

IN790NIB100A000 Installation Guide

Version 1.0.0

Integration of NIBE heat pumps into BACnet MS/TP, BACnet/IP, and KNX TP control systems.

Order code: IN790NIB100A000

Owner's record

Find the serial number on the silver label on the gateway's housing. For sales or technical assistance, we recommend writing it in the space below:

SN:

Safety Instructions



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

Only accredited technical personnel, following all these safety instructions and in accordance with the country's legislation for the installation of electric equipment, are authorized to install this Intesis gateway.

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

Connect this Intesis gateway only to networks without routing to the outside plant. All communication ports are considered indoor only.

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

In the case of wall mounting, firmly fix this Intesis gateway on a non-vibrating surface following the instructions below.

Disconnect wires from their power source before manipulating and connecting them to this Intesis gateway.

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

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

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

Supply the correct voltage to power this Intesis gateway. The admitted range voltage is detailed in the technical specifications table.



Risk of explosion if the battery is replaced by an incorrect type. Only authorized installers can replace batteries. Dispose of used batteries according to the instructions.

Take the necessary antistatic precautions before manipulating the gateway to avoid electrostatic discharges.

These safety instructions in other languages can be found [here](#).

Configuration

Connect the gateway to a computer using the USB Mini-B type to USB Type A cable (included).

Configure the gateway using Intesis MAPS. To download the latest version of the configuration tool, [click here](#).

For further information on the configuration, refer to the [Intesis MAPS Guide](#).

Mounting

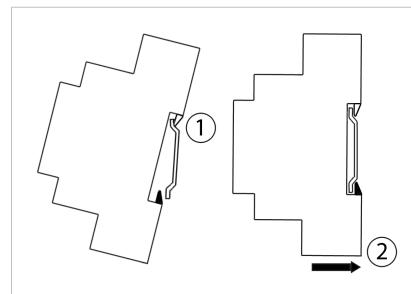


Mount this gateway over a DIN rail, preferably inside a grounded metallic industrial cabinet.

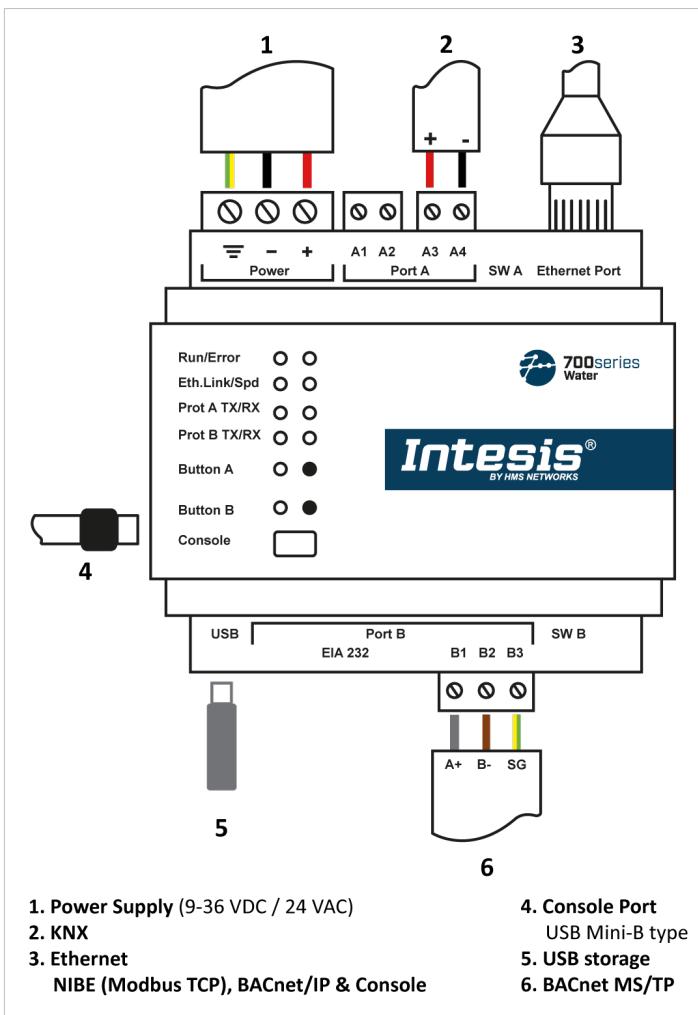
1. Fit the gateway's top-side clips in the upper edge of the DIN rail.
2. Press the low side of the gateway gently to lock it in the DIN rail.
3. Make sure the gateway is firmly fixed.



For some DIN rails, to complete step 2, you may need a small screwdriver or similar to pull the bottom clip down.



Wiring



Power supply: Use a SELV-rated NEC class 2 or Limited Power Source (LPS) power supply. Connect the gateway's ground terminal (—) to the installation grounding.

