ekinex

CONTROL YOUR LIVING SPACE

Touch & See
Control and visualization unit

Code: EK-EC2-TP-...

KNX   CE   S   TP1

KNX device for switching, controlling and visualizing functions of a home or building automation system through a 3,5" touch-screen. It may be used in KNX installations for control of homes and buildings.

RFEKEC2TP_ON

Description

ekinex® *Touch&See* is a KNX S-Mode device for switching, controlling and displaying bus functions. It is equipped with an integrated KNX bus communication module and is designed for wall installation on a flush-mounting box. Through a 3,5" touch-screen and a user interface organized in a sequence of graphical pages, it is possible to control and monitor KNX actuators and display information received from KNX actuators and sensors in a simple and intuitive way. The device can also operate as a room temperature controller receiving values from up to 4 KNX temperature sensors. The device is powered by the KNX bus line and requires an auxiliary power supply 30 Vdc SELV.

Versions

The device is available for mounting with or without frame. The version for mounting without frame ('NF series) is furthermore available with white housing.

| Code	Mounting	Housing
EK-EC2-TP	with square frame, form (EK-FOQ-...) or flank (EK-FLQ-...)series	black
EK-EC2-TP-00-NF	*without frame ('NF series)*	
EK-EC2-TP-00-NFW		white

Completion of the device

The device has to be completed with a square frame of the ekinex® form o flank series (to be ordered separately). A metallic support, the fixing screws and the terminals for connection of the KNX bus line and the auxiliary power supply are delivered with the device.

Code *	Material	Package	Dimens. [mm]
EK-FOQ-GAx	plastic	1 pcs.	86 x 86
EK-FOQ-GBx	metal		
EK-FLQ-GAx	plastic	1 pcs.	94 x 80
EK-FLQ-GBx	metal		

(*) It has to be completed with the extension for the colour (x)

The basic code of the frame has to be completed with the extensione for material, colour and finishing. The 'NF (No Frame) version is provided with a preassembled finishing profile on each side and does not require any frame.
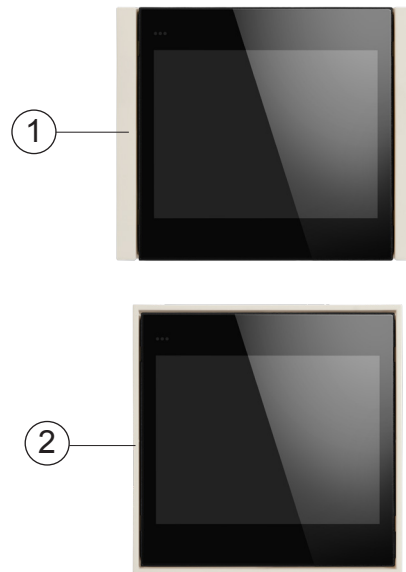
Examples
1) *Touch&See* EK-EC2-TP with square frame of the flank series
2) *Touch&See* EK-EC2-TP with square frame of the form series

Main functional characteristics

Depending on the version, the device can be programmed to carry out a set of different functions such as:

- room chronothermostat for 8 independent zones;
- ON/OFF switching of single loads or groups of loads;
- dimming of lighting devices;
- control of motor drives (for roller shutters, blinds, curtains, etc.);
- displaying of the status of auxiliary contacts (from safety/security devices, etc.);
- displaying of time and date of the internal clock or sent by a KNX timer;
- displaying of values received by a KNX wheather station such as temperature, wind speed, rain presence, brightness, etc.
- displaying of alarm messages;
- recalling and saving of scenes;
- sending on the bus of values (temperature, brightness, etc.);
- locking of the functions through password;
- temporary block for screen cleaning.

