

# IntesisBox<sup>®</sup>

for Modbus



General catalogue 2013

ENGLISH

your partner for **systems integration**

# Intesis



## General catalogue 2013

KNX · MODBUS · BACNET · LONWORKS · ENOCEAN · ASCII · OPC SERVER

**Intesis Software S.L.**

C/ Milà i Fontanals, 1 bis 1º  
08700 Igualada · Barcelona · Spain  
Tel. +34 93 804 71 34  
Fax +34 93 804 71 35  
[info@intesis.com](mailto:info@intesis.com)



# MODBUS



# IntesisBox

## products for Modbus systems



The **Modbus Organization** is a group of independent users and suppliers of automation devices that seeks to drive the adoption of the Modbus communication protocol suite and the evolution to address architectures for distributed automation systems across multiple market segments. The Modbus Organization will also provide the infrastructure to obtain and share information about the protocols, their application and certification to simplify implementation by users resulting in reduced costs. The Modbus Organization is a membership-based trade association, incorporated as "Modbus Organization, Inc." under the laws of the Commonwealth of Massachusetts, USA.

Modbus Protocol is a messaging structure developed by Modicon in 1979. It is used to establish master-slave/client-server communication between intelligent devices. It is a de facto standard, truly open and the most widely used network protocol in the industrial manufacturing environment. Modbus is used in multiple master-slave applications to monitor and program devices; to communicate between intelligent devices and sensors and instruments; to monitor field devices using PCs and HMI's. Modbus is also an ideal protocol for RTU applications where wireless communication is required. For this reason, it is used in innumerable gas and oil and substation applications. But Modbus is not only an industrial protocol. Building, infrastructure, transportation and energy applications also make use of its benefits.

For further information, please visit [www.modbus.org](http://www.modbus.org)

## IntesisBox® Modbus AC gateways

**Specially designed, in collaboration with several manufacturers like Mitsubishi Electric, Daikin, Samsung, Fujitsu to allow supervision and bidirectional control of all the parameters and functionality of Air conditioners from MODBUS installations.**

- Easy installation. Direct connection to RS-485 or Ethernet and the AC indoor unit
- Great integration flexibility, with supervision and control of MODBUS registers allowing an easy and fast integration with the basic parameters, and a complete supervision and control for all the AC unit functionality
- Advanced integration with air conditioner: a complete bidirectional communication and simultaneous control from Modbus and the infrared Air Conditioner remote controller.

## IntesisBox Modbus interfaces for other protocols

IntesisBox® IBOX-MBS-XXX gateways have been specially designed to allow supervision and bidirectional control of all the parameters and functionality of systems and equipment with KNX, MBUS, BACNet/IP, BACNet MSTP, LonWorks, and DALI installations and Atersa or Fidelio systems from Modbus installations.

- Great integration flexibility
- Advanced integration with any SCADA such as Wanderware, Intellution, ABB, Schneider ... as well as energy and gas meters, PLC's, coolers, fan-coil controllers, fire panels, security panels, etc.

# MODBUS

# ME-AC-MBS-1 / ME-AC-MBS1-2110

IntesisBox® ME-AC-MBS-1 and ME-AC-MBS-1-2110 gateways have been specially designed, in collaboration with Mitsubishi Electric, to allow monitoring and bidirectional control of all the parameters and functionality of Mitsubishi Electric Mr. Slim and Domestic air conditioning Series from ModBus installations.

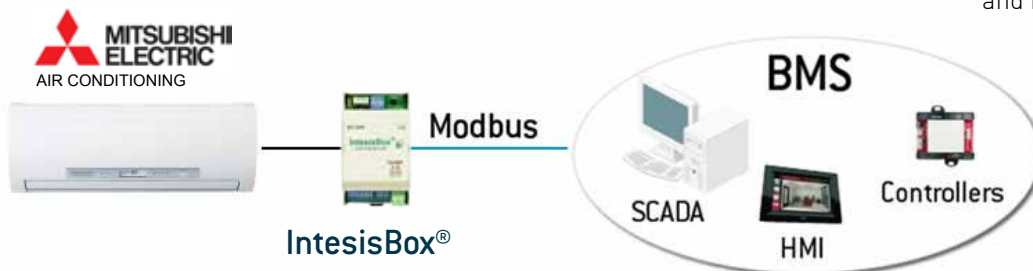


ME-AC-MBS-1



ME-AC-MBS-1-2110\*

- Wonderware
- Intellution
- ABB
- and many others



## Specifications

- Bidirectional: Monitoring and Control
- Fast and easy installation
- 2 digital inputs and 1 digital output, mapped in 3 independent ModBus registers
- Direct connection to RS-485 bus and the AC indoor unit
- No external power supply required
- Small size (WxHxD): 93 x 53 x 58 mm

## Main features

- Easy installation inside the air conditioning indoor unit. Cable for CN105 or CN92 connector supplied.
- Great integration flexibility. Easy integration with basic parameters up to complete monitoring of the AC unit operation is possible.
- Configuration from both on-board DIP-switches and MODBUS registers.
- Special communication objects for increasing comfort and energy savings: Open window, Working hours counter, Save /execute scenes, Enable/Disable device, Enable/disable remote controller,...
- Simultaneous control from ModBus and the Mitsubishi Electric Remote controller.

## Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_ME-AC-MBS-1\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_ME-AC-MBS-1_datasheet_eng.pdf)

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_ME-AC-MBS-1-2110\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_ME-AC-MBS-1-2110_datasheet_eng.pdf)

Compatibility list: [http://www.intesis.com/pdf/IntesisBox\\_ME-AC-xxx-1\\_AC\\_Compatibility.pdf](http://www.intesis.com/pdf/IntesisBox_ME-AC-xxx-1_AC_Compatibility.pdf)

## ME-AC-MBS-50 / ME-AC-MBS-100

IntesisBox® ME-AC-MBS-50 / 100 gateways have been specially designed, in collaboration with Mitsubishi Electric, to allow monitoring and bidirectional control of all the parameters and functionality of Mitsubishi Electric air conditioners using G-50A, GB-50A or AG-150A controllers from ModBus installations.

Compatible with all Mitsubishi Electric Air Conditioning units connected to centralized controls



AG-150A



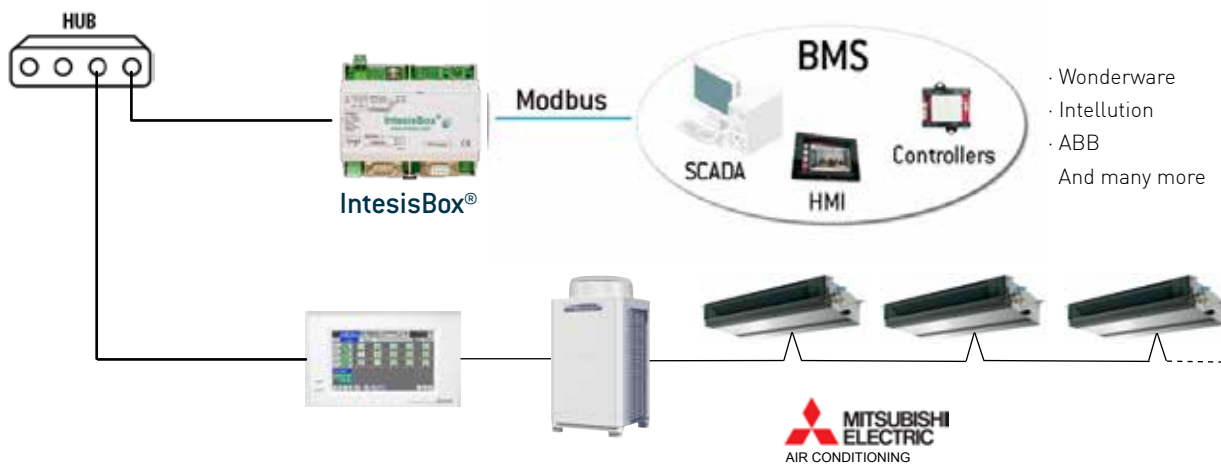
G-50A



GB-50A



GB-50ADA



- Wonderware
- Intellution
- ABB
- And many more

\* The AG-150A must have the FGWEBASIC function (Web basic package). Ask Mitsubishi Electric.

### Specifications

- Bidirectional: Monitoring and Control
- Robust and reliable hardware
- ModBus TCP or ModBus RTU RS-485/RS-232
- Independent management of communications
- Power supply: 9 to 24Vdc or 24Vac
- Standard DIN-Rail 6 modules enclosure

### Models available

- ME-AC-MBS-50: supports up to 1 G50 and 50 City Multi groups.
- ME-AC-MBS-100: supports up to 2 G50s and 100 City Multi groups.

### Main features

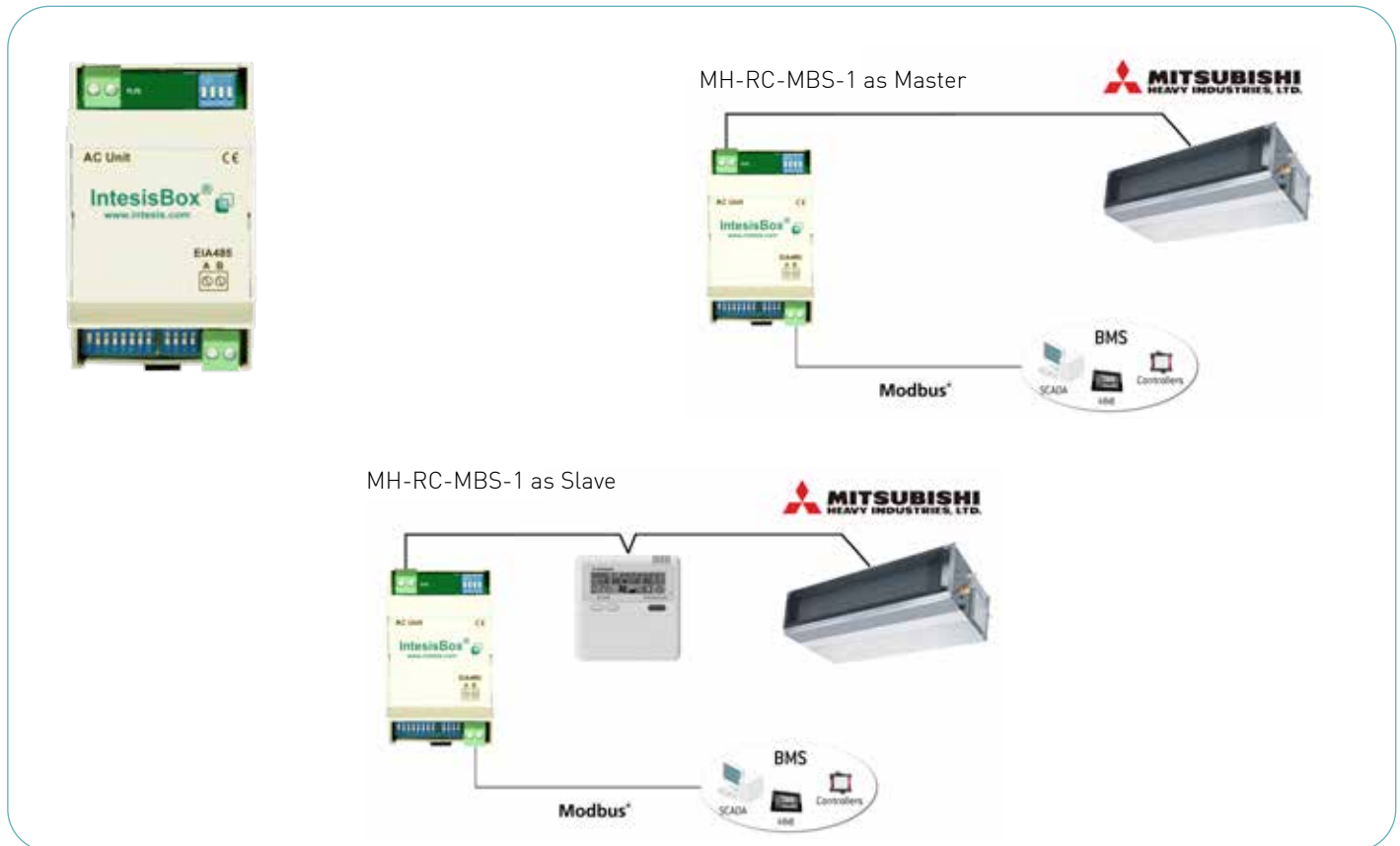
- Compatible with all Mitsubishi Electric Air Conditioning units connected to centralized controls G-50A / GB-50A / AG-150A / GB-50ADA.
- Easy installation. To be connected through Ethernet to the centralized controls
- Great integration flexibility. Using the software LinkBoxMB, ModBus registers can be accessed. Easy integration with basic parameters up to complete monitoring of the AC unit operation is possible. LinkBoxMB supplied without charge.
- Advanced integration with air conditioner. Simultaneous control from ModBus and the Mitsubishi Electric Remote controller.

