

**Intesis**<sup>™</sup>  
BY HMS NETWORKS

Gateway solutions  
for building and home integration



- Protocol translators
- Air conditioning interfaces
- Cloud solutions

**HMS** Connecting Devices<sup>™</sup>

# Intesis – connecting buildings and homes

Intesis gateways for building and home automation covers all relevant standards and technologies, and includes the market's most comprehensive portfolio for HVAC integration with solutions for all major AC-brands.

Highly reliable, robust, easy to configure and install, the Intesis protocol translators, AC interfaces, and cloud solutions are widely used for system integration. Users benefit from efficient commissioning and uninterrupted operation.

## Intesis by HMS Networks

Intesis is a part of HMS Networks, market leader in solutions for industrial communication and the Industrial Internet of Things, IIoT. The Intesis brand is HMS central brand for Building Automation products and solutions. The other main markets for HMS are Manufacturing, Power, Energy, Transportation, Infrastructure and Logistics.



## About HMS Networks

With millions of installed products worldwide, HMS Networks is the leading supplier of solutions for industrial communication and IIoT. HMS is "Connecting Devices" for a more productive and sustainable world. Our solutions enable our customers to expand their businesses globally.

- Employees: > 700
- Locations: in 16 countries
- Distributors: > 50 countries
- Brands: Anybus, Ewon, Intesis, Ixxat
- Customers: Device manufacturers, machine builders, system integrators, end users
- Year founded: 1988



## High quality standards

Intesis products are subject to extensive testing and certification processes to ensure the highest quality standards. Also, additional tests are implemented for specific markets.

### 100% tested

Every single product manufactured by Intesis is tested to ensure the highest quality standards.

### UL listed

Intesis products contain UL marked components and the production line is subject to periodic UL audits. It is with pride that we put the UL mark on all main Intesis products.

### Global coverage

In addition to rigorous internal quality tests, Intesis products are also certified by independent testing labs to fulfill national legal requirements on different markets.

### Protocol certifications

All implementations of standard protocols in Intesis products are performed rigorously according to each protocol specification. Full interoperability is then ensured thanks to testing and certification by external accredited laboratories.



# Solutions for every project

Modern buildings include equipment from many different vendors that need to communicate in highly advanced networks.

System integrators, BMS vendors, HVAC manufacturers and professionals in the automation market all over the world have one thing in common — they trust Intesis products in their building automation integration projects.

## Protocol translators

BACnet, KNX, Modbus, DALI, M-Bus, ASCII, PROFINET, LonWorks, OCPP, EtherNet/IP — all are supported by the Intesis protocol translators. With cutting edge technology built on a reliable platform, integration solutions are offered for all your needs.



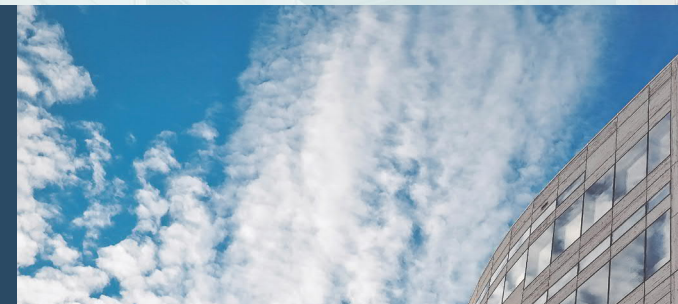
## Air conditioning interfaces

Developed with and for all major air conditioning manufacturers, Intesis AC interfaces enable high quality integration of climate systems into BACnet, KNX, Modbus, and 2,4 GHz wireless installations.



## Cloud solutions

Intesis long experience of Building Automation protocols and communication solutions for HVAC integration brought to the cloud for straight-forward remote device management.

