Safety Instructions

⚠ **WARNING**

Follow carefully this 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 can not 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 below.
- 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 an NEC Class 2 or Limited Power Source (LPS) and SELV rated is to be used.
- Respect always the expected polarity of power and communication cables when connecting them to IntesisBox.
- Supply always a correct voltage to power IntesisBox, see details of voltage range admitted by the device in the technical characteristics below.
- This device was designed for installation in an enclosure. To avoid electrostatic discharge to the unit in environments with static levels above 4 kV precautions should be taken when the device is mounted outside an enclosure. When working in an enclosure (ex. making adjustments, setting switches etc.) typical anti-static precautions should be observed before touching the unit

Installation instructions

- 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.

Configuration and setup

Use the software LinkBoxEIB to configure IntesisBox, follow the instructions of the user's manual for more details.

See instructions to download and install the latest version of LinkBoxEIB and the user's manual at

http://www.intesis.com/down/eib/linkboxeib.html

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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.
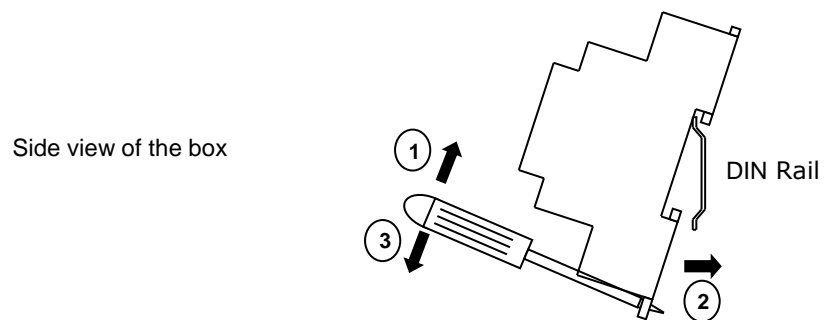
Botton view of the box

Clips in their original position, for DIN rail mount

Clips in position for wall mount
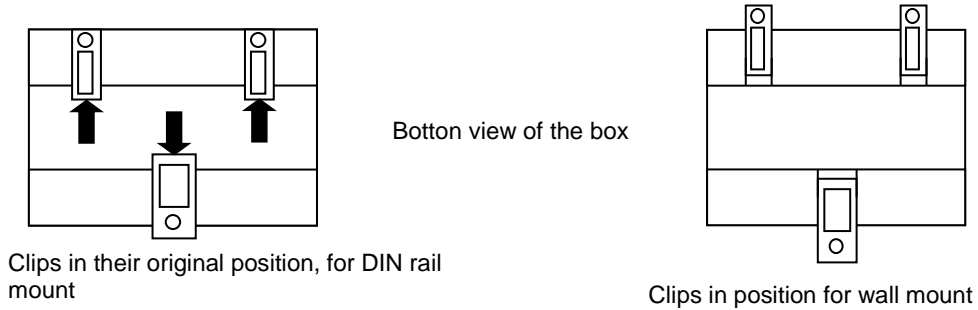
2. Use the holes of the clips to fix the box in the wall using screws. Use the template below for the wall holes.

61 mm

Ø 3 mm

Top view of the box

IntesisBox®
www.intesis.com

100 mm
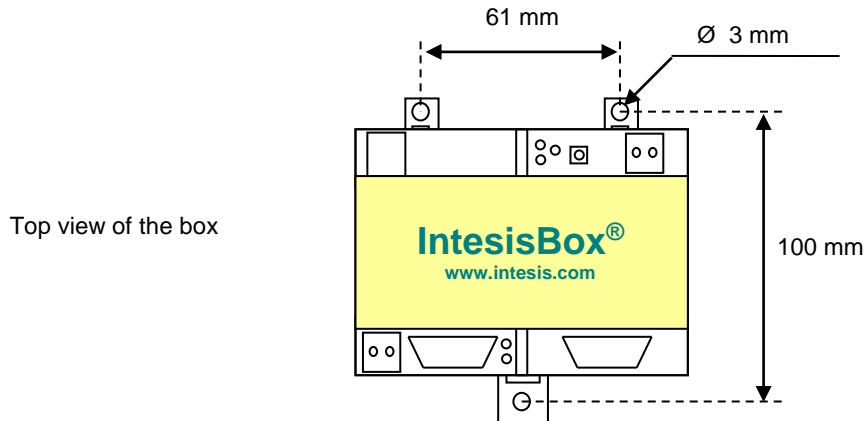
DIN rail mount

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 n the figure below.

Side view of the box

DIN Rail

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Connections

LinkBoxEIB
Only for configuration
See Note 3

Power
See Note 1

KNX TP-1
(Bus EIB)

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- + CMN 24Vac

Ethernet

9 - 30Vdc
Max.125 mA
24Vac
Max.127mA
50-60Hz

+ -

KNX TP-1

R1/R2

EIA485
- +

PC Console

LinkBoxEIB
Only for configuration
See Note 3

To R1/R2
Interface
See Note 2

R2
R1

Console Cable 1.8 m.
Standard DB9F - DB9M.
Supplied.