### Info

Datasheet : [http://www.intesis.com/pdf/IntesisBox\\_Modbus\\_Server\\_ME\\_G50\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_Modbus_Server_ME_G50_datasheet_eng.pdf)

# MH-RC-MBS-1

IntesisBox® MH-RC-MBS-1 gateway allows monitoring and bidirectional control of all the parameters and functionality of Mitsubishi Heavy Industries air conditioners from Modbus installations. Compatible with all the models of the FD, KX6 and KXR6 Series manufactured by Mitsubishi Heavy Industries.



## Specifications

- Bidirectional: Monitoring and Control
- Fast and easy installation
- Direct connection to RS-485 bus and the AC indoor unit
- Configuration from both on-board DIP-switches and MODBUS registers.
- No external power supply required
- Small size (WxHxD): 93 x 53 x 58 mm

## Main features

- Easy installation as Slave or Master in parallel with MHI remote controllers.
- Great integration flexibility. Monitoring and control from basic parameters to a complete Monitoring and control of the AC units is possible.
- Special communication objects for increasing comfort and energy savings: Open window, Working hours counter, Save /execute scenes, Enable/Disable device, Enable/disable remote controller,...
- Simultaneous control from ModBus and the MHI Remote controller.

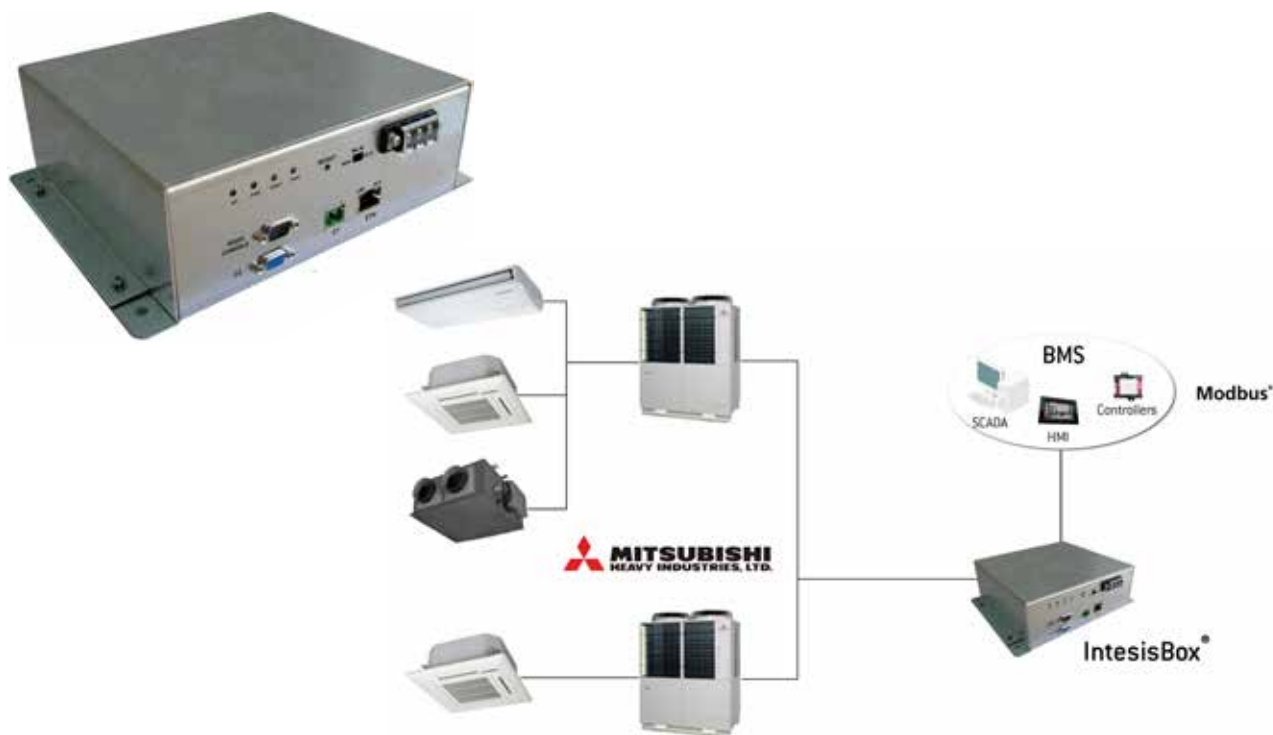
## Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_MH-RC-MBS-1\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_MH-RC-MBS-1_datasheet_eng.pdf)

Compatibility list: [http://www.intesis.com/pdf/IntesisBox\\_MH-RC-xxx-1\\_AC\\_Compatibility.pdf](http://www.intesis.com/pdf/IntesisBox_MH-RC-xxx-1_AC_Compatibility.pdf)

## MH-AC-MBS-48 / MH-AC-MBS-128

IntesisBox® MH-AC-MBS-48 / 128 gateways have been specially designed, in collaboration with Mitsubishi Heavy Industries, to allow monitoring and bidirectional control of all the parameters and functionality of Mitsubishi Heavy Industries air conditioning VRF Superlink I&II systems from ModBus installations.



### Specifications

- Bidirectional: Monitoring and Control
- Robust and reliable hardware
- ModBus TCP or ModBus RTU RS-485/RS-232
- Independent management of communications
- Power supply: 230 VAC
- Size (WxHxD): 215 x 170 x 65 mm

### Models available

- MH-AC-MBS-48: supports up to 48 indoor units
- MH-AC-MBS-128: supports up to 128 indoor units

### Main features

- Compatible with all Mitsubishi Heavy Industries units connected to SuperLink Bus.
- Easy installation. Direct connection to SuperLink Bus.
- Great integration flexibility. Using the software LinkBoxMB, ModBus registers can be accessed. Easy integration with basic parameters up to complete monitoring of the AC unit operation is possible.
- Advanced integration with air conditioner. Simultaneous control from ModBus and the Mitsubishi Heavy Industries Remote controller.

### Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_MH-AC-MBS-48-128\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_MH-AC-MBS-48-128_datasheet_eng.pdf)

Compatibility list: [http://www.intesis.com/pdf/IntesisBox\\_MH-AC-xxx-1\\_AC\\_Compatibility.pdf](http://www.intesis.com/pdf/IntesisBox_MH-AC-xxx-1_AC_Compatibility.pdf)

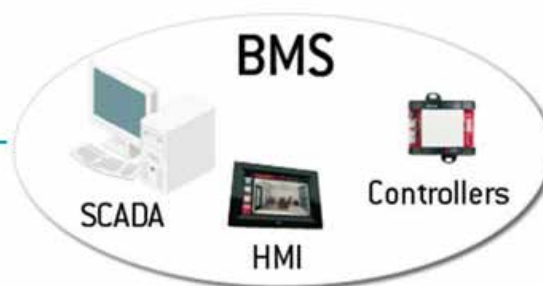


# DK-AC-MBS-1

The DK-AC-MBS-1 interface allows a complete and natural integration of Daikin air conditioners into ModBus RTU (RS-485) networks. Compatible with Domestic Series manufactured by DAIKIN.



Modbus



## Specifications

- Bidirectional: Monitoring and Control
- Fast and easy installation
- Direct connection to RS-485 bus and the AC indoor unit
- Configuration from both on-board DIP-switches and MODBUS RTU.
- No external power supply required
- Small size (WxHxD): 93 x 53 x 58 mm

## Main features

- Easy installation. Cable for S21 connector supplied.
- Great integration flexibility.
- Special communication objects for increasing comfort and energy savings: Open window, Working hours counter, Save /execute scenes, Enable/Disable device, Enable/disable remote controller,...
- Simultaneous control from ModBus and the Daikin Remote controller.

## Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_DK-AC-MBS-1\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_DK-AC-MBS-1_datasheet_eng.pdf)

Compatibility list: [http://www.intesis.com/pdf/IntesisBox\\_DK-AC-xxx-1\\_AC\\_Compatibility.pdf](http://www.intesis.com/pdf/IntesisBox_DK-AC-xxx-1_AC_Compatibility.pdf)

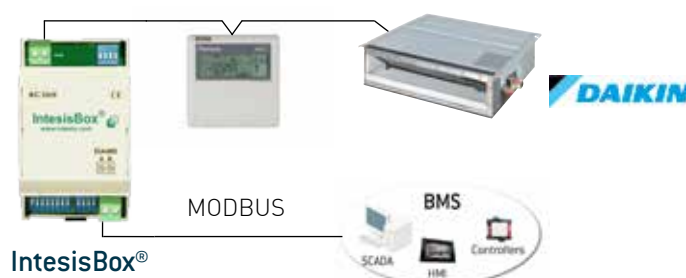
## DK-RC-MBS-1

IntesisBox® DK-RC-KNX-1 gateway allows monitoring and bidirectional control of all the parameters and functionality of DAIKIN Air conditioners from ModBus installations.

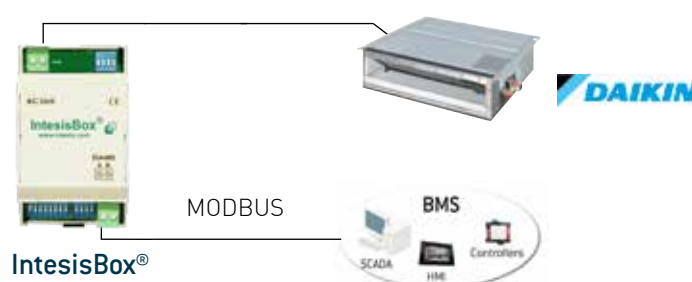
Compatible with SKY & VRV Series manufactured by DAIKIN.



Example 1. Gateway as a Slave



Example 2. Gateway as a Master



### Specifications

- Bidirectional: Monitoring and Control
- Fast and easy installation
- Direct connection to RS-485 bus and the AC indoor unit
- Configuration from both on-board DIP-switches and MODBUS registers.
- No external power supply required
- Small size (WxHxD): 71 x 71 x 27 mm

### Main features

- Easy installation as Slave or Master in parallel with Daikin remote controllers.
- Great integration flexibility. Easy integration with basic parameters up to complete monitoring and control of the AC unit operation is possible.
- Special communication objects for increasing comfort and energy savings: Open window, Working hours counter, Save /execute scenes, Enable/Disable device, Enable/disable remote controller,...
- Simultaneous control from ModBus and the Daikin Remote controller.

