



eHouse BMS/BAS/Smart Home, IoT, Smart City



- Building Management System (BMS)
- Building Automation System (BAS)
- Smart Home, Home Automation
- Security Systems
- Internet of Things (IoT)
- Industrial Internet of Things (IoT)
- Dedicated Smart City, Smart Lighting, Smart Metering
- Extra Low Voltage - Sustainable Systems
- Dedicated Automation Systems
- Remote Control
- Dedicated Integrations

Remote Control, Automation, integration and management for:

- home, building, flat, apartment
- office, hotel, school, sport facility, pension
- special objects and any building types
- cities, villages, street lighting



Control, Regulation, Management:

- Lighting, LED Dimming, Decoration / Ambient
- Heating Central & Individual (convectional, floor, ventilation)
- Boiler room, recuperation, solar systems, fireplace
- Audio/Video Systems via IR, LAN
- Integrated Alarm & Security System
- Access restriction and function limitation
- gates, gateways, shade awnings, windows drives, servos
- Multi systems Integration software integration
- IR, WiFi, LAN, Internet Remote Control
- Any electrical, electronics on/off device
- Graphical visualization/control
- Speech recognition and acoustic control
- Windows, Linux, Android, Java, WWW management software package

eHouse Home Automation is Extra Low Voltage (ELV up to 15 VDC power supply) suitable for safe DIY installation and battery powered individual designs.

eHouse system can be installed:

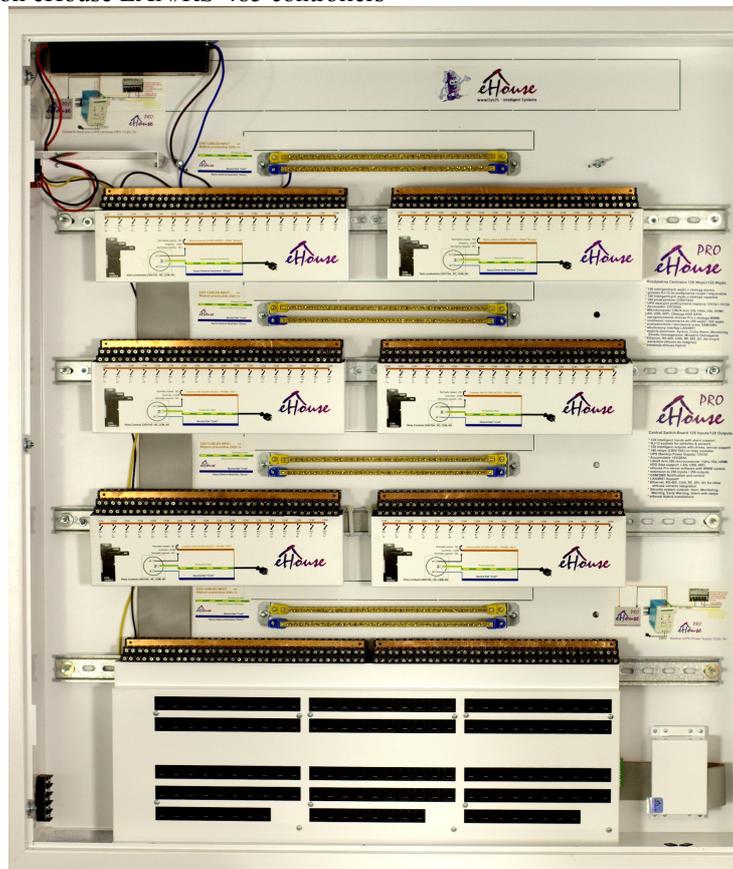
- central switch-board (wired – long live applications - 10 years and more)
- mini/midi switch-board room, apartment, flat (wired in new building – long live applications – 10 years and more)
- electric socket cans (wired/wireless RF – low devastation of building/apartment for old electrical installations)
- automation and interfacing for third party products: Lighting, heating, drives, servos, gateways, gates, audio-control equipment (WiFi)

eHouse Home Automation system exists in various installation, communication, budgetary types:

