# ekinex

CONTROL YOUR LIVING SPACE

## KNX communication module

Code: EK-MC1-TP

CE

KNX communication module to be used with ekinex single phase and three phase energy counter through optical port.



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## Description

The KNX communication module allows to collect and transmit to a remote station measurements data of the connected meter. These data are transmitted on a bus line, using the KNX protocol. KNX is the worldwide standard communication protocol for home and building control. The KNX module is provided with a programming pushbutton and two LEDs to provide information about power supply status and communication status.

## Main characteristics

- Compact dimensions (1 DIN module)
- Easy to use: no physical connection thanks to optical port to be combined with the energy counter
- Possibility to switch the use of the communication module according to the required application

## Technical data

Power supply

- rated voltage : 24 Vdc
- Max power consumption: < 10 mA

KNX communication

- Protocol: KNX
- Port: KNX bus terminal
- Communication speed: 9600 bps
- Recommended cable: KNX/EIB 1x2x0,8 mm or 2x2x0,8 mm

Environmental conditions

- Operating temperature: between -25°C and +55°C
- Storage temperature: between -25°C and +75°C
- Humidity: 80% max without condensation
- Protection degree: IP20

## Data communication

Through the optical port, the device can receive data by an ekinex single phase or three phase energy counter (to be ordered separately).
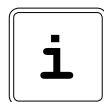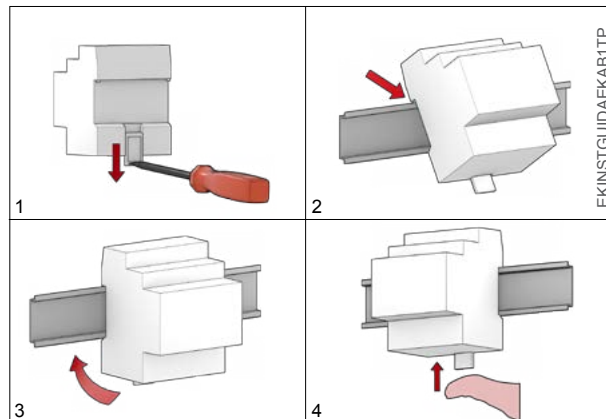
## Mounting

The device has degree of protection IP20, and is therefore suitable for use in dry interior rooms. The housing is made for rail mounting according to EN 60715 in boards or cabinets for electrical distribution. The installation is in horizontal position, the correct position is when the KNX bus terminal is located at the top.

For the installation of the device on the rail proceed as follows:

- with the aid of a tool bring the locking device in the fully lowered position (1);
- place the upper edge of the rear inner profile on the upper edge of the rail (2);
- rotate the device towards the rail (3);
- push the locking device upward until it stops (4).

Before removing the device, be sure the bus terminal has been extracted from its slot. Use a screwdriver to slide down the locking device and remove the device from the rail.



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> *Note. When mounting the device in boards and cabinets it shall be provided the necessary ventilation so that the temperature can be kept within the operating range of the device.*
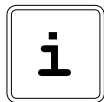
## Configuration and commissioning

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.

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) | Communica-tion objects (max nr.) | Group adressses (max nr.) |
|---|---|---|---|
| EK-MC1-TP | APEKMC1TP##.knxprod | n.d. | n.d. |

**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.*

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 for at least 2 s the programming pushbutton located on the front side of the housing. In this mode of operation, the programming LED is blinking green/red. To disable it manually without programming, press again the pushbutton for at least 2 s;
- 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. Now the bus device is programmed and ready for use.
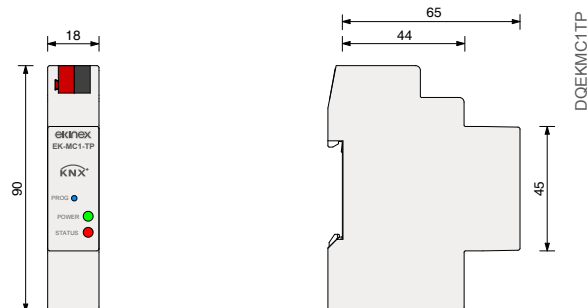
## Switching, display and connection elements
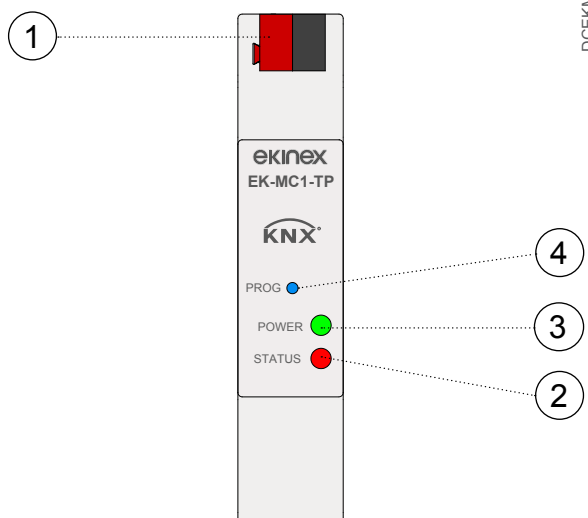


1) KNX bus terminal block
2) Communication LED (STATUS)
3) Power supply LED (POWER)
4) Programming pushbutton (PROG)
5) IR (infrared) port
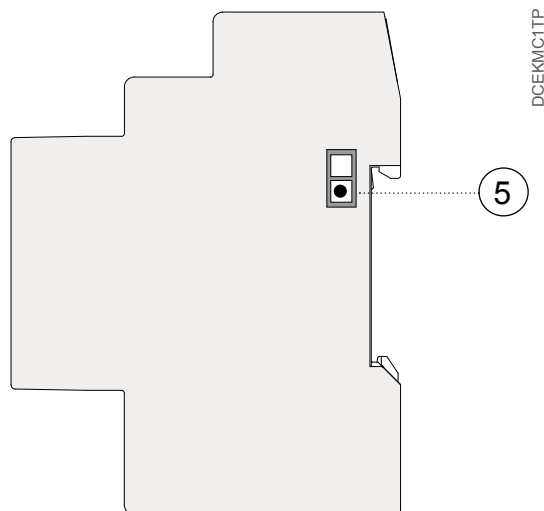


## Dimensions [mm]



## 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.

*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.*

## Standards compliance

- EN50491-5-1, EN50491-5-2, EN50491-5-3

## Document

This datasheet refers to the release A1.0 of the ekinex® device EK-MC1-TP, and is available for download at www.ekinex.com as a PDF (Portable Data Format) file.

## 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® defective devices must be returned to the manufacturer at the following address: SBS S.p.A. Via Circonvallazione s/n, I-28010 Miasino (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 SBS technical support in case of malfunctioning of the device
- ekinex® is a registered trademark of SBS S.p.A.