

## 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

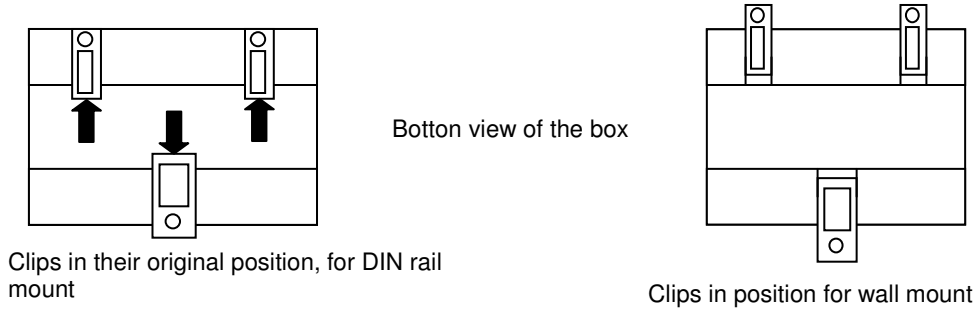
Use the software LinkBoxBacnet to configure IntesisBox, follow the instructions of the user's manual for more details.

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

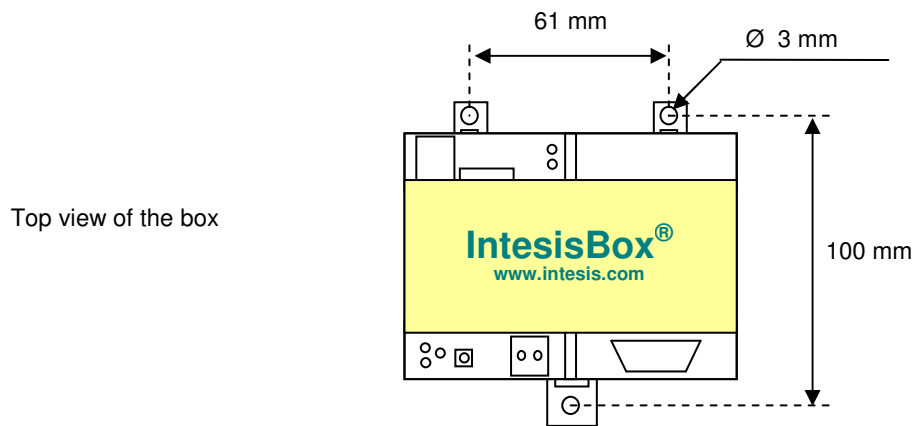
<http://www.intesis.com/down/bacnet/linkboxbacnet.html>

