SAFETY INSTRUCTIONS

WARNING
Follow carefully this safety and installation instructions. Improper work may lead to serious harm for your health and may also damage seriously the Intesis gateway and/or any other equipment connected to it.

The Intesis gateway 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.

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

The Intesis gateway must only be installed in a restricted access location.

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

In case of DIN rail mount fix the Intesis device 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 the Intesis gateway.

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

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

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

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

Power the Intesis gateway and the rest of devices connected to it.

NOTE: The device cannot be installed in air-handling space.

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.

Wall Mount

DIN Rail Mount

With the clips of the box in the 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**

![Connection Diagram]

**Power Supply**
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 (check table below). 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.

**Ethernet / BACnet IP (UDP) / Modbus TCP (TCP) / Console (UDP & TCP)**
Connect the cable coming from the IP network to the connector ETH of the gateway. Use an Ethernet CAT5 cable. If communicating through the LAN of the building, contact the network administrator and make sure traffic on the port used is allowed through all the LAN path (check the gateway user manual for more information). With factory settings, after powering up the gateway, DHCP will be enabled for 30 seconds. After that time, if no IP is provided by a DHCP server, the default IP 192.168.100.246 will be set.

**PortA / BACnet Mstp**
Connect the EIA485 bus to connectors A3 (A), A4 (B+) and A1 or A2 (SNGD) of gateway’s PortA. Respect the polarity.

**PortB / Modbus RTU**
Connect the EIA485 bus to connectors B1 (B+), B2 (A-) and B3 (SNGD) of gateway’s PortB. Respect the polarity.
Connect the serial cable EIA232 coming from the external serial device to the EIA232 connector of gateway’s PortB. This is a DB9 male (DTE) connector in which only the lines TX, RX and GND are used. Respect the maximum distance of 15 meters.

**Note for PortA and PortB:** Remember the characteristics of the standard EIA485 bus: maximum distance of 1200 meters, maximum 32 devices connected to the bus, and in each end of the bus it must be a termination resistor of 120 Ω. The gateway has an internal bus biasing circuit that incorporates the termination resistor. If you install the gateway in one of the ends of the bus, then do not install an additional termination resistor in that end.

**Console Port**
Connect a mini-type B USB cable from your computer to the gateway to allow communication between the Configuration Software and the gateway. Remember that Ethernet connection is also allowed. Check the user manual for more information.

**USB**
Connect a USB storage device (not a HDD) if required. Check the user manual for more information.

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**ELECTRICAL & MECHANICAL FEATURES**

<table>
<thead>
<tr>
<th>Enclosure</th>
<th>Plastic, type PC (UL 94 V-0)</th>
<th>Net dimensions (dhw): 90x88x56 mm</th>
<th>Recommended space for installation (dwh): 130x100x100mm</th>
<th>Color: Light Grey, RAL 7035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mounting</td>
<td>Wall, DIN rail EN60715 TH35.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Terminal Wiring</td>
<td>Per terminal: solid wires or stranded wires (twisted or with ferrule)</td>
<td>1 core: 0.5mm²…2.5mm² 2 cores: 0.5mm²…1.5mm² 3 cores: not permitted</td>
<td>If cables are more than 3.05 meters long, Class 2 cable is required.</td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>1 x Plug-in screw terminal block (3 poles) 9 to 36VDC +/-10%, Max.: 140mA 24VAC +/-10% 50-60Hz, Max.: 127mA Recommended: 24VDC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethernet</td>
<td>1 x Ethernet 10/100 Mbps RJ45 2 x Ethernet LED; port link and activity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Port A</td>
<td>1 x Serial EIA485 Plug-in screw terminal block (2 poles) A, B</td>
<td>1 x Plug-in screw terminal block green (2 poles) SGND (Reference ground or shield) 1500VDC isolation from others ports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switch A (SWA)</td>
<td>1 x DIP-Switch for serial EIA485 configuration:</td>
<td></td>
<td>Position 1: ON: 120 Ω termination active Off: 120 Ω termination inactive (default)</td>
<td>Position 2-3: ON: Polarization active Off: Polarization inactive</td>
</tr>
<tr>
<td>PORT B</td>
<td>1 x Serial EIA232 (SUB-D9 male connector) Pinout from a DTE device 1500VDC isolation from other ports (except PORT B: EIA485)</td>
<td>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: EIA232)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switch B (SWB)</td>
<td>1 x DIP-Switch for serial EIA485 configuration:</td>
<td></td>
<td>Position 1: ON: 120 Ω termination active Off: 120 Ω termination inactive (default)</td>
<td>Position 2-3: ON: Polarization active Off: Polarization inactive (default)</td>
</tr>
</tbody>
</table>

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

**Console Port**
Type-A Mini-Type B USB 2.0 compliant

**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: Will broadcast 1-Am message in the BACnet network Button B: Reserved for future use

**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

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This marking on the product, accessories, packaging or literature (manual) indicates that the product contains electronic parts and they must be properly disposed of by following the instructions at [https://intesis.com/waste-regulations](https://intesis.com/waste-regulations)