Power rating:

- **For DC:** 9 .. 36 VDC, 1.7 W
- **For AC:** 24 VAC \pm 10 %, 50-60 Hz, 1.7 W

Recommended: 24 VDC, 1.7 W

Communication ports:

PORT	USED FOR	POLARITY/+INFO						
Port A	KNX TP bus	A1: NA	A2: NA	A3: +	A4: -			
Ethernet ¹	As a TCP/IP port: BACnet/IP and NIBE system (Modbus TCP)	Use a CAT5 or higher Ethernet cable						
	As a console port: Connection to a computer to configure the gateway							
Port B EIA-485 ²	BACnet MS/TP	B1: A+	B2: B-	B3: SG				
Port B EIA-232	NA							
Console	Connection to a computer to configure the gateway	USB Mini-B type						
USB	USB Type A 2.0 connector for saving logs into a USB flash drive. HDD devices are not supported.							



¹ Ethernet connection considerations:

- When using the building LAN, contact the network administrator and make sure traffic is allowed.
- The gateway features a temporary DHCP mode that is enabled for 30 seconds when an Ethernet link is detected, provided the gateway still has its factory settings or has been factory reset. During this time, if the gateway is connected to a DHCP-enabled network, the server will assign it a dynamic IP address. If no DHCP server is available, the default IP address **192.168.100.246** will be automatically assigned after 30 seconds.

² EIA-485 bus requirements:

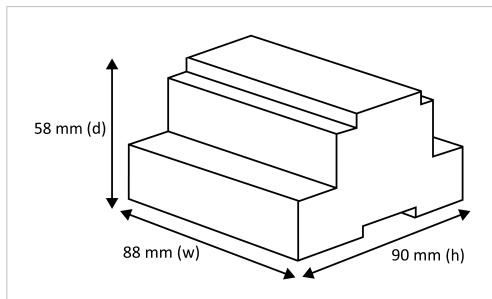
- Maximum length of 1200 m (4000 ft).
- Up to 32 devices connected.
- A 120 Ω resistor is needed at each end of the bus. You can enable the gateway's built-in termination resistor by setting DIP switch SW B-position1 to ON.

To know more about the EIA-485 bus, refer to the document [Polarity Issues in RS485 Networks](#).

Dimensions

NET DIMENSIONS (HxWxD)

Millimeters: 90 x 88 x 58 mm
Inches: 3.54 x 3.46 x 2.28"



Technical Specifications

Housing	Plastic, type ABS (UL 94 V-0). Color: light grey. RAL 7035. Net dimensions (HxWxD): Millimeters: 90 x 88 x 58 mm / Inches: 3.54 x 3.46 x 2.28" Protection: IP20
Mounting	DIN rail EN60715 TH35
Wiring	Wire cross-section/gauge: • One core: 0.5 .. 2.5 mm ² • Two cores: 0.5 .. 1.5 mm ² • Three cores: Not allowed Use solid or stranded wires (twisted or with ferrule).
Power supply	1 x green pluggable terminal block (3 poles). • For DC: 9 to 36 VDC, 1.7 W • For AC: 24 VAC \pm 10%, 50-60 Hz, 1.7 W Recommended: 24 VDC, 1.7 W
Ethernet	1 x Ethernet RJ45 10/100BASE-T
Port A	1 x green pluggable terminal block (A1 A2): Not used 1 x orange pluggable terminal block (A3+, A4-): KNX TP KNX power consumption: 5 mA. Voltage rating: 29 VDC
SW A	1 x DIP switch: Not used
Port B	1 x serial EIA-232 DB9 male: Not used 1 x serial EIA-485 green pluggable terminal block (B1+, B2-, B3 SG)
SW B	1 x DIP switch (3 positions) for Port B EIA-485 configuration: Position 1: • ON: 120 Ω termination active • OFF: 120 Ω termination inactive (default) Positions 2 and 3: • ON: polarization active • OFF: polarization inactive (default)
Battery	Type: Manganese Dioxide Lithium button battery. Size: 20 x 3.2 mm (0.79" x 0.13"). Capacity 3 V - 255 mA
Console port	USB Mini-B type 2.0 compliant
USB port	USB A type 2.0 compliant. Only for USB flash storage devices (USB pen drive). HDD connection not allowed. Power consumption limited to 150 mA
Push buttons	Button A and Button B: Factory reset
Operational conditions	Temperature: -10... 60°C / 14.. 140°F Humidity: 5 .. 95% (No condensation)
LED indicators	10 x Onboard LED indicators: 1 x Power / 1 x Error / 2 x Ethernet / 2 x Protocol A / 2 x Protocol B / 1 x Button A / 1 x Button B

Disposal and Recycling



This product contains electronic components and must be properly disposed of according to local laws and regulations. For further information, refer to: <https://www.hms-networks.com/sustainability>

For further information on the installation, connection, and configuration of this gateway, refer to the [User Manual](#).