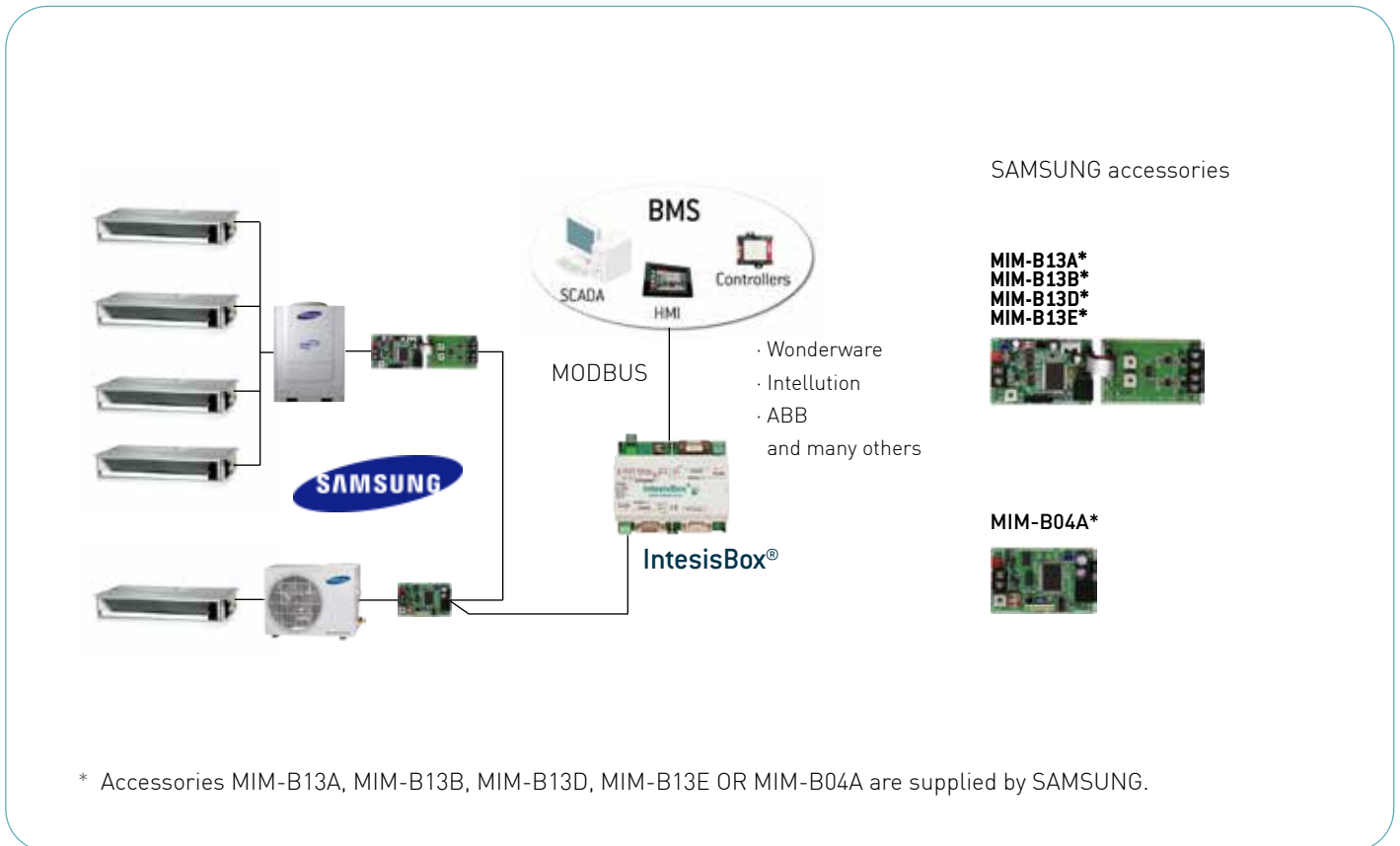
### Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_DK-RC-MBS-1\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_DK-RC-MBS-1_datasheet_eng.pdf)

Compatibility list available at [http://www.intesis.com/pdf/IntesisBox\\_DK-RC-xxx-1\\_AC\\_Compatibility.pdf](http://www.intesis.com/pdf/IntesisBox_DK-RC-xxx-1_AC_Compatibility.pdf)

## SM-AC-MBS-4 / SM-AC-MBS-8 / SM-AC-MBS-32 / SM-AC-MBS-64 / SM-AC-MBS-128

IntesisBox® SM-AC-KNX-4 / 8 / 32 / 64 / 128 gateways have been specially designed, in collaboration with SAMSUNG, to allow monitoring and bidirectional control of all the parameters and functionality of SAMSUNG Air Conditioners from ModBus installations.



### Specifications

- Bidirectional: Monitoring and Control
- Robust and reliable hardware
- ModBus TCP or ModBus RTU RS-485/RS-232
- Independent management of communications
- Power supply: 9 to 24Vdc or 24Vac
- Standard DIN-Rail 6 modules enclosure

### Models available

- SM-AC-MBS-4 (4 indoor units and 16 communication interfaces\*)
- SM-AC-MBS-8 (8 indoor units and 16 communication interfaces\*)
- SM-AC-MBS-32 (32 indoor units and 16 communication interfaces\*)
- SM-AC-MBS-64 (64 indoor units and 16 communication interfaces\*)
- SM-AC-MBS-128 (128 indoor units and 16 communication interfaces\*)

\* MIM-B13A, MIM-B13B, MIM-B13D, MIM-B13E or MIM-B04A accessories supplied by Samsung

### Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_SM-AC-MBS-32-64-128\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_SM-AC-MBS-32-64-128_datasheet_eng.pdf)

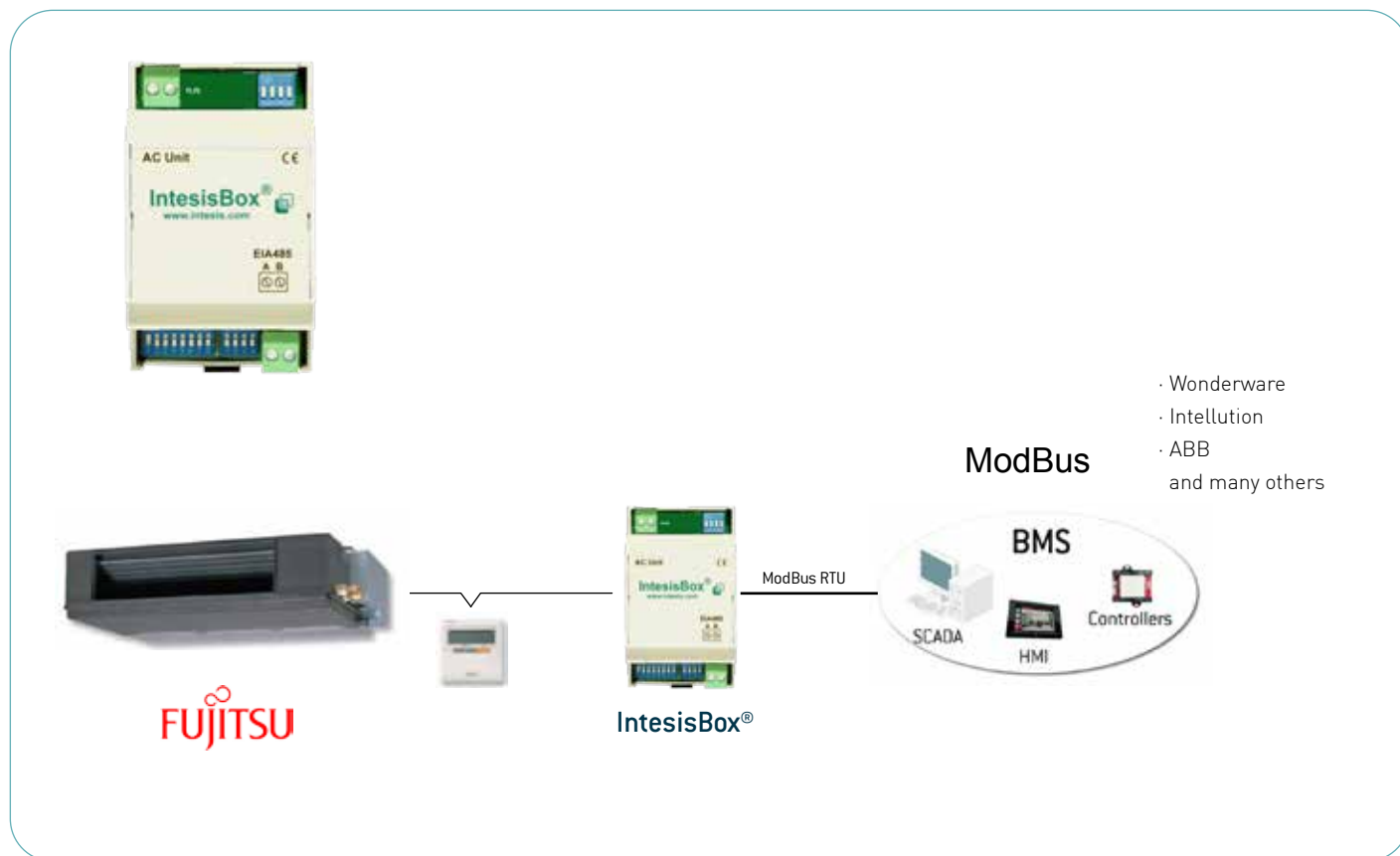
Compatibility list: [http://www.intesis.com/pdf/IntesisBox\\_SM-AC-xxx-MIU\\_AC\\_Compatibility.pdf](http://www.intesis.com/pdf/IntesisBox_SM-AC-xxx-MIU_AC_Compatibility.pdf)

### Main features

- Easy installation. Connection of SAMSUNG communication interfaces MIM-B13A, MIM-B13B, MIM-B13D, MIM-B13E or MIM-B04A to IntesisBox® through RS485.
- Great integration flexibility. Using the software LinkBoxMB, ModBus registers can be accessed. Easy integration with basic parameters up to complete monitoring of the AC unit operation is possible.
- Simultaneous control from ModBus and the Samsung Remote controller.

## FJ-RC-MBS-1

IntesisBox® FJ-RC-MBS-1 allows monitoring and bidirectional control of all the functionality parameters of the Commercial and VRF Series of air conditioning units manufactured by Fujitsu and General, from any ModBus installation.



### Specifications

- Bidirectional: Monitoring and Control
- Fast and easy installation
- Direct connection to RS-485 bus and the indoor unit
- No external power supply required
- Small size (WxHxD): 93 x 53 x 58 mm

### Main features

- Easy installation connecting the gateway in parallel with the Fujitsu wired remote controller unit.
- Great integration flexibility. ModBus registers can be accessed. Easy integration with basic parameters up to complete monitoring of the AC unit operation is possible.
- Special communication objects for increasing comfort and energy savings: Open window, Working hours counter, Save /execute scenes, Enable/Disable device, Enable/disable remote controller,...
- Simultaneous control from ModBus and the Fujitsu Remote controller.

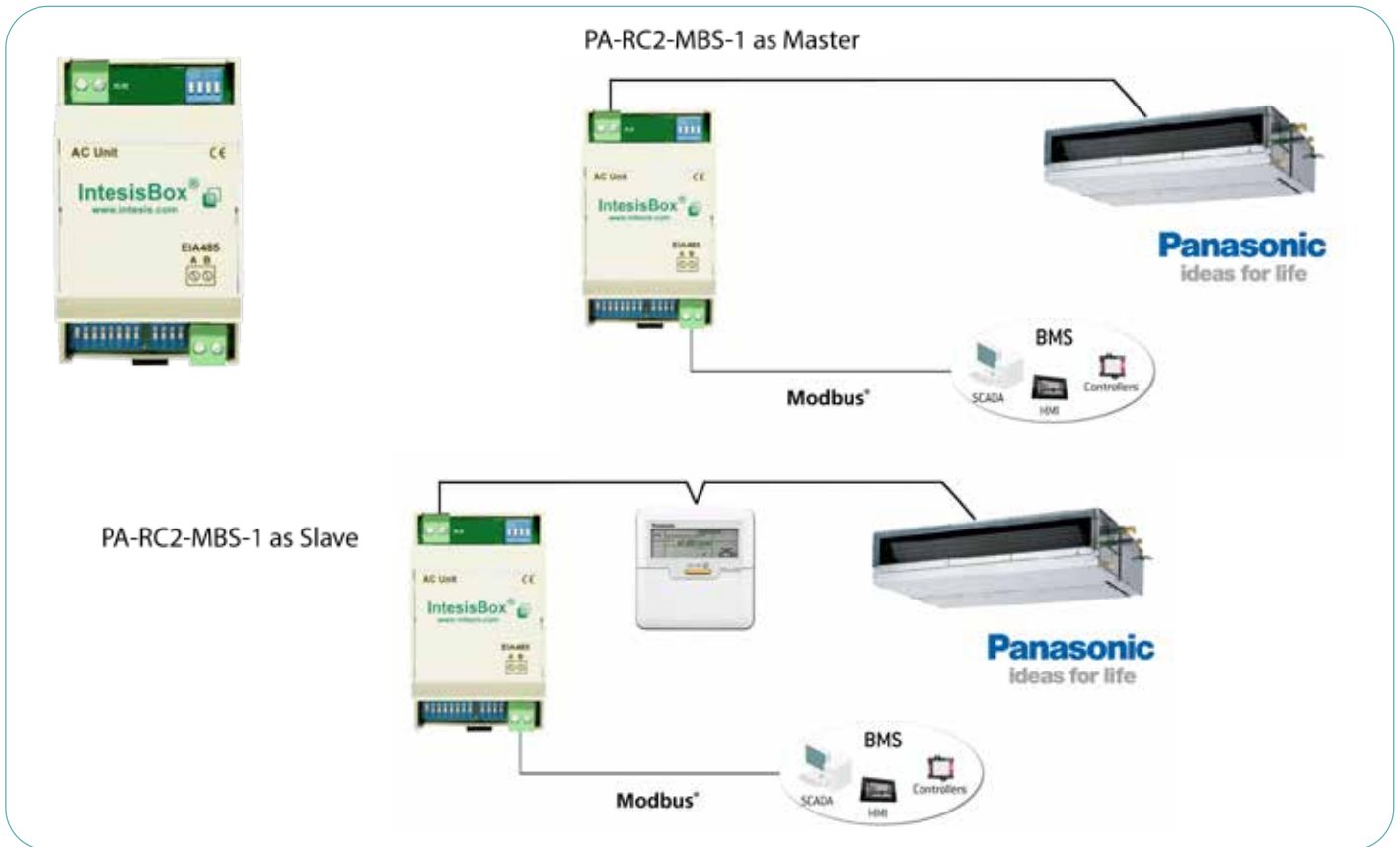
### Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_FJ-RC-MBS-1\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_FJ-RC-MBS-1_datasheet_eng.pdf)

Compatibility list: [http://www.intesis.com/pdf/IntesisBox\\_FJ-RC-xxx-1\\_AC\\_Compatibility.pdf](http://www.intesis.com/pdf/IntesisBox_FJ-RC-xxx-1_AC_Compatibility.pdf)

# PA-RC2-MBS-1

IntesisBox® PA-RC2-MBS-1 gateway allows Monitoring and bidirectional control of all the parameters and functionality of PANASONIC air conditioners from Modbus installations. Compatible with FS and FSM Series manufactured by PANASONIC.



