IntesisBox®

for LonWorks

LonWorks

General catalogue 20**13**

ENGLISH

your partner for **systems integration**

Intesis

General catalogue 20**13**

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

IntesisBox
products for LON systems

LonWorks(local operation network) is a networking platform specifically created to address the needs of control applications. The platform is built on a protocol created by Echelon Corporation for networking devices over media such as twisted pair, powerlines, fiber optics, and RF. It is used for the automation of various functions within buildings such as lighting and HVAC; see Intelligent building. LonWorks technology, an open standard used throughout the world, was developed to solve a problem of traditional control networks — that the nodes that comprised them had to be a-priori designed to work together. The LonWorks platform is used for many diverse applications that span Smart Buildings, Smart Cities, and the Smart Grid.

For further information, please visit
www.echelon.com/technology/lonworks

LON

IntesisBox® Lonworks AC gateways

Specially designed, in collaboration with several manufacturers like Mitsubishi Electric, and Panasonic to allow supervision and bidirectional control of all the parameters and functionality of Air conditioners from Lonworks installations.

- Easy installation to the indoor unit or via dedicated cable or RS232
- Great integration flexibility
- Advanced integration with air conditioner: a complete bidirectional communication and simultaneous control from LON and the infrared Air Conditioner remote controller. Also, a PANURBAN gateway offers a full transparent integration of Panasonic AC installations in BMS systems based in Lonworks Like TAC, Siemens, Honeywell, etc.

IntesisBox LON-KNX gateway

IntesisBox® IBOX-LON-KNX gateway has been specially designed to allow supervision and bidirectional control of KNX systems from LonWorks installations.

- **Easy installation** trough KNX TP (TP-1) for KNX devices and FT/TP-10 for Lonworks devices
- **Great integration flexibility.** With the IntesisBox® IBOX-LON-KNX gateway all the KNX installation is seen as a node in the LonWorks® network, with each KNX group address associated to a SNVT field, fully compatible with any standard LonWorks® commissioning tool (LonMaker and others). IntesisBox® LON and KNX interfaces are configured with LinkBoxLON, a Windows® compatible software supplied with the purchase of IntesisBox®
- **Advanced integration with any device.** IntesisBox® IBOX-LON-KNX offers a complete and transparent integration of KNX installations (light control, blinds, ...) in building management systems based in LonWorks® (TAC, Siemens, Honeywell...).

ME-AC-LON-1

IntesisBox® ME-AC-LON-1 gateway has 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 from Lonworks® installations. Compatible with Domestic and Mr. Slim Series manufactured by Mitsubishi Electric.

Specifications
- Bidirectional: Monitoring and Control
- Direct connection to LON bus and to the AC indoor unit
- No external power supply required
- Small size (WxHxD): 93 x 53 x 58 mm.