Graphical pages

The *Touch&See* unit offers a series of main graphical pages that can be accessed in sequence for switching, controlling, monitoring or displaying bus functions of the room in which it is installed or other rooms controlled by the same KNX installation. The following graphical pages can be enabled:
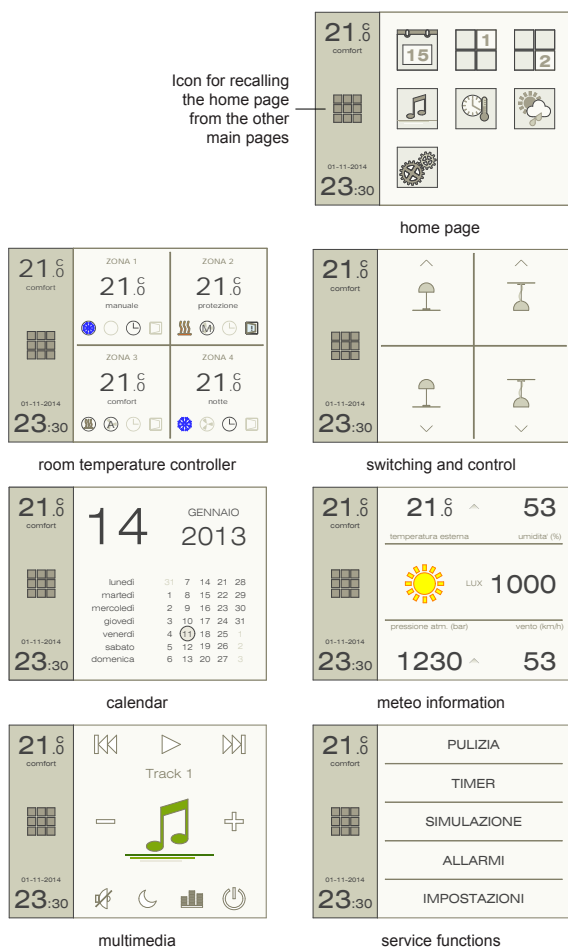
• home (direct access to the other pages)
• room temperature controller (8 independent zones);
• switching and control (8);
• calendar;
• meteo information;
• multimedia;
• service functions (presence simulation, timer, alarms).

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> **Note.** *The set of functions that may be controlled as well as the information that may be visualized by the device depend on the KNX bus devices connected to the bus installation and the configuration carried out with the ETS software tool. The graphical pages not enabled are not visible while scrolling.*

Direct access

Each graphical page may be directly accessed through the home page whose icon is present in the vertical left stripe.

Icon for recalling the home page from the other main pages

home page

room temperature controller

switching and control

calendar

meteo information

multimedia

service functions

Languages

Text and labels of the graphical pages are available in four languages: English, German, French and Italian. The language can be choosed configuring the device with ETS.

Other characteristics

• 3,5" (320 x 240 pixel) TFT touch display, backlit, 65.536 colours
• Brightness sensor integrated
• Housing in plastic material
• Wall installation in flush mounting box
• Protection degree IP20 (according to EN 60529)
• Classification climatic 3K5 and mechanical 3M2 (according to EN 50491-2)
• Pollution degree 2 (according to IEC 60664-1)
• Weight 100 g
• Dimensions 82 x 80 x 37 mm (WxHxD)