- PRO – Extra Large Linux based controller for Central/Main switch-board installation (Ethernet)
- LAN – Large controllers for Mini/Midi switch-board - optimized for room installation or flat, apartments (Ethernet)
- RS-485 – Large controllers for Mini/Midi switch-board - optimized for room, hotel, pensions installation or flat, apartments (industrial serial bus)
- CAN/RF – Small controllers (CAN - wired / RF - wireless 863, 902, 915MHz) installation in electric sockets cans for old electrical installations
- WiFi – Small all-in-one controllers for direct work in WiFi infrastructure (suitable for third party product hosting / house equipment installation)
- HYBRID – integrated eHouse system containing any of above variants

eHouse PRO – Central/Main switch-board professional installation for homes, buildings, floors

- Professional installations
- Long live applications – 10 years and more
- Not sensitive for elements aging
- Non Overheating
- No spread electronic in electric cans through the building
- Not sensitive for external interference, disruption, noise, sabotage, malfunction comparing to wireless or serial interface systems
- Low voltage controller based on Linux microcomputer
- 128 - 256 intelligent outputs (on/off) with drives, gateways, servo control functionality and professional DIN/TH relays+sockets 230V/16A (45mm insulation between electronics and Mains)
- 12V & 5V power supplies (optionally UPS +Accumulator)
- 128 – 256 intelligent inputs (on/off) with alarm/security system functionality with telephone sockets (RJ-6) for easy installation, service
- 5 security outputs: horn, warning, early warning, silent alarm, security agency radio line
- Integrated security system with SMS/GSM notification
- Multi Platform software for integration, configuration, visualization, programming libraries, open source code
- Contains a lot of communication interfaces under eHouse.PRO software integration: SPI, I2C, RS-232, RS-485, USB, Ethernet, WiFi, CAN, RF, HDMI, Audio-Video output (stereo)
- Integration with Apache web server and Web browsers
- HTML Request server/client support for integration with other systems/software
- eHouse.PRO server software for integration of all eHouse versions.
- Modbus TCPIP, Bacnet IP Suport, UDP + TCP/IP Client/Server for BMS/BAS integrations
- Might be based on eHouse LAN/RS-485 controllers



eHouse LAN

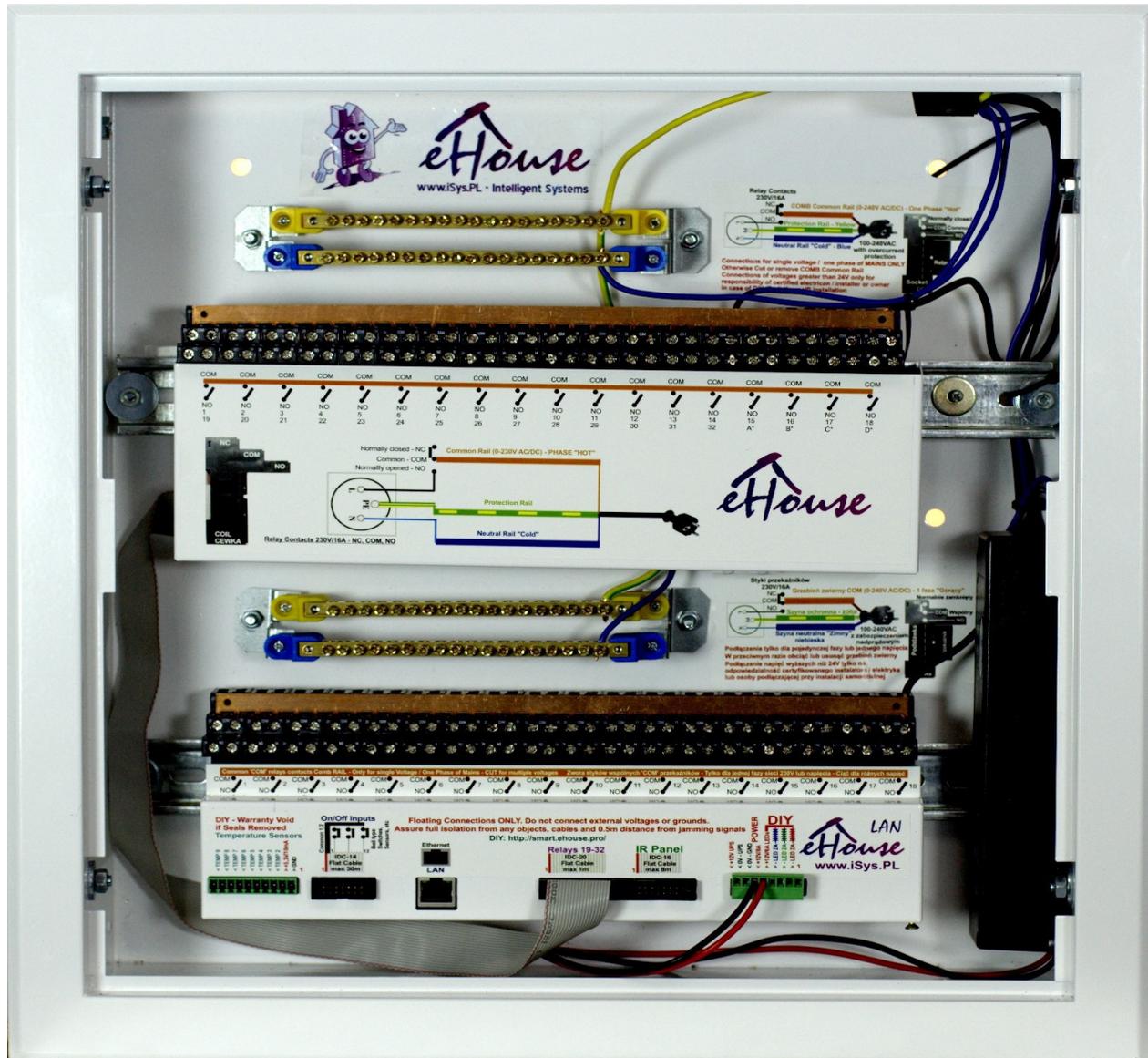
eHouse LAN controllers working directly in Local Area Network (Ethernet) based on EthernetRoomManagers (ERM) optimized for complete and integrated room control for mini/midi switch boards.