Main features
- Easy installation inside the AC indoor unit. Cable for CN105 or CN92 connector supplied.
- 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 LON and the Mitsubishi Electric air conditioning IR handset.
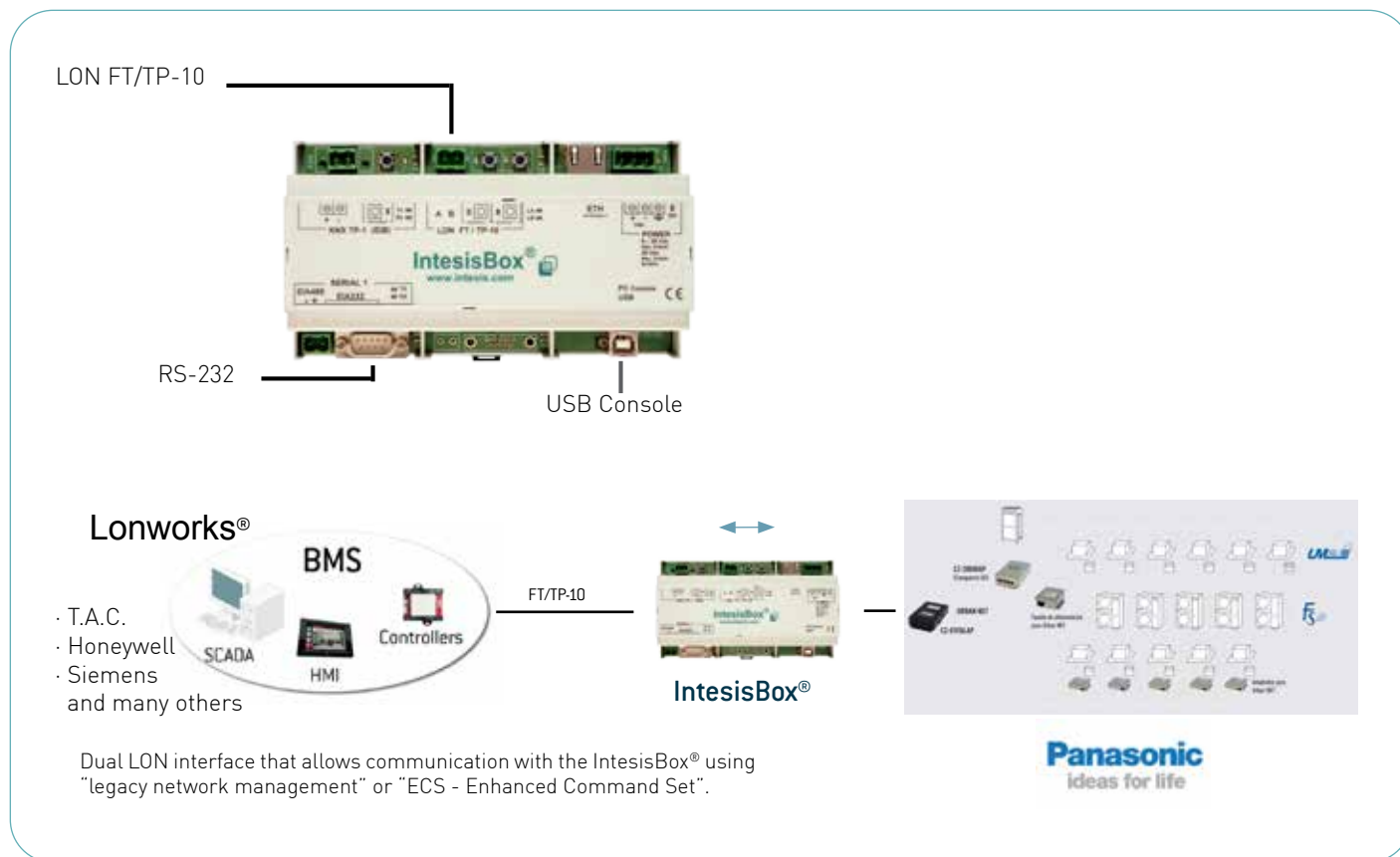
Info
Datasheet: http://www.intesis.com/pdf/IntesisBox_ME_AC_LON_1_leaflet_eng.pdf
Compatibility list: http://www.intesis.com/pdf/IntesisBox_ME-AC-xxx-1_AC_Compatibility.pdf

Intesis

IBOX-LON-PANURBAN

IBOX-LON-PANURBAN gateway has been specially designed, in collaboration with PANASONIC, to allow monitoring and bidirectional control of all the parameters and functionality of PANASONIC air conditioners from Lonworks® installations.

LON FT/TP-10

RS-232

USB Console

Lonworks®

BMS

· T.A.C.
· Honeywell
· Siemens
  and many others

SCADA   HMI   Controllers

FT/TP-10

IntesisBox®

Panasonic
ideas for life

Dual LON interface that allows communication with the IntesisBox® using
"legacy network management" or "ECS - Enhanced Command Set".

