INKNXMBM1000200

Modbus RTU Client to KNX gateway

Order Code: INKNXMBM1000200

Installation Sheet v.1.0

HMS Industrial Networks S.L.U ©

Owner's Record

Find the serial number on the silver label on the right side of the gateway. We recommend you write it in the space below for sales or technical assistance:

SN:

SAFETY INSTRUCTIONS

⚠ WARNING

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 gateway indoors, save from direct solar radiation, water, high relative humidity, or dust.

Install this gateway in a restricted access location.

Disconnect any wire from its power supply before manipulating and connecting it to this gateway.

Respect the expected polarity of power and communication cables when connecting them to this gateway.

Supply the correct voltage to power this gateway. The admitted range voltage is detailed in the electrical and mechanical features table below.

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

This gateway has been designed for installation in a closed electric cabinet. To avoid electrostatic discharge to the unit in environments with static levels above 4 kV, take precautions if it is mounted in a different enclosure than the one recommended. When handling the gateway, take appropriate anti-static precautions.

Find these safety instructions in other languages at:
https://intesis.com/docs/manuals/v6-safety

CONFIGURATION

Use the official KNX software tool **ETS** to configure this gateway.

To know more about the gateway's configuration and commissioning, please refer to the user manual.

INSTALLATION

- Mount the gateway in a DIN rail cabinet or a closed electrical junction box. Please note that this gateway's profile (depth) may be thinner than other devices on the DIN rail. Check the local regulations since installing a blanking plate may be necessary to cover the gateway and avoid any manipulation through the gap.
- Disconnect the power supply of the KNX bus.
- Connect the communication cables to the gateway. See details in the **Connections and Switches** section.
- Reconnect the power supply of the KNX bus.
- Connect the EIA-485 device(s) to its power supply.

NOTE: Do not install the device in air-handling ducts.

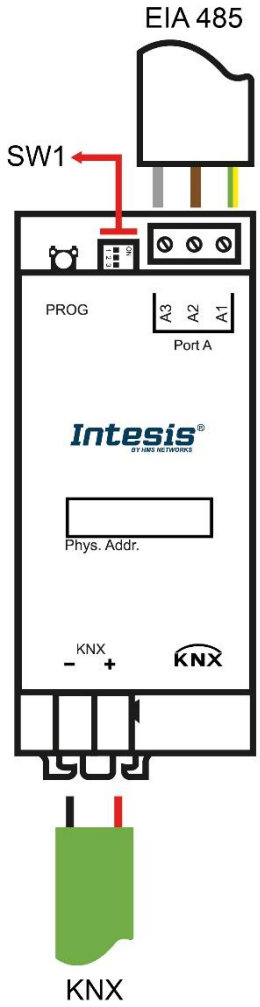
TECHNICAL SPECIFICATIONS

Enclosure	• Front side: PC (UL 94 V-0) • Back side: PPO (UL 94 V-0) • Net dimensions (dxwxh): 32x36x92 mm
	Colors: • Front side: light grey. RAL 7035 • Rear side: black
Mounting	DIN rail (35 mm; two modules)
Power	Supplied through KNX bus. See **KNX Port** below.
KNX Port	1 x KNX TP-1 Plug-in terminal block (2 poles) • 1500VDC isolation from other ports • KNX power consumption: 22mA • Voltage rating: 30VDC
Port A	1 x Serial EIA-485 Plug-in screw terminal block (3 poles) • A1: SNGD (Reference ground or shield) • A2 (B-) • A3 (A+) 2500VDC isolation from other ports
Push Button	Activates the gateway's programming mode
Operation Temperature	0°C to +60°C
Operational Humidity	5 to 95%, no condensation

SW1	DIP switch for serial EIA-485 configuration:
	• Switch 1:
	  • **ON:** 120 Ω termination active
	  • **OFF:** 120 Ω termination inactive (Default)
	• Switches 2 and 3:
	  • **ON:** Polarization active (Default)
	  • **OFF:** Polarization inactive

LED Indicators	2 x Onboard LED indicators • 1 x Power/Port A activity • 1 x KNX programming mode

CONNECTIONS AND SWITCHES



SW1

Identifies the status of the 120 Ω terminal resistor functionality and bus polarization. The factory settings are: termination resistor *disabled* and line polarization *enabled* (See SW1 configuration details in the **Technical Specifications** table).

Port A / EIA-485

Connect the EIA-485 bus to connectors A3 (A+), A2 (B-), and A1 (SNGD) of the gateway's Port A as indicated in the connection diagram.

EIA-485 bus standard specifications

- Maximum distance: 1200 m (0.75 mi)
- Maximum number of devices connected to one bus segment: 32. Notice that using repeaters, you can add up to 254 devices (not counting this gateway)
- Bus polarization
- Maximum number of termination resistors: 2 of 120 Ω (one at each end of the bus).

IMPORTANT

If you install the gateway at one end of the EIA-485 bus, activate the terminal resistor functionality setting the switch 1 to the ON position.

The bus must be polarized only at one point of the line, preferably on the Client side. To disable the line polarization of the gateway, set the switches 2 and 3 to the OFF position.

KNX Port

Connect the KNX TP1 bus to the gateway's KNX port. Respect the polarity of the connectors (- and +) and use a KNX standard cable.

LEDs STATUS

LED ID and color	Pattern	Description
KNX programming mode RED	Off	Programming mode disabled
	Steady On	Programming mode enabled
Power/Modbus activity YELLOW	Off	No power
	Steady On	Device powered but without communication
	Slow blinking	An invalid answer or no answer received from a *server* device
	Fast blinking	Correct package received from a configured server device

This product contains electronic components and must be properly disposed of according to local laws and regulations. For further information, refer to: https://www.intesis.com/weee-regulation