

**IN700485\*\*\*0000**

**Protocol Translator with KNX, Serial and IP support**

Order Code: IN700485\*\*\*0000

\*\* Stands for the Intesis gateway capacity and varies depending on the specific gateway acquired

**Installation Sheet rev.1.3**

HMS Industrial Networks S.L.U ©

## SAFETY INSTRUCTIONS

### **WARNING**

Follow these safety and installation instructions carefully. Improper work might lead to serious harm to your health and damage this Intesis gateway and/or any other equipment connected to it.

Only accredited technical personnel, following all the safety instructions and in accordance with the country's legislation for electric equipment installation, can install and manipulate the gateway.

Install the gateway indoors, in a restricted access location, and sheltered from direct solar radiation, water, high relative humidity, or dust.

Mount the gateway, preferably, on a DIN rail inside a grounded metal cabinet following the instructions below.

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

Disconnect any wires from its power source before manipulating and connecting them to the Intesis gateway.

Use a SELV-rated NEC Class 2 or Limited Power Source (LPS) power supply.

Respect the expected polarity of power and communication cables when wiring the gateway.

Supply the correct voltage to power the Intesis gateway. See the voltage range admitted by the gateway in the technical specifications table at the end of this document.

**CAUTION:** Connect the gateway only to networks without routing to the outside plant. All communication ports are considered for indoor use and can be connected to SELV circuits only.

This gateway was designed for installation inside an enclosure. When working inside an enclosure (ex. to make adjustments, set switches, etc.), observe the common anti-static precautions before manipulating the gateway.

Take precautions when installing it outside an enclosure, in environments with static levels above 4 kV, to avoid electrostatic discharges.

Safety instructions in other languages can be found at:

<https://intesis.com/docs/manuals/v6-safety>

## CONFIGURATION

Use the Configuration tool to configure the gateway.

See the instructions to download and install the latest version at:

<https://www.intesis.com/products/intesis-maps>

Use the Ethernet connection or the Console Port for communication between the gateway and the Configuration tool (see the Connections section below). For more info, refer to the [User manual](#).

### Owner's Record

The serial number is located at the rear of the gateway. Record this information in the space provided below. Refer to it whenever you contact upon your gateway dealer or support team regarding this product.

Serial No. \_\_\_\_\_

## INSTALLATION

Follow these instructions to properly install the gateway.

**CAUTION:** Do not install the gateway in air-handling units or conduits.

Disconnect all installation equipment from the power source before wiring the Intesis gateway. Make sure there's no current in any bus, communication cable, and electric wire of the installation.

Follow the instructions below to mount the gateway (wall and DIN rail mounting are allowed).

Connect a SELV-rated NEC Class 2 or Limited Power Source (LPS) power supply to the Intesis gateway. Connect the gateway's ground terminal to the installation grounding. Apply the voltage within the admitted range and of enough power (see the Technical Specifications table at the end of this document).

Use a circuit breaker before the power supply. Rating: 250 V,6 A.

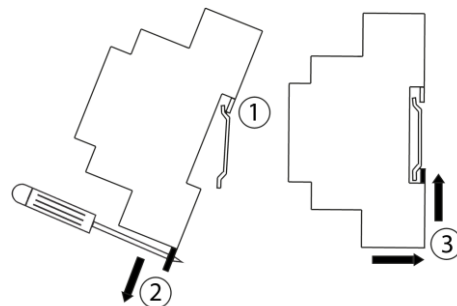
Connect the communication cables to the Intesis gateway (see the Connections section below).

Power the gateway and the installation equipment.

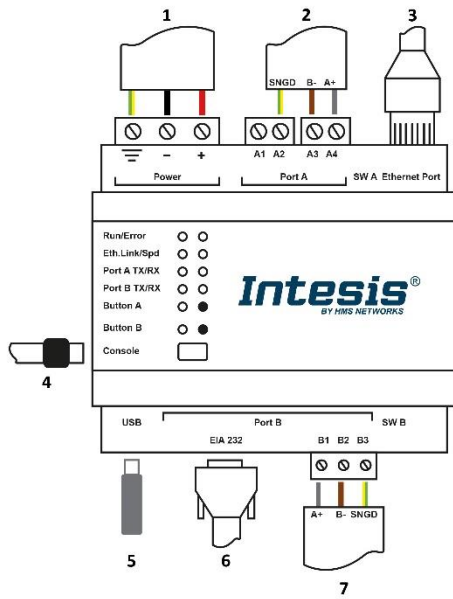
### DIN Rail Mount

Keep the clips down in their original position.

1. Fit the gateway's top side clips in the upper edge of the DIN rail.
2. Use a screwdriver or similar to pull the bottom clip down.
3. Fit the low side of the gateway in the DIN rail and let the clip switch back to its original position, locking the gateway to the rail.
4. Make sure the gateway is firmly fixed.