Specifications

• Bidirectional: Monitoring and Control

• Robust and reliable hardware

• Direct connection to LON bus

• Independent management of communications

• Power supply: 9 to 24Vdc or 24Vac

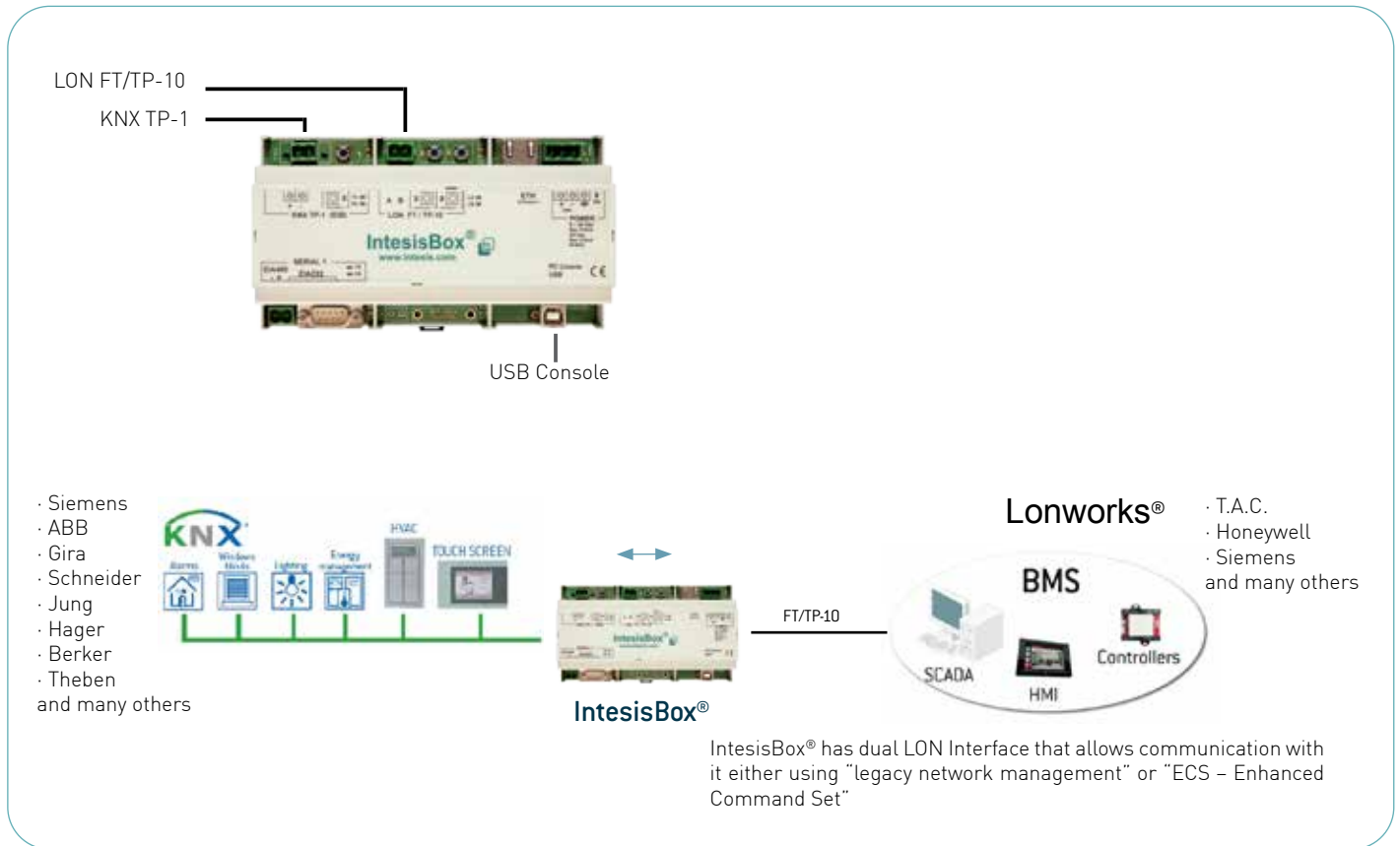• Standard DIN-Rail 9 modules enclosure

Main features

• Easy installation. Direct connection using a RS-232 cable to the Panasonic CZ-01FULAP device.

• Great integration flexibility. All AC installation appears like a node in the LonWorks network. The gateway includes a LON TP/FT-10 connection. NO configuration required.

• Advanced integration. Offers a full transparent integration of Panasonic AC installations, in BMS systems like TAC, Siemens, Honeywell, etc.

Info

Datasheet: http://www.intesis.com/pdf/IntesisBox_LON_PANURBAN_datasheet_eng.pdf

IBOX-LON-KNX

IntesisBox® IBOX-LON-KNX gateway has been specially designed to allow monitoring and bidirectional control of KNX systems from LonWorks® installations.

LON FT/TP-10

KNX TP-1

USB Console

· Siemens
· ABB
· Gira
· Schneider
· Jung
· Hager
· Berker
· Theben
and many others

Lonworks®

· T.A.C.
· Honeywell
· Siemens
and many others

FT/TP-10

IntesisBox®

IntesisBox® has dual LON Interface that allows communication with it either using "legacy network management" or "ECS – Enhanced Command Set"

Specifications

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

Models available

- IBOX-LON-KNX-200 (Maximum 200 control points)
- IBOX-LON-KNX-A (Maximum 500 control points)
- IBOX-LON-KNX-B (Maximum 4000 control points)

Main features

- Easy installation. Direct connection to KNX twisted pair bus (TP-1)
- Great integration flexibility. All KNX installation appears like a node in the LonWorks network. IntesisBox® LON and KNX interfaces configured with LinkBoxLON supplied software. KNX group addresses can be imported from ETS CSV or ESF files.
- Advanced integration of KNX installations (light control, blinds, ...) in BMS systems based in LONWorks (TAC, Siemens, Honeywell ...).