ERM can control and regulate lights, heating, external Audio/Video systems, Ambient Light Dimming, any electric/electronic device (on/off).

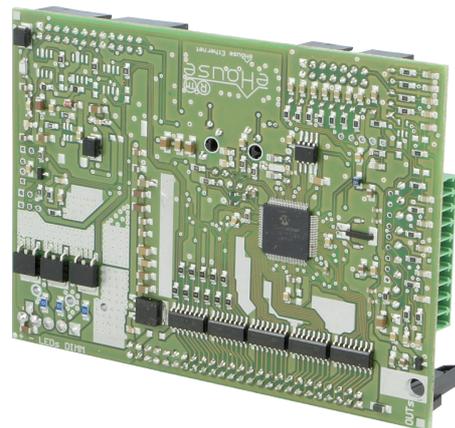
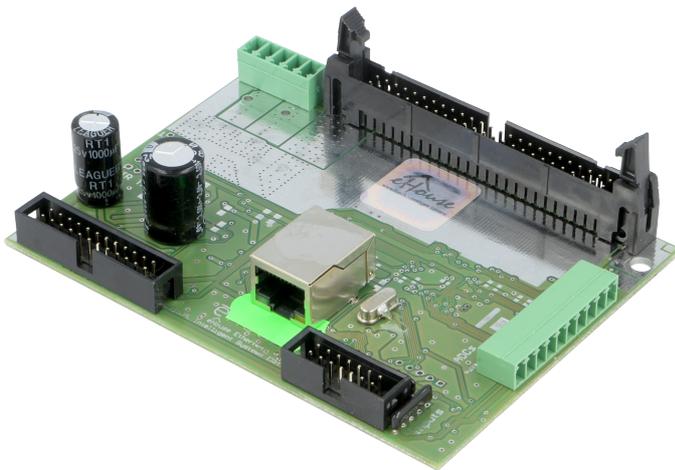
- Professional installations divided into segments (rooms) for optimization 100-230v cables and work utilization located in mini-switch board.
- Long live applications -10 years and more
- Not sensitive for elements aging, no overheating
- No spread electronic in electric cans through the building
- Segments are isolated each other and can be serviced independently
- Not sensitive for external interference, disruption, noise, sabotage, malfunction comparing to wireless or serial interface systems
- up to 32 intelligent outputs (on/off) with professional DIN/TH relays+sockets 230V/16A for turning on/off any devices with (45mm insulation between electronics and Mains)
- Low voltage power supply 12V
- 12 intelligent inputs (on/off) for switches, sensors, etc
- 10 ADC measurement inputs (heat, voltage, light measurement) for regulation
- IR receiver for remote control of the room automation
- IR transmitter for remote control of external Audio/Video systems
- 3 LED Dimmers 12V/2.5A (PWM)
- 12 measurement-regulation programs
- 24 outputs/dimmers programs/light scenes
- 128 items of scheduler-calendar
- 255 IR codes for control each ERM
- 255 IR codes can be learn for external audio/video control
- Multi Platform software for integration, configuration, visualization, programming libraries, open source code