Technical data

• Power supply 30 Vdc from KNX bus line
• Current consumption 18 mA
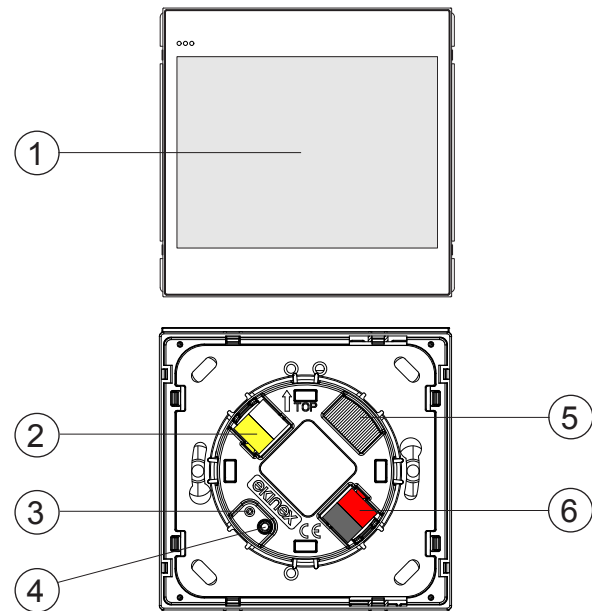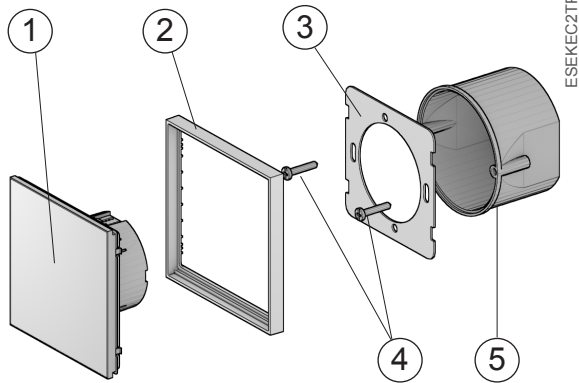• Auxiliary power supply SELV 30 Vdc

Environmental conditions

• Operating temperature: - 5 ... + 45°C
• Storage temperature: - 25 ... + 55°C
• Transport temperature: - 25 ... + 70°C
• Relative humidity: 95% not condensing

Switching, displaying and connection elements

The device is equipped with a programming LED, a programming pushbutton, a 3,5" touch-screen operating surface and two terminal blocks for the connection of the bus line and the auxiliary power supply.

Switching and displaying elements

• Touch-screen area (1) with graphical pages programmable for switching, controlling and displaying bus functions
• Pushbutton (4) for switching between the normal and programming operating modes
• LED red (3) for indication of the active operating mode (on = programming, off = normal operation)

1) 3,5" active touch-screen area
2) Terminal block for 30 Vdc auxiliary power supply
3) Programming LED
4) Programming pushbutton
5) Connector for micro SD card
6) Terminal block for KNX bus line

ESEKEC2TP

1) Touch&See unit
2) Square frame of the series form or flank (to be ordered separately)
3) Metallic support for flush-mounting box
4) Screws for fixing the support on the flush-mounting box
5) Flush-mounting box

Mounting

The device has degree of protection IP20, and is therefore suitable for use in dry interior rooms. The device must be fixed with the metallic support and the screws (included in the delivery) on a wall mounting box provided with fixing holes at a distance of 60 mm. The correct mounting of the device occurs when the bus terminal is located in the lower part and the terminal for the auxiliary power supply is located on the upper part. Mounting the device, follow also the indication TOP (arrow tip pointing up) on the rear side of the device.

The device can be mounted only on a round or square wall flush mounting box. If necessary, the metallic support for mounting on the wall box can be also ordered separately with the code EK-SMQ.

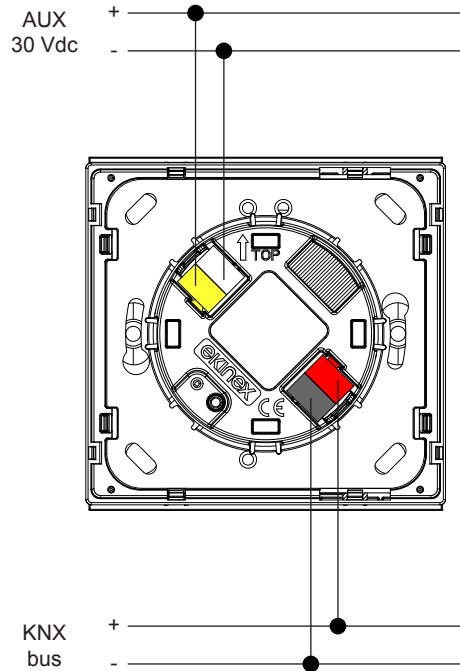## Connection of the KNX bus line

The connection of the KNX bus line is made with the terminal block (black/red) included in delivery and inserted into the slot of the housing (7).

