

## Transponder Holder

TH22A0xKNX – Varnished Light grey  
 TH22A1xKNX – Anthracite  
 TH22A2xKNX – White

### Product and Applications description

The transponder holder TH22A02KNX is an EIB/KNX wall mounting device suitable to access and control detection of people inside a room as well as simple holder of user's transponder card.

**⚠** Do not install in bathrooms, swimming pools and similar environments.

The device is equipped with two binary inputs (potential free contacts) that can be used, for instance, to control whether the door lock has been opened or closed or other signals coming from external switches/contacts (i.e. windows, bathroom emergency alarms, etc.).

The transponder reader is equipped also with two output relays which can be used for any purposes, typically to open the door or turning on the courtesy light inside the room.

The front of transponder holder is illuminated when no card is present, turned off when card is accepted and flashes for 3 seconds when card is refused (entrance not allowed).

The Transponder Holder reads the card while inserting inside the slot. The access control follows a sequence where the "build number" has been checked at first, then the "data" to check if it has been elapsed or not, next the password ID for client/guest/service identification, then the enabled entrance timing window. In case all information are acknowledge the Transponder Holder can enable all room services and loads and sends the reading response to the bus.

The device configuration for commissioning in terms of physical address, group addresses and parameters is done with ETS (Engineering Tool Software) through a download of the Application Program.

### Application Program

Downloadable from eelectron website: [www.eelectron.com](http://www.eelectron.com)

### Technical Specifications

#### Power Supply

- External Auxiliary Voltage 12÷24V AC/VDC(SELV)
- Maximum current : 150mA

**⚠** Do not connect input/output with voltages different than specified

#### Inputs

- 2 potential free contacts
- Input signal voltage  $V_n = 24V DC$
- Input signal current at close contact = 1mA per channel

#### Outputs

- 2 relays NO 24 V AC, 2A AC1: 1A AC3
- Relay 1 (OUT1) door lock or general purpose
- Relay 2 (OUT2) courtesy light or general purpose

**⚠** Do not connect relays to mains (230V)

#### Transponder Reader features

- Operating Frequency 125 KHz

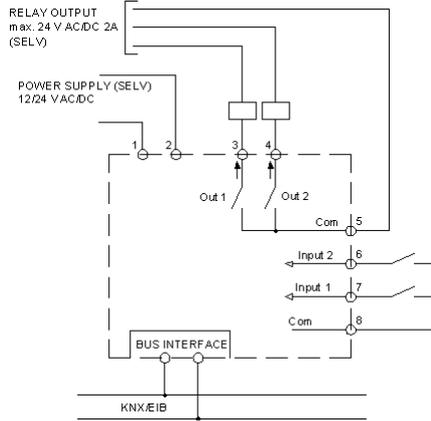
#### Display Elements

- 1 programming button (rear side)
- 1 LED red (rear side) for ETS programming
- 1 LED blue for lighting of reading slot

#### Connections

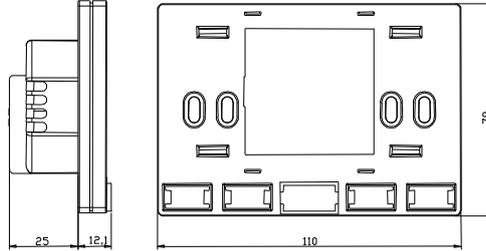
- Bus line: bus terminal connector block, single core max 0,8mm Ø
- External Power Supply 12/24 V AC/DC (SELV): Screw terminal block  
Conductor cross section max.1.0 mm<sup>2</sup>
- Output relays Screw terminal block  
Conductor cross section max.1.0 mm<sup>2</sup>
- Inputs signals (potential free) Screw terminal block  
Conductor cross section max.1.0 mm<sup>2</sup>  
**Max cable length: 10 meters**