Info

Datasheet: http://www.intesis.com/pdf/IntesisBox_LON_KNX_datasheet_eng.pdf

LON

Intesis

IBOX-KNX-LON

IntesisBox® IBOX-KNX-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 KNX installations.

LonWorks® Devices

HVAC
· Air conditioners
· Coolers
· thermostats
· Fan-coil Controllers

Meters
· Electric meters
· Energy meters
· Tª and Hr Probes
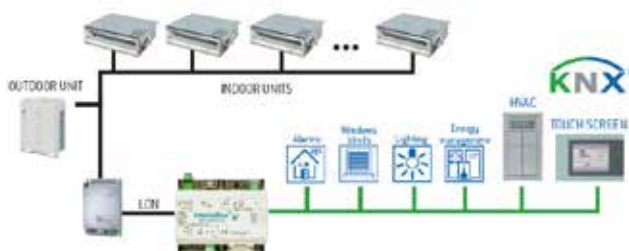
LON TP/FT-10

Automation
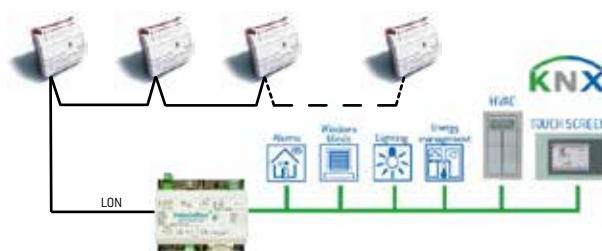· B.M.S.
· PLC
· HMI

and many others

IntesisBox®

Integration example:
VRV DAIKIN Air conditioners equiped with LON gateway.

Integration example:
LON Fan-coil controllers.

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-LON-100 (Maximum 100 control points and 128 LON devices)
• IBOX-KNX-LON-A (Maximum 500 control points and 128 LON devices)
• IBOX-KNX-LON-B (Maximum 4000 control points and 128 LON devices)

Main features

• Easy installation. Direct connection to LONWorks devices through TP/FT-10 (2 wire) connection
• Great integration flexibility. Thanks to LinkBoxEIB supplied software. No bindings needed thanks to continuous polling readout. Access trough physical address (Neuron-Id) or subnet node (commissioned devices) possible. LON expertise or commission tool not required.
• Advanced integration for centralized AC systems equipped with Lonworks interfaces, including meters, PLC's coolers, etc.

Info

Datasheet: http://www.intesis.com/pdf/IntesisBox_KNX_LON_datasheet_eng.pdf

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
· Automatons

Meters
· Electric meters
· Energy meters
· Tª and Hr probes

Automation
· B.M.S.
· PLC
· HMI
and many others

LON TP/FT-10
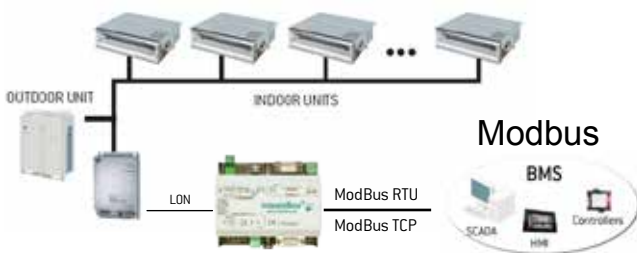
IntesisBox®

ModBus RTU
ModBus TCP

Modbus

BMS

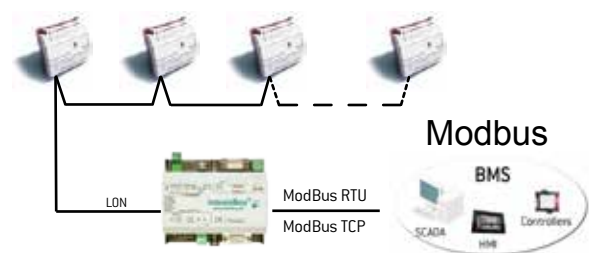Modbus Server (Slave) TCP o RTU (RS485/RS232) software selectable

· Wonderware
· Intellution
· ABB
and many others

Integration example:
VRV DAIKIN equiped with LON gateway.

OUTDOOR UNIT   INDOOR UNITS

LON
ModBus RTU
ModBus TCP

Modbus

BMS

Integration example:
LON Fan-coil controllers.

