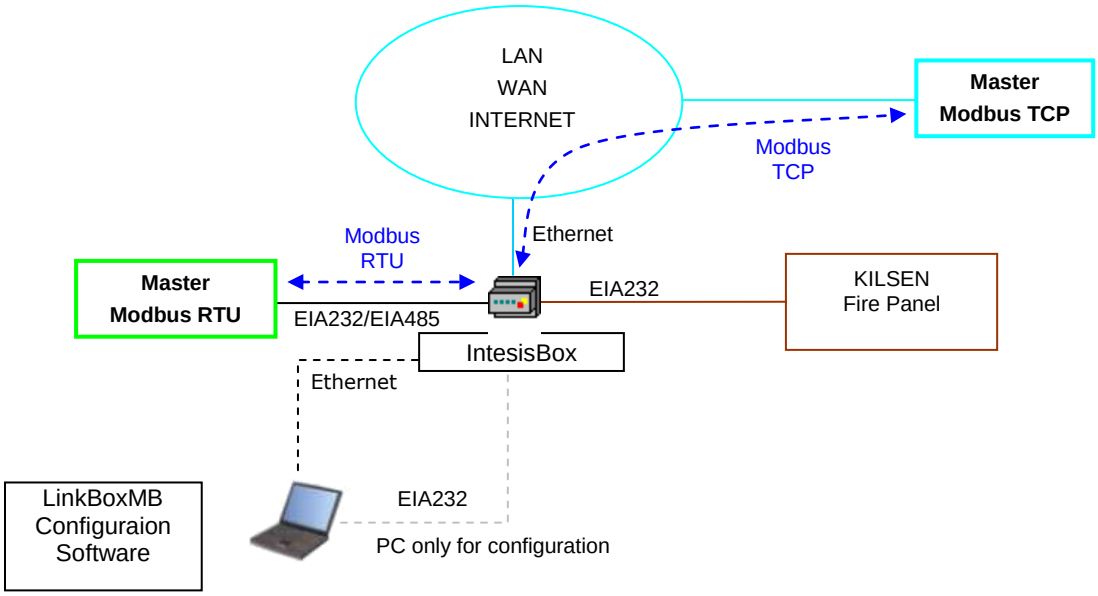
IntesisBox®

Modbus Server - KILSEN KSA-7XX

Gateway for the integration of KILSEN KSA-7XX fire panels into Modbus (RTU and TCP) control systems.

Monitor your KILSEN fire panel with a master Modbus device (SCADA, BMS, PLC, HMI, Touch Panels…).



Monitor remotely your KILSEN fire panels from your Control station using any SCADA commercial system or monitoring system enabled with a Modbus TCP interface.

IntesisBox allows Modbus TCP (Ethernet) communication or Modbus RTU (EIA232 o EIA485) communication, this being configurable by software. This gateway acts as a Modbus slave.

KILSEN connection through EIA232. Monitoring of elements and zones through independent Modbus registers. The Modbus address map is fixed for 7 panels, 15 loops per panel and 255 elements per loop. Available statuses for each element are: normal, alarm, pre-alarm, fault and disconnect. Statuses for each zone are: normal and alarm. Moreover, it includes 7 registers for general statuses of the panel.

It does not support sending commands to the KILSEN panel. It only allows monitoring of the panels.

IntesisBox Modbus Server series gateways are configured through LinkBoxMB, a Windows™ compatible software included when purchasing IntesisBox with no additional cost.

LinkBoxMB allows simulating the values in the Modbus registers without being connected physical with the panel, which is very helpful during the commissioning stage.

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1. IntesisBox Modbus interface

Modbus interface	
Device type	• Slave.
Supported Modbus modes	• TCP, RTU EIA232 or EIA485.
Modbus TCP configuration parameters	• IP address. • Net Mask address. • Default gateway. • TCP port.
Modbus RTU configuration parameters	• EIA232/EIA485. • Transmission speed and parity. • Slave number.
Points	• All data points are UNSIGNED INT in the Modbus interface.
Modbus supported functions	• 03 and 04 functions for reading. • Each register has the information of a single element. • Registers: 16 bits MSB..LSB. • Modbus register map fixed.