**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.

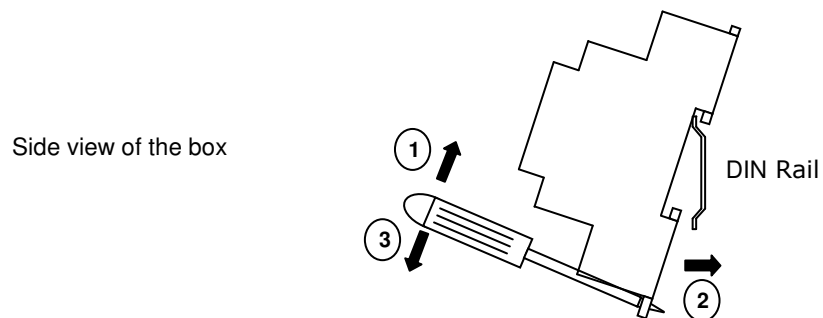


2. Use the holes of the clips to fix the box in the wall using screws. Use the template below for the wall holes.

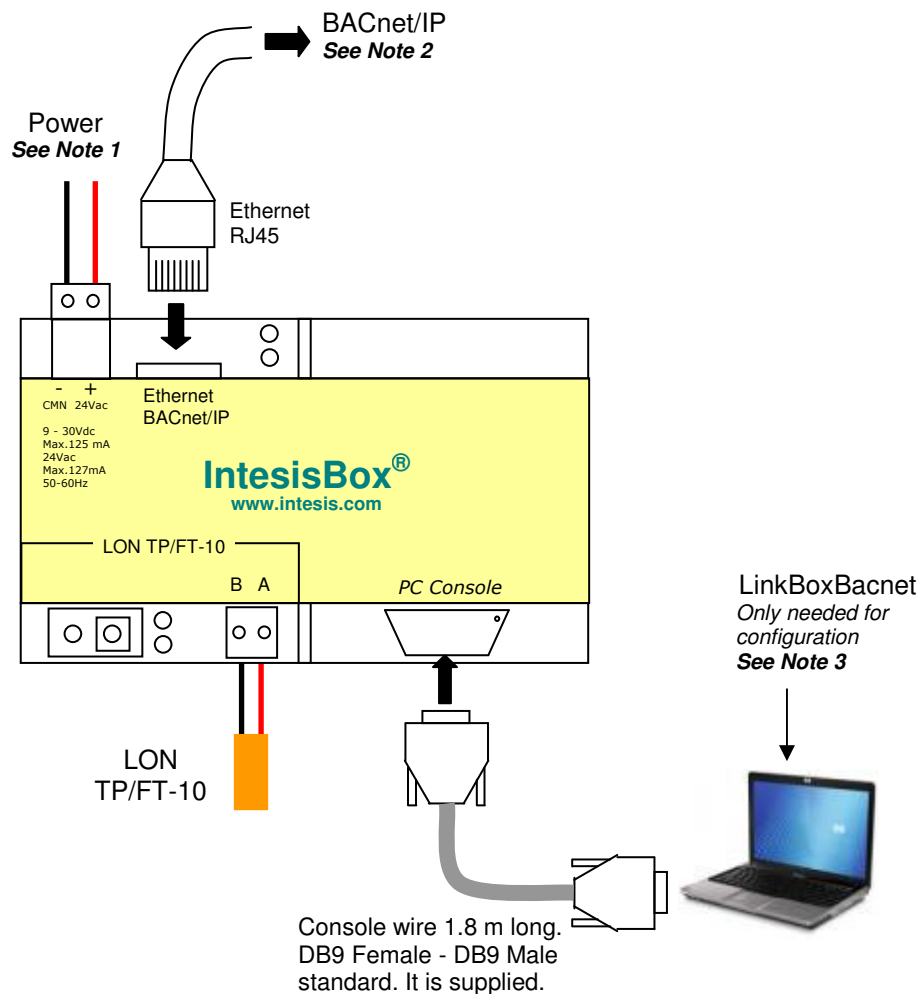


**DIN rail mount**

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.



## Connections



## 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. BACnet/IP connection: Connect the cable coming from the BACnet/IP client to the connector ETH of IntesisBox, use a crossover or a straight ethernet CAT5 cable connecting to a hub or switch of the LAN of the building. Contact the network administrator and make sure that UDP traffic and the port used (47808 by default) are allowed through all the LAN path.
3. Use the software LinkBoxBacnet to configure IntesisBox. See the user's manual for details.

## Technical characteristics

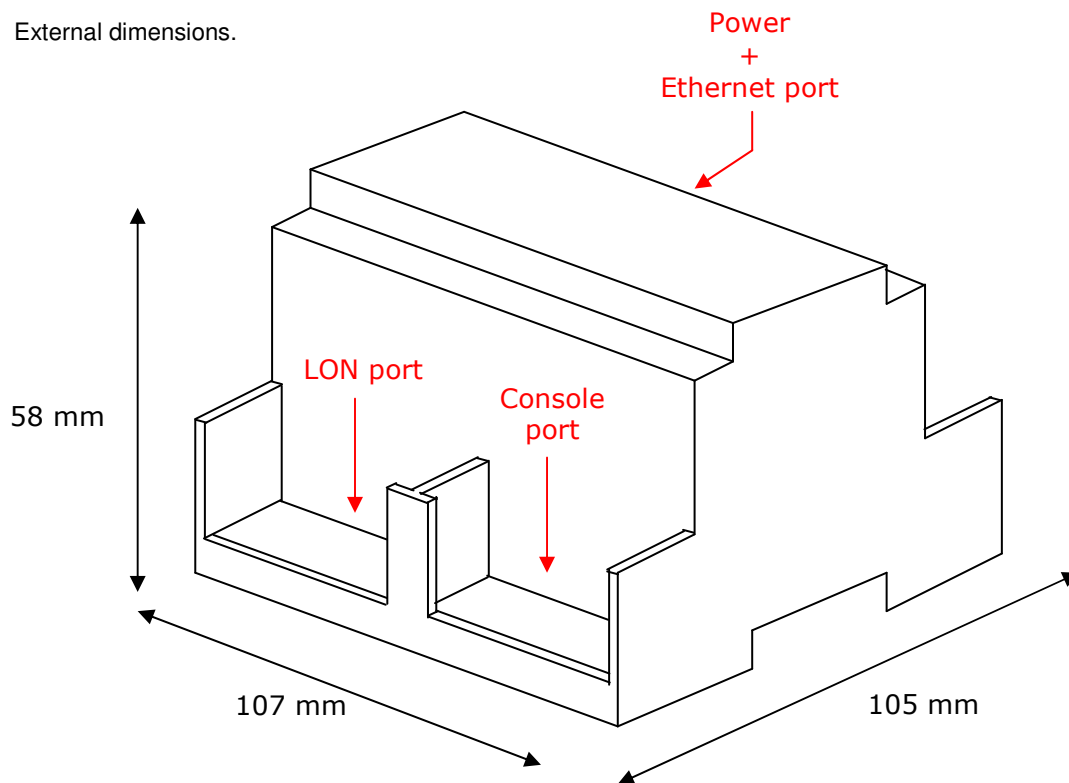
Enclosure	Plastic, type PC (UL 94 V-0). Dimensions: 107mm x 105mm x 58mm.
Colour	Light Grey. RAL 7035.
Power	9 to 30Vdc +/-10%, Max.: 125mA. 24Vac +/-10% 50-60Hz, Max.: 127mA Must use a NEC Class 2 or Limited Power Source (LPS) and SELV rated power supply. Plug-in terminal block for power connection (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 <sup>2</sup> ... 2.5mm <sup>2</sup> 2 cores: 0.5mm <sup>2</sup> ... 1.5mm <sup>2</sup> 3 cores: not permitted
Mounting options	Wall. DIN rail EN60715 TH35.
BACnet/IP port	1 x Ethernet 10Base-T (RJ45).
LON port	1 x LON (TP-FT/10) (plug-in terminal block 2 poles). TNV-1
LED indicators	1 x Power. 2 x LON port activity (Tx, Rx). 2 x Ethernet port link and activity (LNK, ACT). 1 x LON service. <sup>1</sup>
Push buttons	1 x LON service. <sup>1</sup>
Console port	EIA232. DB9 female connector (DCE). SELV
Configuration	Via console port. <sup>2</sup>
Firmware	Allows upgrades via console port.
Operational temperature	0°C to +70°C
Operational humidity	25-90% at 50°C, 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

<sup>1</sup> Not used for the moment. Reserved for future use.

<sup>2</sup> 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.

**Dimensions**

External dimensions.



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

