IBOX-KNX-MBM
KNX to Modbus Master gateway
Order Code: IBKNXMBM**00000
* stands for the IntesisBox capacity and varies depending on the specific gateway acquired

Installation Sheet rev.1.2
Intesis Software S.L.U. © 2017

SAFETY INSTRUCTIONS

WARNING

Follow carefully these safety and installation instructions. Improper work may lead to serious harmful for your health and also may damage seriously the IntesisBox and/or any other equipment connected to it.

IntesisBox must be installed by accredited electrician or similar technical personnel, following all the safety instructions given here and in accordance always with the country legislation for installation of electric equipment.

IntesisBox cannot be installed outdoors or exposed to direct solar radiation, water, high relative humidity or dust.

IntesisBox must only be installed in a restricted access location.

In case of wall mount, fix firmly IntesisBox on a not vibrating surface following the instructions next.

In case of DIN rail mount, fix IntesisBox properly to the DIN rail following the instructions below.

Mounting on DIN rail inside a metallic cabinet properly connected to earth is recommended.

Disconnect always power of any wires before manipulating and connecting them to IntesisBox.

A power supply with a NEC Class 2 or Limited Power Source (LPS) and SELV rated power supply to IntesisBox, respect the polarity if DC power or Line and Neutral if AC power. Apply always a voltage within the range admitted by IntesisBox and of enough power (see technical characteristics).

Circuit-breaker must be used before the power supply. Rating 250V-6A.

Connect the communication cables to IntesisBox, see details on the user's manual.

Follow instructions next to properly install the gateway.

INSTALLATION

Follow instructions next to properly install the gateway.

Disconnect from mains the power supply before connecting it to IntesisBox.

Disconnect power of any bus or communication cable before connecting it to IntesisBox.

Mount IntesisBox on the wall or DIN rail following the instruction given below, respecting the safety instructions given above.

Connect a NEC Class 2 or Limited Power Source (LPS) and SELV rated power supply to IntesisBox, respect the polarity if DC power or Line and Neutral if AC power. Apply always a voltage within the range admitted by IntesisBox and of enough power (see technical characteristics).

Circuit-breaker must be used before the power supply. Rating 250V-6A.

Connect the communication cables to IntesisBox, see details on the user's manual.

Power IntesisBox and the rest of devices connected to it.

Wall Mount

1. Separate the fixing clips in the bottom of the box, pushing them to the outside until hear the "click" which indicates that now the clips are in position for wall mount, see in the figure below.

2. Use the holes of the to fix the box in the wall using screws. Use the template below for the wall wholes.

DIN Rail Mount

With the clips of the box in their original position, insert first the box in the upper edge of the DIN rail and later insert the box in the down part of the rail, using a small screwdriver and following the steps in the figure below.

CONFIGURATION

Use the Configuration Tool to configure the gateway.

See instructions to download and install the latest version at: https://intesisbox.com/intesis/software/intesisbox_maps_installer.exe

Use the Ethernet connection or the Console Port (mini USB type B connector included) to get communication between the gateway and the configuration tool.

Follow instructions of the user's manual for more details.
ELECTRICAL & MECHANICAL FEATURES

**Enclosure**
- Plastic, type PC (UL 94 V-0)
- Net dimensions (dwxh): 90x88x56 mm
- Recommended space for installation (dwxh): 130x100x100mm
- Color: Light Grey. RAL 7035

**Mounting**
- Wall. DIN rail EN60715 TH35.

**Terminal Wiring**
- Per terminal: solid wires or stranded wires (twisted or with ferrule)
  - 1 core: 0.5mm²... 2.5mm²
  - 2 cores: 0.5mm²... 1.5mm²
  - 3 cores: not permitted

**Power**
- 1 x Plug-in screw terminal block (3 poles)
  - 9 to 36VDC +/-10%, Max.: 140mA.
  - 24VAC +/-10% 50-60Hz, Max.: 127mA
- Recommended: 24VDC

**Ethernet**
- 1 x Ethernet 10/100 Mbps RJ45
- 2 x Ethernet LED: port link and activity

**Port A**
- 1 x KNX TP-1 Plug-in screw terminal block orange (2 poles)
  - 2500VDC isolation from other ports
  - KNX power consumption: 5mA
  - Voltage rating: 29VDC
- 1 x Plug-in screw terminal block green (2 poles)
  - Reserved for future use

**Switch A (SWA)**
- 1 x DIP-Switch for PORT A configuration:
  - Reserved for future use

**PORT B**
- 1 x Serial EIA232 (SUB-D9 male connector)
  - Reserved for future use
  - 1 x Serial EIA485 Plug-in screw terminal block (3 poles)
  - A, B, SGND (Reference ground or shield)
  - 1500VDC isolation from other ports (except PORT B: EIA485)

**Switch B (SWB)**
- 1 x DIP-Switch for serial EIA485 configuration:
  - Position 1:
    - ON: 120 Ω termination active
    - Off: 120 Ω termination inactive
  - Position 2-3:
    - ON: Polarization active
    - Off: Polarization inactive

**Battery**
- Size: Coin 20mm x 3.2mm
- Capacity: 3V / 225mAh
- Type: Manganese Dioxide Lithium

**Console Port**
- Mini Type-B USB 2.0 compliant
- 1500VDC isolation

**USB Port**
- Type-A USB 2.0 compliant
- Only for USB flash storage device (USB pen drive)
- Power consumption limited to 150mA
  - (HDD connection not allowed)

**Push Button**
- Button A: Check the user manual
- Button B: Check the user manual

**Operation Temperature**
- 0°C to +60°C

**Operational Humidity**
- 5 to 95%, no condensation

**Protection**
- IP20 (IEC60529)

**LED Indicators**
- 10 x Onboard LED indicators
  - 2 x Run (Power)/Error
  - 2 x Ethernet Link/Speed
  - 2 x Port A TX/RX
  - 2 x Port B TX/RX
  - 1 x Button A indicator
  - 1 x Button B indicator