Hitachi VRF systems to Modbus TCP/RTU Application

Item number: IN770AIR00SO000

This gateway allows the integration of Hitachi VRF and air-to-water systems into Modbus TCP and Modbus RTU control systems. A single gateway can integrate up to 16 indoor units.

Hitachi to Modbus - up to 16 indoor units

Features and benefits

- **Integration of VRF, Yutaki, and Yutampo models on the same bus**
  Simplify system design and reduce commissioning time and costs by eliminating the need for model-specific gateways.
- **Connection to the outdoor unit**
  Avoid complex and expensive wiring: one gateway connected to a single outdoor unit enables individualized control of its indoor units.
- **Dedicated signals for error and maintenance monitoring**
  Quickly realize what's wrong and anticipate problems to prevent downtime and extend the HVAC system's lifespan.
- **Dual Modbus TCP and RTU connectivity**
  Increase flexibility with simultaneous support for modern Ethernet-based and legacy serial controllers.
- **Configuration using Intesis MAPS**
  Reduce configuration time by importing and reusing preset templates.
- **HVAC bus scanning function**
  Accelerate commissioning and avoid manual mapping errors by automatically discovering and importing all units, including their variables.
- **Individual indoor unit energy consumption signals**
  Reduce energy costs through HVAC system performance analysis and energy hotspots detection.
- **Outdoor unit monitoring**
  Extend your project's capabilities by incorporating outdoor unit signals.
- **Multiple TCP client sockets**
  Maximize the system's versatility by allowing connections from up to 6 TCP clients at the same time.
- **Designed in collaboration with Hitachi and certified by UL**
  Ensure reliability in professional building automation environments.

Hitachi VRF systems to Modbus TCP/RTU Application

General

Capacity	S: Up to 16 indoor units
Net Width (mm)	106
Net Height (mm)	90
Net Depth (mm)	58
Net Weight (g)	194
Packed Width (mm)	125
Packed Height (mm)	85
Packed Depth (mm)	140
Packed Weight (g)	356
Operating Temperature °C Min	0º
Operating Temperature °C Max	60º
Storage Temperature °C Min	-30
Storage Temperature °C Max	60
Power Consumption (W)	3
Input Voltage (V)	For DC: 12 .. 36 VDC ±10%, Max: 250 mA For AC: 24 VAC ±10 %, 50-60 Hz, Max: 127 mA Recommended voltage: 24 VDC, Max: 127 mA
Power Connector	3-pole
Configuration	Intesis MAPS
Installation Conditions	This gateway is designed to be mounted inside an enclosure. If the unit is mounted outside an enclosure, precautions should always be taken to prevent electrostatic discharge to the unit. When working inside an enclosure (e.g., making adjustments, setting switches, etc.), typical anti-static precautions should always be followed before touching the unit.
AC Model Compatibility	Compatible with Hitachi VRF, Yutaki Series S / SCombi (lite) / S80 / M (all released from 2016), Yutampo, AIRH2O Series 600 / 800, and YCC systems.

Hitachi VRF systems to Modbus TCP/RTU Application

General

Content of Delivery	Intesis gateway and installation manual.
Not Included (in delivery)	Power supply not included.
Mounting	DIN rail mount (bracket included), Wall mount
Housing Materials	Plastic
Warranty (years)	3 years
Packaging Material	Cardboard

Identification and Status

Product ID	IN770AIR00SO000_MBS_HIT
Country of Origin	Spain
HS Code	8517620000
Dual Usage	No

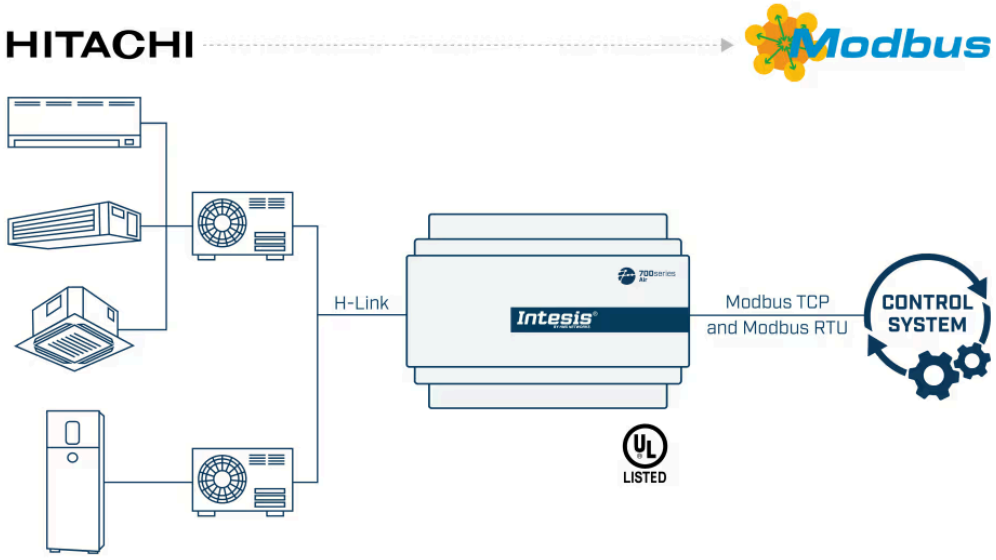
Physical Features

Connectors / Input / Output	Power supply, EIA-485, KNX, Ethernet, HVAC port, Binary inputs (dry contact), Console port USB.
LED Indicators	Gateway and communication status.
Push Buttons	Factory reset. I-Am message (for BACnet only). Normal mode/programming mode switch (for KNX only).
DIP & Rotary Switches	EIA-485 serial port configuration.
Contains Battery	No

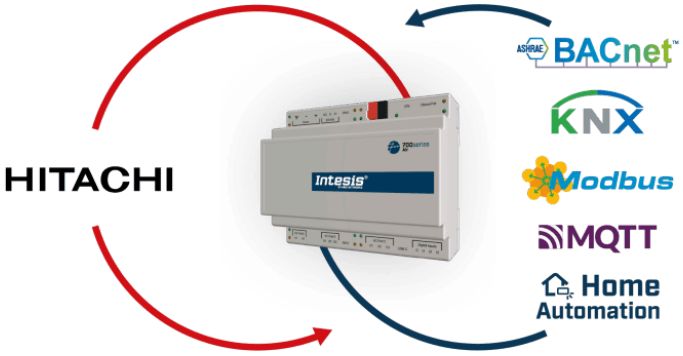
Certifications and Standards

Product Certifications	CE, CB, UKPSTI, UL
WEEE Category	IT and telecommunications equipment

Use Case



Integration example.



Use Intesis MAPS to change the protocol: BACnet, Modbus, KNX, MQTT, or Home Automation