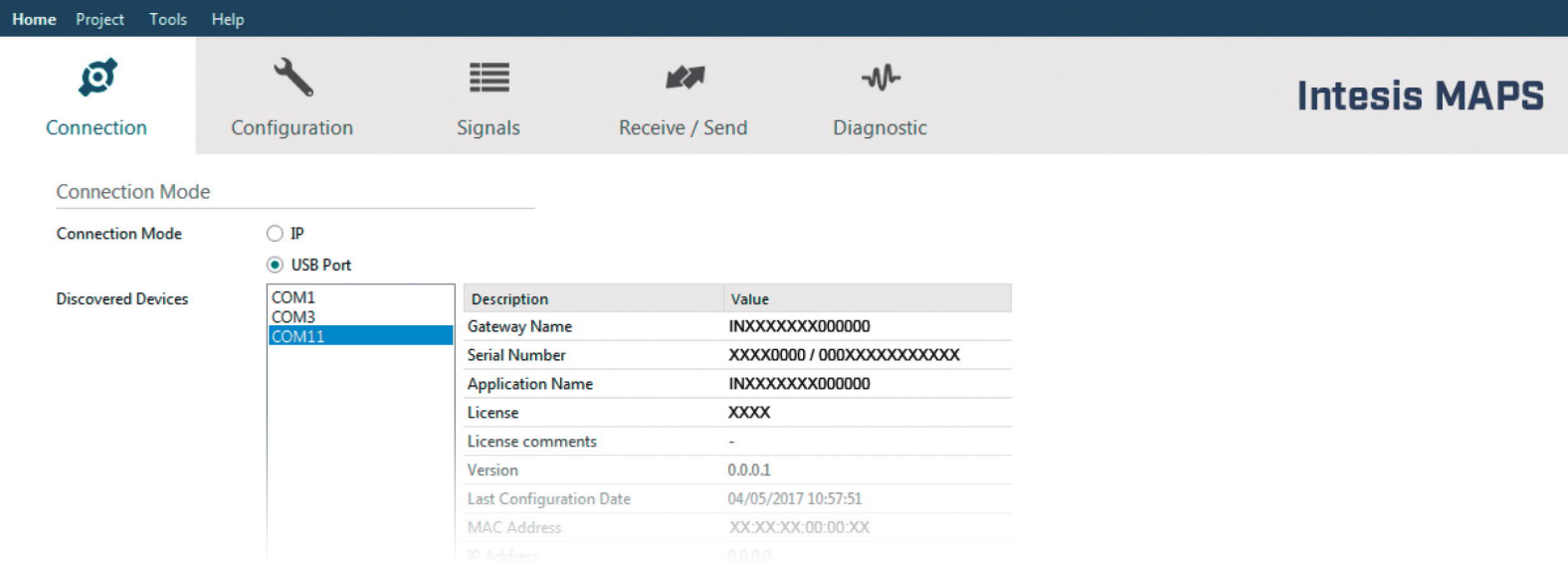


No matter what building automation protocol or AC brand...

...Intesis has the communication solution!

# Intesis MAPS – a software tool for fast and easy configuration

## Multi Addressing Point Solution

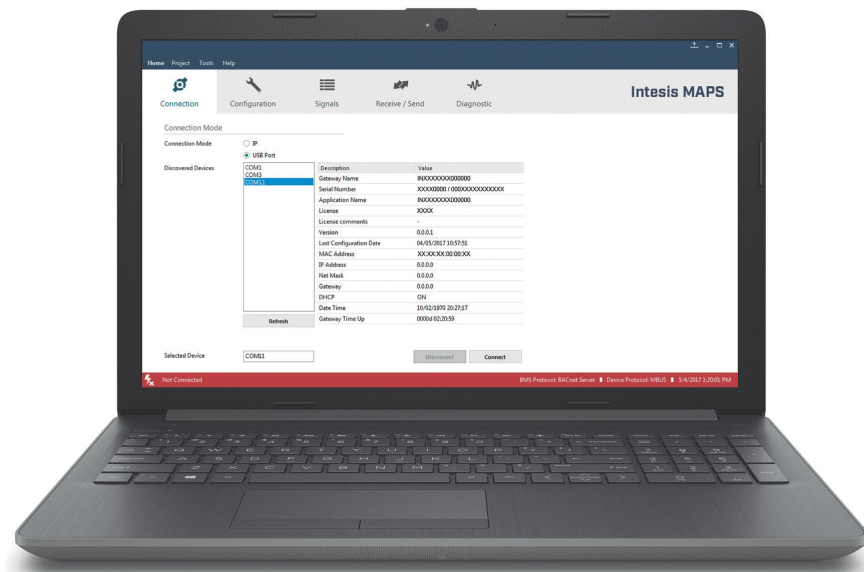


## Intesis MAPS

Powerful configuration of all Intesis protocol translators for fast and straight-forward commissioning.