_____

Notes:

1. *Must use NEC Class 2 or Limited Power Source (LPS) and SELV rated power supply.*
    If using DC power supply:
    - *Respect polarity applied of terminals (+) and (-). Be sure the voltage applied is within the range admitted (9 to 30 Vdc). The power supply can be connected to earth but only through the negative terminal, never through the positive terminal.*

    If using AC power supply:
    - *Make sure the voltage applied is of the value admitted (24 Vac). Do not connect any of the terminals of the AC power supply to earth, and make sure the same power supply is not supplying any other device.*

2. *Samsung AC system's connection through R1/R2 connectors: Connect the R1R2 EIA485 bus of the Outdoor Units to the R1/R2 connector of IntesisBox. Respect the polarity. Remember the characteristics of the standard EIA485 bus: maximum bus distance of 1200 meters, maximum 32 devices in the bus, and a termination resistor of 120 ohm in each end of the bus. IntesisBox incorporates and internal circuit for bus biasing with termination resistor incorporated, so if IntesisBox is installed in one of the ends of the bus it is not necessary to connect an additional termination resistor in that end.*

3. *Use the software LinkBoxEIB to configure IntesisBox. Consult the user's manual for details.*

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Technical characteristics   **4 / 5**
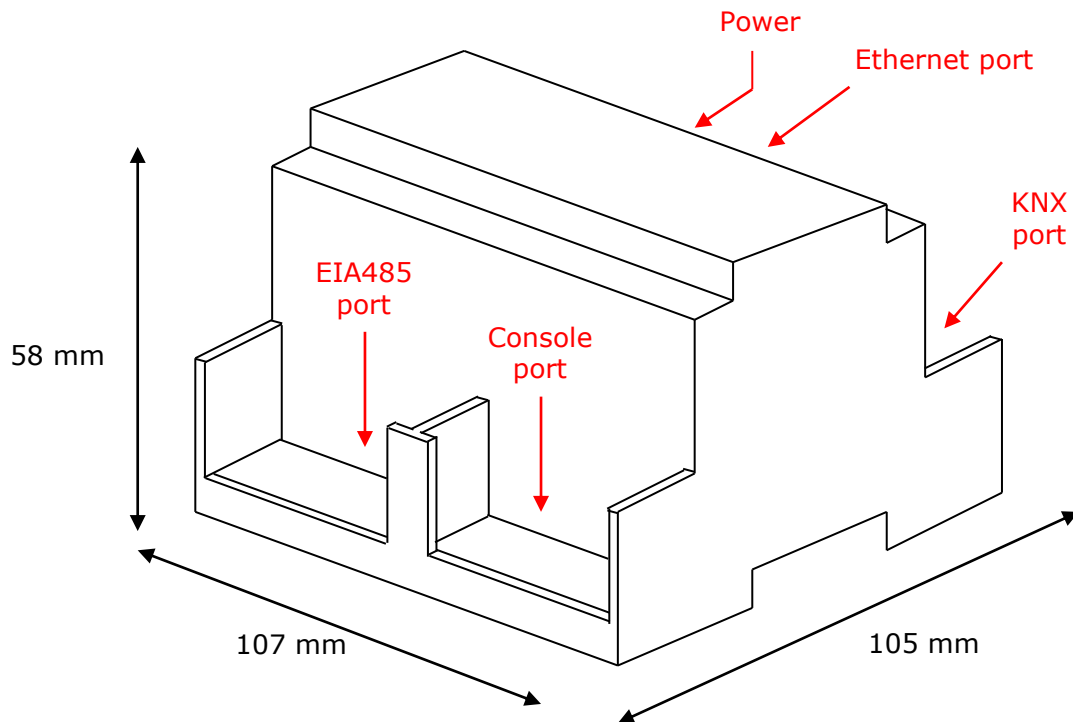
Enclosure	Plastic, type PC (UL 94 V-0). Dimensions: 107mm x 105mm x 58mm.
Colour	Light Grey. RAL 7035.
Power	9 to 30Vdc +/-10%, Max.: 125mA. 24Vac +/-10% 50-60Hz, Max.: 127mA Must use a NEC Class 2 or Limited Power Source (LPS) and SELV rated power supply. Plug-in terminal block for power connection (2 poles).
Terminal wiring (for power supply and low-voltage signals)	Per terminal: solid wires or stranded wires (twisted or with ferrule) 1 core: $0.5mm^2$… $2.5mm^2$ 2 cores: $0.5mm^2$… $1.5mm^2$ 3 cores: not permitted
Mounting	Wall. DIN rail EN60715 TH35.
Samsung AC (R1/R2) port	1 x EIA485. Plug-in screw terminal block (2 poles). SELV
KNX port	1 x KNX TP1 (EIB) port opto-isolated. Plug-in terminal block (2 poles). TNV-1
Ethernet Port	1 x Ethernet 10Base-T (RJ45).
LED indicators	1 x Power. 2 x KNX port activity (Tx, Rx). 2 x EIA485 port activity (Tx, Rx). 2 x Ethernet port link and activity (LNK, ACT). 1 x KNX programming/bus.[1]
Push buttons	1 x KNX programming.[1]
Console port	EIA232. DB9 female connector (DCE). SELV
Configuration	Via console port.[2]
Firmware	Allows upgrades via console port.
Operational temperature	-40°C to +70°C
Operational humidity	5% to 95%, non condensing
Protection	IP20 (IEC60529).
RoHS conformity	Compliant with RoHS directive (2002/95/CE).
Norms and standards	CE conformity to EMC directive (2004/108/EC) and Low-voltage directive (2006/95/EC) EN 61000-6-2 EN 61000-6-3 EN 60950-1 EN 50491-3

[1]   Not operational for the moment. Reserved for future use.

[2]   Standard cable DB9male-DB9female 1,8 meters long is supplied with the device for connection to a PC COM port for configuring and monitoring the device. The configuration software, compatible with Windows® operating systems, is also supplied.

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Dimensions

External dimensions.

Free space recommended to install the device, with spacing enough for external connections.

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