LON
ModBus RTU
ModBus TCP

Modbus

BMS

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

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 trough 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.

LON

IBOX-BAC-LON

IntesisBox® IBOX-BAC-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 BACnet/IP installations.

LonWorks® devices

HVAC
· Air Conditioners
· Chillers
· thermostats
· Fan-coil controllers

Meters
· Electric meters
· Energy meters
· Tª and Hr probes
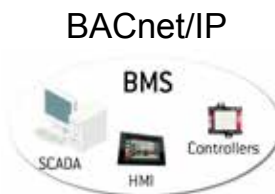
LON TP/FT-10

Automation
· B.M.S.
· PLC
· HMI
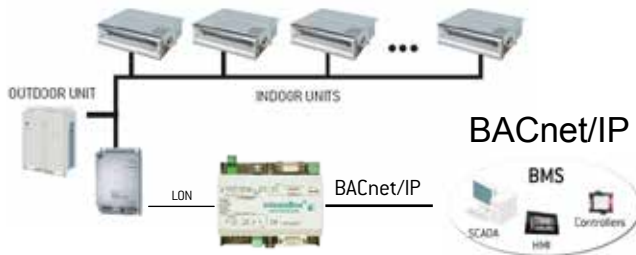 and many others

IntesisBox®

BACnet/IP

BMS

BACnet/IP

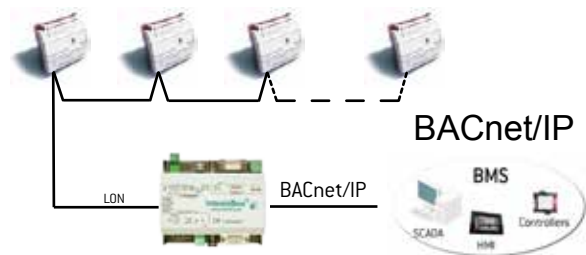IntesisBox® IBOX-BAC-LON gateway can be read by subscription (COV) and polling.

· Wonderware
· Intellution
· ABB
 and many others

Integration example:
VRV DAIKIN equiped with LON gateway.

OUTDOOR UNIT   INDOOR UNITS

LON   BACnet/IP   **BACnet/IP**   BMS

Integration example:
LON Fan-coil controllers.

LON   BACnet/IP   **BACnet/IP**   BMS

Specifications

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

Models available

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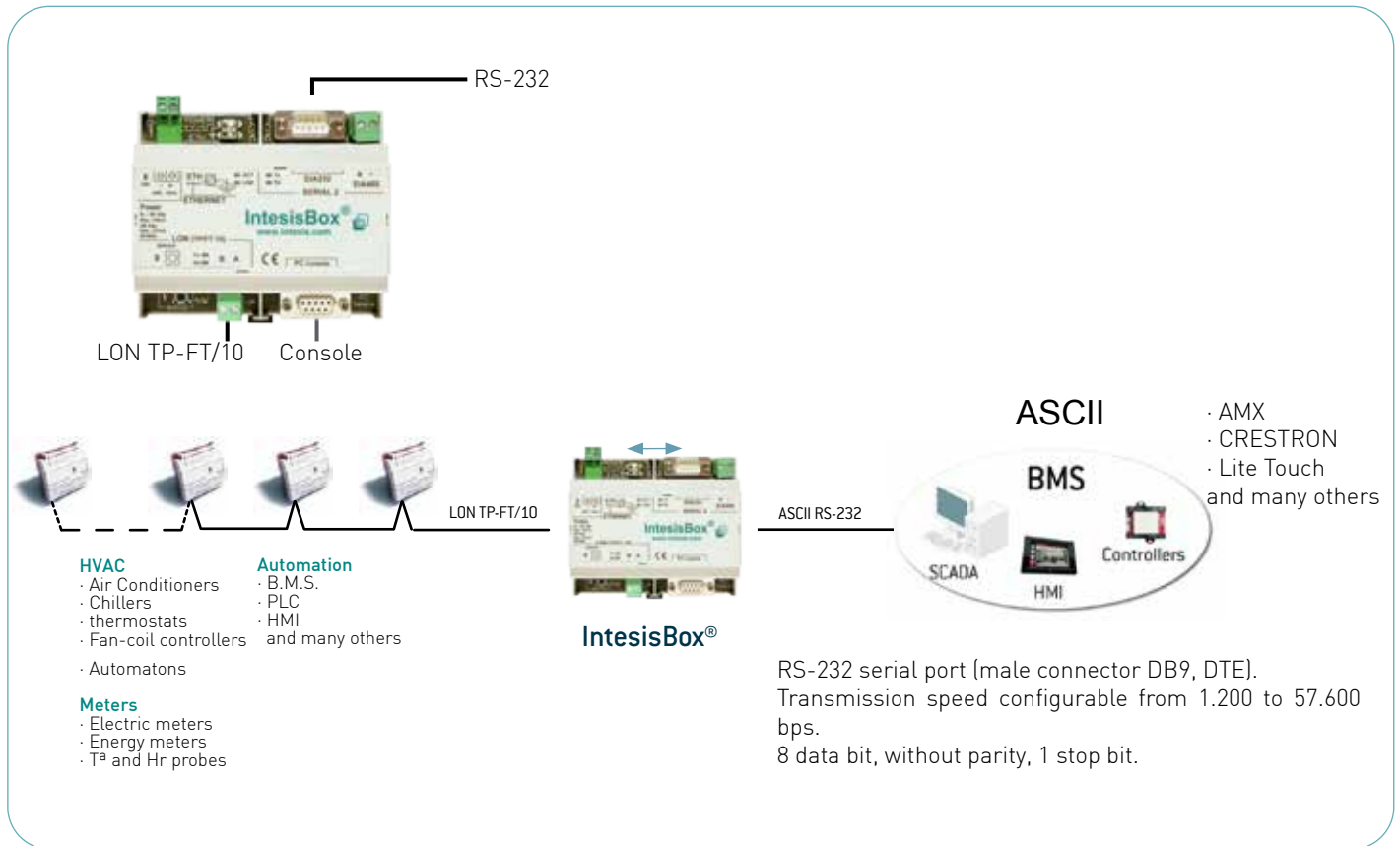• IBOX-BAC-LON-B (Maximum 3000 control points and 128 LON devices)