Intesis MAPS enables easy configuration of all possible protocol combinations available in the Intesis protocol translator portfolio, offering a simple and consistent way to program all your devices, regardless of the protocols used. Upon launching MAPS, the user selects the right template for the protocol translator and the configuration procedure can start.

Intesis MAPS provides device templates which import data automatically. Conversions such as scaling and offset are supported to allow the desired data transformation. MAPS also enables advanced diagnostics and troubleshooting by the user.



### Project templates

For every gateway there is a template providing a step by step setup guide for both protocols in the gateway.



### Product templates

Product templates are provided for automatic import of all device data, removing the need for manual work.



### Device scan

By using the scanning functionality, users can find devices in the field and import all their data automatically.



### Data conversion

Data can be transformed into the desired format, e.g. adjusting offset, scaling or converting from degrees Celsius into Fahrenheit.



### Diagnostics

Problems and errors can be detected and solved with Intesis MAPS diagnostics.



### Secure and safe configuration

MAPS configuration projects are protected by passwords to prevent unauthorized manipulation of projects and installations.



### Recovery

Users can save the gateway configuration project to file for e.g. recovery purposes or in case of gateway replacement.



### Update information

The tool informs whenever there is a new software version available for the gateway or MAPS itself.



# Taking care of your projects in advance

Get ready to start your project even if you are not on site

Intesis MAPS offers you the possibility of starting your projects even without the Intesis device. Simply start creating your configuration file from the device manufacturer manual and/or the BMS or SCADA engineer information.

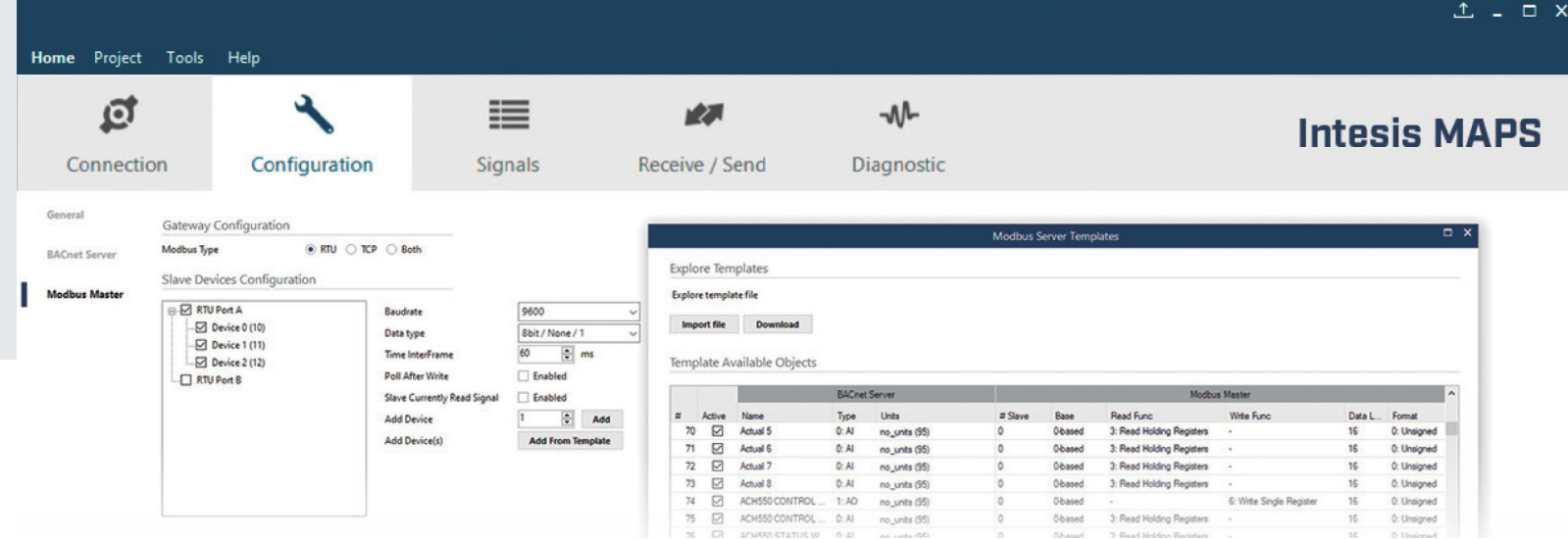
Get everything ready before commissioning

Check your configuration, simulate communications, use our templates, consult our manuals, attend our webinars and get the most of our team experience in a powerful tool. Everything in its right place for a smooth commissioning process.