## Specifications

- Bidirectional: Monitoring and Control
- Fast and easy installation
- Direct connection to RS-485 bus and the AC indoor unit
- Configuration from both on-board DIP-switches and MODBUS registers.
- No external power supply required
- Small size (WxHxD): 93 x 53 x 58 mm

## Main features

- Easy installation as Slave or Master in parallel with Panasonic remote controllers.
- Great integration flexibility. Easy integration with basic parameters to a complete monitoring and control of the AC units is possible.
- Special communication objects for increasing comfort and energy savings: Open window, Working hours counter, Save /execute scenes, Enable/Disable device, Enable/disable remote controller,...
- Simultaneous control from ModBus and the Panasonic Remote controller.

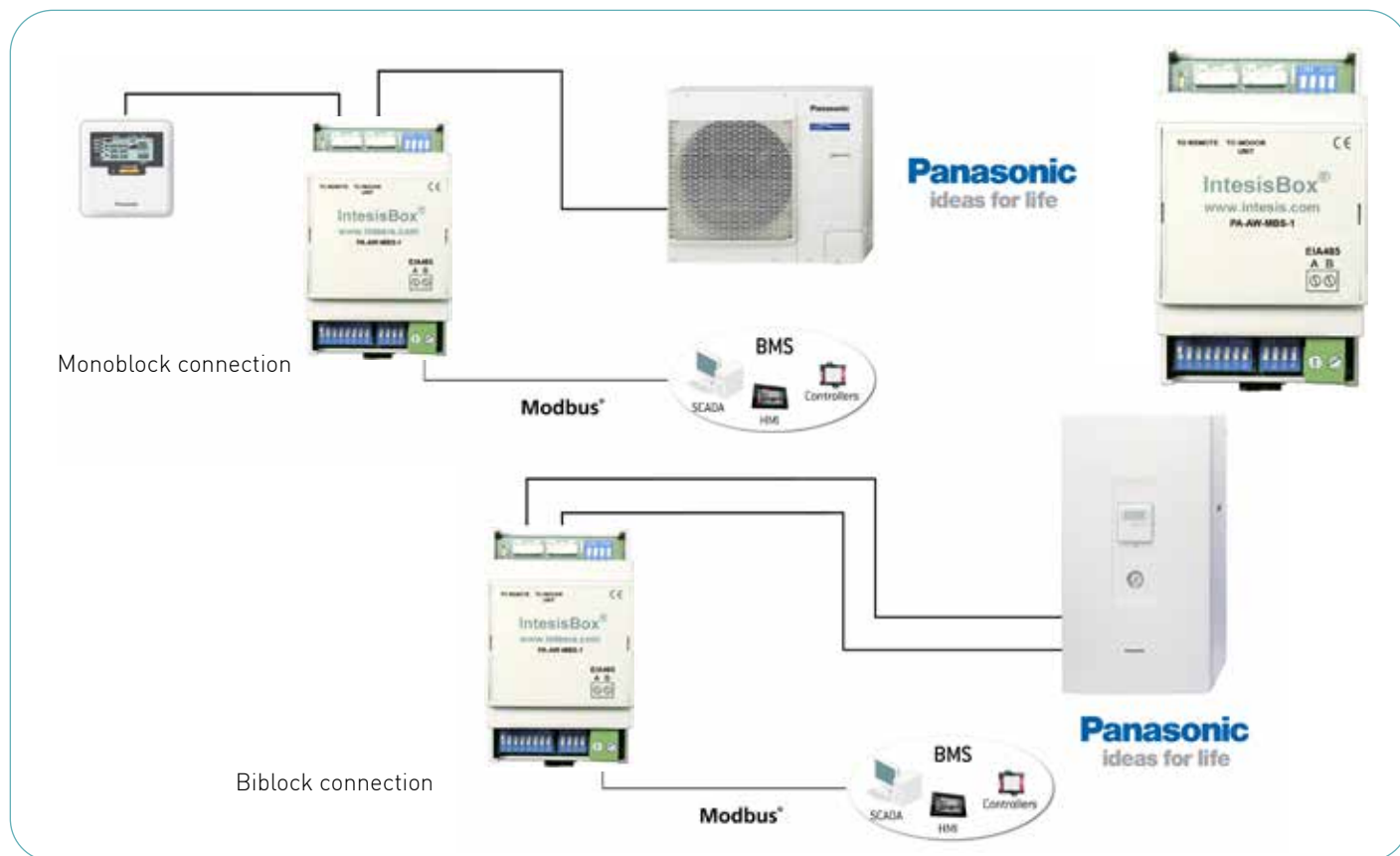
## Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_PA-RC2-MBS-1\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_PA-RC2-MBS-1_datasheet_eng.pdf)

Compatibility: [http://intesis.com/pdf/IntesisBox\\_PA-RC2-xxx-1\\_Panasonic\\_Compatibility.pdf](http://intesis.com/pdf/IntesisBox_PA-RC2-xxx-1_Panasonic_Compatibility.pdf)

## PA-AW-MBS-1

IntesisBox® PA-AW-MBS-1 gateway allows monitoring and bidirectional control of all the parameters and functionality of PANASONIC Aquarea air to water units from Modbus installations.



### Specifications

- Bidirectional: Monitoring and Control
- Fast and easy installation
- Direct connection to RS-485 bus and the Aquarea unit
- Configuration from both on-board DIP-switches and MODBUS registers.
- No external power supply required
- Small size (WxHxD): 93 x 53 x 58 mm

### Main features

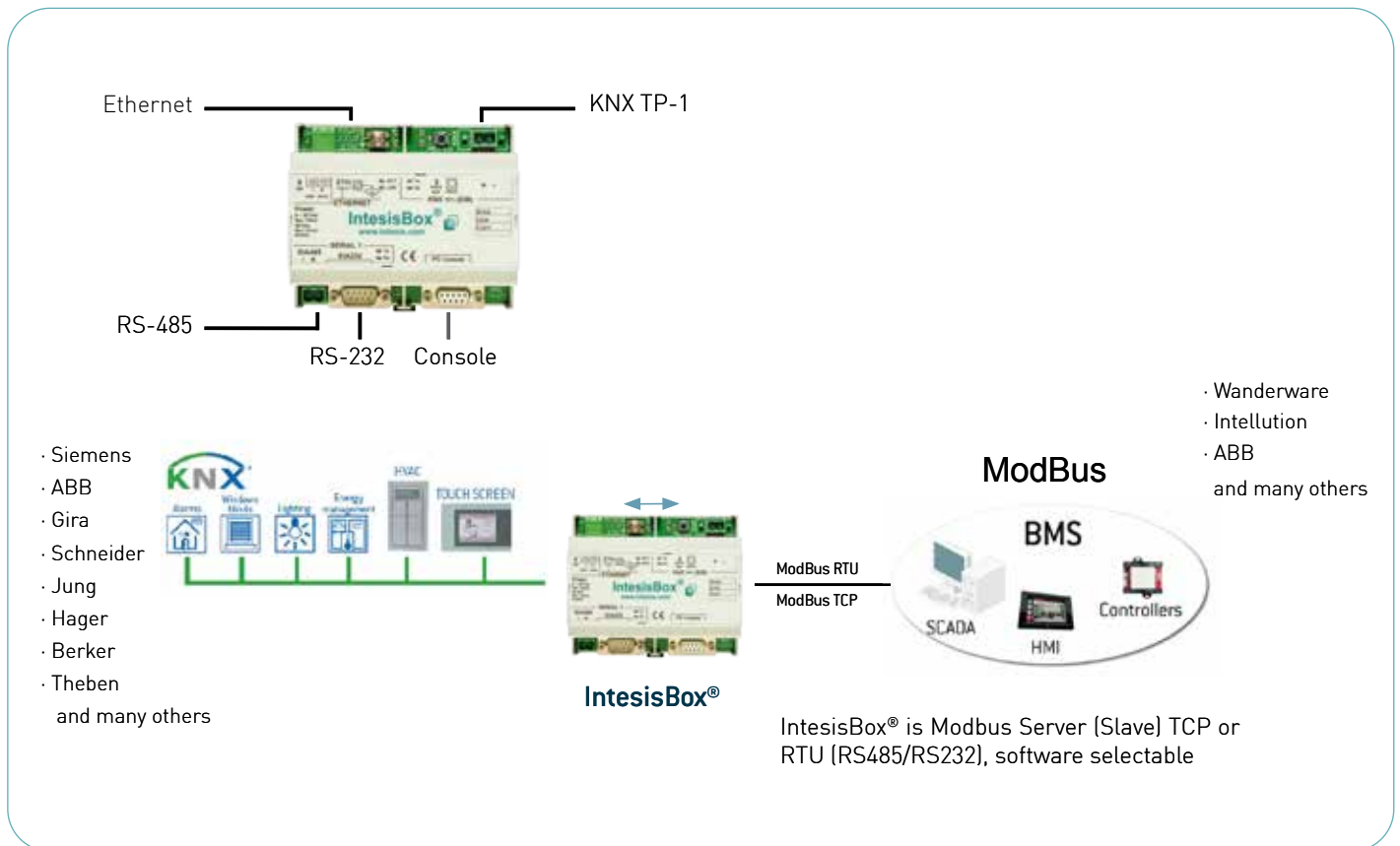
- Easy installation as Slave or Master in parallel with Panasonic remote controllers.
- Great integration flexibility. Easy integration with basic parameters to a complete monitoring and control of the AC units is possible.
- Special registers for maintenance and functionality check purposes.
- Simultaneous control from ModBus and the Panasonic Remote controller.

### Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_PA-AW-MBS-1\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_PA-AW-MBS-1_datasheet_eng.pdf)

# IBOX-MBS-KNX

IntesisBox® IBOX-MBS-KNX gateway has been specially designed to allow monitoring and bidirectional control of all the parameters and functionality of KNX systems from ModBus installations.