2. IntesisBox KILSEN interface

KILSEN interface	
Connection type	Serial connection (EIA232).
Configuration parameters	• Peripheral number. • Panel number. • Elapsed time for inactivity before activating the communication error.
Interactivity with the KILSEN system	• KILSEN points (element statuses) can be read from the gateway.
Main features	• 7 general panel statuses on independent Modbus registers. • Communication error indications with the panel. • Each Modbus register corresponds to a single element of the panel: Element or Zone. • The value offered by each Modbus register reflects the status of the associated element. Possible values are: 0-Normal, 1-Alarm, 2-Pre-alarm, 3-Fault, and 4-Disconnect. • Modbus register address for Elements and Zones is fixed • Sending commands to the panel is not allowed.

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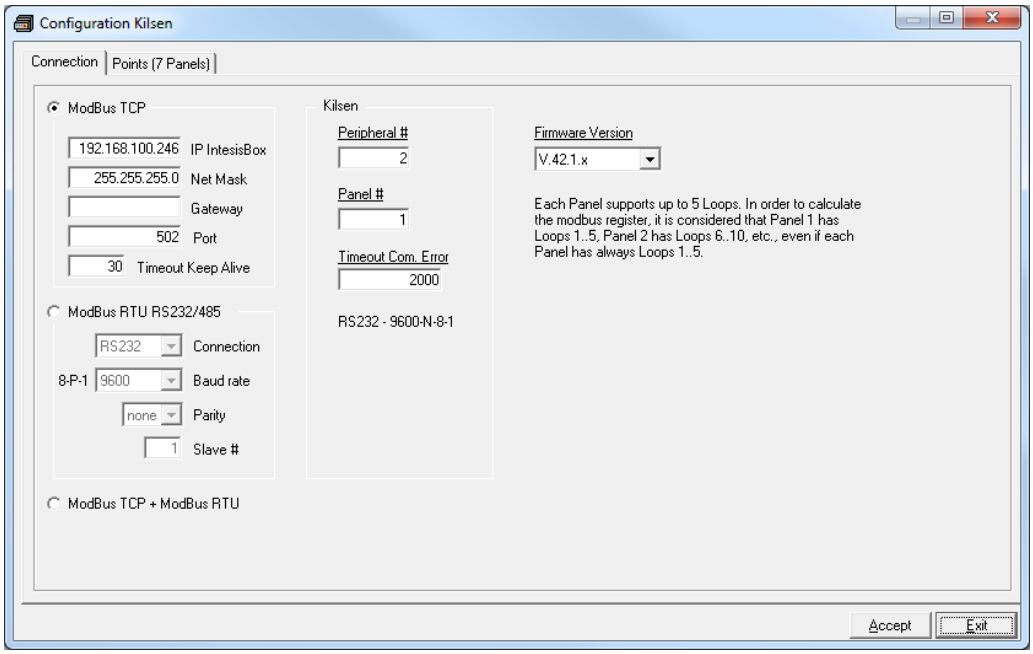
3. Configuration software

LinkBoxMB	• Visual engineering tool, ease of use, for gateway's configuration and supervision compatible with Microsoft Windows operating systems, supplied with the gateway free of charge. • Multi-window tool allowing to supervise simultaneously the communication activity with both protocols (systems), real time values for all the signals allowing to modify any value (very useful for test purposes), console window showing debug and working status messages, and configuration windows to configure all the gateway's parameters and signals. • Signals configuration in plain text files (tab separated) for easy and quick configuration using Microsoft Excel (very useful in projects with a lot of points). • Allows configuring the gateway's parameters and signals while in off-line (not connected to the gateway). • Connection to the gateway for download the configuration and supervision by using serial COM port of the PC (serial cable supplied with the gateway). • Allows configuring all the external protocols available for IntesisBox® Modbus Server series. • Upgrades for this software tool available free of charge whenever a new protocol is added to the IntesisBox® Modbus Server series. • Multi-project tool allowing having in the engineer's PC the configuration for all the sites with different IntesisBox® Modbus Server series gateways. • Multi-language tool, all the language-dependent strings are in a plain text file (tab separated) for easy modification or addition of new languages. • A list of system commands is available to send to the gateway for debugging and adjust purposes (Reset, Date/time consultation/adjust, Firmware version request…).



