Intesis™
BY HMS NETWORKS

INKNXFGL016O000
Fujitsu VRF to KNX gateway
Order Code: INKNXFGL016O000

Installation Sheet rev.1.0
HMS Industrial Networks S.L.U ©

SAFETY INSTRUCTIONS

⚠ WARNING

Follow carefully these safety and installation instructions. Improper work may lead to serious harmful for your health and also may 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 device 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 gateway 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 a NEC Class 2 or Limited Power Source (LPS) and SELV rated is to be used.

Respect always the expected polarity of power and communication cables when connecting them to the Intesis device.

Supply always a correct voltage to power the Intesis gateway, see details of voltage range admitted by the device in the technical characteristics below.

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.

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 instructions to download and install the latest version at: https://intesis.com/docs/software/intesis-maps-installer

Use the Ethernet connection or the Console Port (mini USB type B connector included) to get communication between the gateway and the configuration tool.

Follow instructions of the user's manual for more details.

INSTALLATION

Follow instructions next to properly install the gateway.

Disconnect from mains the power supply before connecting it to the Intesis device.

Disconnect power of any bus or communication cable before connecting it to the Intesis gateway.

Mount the Intesis device on the wall or DIN rail following the instruction given below, respecting the safety instructions given above.

Connect a NEC Class 2 or Limited Power Source (LPS) and SELV rated power supply to the Intesis gateway, respect 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).
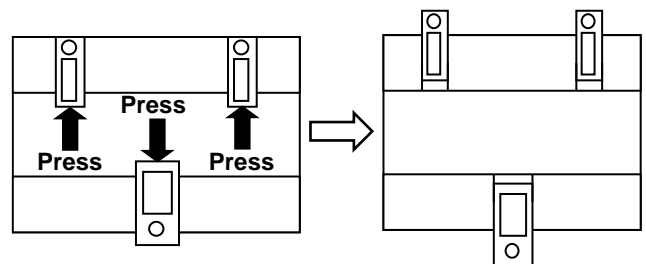
Circuit-breaker must be used before the power supply. Rating 250V-6A.

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

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

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. Use the template below for the wall wholes.
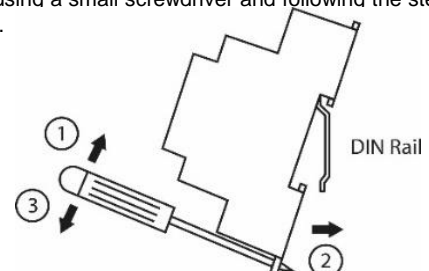

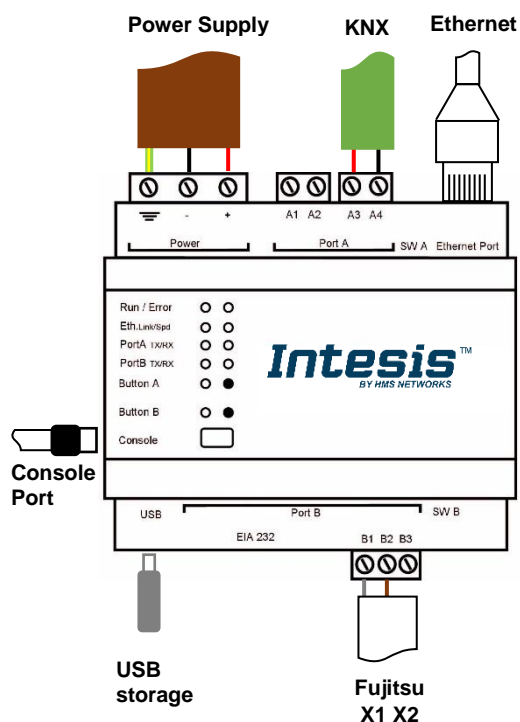*Clips in their original position (for DIN rail mount)* *Clips in position for wall mount*

DIN Rail Mount

With the clips of the box in their 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.

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URL | https://www.intesis.com

CONNECTIONS

Power Supply   **KNX**   **Ethernet**

Power ⏚ - +   A1 A2 A3 A4   SW A   Ethernet Port

Power   Port A

Run / Error
Eth.Link/Spd
PortA TX/RX
PortB TX/RX
Button A
Button B
Console

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Console Port

USB   Port B   SW B
EIA 232   B1 B2 B3

USB storage

Fujitsu X1 X2

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 / 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). Default IP is 192.168.100.246.

PortA / KNX
Connect the KNX TP1 bus to connectors A3 (+) and A4 (-) of gateway's PortA. Respect the polarity.

PortB / Fujitsu VRF
Connect the terminals (X1 X2) of Fujitsu Outdoor Unit to the connectors B1 and B2 of gateway's PortB. There is no polarity to be respected.

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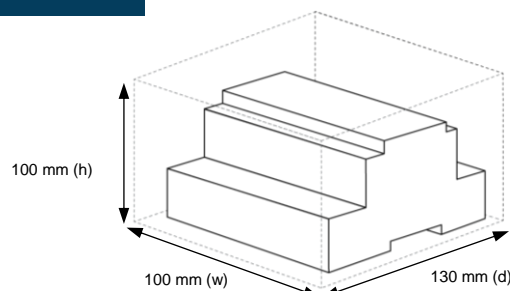
USB
Connect a USB storage device (not a HDD) if required. Check the user manual for more information.

ELECTRICAL & MECHANICAL FEATURES

Enclosure	Plastic, type PC (UL 94 V-0) Net dimensions (dxwxh): 90x88x56 mm Recommended space for installation (dxwxh): 130x100x100mm Color: Light Grey. RAL 7035	**Battery**	Size: Coin 20mm x 3.2mm Capacity: 3V / 225mAh Type: Manganese Dioxide Lithium
Mounting	Wall. DIN rail EN60715 TH35.	**Console Port**	Mini Type-B USB 2.0 compliant 1500VDC isolation

Terminal Wiring (for power supply and low-voltage signals)	Per terminal: solid wires or stranded wires (twisted or with ferrule)
	    1 core: 0.5mm^2… 2.5mm^2
	    2 cores: 0.5mm^2… 1.5mm^2
	    3 cores: not permitted
		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)

Power	1 x Plug-in screw terminal block (3 poles)
	  9 to 36VDC +/-10%, Max.: 140mA.
	  24VAC +/-10% 50-60Hz, Max.: 127mA
	  Recommended: 24VDC
		Push Button	Button A: Check the user manual
			Button B: Check the user manual

		Operation Temperature	0°C to +60°C
Ethernet	1 x Ethernet 10/100 Mbps RJ45 2 x Ethernet LED: port link and activity	**Operational Humidity**	5 to 95%, no condensation

Port A	1 x KNX TP-1 Plug-in screw terminal block orange (2 poles)
	  2500VDC isolation from other ports
	  KNX power consumption: 5mA
	  Voltage rating: 29VDC
	1 x Plug-in screw terminal block green (2 poles)
	  Reserved for future use
		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

Switch A (SWA)	1 x DIP-Switch for PORT A configuration: Reserved for future use		

PORT B	1 x Serial EIA232 (SUB-D9 male connector)
	  Reserved for future use
	1 x Fujitsu Plug-in screw terminal block (3 poles)
	  1500VDC isolation from other ports		

Switch B (SWB)	1 x DIP-Switch for PORT B configuration: Reserved for future use (leave OFF, default)		

100 mm (h)
100 mm (w)
130 mm (d)

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-regulation

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