Issue Date: 1997-11-14
Luogo e data / Place and date: Agrate Brianza, (MB) 2011-09-29
Settore EA : 19 – 28a
Olimpia Barba, Lead Auditor

ACCREDIA

Data di scadenza / Expiry Date: 2014-10-21
per l'Organismo di Certificazione / for the Accredited Unit: DET NORSKE VERITAS ITALIA S.R.L.
Zeno Beltrami, Management Representative

Documentation on the Web

All tech documents for ekinex® devices are available for download from the www.ekinex.com website, without requiring any registration. The search is free, and products may be searched by their code, family or type. The same documentation can quickly be accessed from within the product pages, too.

Access through mobile devices

All QR* codes appearing on labels and packagings of ekinex® devices, and in the product catalogue pages, provide quick access - at any time and from any place – to technical documentation or any other web content published at www.ekinex.com, by using mobile devices such as smart-phones or tablets. In order to decode QR, one simply must upload to his mobile device any freeware application found online.

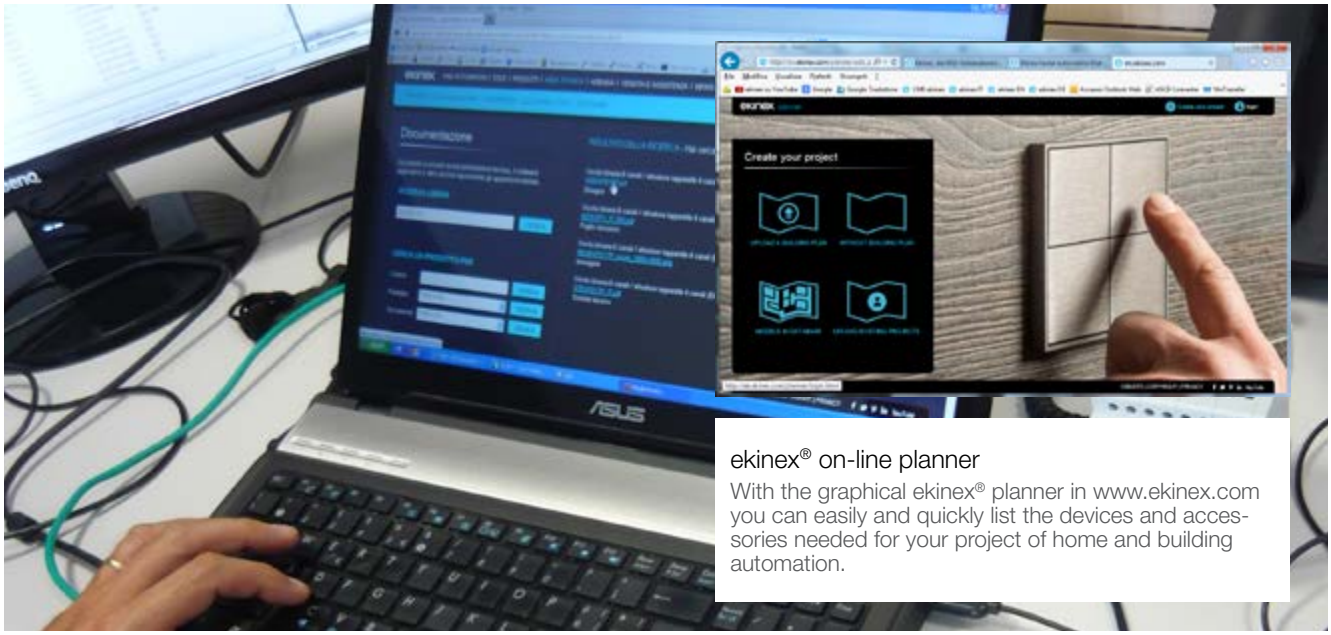
(*) QR Code® is a trademark registered by Denso Wave Incorporated

ETS application in several languages

All ekinex® devices have ETS application software in 4 languages: English, German, French and Italian.

Single packaging

ekinex® devices are individually protected against shock & dust by means of a dedicated packaging. The label clearly describes the contents and bears both an (EAN) barcode and a QR. Inside the packaging, the instructions sheet supplies information for the installation of the product.



ekinex® on-line planner

With the graphical ekinex® planner in www.ekinex.com you can easily and quickly list the devices and accessories needed for your project of home and building automation.