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4. Technical features

Enclosure	Plastic, PC type (UL 94 V-0). Dimensions: 107mm x 105mm x 58mm.
Color	Gray. RAL 7035.
Power supply	From 9 to 30Vcc +/-10%, Max.: 125mA 24Vca +/-10% 50-60Hz, Max.: 127mA A NEC Class 2 power supply or a limited (LPS) SELV type must be used. Plug-in screw terminal block 2 poles.
Terminal wiring (for low-voltage signals)	Per terminal: solid wires or stranded wires (twisted or with ferrule) 1 core: 0.75 … 1.25mm^2 2 cores: 0.75 … 1.25mm^2 3 cores: not permitted
Mounting	Wall. DIN rail EN60715 TH35.
Modbus TCP port	1 x Ethernet 10Base-T (RJ45).
Modbus RTU port	1 x Serial EIA232 (DB9 male DTE). SELV 1 x Serial EIA485 (Plug-in screw terminal block 2 poles). SELV
KILSEN port	1 x EIA232 (DB9 macho, DTE). SELV
LED indicators	1 x Power supply. 2 x KILSEN port activity (Tx, Rx). 2 x Modbus RTU port activity (Tx, Rx). 2 x Ethernet port activity and link (LNK, ACT).
Console port	EIA232. (DB9 female DCE). SELV
Configuration	Via console port.[1]
Firmware	Allows upgrades via console port.
Operational temperature range	From 0°C to +70°C
Operational humidity range	From 5% to 95%, non- condensing
Protection	IP20 (IEC60529).
RoHS conformity	Compliant with RoHS directive (2002/95/CE).
Norms and standards	CE conformity to EMC directive (2004/108/EC) and Low-voltage directive (2006/95/EC) EN 61000-6-2; EN 61000-6-3; EN 60950-1; EN 50491-3

[1] Standard cable DB9male-DB9female 1.8 meters long is supplied with the device for connection to a PC COM port for configuring and monitoring the device. The configuration software, compatible with Windows® operating systems, is also supplied.