## Specifications

- Bidirectional: Monitoring and Control
- Robust and reliable hardware
- Direct connection to KNX and ModBus
- Independent management of communications
- Power supply: 9 to 24Vdc or 24Vac
- Standard DIN-Rail 6 modules enclosure

## Models available

- IBOX-MBS-KNX-100 (Maximum 100 control points)
- IBOX-MBS-KNX-A (Maximum 500 control points)
- IBOX-MBS-KNX-B (Maximum 3000 control points)

## Info

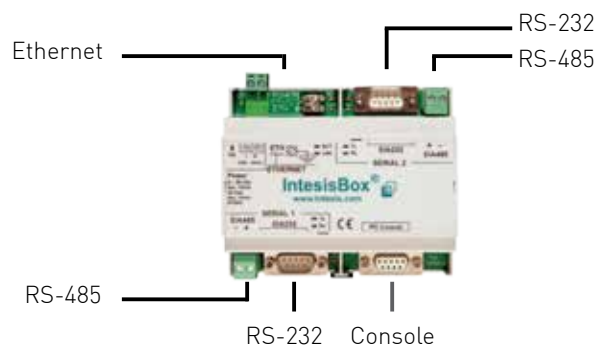
Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_Modbus\\_Server\\_KNX\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_Modbus_Server_KNX_datasheet_eng.pdf)

## Main features

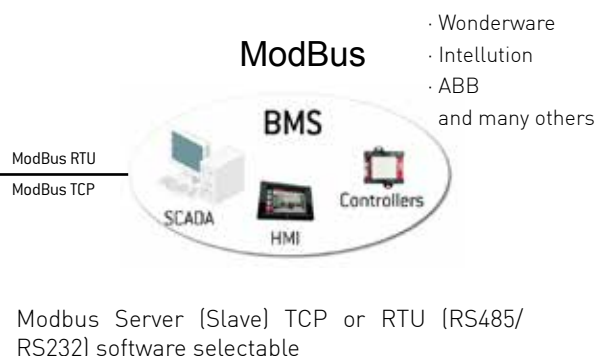
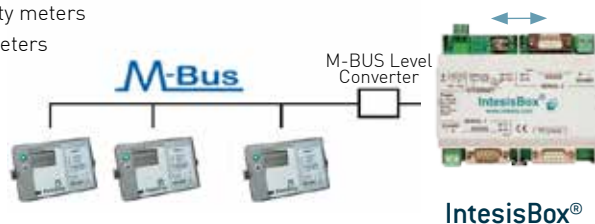
- Easy installation. Direct connection to KNX twisted pair bus (TP-1)
- Easy and fast configuration of the ModBus registers with supplied software LinkBoxMB.
- Great integration flexibility. The gateway becomes another device in the KNX system. The ModBus interface supports ModBus TCP or ModBus RTU(RS-232 or RS-485), software selectable, and behaves as a ModBus slave device.
- Advanced integration of KNX installations (light control, blinds, ...) in building management systems based in ModBus (Wanderware, Intellution, ABB, Schneider,...).

## IBOX-MBS-MBUS

IntesisBox® IBOX-MBS-MBUS gateway has been specially designed to monitor all the registers of M-BUS meters from ModBus installations.



- Energy meters
- Heat meters
- Gas meters
- Electricity meters
- Water meters



### Specifications

- Bidirectional: Monitoring and Control
- Robust and reliable hardware
- Direct connection to ModBus TCP or RTU
- Independent management of communications
- Power supply: 9 to 24Vdc or 24Vac
- Standard DIN-Rail 6 modules enclosure

### Models available

- IBOX-MBS-MBUS-100 (Maximum 100 control points and 10 devices)
- IBOX-MBS-MBUS-A (Maximum 600 control points and 60 devices)
- IBOX-MBS-MBUS-B (Maximum 2000 control points and 500 devices)

### Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_Modbus\\_Server\\_M-Bus\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_Modbus_Server_M-Bus_datasheet_eng.pdf)

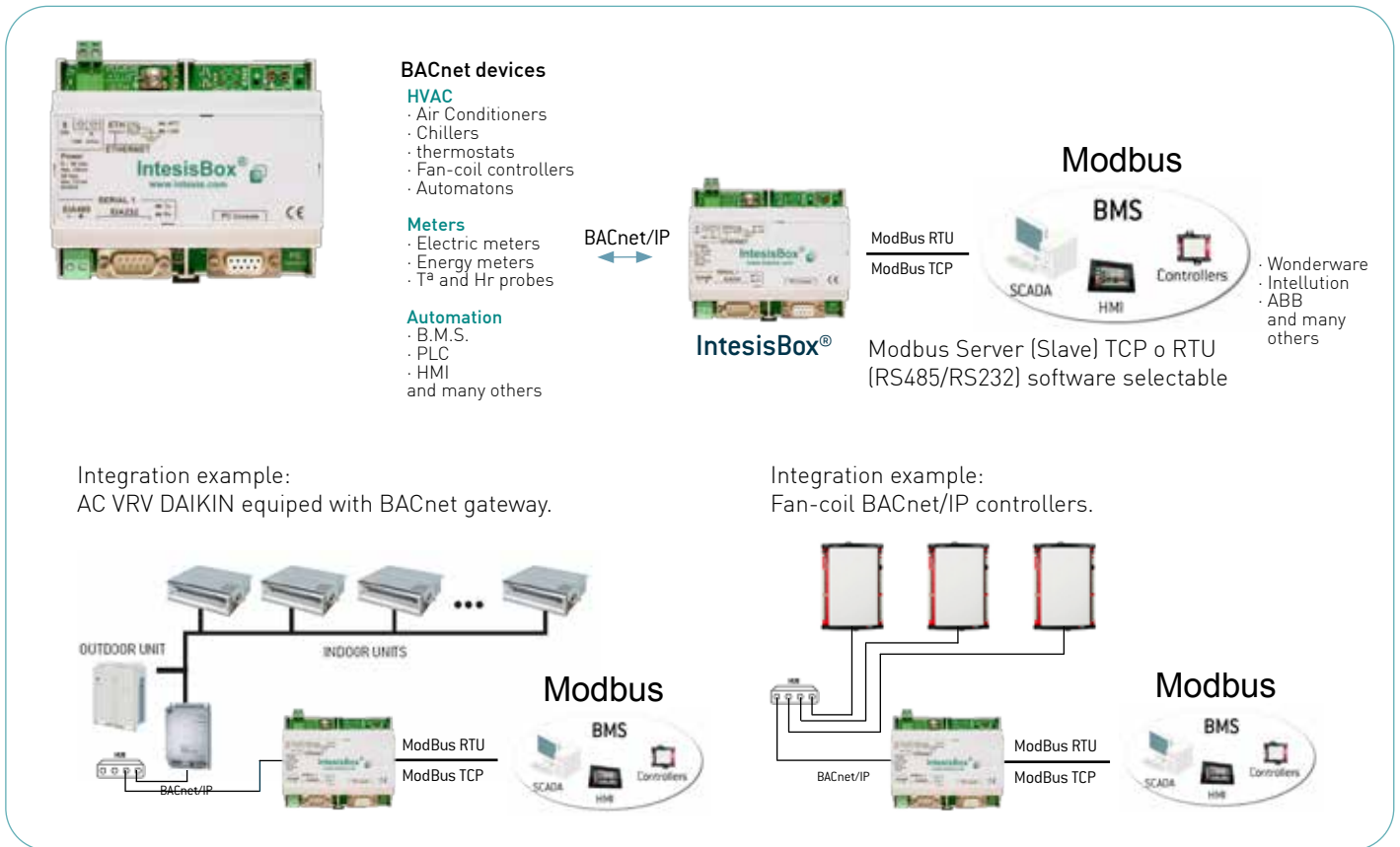
### Main features

- Easy installation. Connection to M-Bus system with an external level converter M-Bus RS232 or RS485; at the other side it communicates with the Monitoring/control system with ModBus RTU or TCP protocol.
- Easy and fast configuration of the gateway with supplied software LinkBoxMB.
- Great integration flexibility. The gateway polls continuously or only when ordered from the ModBus master, updating internal memory ready to be read by ModBus master device.
- Advanced integration. Enables full and transparent Monitoring of M-Bus installations (energy meters, gas meters, etc.) from ModBus based BMS systems (Wanderware, Intellution, ABB, Schneider,...).



# IBOX-MBS-BAC

IntesisBox® IBOX-MBS-BAC gateway have been specially designed, to allow monitoring and bidirectional control of all the parameters and functionality of systems and devices with BACnet/IP connectivity from ModBus installations.



## Specifications

- Bidirectional: Monitoring and Control
- Robust and reliable hardware
- Direct connection to BACnet and ModBus
- Independent management of communications
- Power supply: 9 to 24Vdc or 24Vac
- Standard DIN-Rail 6 modules enclosure

## Models available

- IBOX-MBS-BAC-100 (Maximum 100 control points and 16 BACnet/IP devices)
- IBOX-MBS-BAC-A (Maximum 500 control points and 16 BACnet/IP devices)
- IBOX-MBS-BAC-B (Maximum 3000 control points and 16 BACnet/IP devices)

## Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_Modbus\\_Server\\_Bacnet\\_IP\\_Client\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_Modbus_Server_Bacnet_IP_Client_datasheet_eng.pdf)

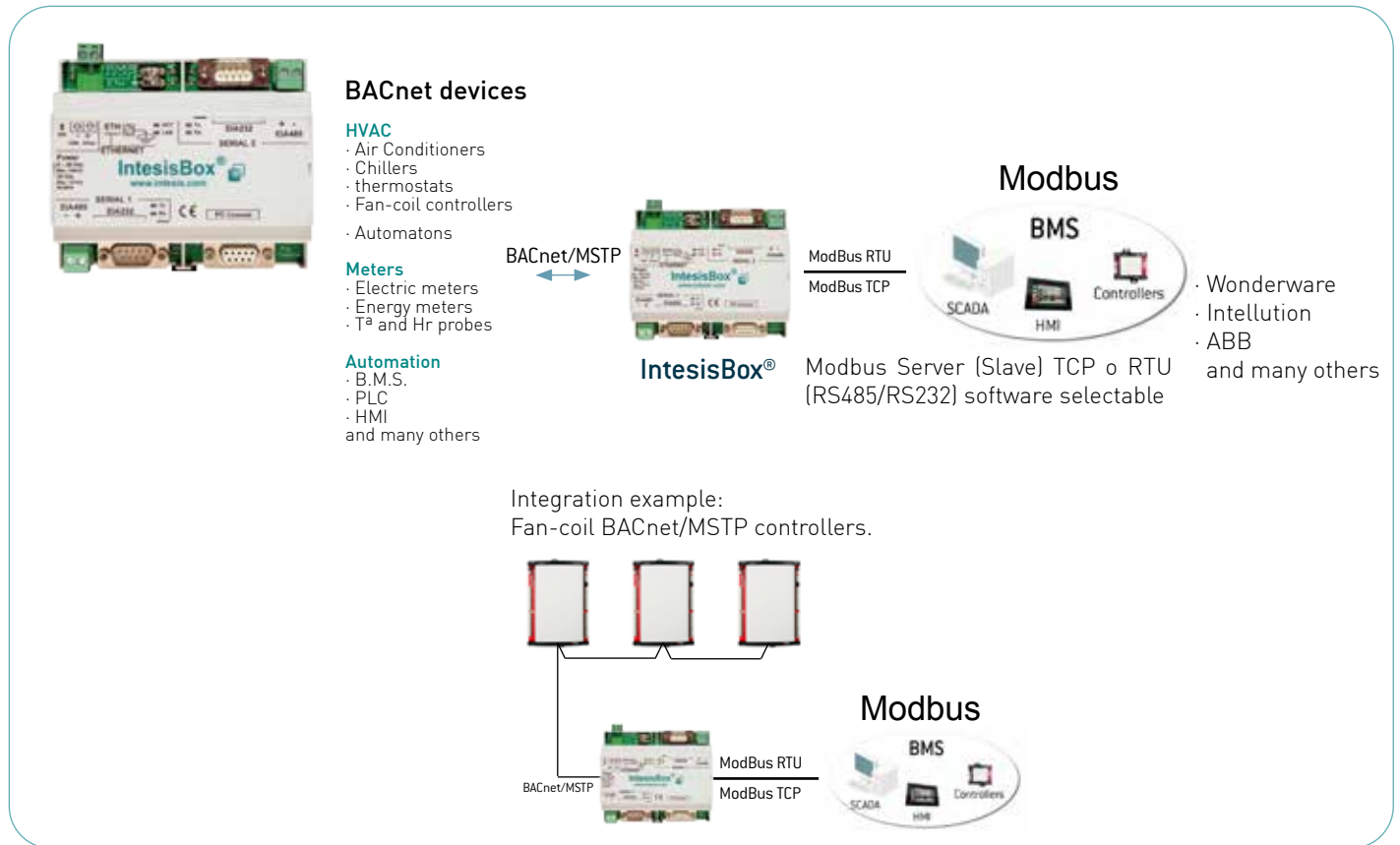
## Main features

- Easy installation. Connection to the BACnet/IP network through Ethernet.
- Great integration flexibility. IntesisBox® IBOX-KNX-BAC is a BACnet/IP client that reads/writes points of other BACnet/IP devices, using continuous polling or subscription (COV). Supports both ModBus TCP or RTU (RS232 or RS485). ModBus registers are configured by supplied software LinkBoxMB.
- Advanced integration for centralized AC systems equipped with BACnet/IP interfaces, as Daikin, Mitsubishi Heavy, LG, etc. also integrating fan-coil controllers, meters, PLC's, HMI, etc.

## IBOX-MBS-BACMSTP

IntesisBox® IBOX-MBS-BACMSTP gateway have been specially designed, to allow monitoring and bidirectional control of all the parameters and functionality of systems and devices with BACnet/MSTP connectivity from ModBus installations.