Notes

General terms of sale

Valid for the ekinex® product range

1. DEFINITIONS

1.1 In this General Terms of Sale, the below-mentioned terms assume the following meaning:
a) “Producer”: SBS S.p.A, with Head Office in Miasino (28010 NO), via Circonvallazione s/n (P.I. & C.F. 01888310032, REA n. 202775);
b) “Customer”: Professional customer, sole trader or company requesting the purchase of ekinex® products
c) “Part” or “Parts”: SBS S.p.A. and the Customer;
d) “Order” or “Orders”: purchasing order(s), related to ekinex® products, issued by Customer to SBS S.p.A.;
e) “Products”: all ekinex® products for the control of homes and buildings listed in the ekinex® product catalogue, be it either printed and/or electronic and on the www.ekinex.com site.
f) “General Conditions”: the general terms of sales, as indicated hereunder.

2. SCOPE

2.1. These General Terms of Sale discipline all purchasing contracts, concerning ekinex® products, set between Parts;
2.2. The Customer cannot plea nor object different conditions other than those specified in General Terms of Sale. Hence, any contingent conditions requested by the Customer, be it at order time or during any other contractual phase, or after accepting / becoming aware of our General Terms, or mentioned in the Customer’s General Terms of Purchase, will be void. The Producer’s implementation of the Order, even partially, or any other fulfillments in favour of the Customer are not valid and cannot be interpreted as tacit or implicit acceptance of whatsoever contractual condition other than those indicated in these General Terms of Sale, unless explicitly accepted in writing from SBS S.p.A. Even in the case of agreed exceptions accepted in writing, the present Terms of Sale will continue to be applicable to all other contractual parts not included in the exception.
2.3. The General Terms of Sale are exclusively applicable to contractual relationships between SBS S.p.A. and professional operators, thus not covered by the Italian D.Lgs. n. 206 (Consumer Code) dated September 6th, 2005 and all further modifications.
2.4. It is the faculty of SBS S.p.A. to modify the present General Terms of Sale at any moment and without any notice. Each contract will be regulated by the General Terms of Sale in force at the moment of acceptance of the Order issued by the Customer.

3. CONTRACT FORMATION

3.1. Acceptance of the offer on the part of the Customer or the order confirmation on the part of SBS S.p.A., no matter in what form, entail the application of the General Terms of Sale.
3.2. Any offer submitted by agents, representatives or SBS S.p.A. business partners are not binding for SBS S.p.A. until she confirms them in writing
All sale offers formulated by SBS S.p.A. have a validity of 30 days from date-of-issue and are limited to the complete supply of products thereby quoted. After the above-mentioned deadline, the sale offer will no longer be valid.
3.3. The Order sent from the Customer to SBS S.p.A. constitutes a binding, irrevocable contractual proposal for a period of three months, starting from the moment SBS S.p.A. becomes aware of its existence.
During the period of three months, SBS S.p.A. reserves the right – at its sole discretion – to either accept or reject the Order, informing the Customer of the decision taken.
Should SBS S.p.A.’s order confirmation differ from the Order sent by the Customer (for example, in terms of product quantity, prices, discounts, delivery terms, shipping), such confirmation will count as a counterproposal of SBS S.p.A., which will have to be explicitly accepted by the Customer in order for the contract to be concluded.
3.4. By sending an Order, the Customer acknowledges and declares to have carefully examined all the indications submitted to him during the purchasing phase and he declares to unreservedly accept the present General Terms of Sale.
3.5. The acceptance will be made official by a confirmation e-mail message sent to the electronic mail address indicated by the Customer. The confirmation message will bear Order date and time and a “Customer Order Number” to be used in all subsequent communications with SBS S.p.A. The Customer will be able to monitor the status of his Order at any time either contacting SBS S.p.A. by phone at (+39) 0322 980909 or by sending an e-mail to sales@ekinex.com.
3.6. Should the Customer require Order cancellation before its acceptance or execution on the part of SBS S.p.A., the latter may ask the Customer to reimburse any expenses or duties sustained for the handling of the Order – in full or in part –, as well as reimbursement for any damages.

4. PRODUCT AVAILABILITY

4.1. SBS S.p.A. reserves the right to modify, without any notice, the ekinex® product catalogue, as well as the technical characteristics of its products.
4.2. Should one of the requested products be unavailable, SBS S.p.A. commits to contact the Customer within 20 working days from Order receipt, informing the Customer at his e-mail address about the unavailability and suggesting any alternatives. In this case, the Customer may select to wait for Order dispatch, as long as SBS S.p.A. believes she may trace the missing product on the market, or cancel the order, eventually obtaining reimbursement for prepaid and missing products.

