IntesisBox®
USB-ENO-ASCII-U / C
v.1.0.0

Integration of any EnOcean device in your B.M.S system using ASCII protocol.

IntesisBox® USB-ENO-ASCII-U / C gateways allow supervision and bidirectional control of all EnOcean devices from control systems based in ASCII protocol, such as SCADAS, B.M.S. or monitoring USB enabled systems using simple text messages

1. Main Features:

- Bidirectional: Supervision and Control.
- Control and supervision of EnOcean devices using simple ASCII text messages.
- Spontaneous messages avoid continuous polling
- Up to 128 transmission channels.
- Up to 99 reception channels.
- Fast and easy commissioning.
- Repeater functionality available.
- USB Powered. No external power supply needed.
- Plug and Play (virtual COM port).
- Small dimensions. 71 x 71 x 27 mm

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2. Typical application

In Figure 2.1 it is shown a typical integration example using the USB-ENO-ASCII-U / C to control and supervise IntesisBox® EnOcean AC Interfaces as well as thermostats, switches, key card, movement sensors, window contacts,... (Details in section 5)

Figure 2.1 Integration example

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3. EnOcean Interface

EnOcean Interface	
References	*USB-ENO-ASCII-U:* Transceiver @ *868 MHz* *USB-ENO-ASCII-U-C:* Transceiver @ *315 MHz*
Devices supported	• Transmission: Up to 128 devices • Reception: Up to 99 devices

Table 3.1 General features

Coverage distance	Conditions
< 30 m	Under ideal conditions: Broad room, no obstacles and good antenna position.
< 20 m	The room is filled with furniture and people And penetration through up to 5 dry walls or up to 2 brick walls or up to 2 aero concrete walls
< 10 m	Identical to the previous case but the receiver is placed to a room corner or range along a narrow floor.
< 1 m	Metal-reinforced ceilings at upright penetration angle (in strong dependence of reinforcement density and antenna positions).

Table 3.2 Device coverage distance

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4. ASCII serial (USB) Interface

- The USB bus is used to power up the gateway so no external power supply is needed.
- Plug and Play. When the gateway is connected to the computer's USB port, a virtual COM port is generated and the gateway can be used right away without any configuration.
- The IntesisBox® can be configured to notify any change in the EnOcean devices to the control system, sending spontaneous messages. This working mode avoids the control system to perform continuous polling.
- Serial port communication settings:

Baud rate	9600 bps
Stop bit	1
Data bits	8
Flow control	none
Parity	No parity

Table 4.1 Serial port communication settings

- Communication using simple ASCII text messages listed in the user manual. The EnOcean devices can be easily supervised or controller with these simple messages.
- A communication dll and example software is supplied with the gateway making the integration of the EnOcean devices in the ASCII system much easier.

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5. EnOcean compatible devices

The EnOcean compatible devices are the ones using the profiles defined in the document: EnOcean Equipment Profiles (EEP) Version: 2.1.

Some devices in the following list as examples:

Switches
· Wireless Switches
· Key card readers
· Window contacts
· Industrial switches

Sensors
· Temperature Sensors
· Humidity Sensors
· Movement Sensors
· Luminance Sensors

Automation
· Air Conditioners
· Actuators
· Room controllers

Among many others

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6. Technical specifications

Envelope	ABS (UL 94 HB). 2,5 mm thickness
Dimensions	71 x 71 x 27 mm
Weight	60g
Color	White
Power supply	USB powered. USB limitations apply
ASCII port	1 x USB
Mounting options	Desktop Wall
LED indicators (internal)	1 x USB connection error 1 x NOT (Notification) LED 1 x CONF (configuration) LED
Configuration	Through ASCII commands
Operating Temperature	From -25ºC to 85ºC
Operating humidity	<93% HR, no condensation
Stock humidity	<93% HR, no condensation
RoHS conformity	Compliant with RoHS directive (2002/95/CE).
Certifications	USB-ENO-ASCII-U: • CE USB-ENO-ASCII-U-C: • FCC (*ID: SZV-STM300C)* • IC (ID*: 5713A-STM300C)*

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