Info

Datasheet: http://www.intesis.com/pdf/IntesisBox_BACnet_IP_Server_LON_datasheet_eng.pdf

Main features

• Easy installation. Direct connection to LONWorks devices through TP/FT-10 (2 wire) connection
• Great integration flexibility. Thanks to LinkBoxBAC supplied software. No bindings needed thanks to continuous polling readout. Access trough physical address (Neuron-Id) o subnet node (commissioned devices) possible. LonMaker not required.
• Advanced integration for centralized AC systems equipped with Lonworks interfaces in BACnet/IP (Siemens, Honeywell, Delta Controls, Trend,...), also integrating fan-Coil controllers, meters, PLCs, HMI, etc.

IBOX-ASCII-LON

IntesisBox® IBOX-ASCII-LON gateway has been specially designed to allow monitoring and bidirectional control of LON systems using simple text (ASCII) messages.

RS-232

LON TP-FT/10   Console

ASCII
· AMX
· CRESTRON
· Lite Touch
and many others

BMS

LON TP-FT/10

ASCII RS-232

HVAC
· Air Conditioners
· Chillers
· thermostats
· Fan-coil controllers
· Automatons

Automation
· B.M.S.
· PLC
· HMI
and many others

IntesisBox®

Meters
· Electric meters
· Energy meters
· Tª and Hr probes

RS-232 serial port (male connector DB9, DTE). Transmission speed configurable from 1.200 to 57.600 bps.
8 data bit, without parity, 1 stop bit.

Specifications

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

Models available

- IBOX-ASCII-LON-A (Maximum 500 control points and 64 LON devices)
- IBOX-ASCII-LON-B (Maximum 4000 control points and 128 LON devices)

Main features

- Easy installation. Direct connection using 2 cable (TP-FT/10) to LON devices.
- Great integration flexibility. Thanks to LinkBoxASCII supplied software. No bindings needed thanks to continuous polling readout. Access trough physical address (Neuron-Id) or subnet node (commissioned devices) possible. LonMaker not required. Configuration using supplied LinkBoxASCII. RS-232 serial communication. LON variables can be read/write easily from the ASCII side, using simple text messages.
- Complete and transparent integration of LON installations (light control, blinds, ...) in programmable control systems using simple text messages through RS232 serial protocol (AMX, Crestron, Lite Touch,...).

Info

Datasheet: http://www.intesis.com/pdf/IntesisBox_ASCII_Server_LON_datasheet_eng.pdf

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

IntesisBox®

Authorized Dealer

MEMBER KNX   NATIONAL KNX   enocean alliance MEMBER