Template functionality

Thanks to our template functionality you can import already existing templates from third party devices\* and include them in your project with a simple click of the mouse. Moreover, you can create your own templates and use them in any of your projects.

\* Requires Internet connection.



Fast, save and secure commissioning and troubleshooting

Even if you are not on site, remote connections are available to the gateway through IP\*, which ensures the possibility of testing the project during the commissioning stage. You can also troubleshoot any possible issue you may face from your office.

Save money and time with less travelling

A remote connection drastically reduces the need for travelling since commissioning or troubleshooting can be done from anywhere.

Using the Diagnostic section along with the remote connection, you will be able to ensure your projects are up and running on time and with all guarantees.

With four simple steps you will be ready to go:

- 1** **Create your configuration project**  
Use our templates, import options and our documentation to easily create your configuration projects.
- 2** **Enable communications**  
Enable an EtherNet/IP connection to the gateway and we are ready to start communication with the gateway.
- 3** **Download the configuration**  
Download your configuration project from your remote location.
- 4** **Test and/or troubleshoot**  
Once connected and with the configuration downloaded, you will be able to start testing and troubleshooting anything you need connected to the Intesis device.

\*Check with your IT department for more information about external communication configurations.

Now, everything is up and running and you can do commissioning and troubleshooting from anywhere

# Protocol translators with the latest technology

Intesis protocol translators include the most recent and modern technology, assembled in user-friendly products to facilitate installation, configuration and deployment.



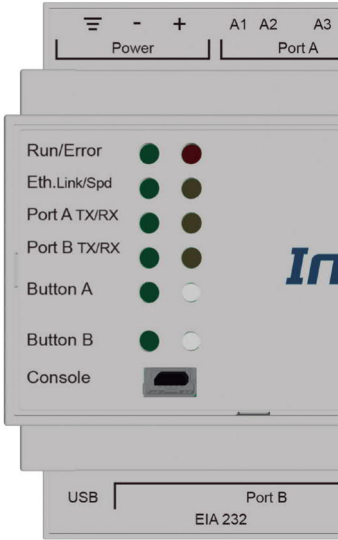
**LED indicator matrix**  
Multiple LED indicators confirm that all protocols are communicating properly or indicate if there is a communication issue.



**IP/USB console**  
Direct and safe access to the configuration via USB or the Ethernet port.



**USB host**  
Configuration can be performed with the USB host port, from downloading projects or generating log files to updating the firmware.



# Protocol translators

When choosing an Intesis protocol translator, you can be sure that you get a ready-to-use product which easily solves the complex task of integrating between building automation protocols.



**Multiple ports**  
With multiple ports for the different physical layers (cable/network types), all common connectivity requirements are met.



**Design for DIN-rail mounting**  
Using just five DIN-Rail modules, it is easy to fit Intesis protocol translators into cabinets.