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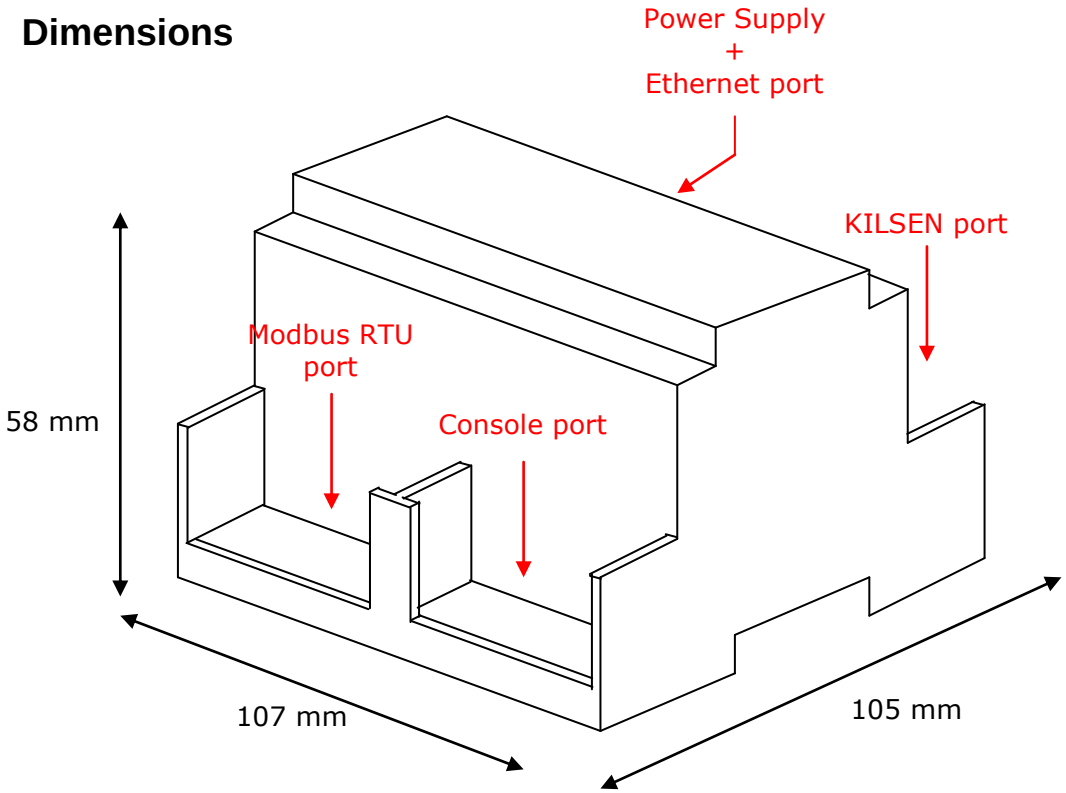
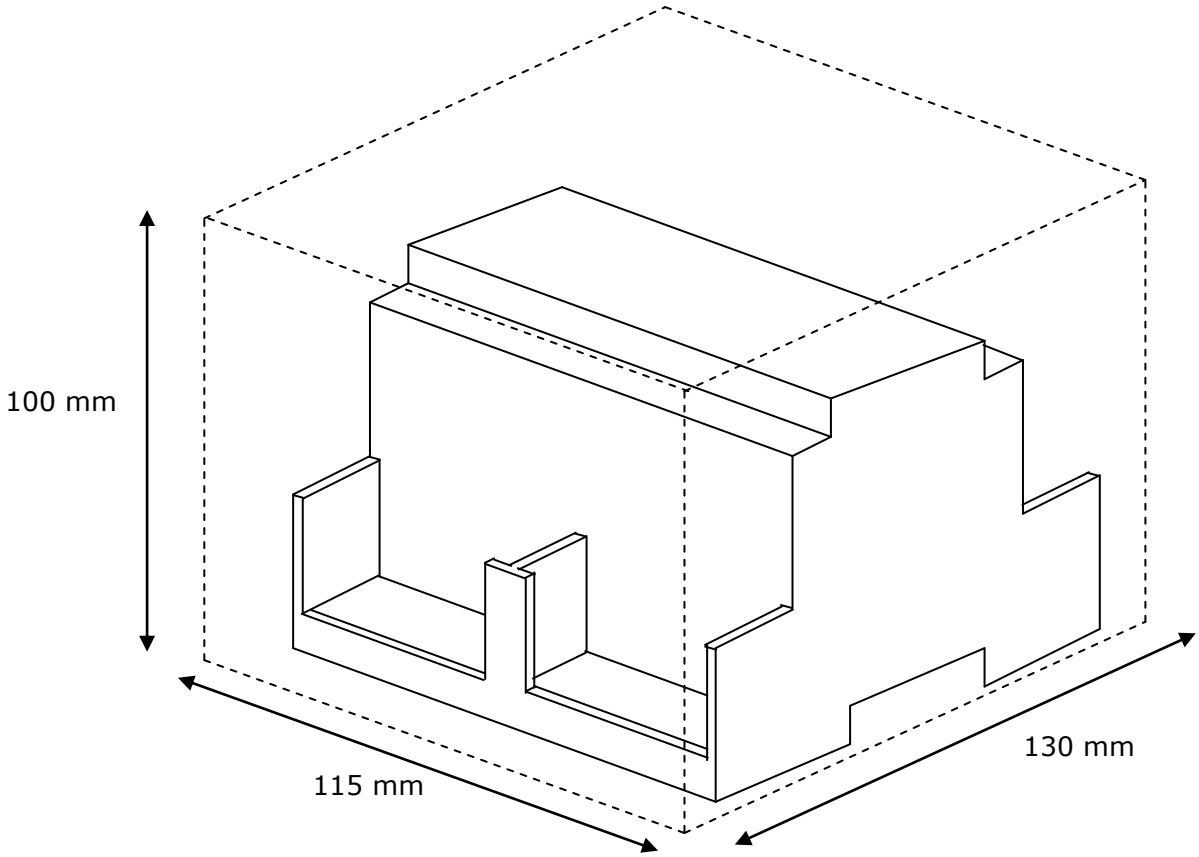
5. Dimensions



Free space recommended for its installation in a cabinet (Wall mounted or DIN rail mounted), with enough space for connections.



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