5. PAYMENT METHODS

5.1. Product prices will refer to the pricelist in force at sale-offer acceptance on the part of the Customer or at issuance of Order confirmation on the part of SBS S.p.A.
SBS S.p.A. reserves the right to modify its pricelists at any time, after written communication to the Customer should costs increase for raw material, manpower or any other factor which may cause a relevant rise in production costs.
Product prices are always Free Carrier (FCA Incoterms 2010) and, therefore, any risks related to the shipping pass onto the Customer’s side the moment that products are handed in to the carrier, unless different agreements are reached between Parts in advance.
5.2. Payments will have to be made in accordance with the indications contained in the sale offer or in the order confirmation. Payments, as well as any other due sum, will be made to the SBS S.p.A. Head office address and in Euro, unless otherwise agreed between Parts.
5.3. Any delay or irregularity in payments will confer SBS S.p.A. the right to:
a) suspend ongoing supplies, even if not related to the payment in question;
b) modify the form of payment and discounts for further supplies, requesting advance payments or the issuance of further guarantees as necessary;
c) request, starting from the planned payment expiry date and without need of a formal notice of default, arrears due on the unpaid sums, calculated according to current law terms for commercial transactions (in particular, as indicated by the Italian D.lgs. 231/2002 and further integrations). In any case, SBS S.p.A. reserves the right to request compensation for the highest damage incurred.
Furthermore, in all the above cases, any sum due to SBS S.p.A. on whatever basis becomes immediately collectable. The Customer will compel to pay the products in full even if any exceptions, objections or disputes should arise. Any argument will be defined only after payment of all monies due.

6 TRANSPORTATION AND DELIVERY OF PRODUCTS

6.1. Delivery of goods is understood to be Free Carrier (FC Incoterms) and, therefore, any risk related to the supply pass onto the Customer the moment that products are delivered to the carrier, unless previously arranged differently in writing between parts.
6.2. Delivery terms, except where explicitly agreed, are purely indicative. In the case that order execution is hindered by force majeure circumstances, irregular or missing procurement of prime materials or by other unpredictable circumstances, delivery terms will be considered deferred and new terms will be established between parts without possibility to request any compensation and/or damages for delay in the delivery.
6.2. Upon delivery of goods from the carrier, the Customer is due to check that the content of delivered packages corresponds to order and to details in the invoice transmitted by mail. Any damage to packaging and/or product or any discrepancy in the number of packages must be notified within 3 working days from delivery to customer service of SBS S.p.A. at the email address sales@ekinex.com. After such term, the Customer may no longer advance any complaint in matter of packaging conditions or number of parcels received.

7. WARRANTY

7.1. SBS S.p.A. guarantees the conformity of ekinex® products in terms of legislation and technical regulations enforced in Italy.
7.2. SBS S.p.A. guarantees that the supplied products correspond, in terms of quality and type, to whatever established by the contract, and to be free from defects that may render them unsuitable for the use which they are expressly meant for.
The guarantee for manufacturing defects is limited to the sole defects that may be attributable to materials used or to design and production problems attributable to SBS S.p.A.
All ekinex® products sold by SBS S.p.A. come with a guarantee of proper operation and a guarantee for design and production defects, valid for a 24 months period from delivery, except for parts subject to standard wear & tear. After such period, the guarantee ceases, even if the products have not been put to work for any reason.
The operability of guarantees on the products is subject to the condition precedent of full payment received.
7.2. The above-said guarantee is operative provided that the products be correctly stored and used in conformity with the instructions included in the General Catalog and the technical sheets supplied by SBS S.p.A., that no repair, modification or alteration be applied without prior written consent of SBS S.p.A. and that ascertained defects not be caused by chemical agents or electricity. The Customer will report any faults or defects in writing within 8 days from product consignment, while any hidden defects and/or malfunctioning (which can only be detected with use) will have to be reported within 8 days from discovery and, in any case, never beyond the guarantee's period of validity.
The guarantee is void in case the malfunctioning is caused by software installed on the product; overload, interruption or suspension of electricity.
7.3. Complaints will be forwarded in writing to SBS S.p.A., in accordance with instructions and modalities supplied by the latter (see quick-replacement procedure in the General Catalog), specifying in detail the faults or discrepancies ascertained.
The Customer will lose all guarantee rights, should he not allow for reasonable checks that SBS S.p.A. may deem necessary or lack to return the faulty product within 10 days from request. Following regular Customer complaint, SBS S.p.A., at her choice, may: a) repair the faulty products; b) supply, free of charge, the Customer (DAP Incoterms 2010) with products of the same kind and quantity of those deemed faulty; c) issue a credit note in favour of Customer for the same amount of the original invoice of returned products. In such cases, SBS S.p.A. may request the return of faulty products, which will become her property. Unless arranged differently between parts, it is understood that all expenses related to the interventions of SBS S.p.A.'s technical assistance will be sustained by the latter. Both in case of replacement and/or repair of the products or the defective components, the guarantee will continue to elapse from its original term which, therefore, remains unchanged and will not be extended.
7.6. In the case where defects observed on the products are not imputable to the responsibility of SBS S.p.A., all repair and substitution expenses thereby incurred shall be accounted for and invoiced to the Customer. The guarantee referred to in this article absorbs and replaces legal guarantees for faults and conformity and excludes any other responsibility on the part of SBS S.p.A. originating, in any form or way, from its finished products; in particular, the Customer will not submit any other request for reimbursement and, in no case, SBS S.p.A. shall be deemed responsible for indirect or consequential damage.