# CONNECTIONS



- 1. Power Supply (9-36VDC / 24VAC)
- 2. Port A EIA485
- 3. Ethernet
- 4. Console Port  
Mini-Type B USB
- 5. USB storage
- 6. Port B EIA232
- 7. Port B EIA485

## Power Supply

Use a SELV-rated NEC class 2 or Limited Power Source (LPS) power supply.

### If using DC power supply:

Respect the polarity labeled on the power connector (+) and (-). Be sure the voltage applied is within the range admitted (9 to 36 VDC +/-10%). Connect the gateway's ground terminal to the installation grounding.

### If using AC power supply:

Make sure the voltage applied is of the admitted value (24 VAC +/-10%). Connect the gateway's ground terminal to the installation grounding and ensure the same power supply is not powering any other device.

## Ethernet / BACnet IP (UDP) / Console (UDP & TCP)

Use an Ethernet CAT5 or higher cable. If using the building LAN, contact the network administrator and make sure traffic is allowed. When starting up the gateway for the first time, DHCP will be enabled for 30 seconds. After that time, the default IP 192.168.100.246 will be set.

Use the Ethernet Port to configure the gateway with the Configuration Software. For more info, refer to the [User manual](#).

Configuration	Port A EIA485	Port B EIA485	Port B EIA232	Ethernet
IN-BAC-MBM	Modbus RTU	BACnet MSTP/ Modbus RTU*	NA	Modbus TCP/ BACnet IP & Console
IN-MBS-BAC	BACnet MSTP	Modbus RTU	Modbus RTU	Modbus TCP/ BACnet IP & Console
IN -ASCII-BAC	BACnet MSTP	ASCII	ASCII	BACnet IP/ASCII TCP & Console

Pin Out	Port A EIA485	Port B EIA485	Scan here for configuration details
A+	A4	B1	
B-	A3	B2	
SNGD	A1&A2	B3	

### Note for Port EIA485

Standard EIA-485 bus requirements: maximum distance of 1200 meters (0.75 miles); up to 32 devices connected; a 120 Ω resistor at each end of the bus. Configure the bus biasing and termination resistor for Port EIA-485 with the DIP switch SWA and SWB (see the table below).

### Console Port

Connect the gateway to a computer using the min-type B USB cable (included) to configure it with the Configuration Software. For more info, refer to the [User manual](#).

### USB

Connect a USB storage device (not an HDD) if required. For more info, refer to the [User manual](#).

\* Only Available if using BACnet/IP. For more info, refer to the [User manual](#).

# ELECTRICAL & MECHANICAL FEATURES

<b>Enclosure</b>	Plastic, type PC (UL 94 V-0) Net dimensions (dxwxh): 90x106x58 mm / 3.5x4.2x2.3" Recommended space for installation (dxwxh): 130x100x100 mm / 5.1x3.9x3.9" Color: Light Grey. RAL 7035	<b>Battery</b>	Type: Manganese Dioxide Size: Coin 20 mm x 3.2 mm / 0.79x0.13" Capacity: 3 V / 225 mA
		<b>Console Port</b>	Mini Type-B USB 2.0 compliant 1500 VDC isolation
<b>Mounting</b>	Wall: M3 25 mm (1") length screws, below 2 meters (6 feet) DIN rail EN60715 TH35	<b>Push Button A / Push Button B</b>	Check the <a href="#">User Manual</a>
<b>Terminal wiring</b> 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 For distances longer than 3.05 meters (10 feet), use Class 2 cables.	<b>USB port</b>	Type-A USB 2.0 compliant Only for USB flash storage device (USB pen drive) Power consumption limited to 150 mA (HDD connection not allowed)
<b>Power</b>	1 x Green pluggable terminal block (3 poles) 9 to 36 VDC, Max.: 260 mA, 2.4 W 24 VAC +/-10% 50-60 Hz, Max.: 100 mA, 2.4 W Recommended: 24 VDC, 100 mA	<b>Operational Temperature</b>	Celsius: 0 to +60°C Fahrenheit: 32 to 140°F
<b>Ethernet</b>	1 x Ethernet 10/100 Mbps RJ45	<b>Operational Humidity</b>	5 to 95%, no condensation
<b>Port A</b>	1 x Serial EIA-485 pluggable terminal block (2 poles) A, B 1 x Green pluggable terminal block (2 poles) SNGD (Reference ground or shield) 1500 VDC isolation from other ports	<b>Protection</b>	IP20 (IEC60529)
<b>Switch A / Switch B (SW A / SW B)</b>	2 x DIP switches for Ports EIA-485 configuration: Position 1: <b>ON:</b> 120 Ω termination active <b>Off:</b> 120 Ω termination inactive Position 2 and 3: <b>ON:</b> Polarization active <b>Off:</b> Polarization inactive	<b>LED Indicators</b>	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
<b>Port B</b>	1 x Serial EIA-232 (SUB-D9 male connector) (Not used) 1 x Serial EIA-485 pluggable terminal block (3 poles) A, B, SNGD (Reference ground or shield) 1500 VDC isolation from other ports (Except PORT B: EIA-232)		

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/weee-equation>