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.
- Respect always the expected polarity of power and communication cables when connecting them to IntesisBox.
- Supply always a correct voltage to power IntesisBox, within voltage range admitted (230Vac +/ -10%).
- 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 the mains power and 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 the mains power cable to the supply voltage terminal block of IntesisBox.
- Connect the communication cables to IntesisBox, see details on the user's manual.
- Power IntesisBox and the rest of devices connected to it.
- After power-on, DALI bus LED (at the left side of DALI connector) should be ON, signalling that there is DALI bus voltage. If DALI bus LED is OFF, you should check the DALI communication line for a possible short-circuit.
- If your DALI installation is already operative, communication at DALI side can be tested by pressing the DALI test button:
  - Pressing once the button, the ballasts will switch ON (DALI led will start flashing).
  - Pressing again the button, the ballasts will switch OFF (DALI led will toggle to ON).
  - Pressing again the button, the ballasts will switch ON, and remain ON until their value is changed from BACnet side (DALI led will toggle to OFF, signaling that the test has ended).

Configuration and Setup

Use the software LinkBoxBacnet to configure IntesisBox. Follow User’s Manual instructions for detail on the configuration process.

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

http://www.intesis.com/down/bacnet/linkboxbacnet.html
Wall mounting

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

   Bottom view of the box

   Clips in their original position, for DIN-rail mounting

   Clips in wall-mount position

2. Drill 3 holes in the wall following as a guide the distances shown below. Use the holes of the clips to fix the box in the wall, using screws.

   Top view of the box

DIN rail mounting

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

   Side view of the box
Connections

Ethernet / BACnet/IP
(and IntesisBox configuration)

See Note 1

DALI Bus
See Note 1

Serial Port
(Not used)

LinkBoxBacnet
Only needed for configuration, configuration can also be done using Ethernet
See Note 2

Mains Power
230V ac

Console cable 1,8 m.
Standard DB9 Female - DB9 Male.
(supplied with IntesisBox)

Notes:

1. BACnet/IP connection: Use a crossover ethernet CAT5 cable if connecting directly to a BACnet/IP controller, or a straight ethernet CAT5 cable if connecting to a hub or switch of the LAN in the installation. If communicating through a LAN you might need to contact the network administrator to make sure UDP traffic and port used for BACnet/IP (default is 47808) are allowed throughout the LAN path between IntesisBox and your BACnet client.

DALI connection: Connect DALI bus to the DALI connector of IntesisBox. IntesisBox provides 15Vdc (+/-2%) DALI voltage to the bus.

2. Use the software LinkBoxBacnet to configure IntesisBox. Consult user's manual for details.
## Technical characteristics

<table>
<thead>
<tr>
<th><strong>Enclosure</strong></th>
<th>Plastic, type PC (UL 94 V-0). Dimensions: 159mm 105mm x 58mm.</th>
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<tbody>
<tr>
<td><strong>Color</strong></td>
<td>Light Grey / RAL 7035.</td>
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<tr>
<td><strong>Supply Voltage</strong></td>
<td>230Vac +/-10% 6W (3-pole plug-in terminal block – line, neutral and earth)</td>
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</table>
| **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 |
| **Mounting**  | Wall. DIN rail EN60715 TH35.                                   |
| **DALI bus power source** | 15Vdc +/-2% 250mA. (DALI bus is powered from IntesisBox) |
| **DALI port** | 1 x DALI electrically isolated (2-pole plug-in terminal block). SELV |
| **Ethernet port (BACnet/IP, device config)** | 1 x Ethernet 10Base-T (RJ45). |
| **LED indicators** | 1 x Power indicator.  
2 x DALI activity (Tx, Rx).  
2 x Ethernet link & activity (LNK, ACT).  
1 x DALI bus power  
1 x DALI test¹ |
| **Push buttons** | 1 x DALI test¹ |
| **Console port** | EIA232. DB9 female connector (DCE). SELV |
| **Configuration** | Via Ethernet or serial console port.² |
| **Firmware** | Allows upgrades via console port. |
| **Operational temperature** | 0°C to +60°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 |

¹ DALI test push-button and LED are meant to perform a quick test of your DALI line and connected ballasts.

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 using the serial port (Ethernet is also possible). The configuration software, compatible with Windows® operating systems, is also supplied.
Dimensions

External dimensions

Free space recommended in the install location of the device, with spacing enough for external connections.