### Wiring Diagram



### Physical specifications and Dimensions

- Housing: plastic
- Colours: Light Grey Varnished (TH22A0xKNX), Anthracite (TH22A1xKNX), White (TH22A2xKNX)
- Dimensions: (W x H x D): 110 x 78 x 37.1 mm
- Weight: approx. 120 g.
- Installation: Flash mounting in 2 or 3 modules or wall round box Ø60mm, 40mm deep



### Electrical Safety

- Compliant with LV Directive 2014/35/UE
- Pollution degree : 2 (according to EN 60664-1)
- Protection class IP20 (according to EN 60529)
- Safety class: III (according to EN 61140)
- Overvoltage category: III (according to EN 60 664-1)
- Bus: safety extra low voltage SELV DC 24 V
- Device complies with EN 50491-3 e EN60950

### Electromagnetic compatibility

- Compliant with EMC Directive 2014/30/UE
- Complies with EN 50491-5 and EN301489

### Environmental specifications

- Climatic conditions: complies with EN 50090-2.2
- Ambient operating temperature: 0°C + 45°C
- Storage temperature: - 20 + 55 °C
- Relative humidity: max 90 % without condensation

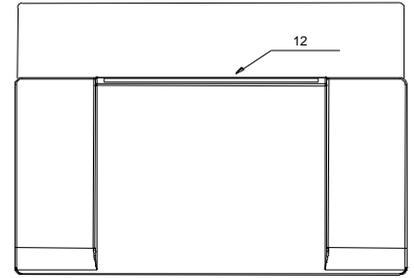
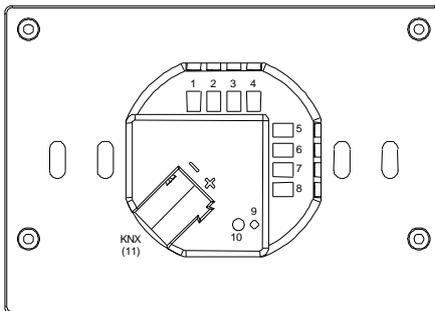
### Certification

KNX/EIB certificate

### CE Mark

In accordance with EMC, RED and Low Voltage Directives

### Location and Function operating and display elements



### Terminals and Operating Elements:

- Power Supply 12/24 V AC/DC (must be SELV)
- Power Supply 12/24 V AC/DC (must be SELV)
- OUT 1 terminal relay1 (NO) (must be SELV)
- OUT 2 terminal relay2 (NO) (must be SELV)
- COM Outputs (must be SELV)
- IN 1 (potential free)
- IN 2 (potential free)
- COM Inputs
- Programming LED
- Programming button
- Bus Connection Terminal:  
Black = bus polarity (-)  
Red = bus polarity (+)
- LED blue for lighting slot

### Installation Instructions

The device may be used for permanent indoor installations in dry locations within wall box mounts.



#### WARNING

- The device must not be connected to 230V AC cables.
- Do not use KNX bus to feed the auxiliary power supply; this source is not compatible with electric door lock, and other non KNX equipments, use a SELV power supply
- Device must be installed in a single box; any other device in the same box must be SELV.
- The prevailing safety rules must be heeded.
- The device must be mounted and commissioned by an authorised installer.
- The applicable safety and accident prevention regulations must be observed.
- The device must not be opened. Any faulty devices should be returned to manufacturer.
- For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.

### Mounting and Wiring hints

#### General Description

The device configuration (KNX physical address assignment) is done by pressing the programming push button (10) located in the back side of the housing. Please take care during installation to leave connection wires long enough in order to remove the device easily from the wall box for commissioning.

#### Connecting bus cables

- Connect each single KNX/EIB bus core inside the terminal block (11) observing bus polarity
- Slip the bus connection block (11) into the guide slot placed on the back side of this device and press the block down to the stop.

#### Wall box mounting

- Use for mounting only screws included.

For further information please visit [www.eelectron.com](http://www.eelectron.com)

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## ASSEMBLING INSTRUCTIONS