**Low power**  
The protocol translators are designed for low power consumption for energy efficient operation on site.

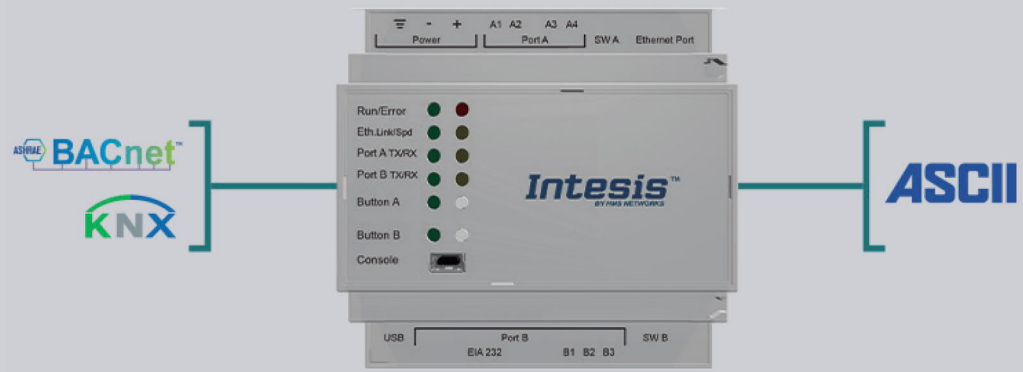


**MAPS Configuration**  
Powerful configuration of all Intesis protocol translators for a fast and straight-forward commissioning.



Global connectivity enabled!



## ASCII protocol translators



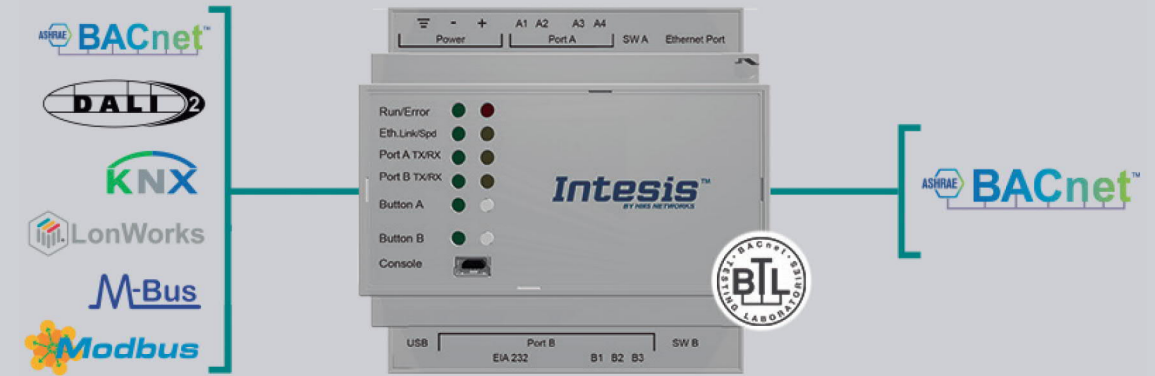
### General features for ASCII

Supervision and control of BACnet or KNX devices can be done from an ASCII-based control system using simple ASCII messages over serial (EIA232, EIA485) or TCP/IP interfaces.

- Both ASCII Serial and IP supported
- Custom string signals
- Custom string commands
- Easy integration to any BMS

BACnet	ORDER CODE	POINT VERSION
 BACnet to ASCII	INASCBAC6000000	600 P.V.
	INASCBAC3K00000	3000 P.V.
 KNX to ASCII	INASCKNX6000000	600 P.V.
	INASCKNX3K00000	3000 P.V.






## BACnet protocol translators



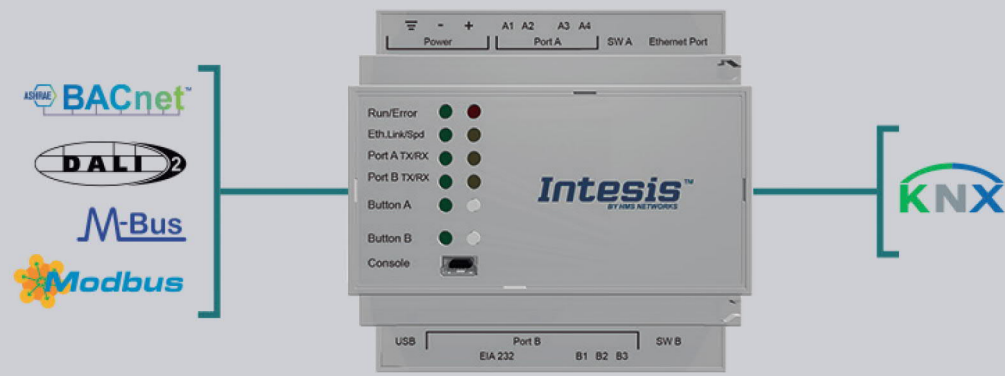
### General features for BACnet

An Intesis protocol translator for BACnet acts as a BACnet/IP Server or BACnet MSTP slave, allowing BACnet controllers to perform subscription requests (COV) and reads/writes to its internal points.