8. INDUSTRIAL PROPERTY

8.1. SBS S.p.A. remains exclusive proprietor of patents, drawings, projects and anything else used for the realization of products, and the Customer commits not to distribute them to third parties, not to reproduce them and not to use them.
Should the realization of products be carried out by SBS S.p.A. by specific request and technical documentation of the Customer, SBS S.p.A. assumes no responsibility for the violation of third-party industrial property rights, which will be exclusively accountable to the Customer who commits to guarantee and to keep SBS S.p.A. released and indemnified from any claim against her.
8.2. The Customer commits to use SBS S.p.A. trademarks only for identification, advertising and sale purposes, abstaining from registering them or from having them registered by others without written consent from SBS S.p.A.

9. DAMAGE COMPENSATION

9.1.The responsibility of SBS S.p.A., deriving from either the implementation or non-implementation of the contract, or guarantee, or tort claim, or objective responsibility, will never exceed the value of the product to which it relates. Under no circumstance, SBS S.p.A. will be held responsible for neither missed or loss of profits, nor for missed use or technical halt of the product or any associated machinery, nor for Customer and/or third-parties complaints related to such damage, nor for any other type of indirect or consequential damage.

10. PRIVACY

10.1. The Customer accepts to (i) treat the information/data/drawings/know-how/documentation received and/or comprehended from SBS S.p.A. as reserved; (ii) limit the use of such information/documentation and access to them solely for contractual purposes. The reserved information/documentation will not be reproduces without written consent of SBS S.p.A. and any copies of them will be immediately surrendered upon SBS S.p.A. request.
Above provisions do not apply to information which: (i) is public or become public for divulgation not performed by the Customer, his employees or collaborators o (ii) were in the hands of the Customer before he received them from SBS S.p.A. o (iii) were divulged by sources who are not subordinate to the same restrictions as the Customer in terms of use, or (iv) can be disclosed to third parties following a written authorization of SBS S.p.A.

11. SETTLEMENT OF DISPUTES

11.1. The present General Terms and related contracts of supply shall be disciplined by the Italian law. Any dispute related to or in any way connected to contracts under the present General Terms, will fall under exclusive jurisdiction of the Court of Novara (Italy).

12. RESTRICTIVE CLAUSES

12.1 In accordance with articles 1341 and 1342 of the Italian civil code, the Customer expressly declares to approve the following clauses: 2. Scope; 5. Payment Methods; 6. Transportation and delivery of products; 7. Warranty; 9. Damage compensation; 11 Settlement of disputes.

Index by description

Index by code

Notes

ekinex® product catalog

March 2014

The technical information included in this catalog is to be deemed purely indicative. The company reserves the right to modify any piece of information with no advance notice. For installation, connection and commissioning of ekinex® devices, please refer to the related technical documentation.

For the availability of ekinex® products on your market, please contact the SBS sales department (sales@ekinex.com).

Credits

Tommaso Marchi Architetto - Design

easyimage - Graphical project

Tipolitografia Testori - Printing

CATPRODEK0314EN

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