MODBUS



### Specifications

- Bidirectional: Monitoring and Control
- Robust and reliable hardware
- Direct connection to BACnet and ModBus
- Independent management of communications
- Power supply: 9 to 24Vdc or 24Vac
- Standard DIN-Rail 6 modules enclosure

### Models available

- IBOX-MBS-BACMSTP-100 (100 control points and 64 BACnet/MSTP devices)
- IBOX-MBS-BACMSTP-A (500 control points and 64 BACnet/MSTP devices)
- IBOX-MBS-BACMSTP-B (3000 control points and 64 BACnet/MSTP devices)

### Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_Modbus\\_Server\\_BACnet\\_MSTP\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_Modbus_Server_BACnet_MSTP_datasheet_eng.pdf)

### Main features

- Easy installation. Direct connection using RS485 (2 wires) to BACnet devices.
- Great integration flexibility. IntesisBox® IBOX-KNX-BACMSTP is a BACnet/IP client that reads/writes points of other BACnet/MSTP devices connected, using continuous polling or subscription (COV). Supports both ModBus TCP or RTU (RS232 or RS485). ModBus registers are configured by supplied software LinkBoxMB.
- Advanced integration of fan-coil controllers, meters, PLC's, HMI, etc.

# IBOX-MBS-LON

IntesisBox® IBOX-MBS-LON gateway has been specially designed to allow monitoring and bidirectional control of all the parameters and functionality of systems and equipment with LonWorks® connectivity from ModBus installations.

## LonWorks® devices

### HVAC

- Air Conditioners
- Chillers
- thermostats
- Fan-coil controllers
- Automations

### Meters

- Electric meters
- Energy meters
- T<sup>3</sup> and Hr probes

### Automation

- B.M.S.
- PLC
- HMI
- and many others

LON TP/FT-10



IntesisBox®

ModBus RTU  
ModBus TCP

## Modbus

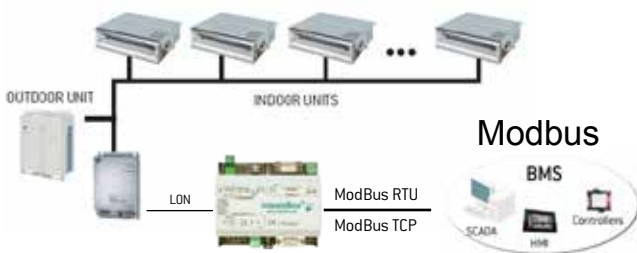


Modbus Server (Slave) TCP o RTU (RS485/RS232) software selectable

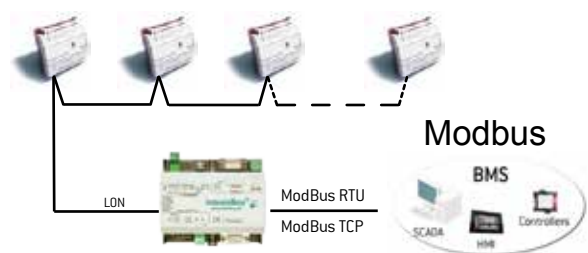
- Wonderware
- Intellution
- ABB
- and many others



Integration example:  
VRV DAIKIN equipped with LON gateway.



Integration example:  
LON Fan-coil controllers.



## Specifications

- Bidirectional: Monitoring and Control
- Robust and reliable hardware
- Direct connection to LON and ModBus
- Independent management of communications
- Power supply: 9 to 24Vdc or 24Vac
- Standard DIN-Rail 6 modules enclosure

## Models available

- IBOX-MBS-LON-100 (Maximum 100 control points and 64 LON devices)
- IBOX-MBS-LON-A (Maximum 500 control points and 64 LON devices)
- IBOX-MBS-LON-B (Maximum 3000 control points and 128 LON devices)

## Info

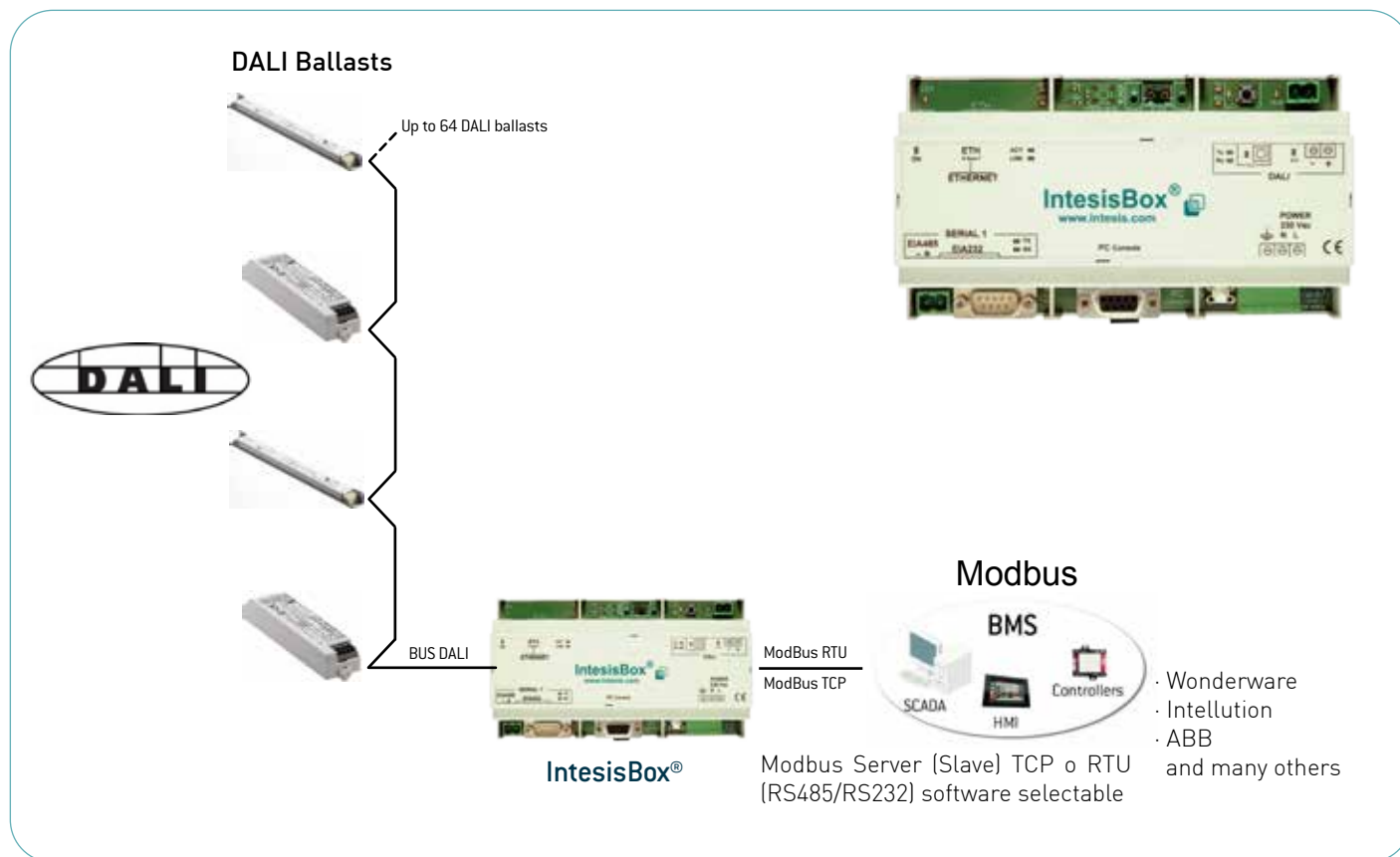
Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_Modbus\\_Server\\_LON\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_Modbus_Server_LON_datasheet_eng.pdf)

## Main features

- Easy installation. Direct connection to Lonworks devices with 2 wire (TP/FT-10) connection.
- Great integration flexibility. No bindings needed thanks to continuous polling readout. Access through physical address (Neuron-Id) or subnet node (commissioned devices) possible. LonMaker not required. Supports both ModBus TCP or RTU (RS232 or RS485). ModBus registers are configured by supplied software LinkBoxMB.
- Advanced integration for centralized AC systems equipped with Lonworks interfaces, as Daikin, Mitsubishi Heavy, LG, etc. also integrating fan-coil controllers, meters, PLC's, HMI, etc.

## IBOX-MBS-DALI

IntesisBox® IBOX-MBS-DALI gateway has been specially designed to allow monitoring and bidirectional control of DALI ballasts from ModBus installations.



### Specifications

- Bidirectional: Monitoring and Control
- Robust and reliable hardware
- Direct connection to DALI and ModBus
- DALI power supplied by the IntesisBox unit
- Mains Power at 230 Vac
- Standard DIN-Rail 9 modules enclosure

### Main features

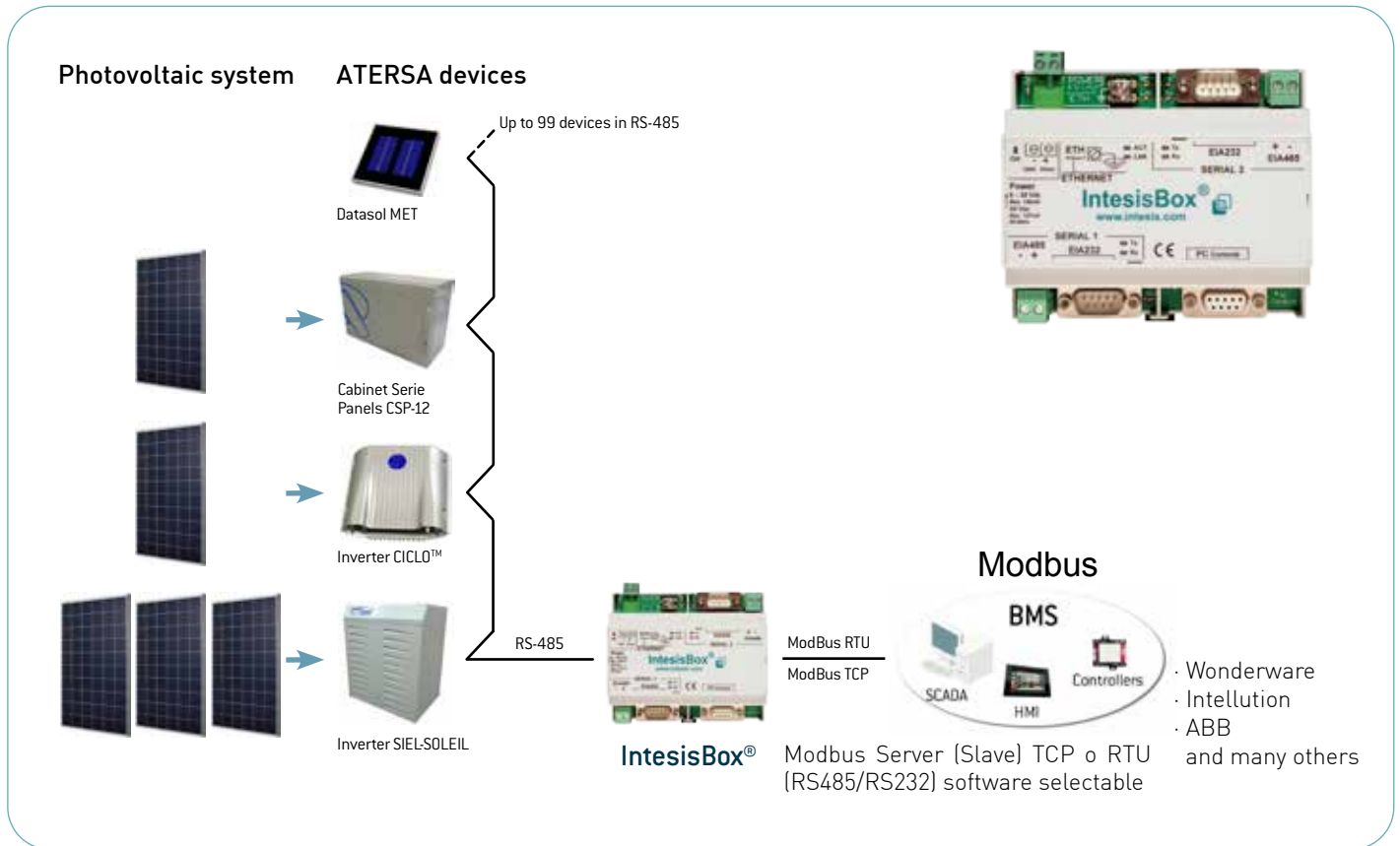
- Easy installation. Direct connection using 2 wires to the DALI ballasts.
- Great integration flexibility. IntesisBox® IBOX-MBS-DALI is a DALI Master that reads/writes ballasts connected to the bus. Supports both ModBus TCP or RTU (RS232 or RS485), acting like ModBus slave device. ModBus registers are configured by supplied software LinkBoxMB.
- Advanced integration of DALI ballasts: digital control of power level (dimming), error condition detections reporting, etc.

### Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_Modbus\\_Server\\_DALI\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_Modbus_Server_DALI_datasheet_eng.pdf)

# IBOX-MBS-ATERSA

IntesisBox® IBOX-MBS-ATERSA gateway has been specially designed to allow monitoring of all the operating parameters of the inverters (CICLO™ AND SIEL-SOLEIL), panels (CSP-12™) and device (DATASOL MET) of ATERSA, from any ModBus installation.



## Specifications

- Bidirectional: Monitoring and Control
- Robust and reliable hardware
- Direct connection to RS485 and ModBus
- Independent management of communications
- Power supply: 9 to 24Vdc or 24Vac
- Standard DIN-Rail 6 modules enclosure

## Main features

- Easy installation. Direct connection using 2 wires (RS485) to ATERSA devices.
- Great integration flexibility. IntesisBox® ATERSA reads continuously by polling ATERSA devices making read values available when needed. IBOX-MBS-ATERSA shows ATERSA devices as ModBus slave. Supports both ModBus TCP or RTU (RS232 or RS485), acting as ModBus slave.
- Advanced integration of the photovoltaic collection system with ATERSA devices in any control system based in ModBus protocol, like Wonderware, Intellution, ABB, etc

## Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_Modbus\\_Server\\_Atersa\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_Modbus_Server_Atersa_datasheet_eng.pdf)

## IBOX-MBS-FIDELIO\_IP

IntesisBox® IBOX-MBS-FIDELIO gateway has been specially designed to offer monitoring of MICROS FIDELIO hotel management systems from ModBus installations.



### Fidelio hotel management system



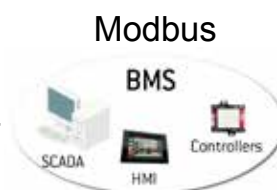
Supervision of Check IN/Check OUT states, up to 1.500 rooms.

ETHERNET



IntesisBox®

ModBus RTU  
ModBus TCP



Modbus Server (Slave) TCP o RTU (RS485/RS232), software selectable

- Wonderware
- Intellution
- ABB
- and many others

### Specifications

- Robust and reliable hardware
- Direct connection to ModBus
- Independent management of communications
- Power supply: 9 to 24Vdc or 24Vac
- Standard DIN-Rail 6 modules enclosure

### Main features

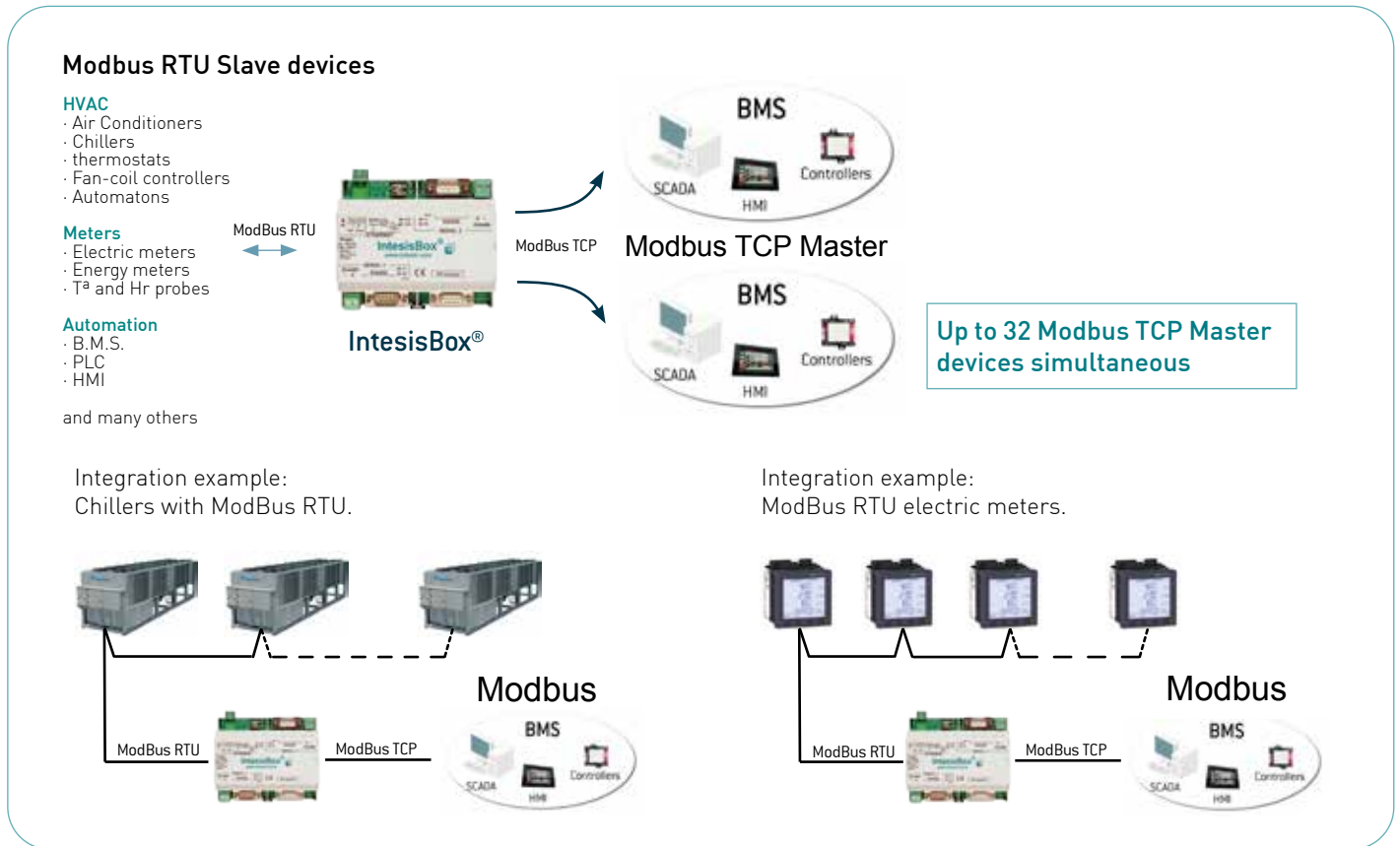
- Easy installation. Ethernet connection to the Fidelio system through FIAS communication interface.
- Fidelio IntesisBox unit read values check in/out states up to 1500 rooms. Read values kept in IntesisBox® memory to be used when needed by the ModBus system. Supports both ModBus TCP or RTU (RS232 or RS485), acting as ModBus slave. ModBus registers are configured by supplied software LinkBoxMB.
- Advanced integration of Fidelio hotel management in any ModBus based system, like Wonderware, Intellution, ABB and many more.

### Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_Modbus\\_Server\\_Fidelio\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_Modbus_Server_Fidelio_datasheet_eng.pdf)

# IBOX-MBS-TCP2RTU

IntesisBox® IBOX-MBS-TCP2RTU gateway has been specially designed to offer monitoring and bidirectional control of all the parameters and functionality of systems and devices with ModBus RTU Slave connectivity from ModBus TCP Masters.



MODBUS

## Specifications

- Bidirectional: Monitoring and Control
- Robust and reliable hardware
- Direct connection to ModBus RTU and TCP
- Independent management of communications
- Power supply: 9 to 24Vdc or 24Vac
- Standard DIN-Rail 6 modules enclosure

## Models available

- IBOX-MBS-TCP2RTU (254 ModBus RTU Slave devices / 32 ModBus TCP Master devices)

## Main features

- Easy installation. Direct connection trough RS-485 or RS-232 bus to the ModBus RTU Slave devices.
- Great integration flexibility. Access to ModBus RTU devices from ModBus TCP. Several ModBus TCP Master devices can access the same ModBus RTU devices. ModBus TCP communication frames are converted to ModBus RTU, and vice versa, transparently. Simple configuration using supplied LinkBoxMB software. ModBus TCP connection acts like a slave and the ModBus RTU acts like a master.
- Advanced integration for HVAC systems equipped with ModBus RTU interface in ModBus TCP installations, like Daikin, Ciatesa, Hitecsa, etc. Also integrate in ModBus RTU fan-coil controllers, meters, PLC's, HMI, etc.

## Info

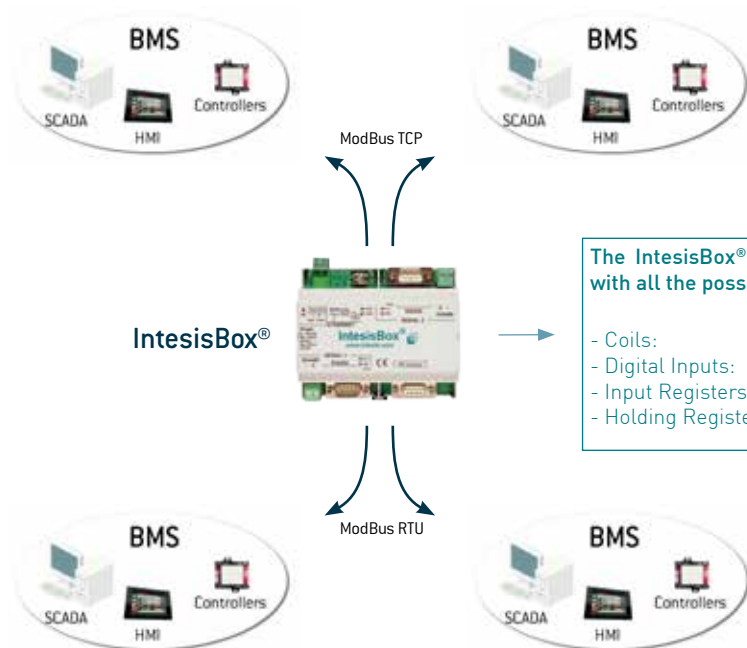
Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_MBS\\_TCP2RTU\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_MBS_TCP2RTU_datasheet_eng.pdf)

## IBOX-MBS-4SLAVE

IntesisBox® IBOX-MBS-4SLAVE gateway has been specially designed to offer data sharing of up to 4 ModBus Master devices between themselves.

### Integration examples:

Integration of 2 Modbus TCP Master and 2 Modbus RTU Master.



The IntesisBox® IBOX-MBS-4SLAVE has a complete Modbus map with all the possible Modbus registers as specified:

- Coils: 0..65535 (100001..165536)
- Digital Inputs: 0..65535 (200001..265536)
- Input Registers: 0..65535 (300001..365536)
- Holding Registers: 0..65535 (400001..465536)

### Specifications

- Bidirectional
- Robust and reliable hardware
- Direct connection with ModBus TCP and RTU
- Independent management of communications
- Power supply: 9 to 24Vdc or 24Vac
- Standard DIN-Rail 6 modules enclosure

### Models available

- IBOX-MBS-4SLAVE (Maximum 2 ModBus RTU Master devices and 2 ModBus TCP Master devices simultaneously.)

### Main features

- Easy installation. IBOX-MBS-4SLAVE has 2 ModBus RTU SLAVE (RS-232/RS-485) ports and Modbus TCP Slave (for 2 ModBus TCP Master devices) port.
- Great integration flexibility. Allows exchange of register values from up to 4 ModBus Master devices sharing the memory map from one slave device, where all of them write and read. Simple configuration using supplied LinkBoxMB software. Both ModBus TCP and RTU act as slaves.
- Advanced integration. Allows integrating ModBus installations without ModBus Master devices limitations. Ability to exchange information between 2, 3 and 4 independent ModBus installations.

### Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_MBS\\_4SLAVE\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_MBS_4SLAVE_datasheet_eng.pdf)



# FIRE & SECURITY PANELS INTEGRATION

IntesisBox® product family includes a range of specially designed gateways to offer monitoring of fire and security panels from BMS systems based in ModBus of most important manufacturers in this industry.