- BTL certified
- BACnet IP and MSTP
- BBMD and foreign Device
- Notification Classes

KNX	ORDER CODE	POINT VERSION
 LonWorks to BACnet	INBACKNX1000000	100 P.V.
	INBACKNX2500000	250 P.V.
	INBACKNX6000000	600 P.V.
	INBACKNX1K20000	1200 P.V.
	INBACKNX3K00000	3000 P.V.
 Modbus to BACnet	INBACMBM1000000	100 P.V.
	INBACMBM2500000	250 P.V.
	INBACMBM6000000	600 P.V.
	INBACMBM1K20000	1200 P.V.
	INBACMBM3K00000	3000 P.V.
 DALI to BACnet	INBACDAL0640200	64 D.V.
	INBACDAL1280200	128 D.V.
 M-Bus to BACnet	INBACMEB0100000	10 D.V.
	INBACMEB0200000	20 D.V.
	INBACMEB0600000	60 D.V.
	INBACMEB1200000	120 D.V.
 BACnet MSTP to BACnet IP Router	INBACRTR0320000	32 D.V.

# KNX protocol translators



## General features for KNX

A protocol translator with KNX connects directly to the KNX TP-1 bus carrying the same configuration and operational characteristics as any other KNX device.

- Standard KNX Datapoint Types
- Extended group addresses
- Sending and listening addresses
- Ri flag: Read on initialization flag

# Modbus protocol translators



## General features for Modbus

On Modbus, Intesis protocol translators act either as Modbus TCP Servers (Ethernet connection) and/or Modbus RTU slaves (serial EIA232,EIA485).

- Modbus TCP and RTU simultaneously
- Coils, holding registers and bitfields supported
- Multiple data formats
- Big-endian or Little-endian

	ORDER CODE	POINT VERSION
<i>BACnet to KNX</i>	INKNXBAC1000000	100 P.V.
	INKNXBAC2500000	250 P.V.
	INKNXBAC6000000	600 P.V.
	INKNXBAC1K20000	1200 P.V.
	INKNXBAC3K00000	3000 P.V.
<i>Modbus TCP/RTU to KNX</i>	INKNXMBM1000000	100 P.V.
	INKNXMBM2500000	250 P.V.
	INKNXMBM6000000	600 P.V.
	INKNXMBM1K20000	1200 P.V.
	INKNXMBM3K00000	3000 P.V.
<i>Modbus RTU to KNX</i>	INKNXMBM1000100	100 P.V.
<i>DALI to KNX</i>	INKNXDAL0640200	64 D.V.
<i>M-Bus to KNX</i>	INKNXMEB0100000	10 D.V.
	INKNXMEB0200000	20 D.V.
	INKNXMEB0600000	60 D.V.
	INKNXMEB1200000	120 D.V.

	ORDER CODE	POINT VERSION
<i>BACnet to Modbus</i>	INMBSBAC1000000	100 P.V.
	INMBSBAC2500000	250 P.V.
	INMBSBAC6000000	600 P.V.
	INMBSBAC1K20000	1200 P.V.
	INMBSBAC3K00000	3000 P.V.
<i>KNX to Modbus</i>	INMBSKNX1000000	100 P.V.
	INMBSKNX2500000	250 P.V.
	INMBSKNX6000000	600 P.V.
	INMBSKNX1K20000	1200 P.V.
	INMBSKNX3K00000	3000 P.V.
<i>DALI to Modbus</i>	INMBSDAL0640200	64 D.V.
	INMBSDAL1280200	128 D.V.
<i>M-Bus to Modbus</i>	INMBSMEB0100000	10 D.V.
	INMBSMEB0200000	20 D.V.
	INMBSMEB0600000	60 D.V.
	INMBSMEB1200000	120 D.V.
<i>Modbus RTU to Modbus TCP router</i>	INMBSRTR0320000	32 D.V.
<i>OCPP to Modbus</i>	INMBSOCP0010100	1 Charger
	INMBSOCP0200100	20 Chargers