Characteristics of the KNX terminal block

• spring clamping of conductors
• 4 seats for conductors for each polarity
• terminal suitable for KNX bus cable with single-wire conductors and diameter between 0.6 and 0.8 mm
• recommended wire stripping approx. 5 mm
• color codification: red = + (positive) bus conductor, black = − (negative) bus conductor

Warning! *The connection to the device of an auxiliary power supply with voltage different than 30 Vdc is not allowed. In order to supply the KNX bus lines use only KNX bus power supplies (e.g. ekinex EK-AB1-TP or EK-AG1-TP). The use of other power supplies can compromise the communication and damage the devices connected to the bus.*

ELEKEC2TP

AUX 30 Vdc

KNX bus

Warning! *The electrical connection of the device can be carried out only by qualified personnel. The incorrect installation may result in electric shock or fire. Before making the electrical connections, make sure the power supply has been turned off.*

Connection of the auxiliary power supply

The connection of the auxiliary power supply 30 Vdc is made with the terminal block (yellow/white) included in delivery and inserted into the slot of the housing (3).

Characteristics of the terminal block

• spring clamping of conductors
• 4 seats for conductors for each polarity
• terminal suitable for KNX bus cable with single-wire conductors and diameter between 0.6 and 0.8 mm
• recommended wire stripping approx. 5 mm
• color codification: yellow = + (positive) bus conductor, white = − (negative) bus conductor

For the connection of the auxiliary power supply to the Touch&See unit use preferably a cable with a sheath in different color than the cable connecting the KNX bus line and label the two cables to allow a clear identification after the first installation. For the auxiliary power of the unit it is recommended the use of the ekinex® bus power supply EK-AG1-TP that is provided with a dedicated output.

Device used as room temperature controller

Through a dedicated graphical page, the *Touch&See* control and visualization unit can also be used as a room thermostat for up to 8 independent zones. For the regulation process the values of room temperature are received via the bus by other KNX devices provided with a temperature sensor, e.g. an ekinex® EK-EA2-TP or EK-EB2-TP pushbutton or an ekinex® EK-EP2-TP or EK-EQ2-TP room temperature controller.

Configuration and commissioning

Configuration and commissioning of the device require the use of the ETS® (Engineering Tool Software) program V4 or later releases. These activities must be carried out according to the design of the building automation system done by a qualified planner.

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> *Note. The configuration and commissioning of KNX devices require specialized skills. To acquire these skills, you should attend the workshops at KNX certified training centers.*

Configuration

For the configuration of the device parameters the corresponding application program or the whole ekinex® product database must be loaded in the ETS program. For detailed information on configuration options, refer to the application manual of the device available on the website www.ekinex.com.

Product code	Application program (## = release)	Communication objects (nr. max)	Group adresses (nr. max)
EK-EC2-TP	APEKEC2TP##.knxprod	1088	1088

Commissioning

For commissioning the device the following activities are required:

- make the electrical connections as described above;
- turn on the bus power supply;
- switch the device operation to the programming mode by pressing the programming pushbutton located on the rear side of the housing. In this mode of operation, the programming LED is turned on;
- download into the device the physical address and the configuration with the ETS® program.

At the end of the download the operation of the device automatically returns to normal mode; in this mode the programming LED is turned off. Now the bus device is programmed and ready for use.

Protection password

With a password the device can be protected - totally or partially - from unauthorized use. The password is set while commissioning the device.

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> *Note. The password must be kept in a safe place. If you forget the password, contact the company that carried out the commissioning of the bus installation.*

Maintenance

The device is maintenance-free. In order to avoid the unintentionally activation of functions while cleaning the screen, the device provides a special function block for cleaning. To activate the lock function:

- recall the service page;
- select the function "Cleaning".

For a time interval of 30 seconds the device ignores any contact with the touch-screen. The display indicates the remaining time for cleaning. At the end of the time interval, the device automatically returns to the service page.