MINI – 18 Outputs 230V/16A



MIDI – 32 Outputs 230V/16A



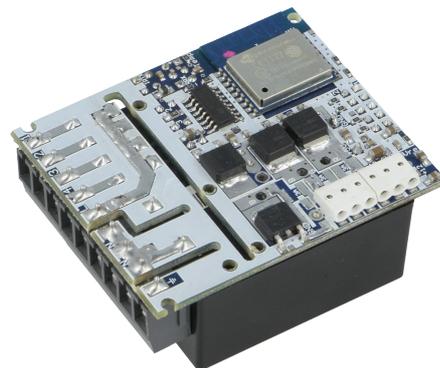
OEM Mini for Switch-boards and stand-alone



eHouse WiFi (IoT)

Small all-in-one eHouse WiFi controllers works directly in WiFi architecture as Access Point or/and WiFi Client. They are suitable for expansion eHouse LAN, PRO installation or creation wireless installations in the building.

- cheapest home automation system considering costs of electronics and installation, thanks to multi-functional micro-controllers with WiFi interface
- No devastation of home in case of installation in old buildings
- Low voltage (12V) eHouse WiFi controllers with individually programmed and configured functionality contain:
 - 4 intelligent on/off outputs with 230V/5A relays
 - 3 LED Dimmers 12VDC/2.5A outputs (PWM)
 - up to 4 intelligent digital inputs
 - Infrared transmitter (external A/V control) and receiver (eHouse control)
 - Intelligent measurement input (ADC)
 - optional 100-230V power supply for electronics
- Miniature module without cover can be installed directly in third party products covers (lights, heaters, actuators)
- Multi Platform software for integration, configuration, visualization, programming libraries, WWW control and integration
- Possibility of development, programming integration with attached programming libraries, templates, open source code
- Segments are totally separated each other
- Very chip solution of usage eHouse WiFi system for long distance wireless installations for plots, outside the building, warehouses, greenhouses.





eHouse CAN

eHouse CAN are small controllers designed for installation in electric socket cans for work in Controller Area Network wired serial interface up to 100m.

eHouse RF / (IoT)

eHouse RF are based on eHouse CAN controllers with plugged in RF module 863, 902, 915 MHz for wireless (radio) operation. Both eHouse CAN/RF requires CAN/RF gateway/server for integration with external systems, Ethernet, Internet etc.

eHouse CAN/RF differences from eHouse WiFi controllers:

- Separated pluggable modules for controller (inputs), relay/dimmer (power outputs), RF radio
- circular shape for existing electric socket cans installation
- operation in less utilized frequency bands
- 10 times lower power consumption than eHouse WiFi with similar functionality/algorithms but much smaller processor efficiency.

eHouse Can/RF controllers are currently used for dedicated Wired/Wireless Systems creation (IoT/Agriculture/Industrial)

eHouse RS-485

eHouse RS-485 controller RoomManager (RM) is optimized for whole room control, is similar to eHouse LAN for mini/midi switch-board.

Main Differences from eHouse LAN:

- Industrial serial bus RS-485 except LAN
- Access control, function limitation applications for hotels, offices, pensions
- Work under PC, eHouse.PRO, CommManager supervision

Dedicated Smart Control, Regulation, Measurement Systems Development

- Ethernet
- RS-485/RS-422
- WiFi
- RF 863, 902, 915MHz
- Controller Area Network (CAN)
- GSM (SMS, 2G, 3G, 4G, 5G, LTE-M1, NB-IoT)
- GPS (GNSS)