Integration	Intesis gateway	Panel manufacturer	Panel models
FIRE	<b>IBOX-MBS-CERBERUS</b>	SIEMENS	Cerberus CS11 and CS10, with the ISO 1745 protocol
	<b>IBOX-MBS-FC330A</b>	SIEMENS	Synova® FC330A
	<b>IBOX-MBS-ALGOREX</b>	SIEMENS	Algorex
	<b>IBOX-MBS-ALGORI</b>	ADEMCO	Algorinet BC216
	<b>IBOX-MBS-ESSER</b>	ESSER	8007/8008 and IQ8,
	<b>IBOX-MBS-KILSEN</b>	KILSEN	KSA 7XX
	<b>IBOX-MBS-ZITON</b>	ZITON	ZP3 and ZP5
	<b>IBOX-MBS-NID3000</b>	NOTIFIER	ID3000 and ID3002
	<b>IBOX-MBS-ID2NET</b>	NOTIFIER	Up to 64 fire panels Notifier ID3000 in ID2NET network
	<b>IBOX-MBS-XLS80</b>	HONEYWELL	XLS-80
SECURITY	<b>IBOX-MBS-GALAXY</b>	HONEYWELL	Galaxy

Integration	Intesis gateway	Datasheet download
FIRE	<b>IBOX-MBS-CERBERUS</b>	<a href="http://www.intesis.com/pdf/IntesisBox_Modbus_Server_Cerberus_ISO1745_datasheet_eng.pdf">http://www.intesis.com/pdf/IntesisBox_Modbus_Server_Cerberus_ISO1745_datasheet_eng.pdf</a>
	<b>IBOX-MBS-FC330A</b>	<a href="http://www.intesis.com/pdf/IntesisBox_Modbus_Server_FC330A_datasheet_eng.pdf">http://www.intesis.com/pdf/IntesisBox_Modbus_Server_FC330A_datasheet_eng.pdf</a>
	<b>IBOX-MBS-ALGOREX</b>	<a href="http://www.intesis.com/pdf/IntesisBox_Modbus_Server_Algorex_datasheet_eng.pdf">http://www.intesis.com/pdf/IntesisBox_Modbus_Server_Algorex_datasheet_eng.pdf</a>
	<b>IBOX-MBS-ALGORI</b>	<a href="http://www.intesis.com/pdf/IntesisBox_Modbus_Server_Algorinet_datasheet_eng.pdf">http://www.intesis.com/pdf/IntesisBox_Modbus_Server_Algorinet_datasheet_eng.pdf</a>
	<b>IBOX-MBS-ESSER</b>	<a href="http://www.intesis.com/pdf/IntesisBox_Modbus_Server_ESSER_datasheet_eng.pdf">http://www.intesis.com/pdf/IntesisBox_Modbus_Server_ESSER_datasheet_eng.pdf</a>
	<b>IBOX-MBS-KILSEN</b>	<a href="http://www.intesis.com/pdf/IntesisBox_Modbus_Server_KILSEN_datasheet_eng.pdf">http://www.intesis.com/pdf/IntesisBox_Modbus_Server_KILSEN_datasheet_eng.pdf</a>
	<b>IBOX-MBS-ZITON</b>	<a href="http://www.intesis.com/pdf/IntesisBox_Modbus_Server_ZITON_datasheet_eng.pdf">http://www.intesis.com/pdf/IntesisBox_Modbus_Server_ZITON_datasheet_eng.pdf</a>
	<b>IBOX-MBS-NID3000</b>	<a href="http://www.intesis.com/pdf/IntesisBox_Modbus_Server_NID3000_datasheet_eng.pdf">http://www.intesis.com/pdf/IntesisBox_Modbus_Server_NID3000_datasheet_eng.pdf</a>
	<b>IBOX-MBS-ID2NET</b>	<a href="http://www.intesis.com/pdf/IntesisBox_Modbus_Server_NID2Net_datasheet_eng.pdf">http://www.intesis.com/pdf/IntesisBox_Modbus_Server_NID2Net_datasheet_eng.pdf</a>
	<b>IBOX-MBS-XLS80</b>	<a href="http://www.intesis.com/pdf/IntesisBox_Modbus_Server_XLS80_datasheet_eng.pdf">http://www.intesis.com/pdf/IntesisBox_Modbus_Server_XLS80_datasheet_eng.pdf</a>
SECURITY	<b>IBOX-MBS-GALAXY</b>	<a href="http://www.intesis.com/pdf/IntesisBox_Modbus_Server_Galaxy_datasheet_eng.pdf">http://www.intesis.com/pdf/IntesisBox_Modbus_Server_Galaxy_datasheet_eng.pdf</a>

## IBOX-KNX-MBRTU / IBOX-KNX-MBTCP

IntesisBox® IBOX-KNX-MBRTU / MBTCP gateways have been specially designed to allow monitoring and bidirectional control of all the parameters and functionality of systems and equipment with ModBus connectivity from KNX installations.

### ModBus Devices

#### HVAC

- Air conditioners
- Coolers
- Thermostats
- Fan-coil Controllers

#### Meters

- Electric meters
- Energy meters
- T° and Hr Probes

#### Automation

- B.M.S.
- PLC
- HMI

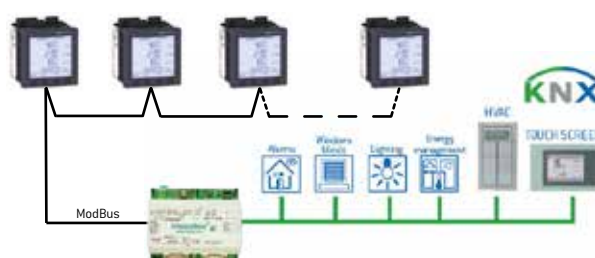
and many others



Integration example:  
ModBus RTU chillers



Integration example:  
ModBus RTU electrical meters.



### Specifications

- Bidirectional: Monitoring and Control
- Robust and reliable hardware
- Direct connection to KNX bus
- Independent management of communications
- Power supply: 9 to 24Vdc or 24Vac
- Standard DIN-Rail 6 modules enclosure

### Models available

- IBOX-KNX-MBRTU-100 (100 control points and 254 ModBus RTU slave devices)
- IBOX-KNX-MBRTU-A / B (500 / 3000 control points and 254 ModBus RTU slave devices)
- IBOX-KNX-MBTCP-100 (100 control points and 5 ModBus TCP slave devices)
- IBOX-KNX-MBTCP-A / B (500 / 3000 control points and 5 ModBus TCP slave devices)

### Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_KNX\\_Modbus\\_RTU\\_master\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_KNX_Modbus_RTU_master_datasheet_eng.pdf)

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_KNX\\_Modbus\\_TCP\\_master\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_KNX_Modbus_TCP_master_datasheet_eng.pdf)

### Main features

- Easy installation. Direct connection to ModBus devices through RS485 (2 wire) or RS232 connection (IBOX-KNX-MBRTU) and Ethernet (IBOX-KNX-MBTCP).
- Great integration flexibility. The IntesisBox® ModBus Master interface reads continuously by polling the configured ModBus slave devices. Read values kept in IntesisBox® memory to be used when needed by the KNX system.
- Advanced integration of AC systems with ModBus interfaces from KNX like Ciatesa, Hitecsa, Lennox, Carrier, etc. and meters, PLC's coolers, etc.

# IBOX-BAC-MBRTU / IBOX-BAC-MBTCP

IntesisBox® IBOX-BAC-MBRTU / MBTCP gateways have been specially designed to offer monitoring and bidirectional control for all the parameters and functionality of systems and equipment with ModBus connectivity from BACnet/IP installations.

## Modbus devices

### HVAC

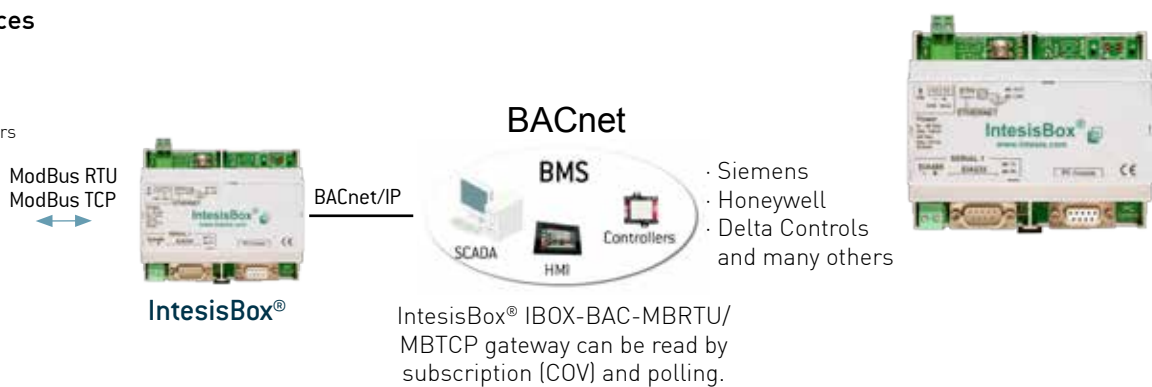
- Air Conditioners
- Chillers
- Thermostats
- Fan-coil controllers
- Automotons

### Meters

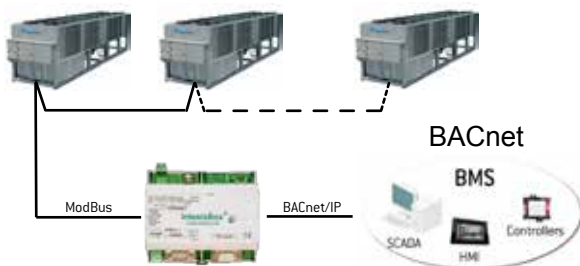
- Electric meters
- Energy meters
- T<sup>a</sup> and Hr probes

### Automation

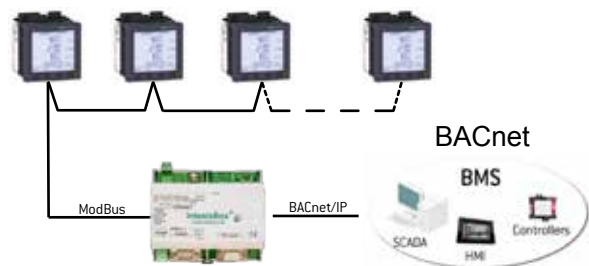
- B.M.S.
- PLC
- HMI
- and many others



Integration example:  
Chillers with Modbus RTU.



Integration example:  
ModBus RTU electricity meters.



## Specifications

- Bidirectional: Monitoring and Control
- Robust and reliable hardware
- Direct connection to ModBus
- Independent management of communications
- Power supply: 9 to 24Vdc or 24Vac
- Standard DIN-Rail 6 modules enclosure

## Models available

- IBOX-BAC-MBRTU-100 (Max. 100 control points / 254 ModBus RTU slave devices)
- IBOX-BAC-MBRTU-A (Max. 500 control points / 254 ModBus RTU slave devices)
- IBOX-BAC-MBRTU-B (Max. 3000 control points / 254 ModBus RTU slave devices)
- IBOX-BAC-MBTCP-100 (Max. 100 control points / 6 ModBus TCP slave devices)

## Info

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_BACnet\\_IP\\_server\\_Modbus\\_RTU\\_master\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_BACnet_IP_server_Modbus_RTU_master_datasheet_eng.pdf)

Datasheet: [http://www.intesis.com/pdf/IntesisBox\\_BACnet\\_IP\\_server\\_Modbus\\_TCP\\_master\\_datasheet\\_eng.pdf](http://www.intesis.com/pdf/IntesisBox_BACnet_IP_server_Modbus_TCP_master_datasheet_eng.pdf)

- IBOX-BAC-MBTCP-A (Maxi. 500 control points / 6 ModBus TCP slave devices)
- IBOX-BAC-MBTCP-B (Max. 3000 control points / 6 ModBus TCP slave devices)

## Main features

- Easy installation. Direct connection to ModBus devices through RS485 (2 wire) (IBOX-BAC-MBRTU) and Ethernet (IBOX-BAC-MBTCP).
- Great integration flexibility. The IntesisBox® ModBus Master interface reads continuously by polling the configured ModBus slave devices. Read values kept in IntesisBox® memory to be used when needed by the BACnet/IP system. Reads done by polling or subscription (COV).
- Advanced integration of HVAC systems with Modbus interface from BACnet/IP like Ciatesa, Hitecsa, Lennox, Carrier, etc. and meters, PLC's , HMI, etc.

# Intesis

your partner for **systems integration**

# Intesis

C/ Milà i Fontanals, 1 bis 1º. 08700 Igualada · Barcelona · Spain  
Tel. +34 93 804 71 34 · Fax. +34 93 804 71 35 · sales@intesis.com

[www.intesis.com](http://www.intesis.com)

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