> **!**
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> *Warning! For the activation of the screen you can use your fingers or a special pointer for touch-screens. Do not use sharp objects, for this can damage the screen and compromising permanently its functionality.*

Dimensions [mm]

DQEKEC2TP
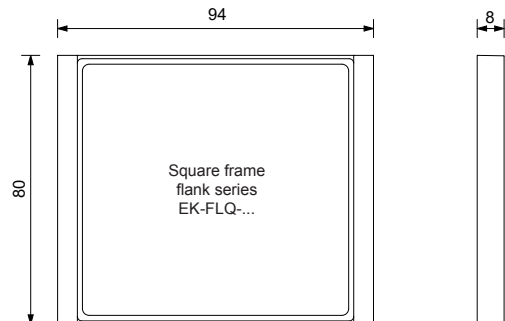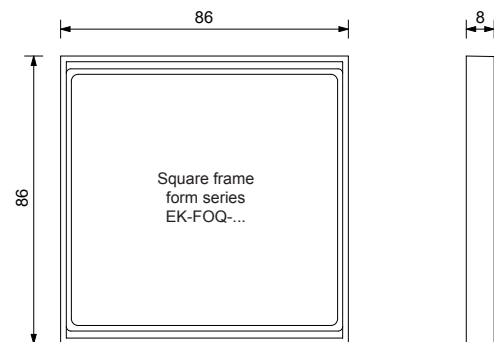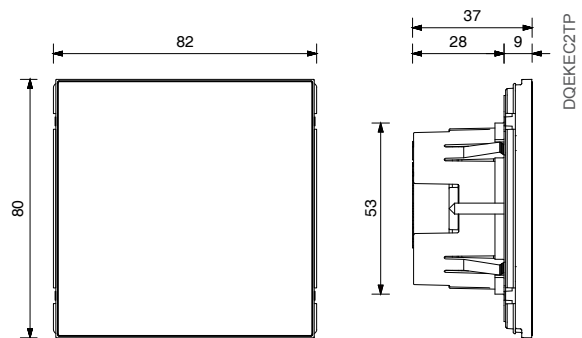
Marks

- KNX
- CE: the device complies with the Low Voltage Directive (2006/95/EC) and the Electromagnetic Compatibility Directive (2004/108/EC). Tests carried out according to EN 50491-5-1:2010, EN 50491-5-2:2010

Disposal

> At the end of its useful life the product described in this datasheet is classified as waste from electronic equipment in accordance with the European Directive 2002/96/EC (WEEE), and cannot be disposed together with the municipal undifferentiated solid waste.

> **!**
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> *Warning! Incorrect disposal of this product may cause serious damage to the environment and human health. Please be informed about the correct disposal procedures for waste collecting and processing provided by local authorities.*

Documentation

This datasheet refers to the release 5.0 of the ekinex® device EK-EC2-TP, and is available for download at www.ekinex.com as a PDF (Portable Data Format) file.

File name	Device release	Updating
STEKEC2TP_EN_2.0.pdf	5.0	12 / 2018

Warnings

- Installation, electrical connection, configuration and commissioning of the device can only be carried out by qualified personnel in compliance with the applicable technical standards and laws of the respective countries
- Opening the housing of the device causes the immediate end of the warranty period
- In case of tampering, the compliance with the essential requirements of the applicable directives, for which the device has been certified, is no longer guaranteed
- ekinex® KNX defective devices must be returned to the manufacturer at the following address: EKINEX S.p.A. Via Novara 37, I-28010 Vaprio d'Agogna (NO) Italy

Other information

- This datasheet is aimed at installers, system integrators and planners
- For further information on the product, please contact the ekinex® technical support at the e-mail address: support@ekinex.com or visit the website www.ekinex.com
- Each ekinex® device has a unique serial number on the label. The serial number can be used by installers or system integrators for documentation purposes and has to be added in each communication addressed to the EKINEX technical support in case of malfunctioning of the device.
- KNX® and ETS® are registered trademarks of KNX Association cvba, Brussels