



## **Building Automation**

# **Solutions for Home Automation**

# Home Automation Solutions for



**Lighting control**

**Climate control**

**Blind and awning control**

**Alarms**

**Energy savings**

## ABOUT CARLO GAVAZZI

Carlo Gavazzi Automation is a multinational electronics group active in the design, manufacture and marketing of electronic equipment targeted at the global markets of industrial and building automation.

Our history is full of firsts and our products are installed in a huge number of applications all over the world. With more than 80 years of successful operation, our experience is unparalleled.

We have our headquarters in Europe and numerous offices around the world. Our R&D competence centres and production sites are located in Denmark,

Italy, Lithuania, Malta and the People's Republic of China.

We operate worldwide through 22 our own sales companies and also selected representatives in more than 65 countries, from the United States in the West to the Pacific Rim in the East.

Our core competence in automation spans four product lines: Sense, Switch, Control and Fieldbus.

Our wide array of products includes sensors, monitoring relays, timers, solid-state relays, electronic motor controllers, energy management equipment and fieldbus systems.

We focus our expertise on offering state-of-the-art product solutions in selected market segments.

Our customers include original equipment manufacturers of packaging machines, plastic-injection moulding machines, food and beverage production machines, conveying and materials handling equipment, door and entrance control systems, lifts and escalators, as well as heating, ventilation and air-conditioning devices.

Our offer for the Home Automation consists of innovative solutions, designed to make a comfortable living environment, according to your mood and requirements as well as weather conditions.

Comfort, Security, Control, Flexibility and Ease are the synthesis of our commitment for an "intelligent" Home Automation system.



## DESIGNED TO MEET MARKET REQUIREMENTS

The new home automation system by Carlo Gavazzi is the evolution of the well-known smart-house system: it looks after your houses in the best possible way, making them comfortable for you and your loved ones. It combines this comfortable living with energy saving, using state-of-the-art technology to improve your well-being and to reduce your carbon footprint.

The complete range of products is designed in Italy.

The system is based on a centralised structure, where the controller is the "brain" that supervises all the domestic functions such as lights, temperatures, rollerblinds, shutters and intruder, gas

and water leaks alarms.

New modules and functionalities can be added at any time, making the home "alive" and letting you adapt it according to your wishes, which might change over time.

It also allows you to be aware of energy consumption, providing diagrams of current consumption as well as the logging of what has been consumed in the previous days, months or years. All this data is easily accessible using smart-phones, PCs or tablet PCs. Retrofit installations can also be made when using this new Carlo Gavazzi system, as it features a full range of wireless products that can be used when wiring is not possible or not desired.

The new web server complements traditional methods of managing

sophisticated home automation technologies. It is embedded into the SH2WEB controller and it is completely configurable so that you can select your own themes.

The webserver is also designed as webapp to be accessible via any smart-phone, tablet pc.

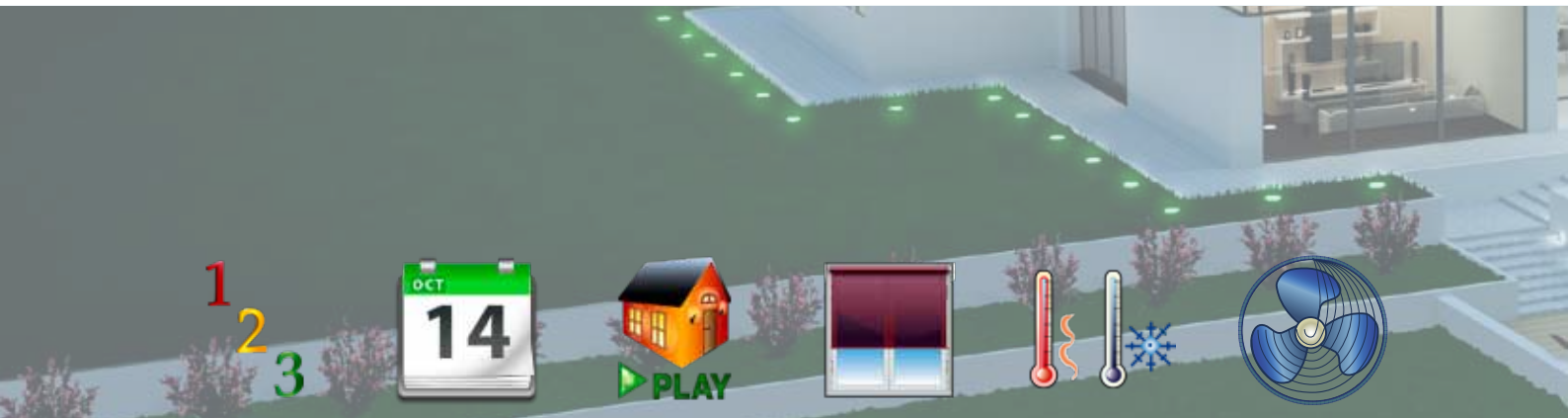
The intuitive, user-friendly interface allows the control of lights, rollerblinds, alarms, timers, temperatures and more, both remotely and on site, all from a multi-function device.

Furthermore, the webserver/webapp enable access to the datalogger where energy data, temperatures and other events are stored, in order to have a clear overview of which appliances are on and how much they are consuming.



# Home Automation

## Bus intelligence made by experience



Sequences

Scheduler  
and  
Real time clock

Simulated  
habitation

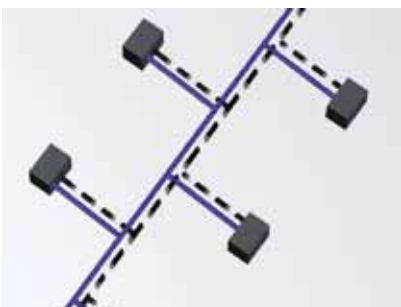
Up&Down  
control and  
Shadowing

Heating  
and  
Cooling control

Fan control

### Bus and power in the same cable

The bus and power wires follow the same logical path. The "switch wires" needed in conventional installations can be eliminated by use of de-central relays. The installation is fast and simple and last-minute changes are easily accommodated. No special cable or cable termination is required for the bus.



### Fast commissioning with no addressing

One of the most innovative features of this system is that no addressing of modules is needed. The installer only has to mount all the components, launch a network scan and the system will automatically find and recognize the connected devices, making the correct association or addressing. This will result in time and cost savings, besides providing an error-free configuration process.



**Energy efficient light management**

**Scenarios and Light control**

**Data logging and Event logging**

**Intruder alarm**

**Smoke alarm**

**Water leakage alarm**

### Diagnostic function

Immediate trouble-shooting is assured as the system monitors all the connected devices and advises if one is faulty. The load of the bus is constantly monitored and any anomaly is at once detected and reported.

All the information about short-circuits, bus voltage and load, noise level and quality of the bus signals is logged in a file both locally and remotely accessible.

This can be checked anytime, providing effective time and money savings.



### Easy configuration software

The system configuration can be easily done by means of its wizard tools.

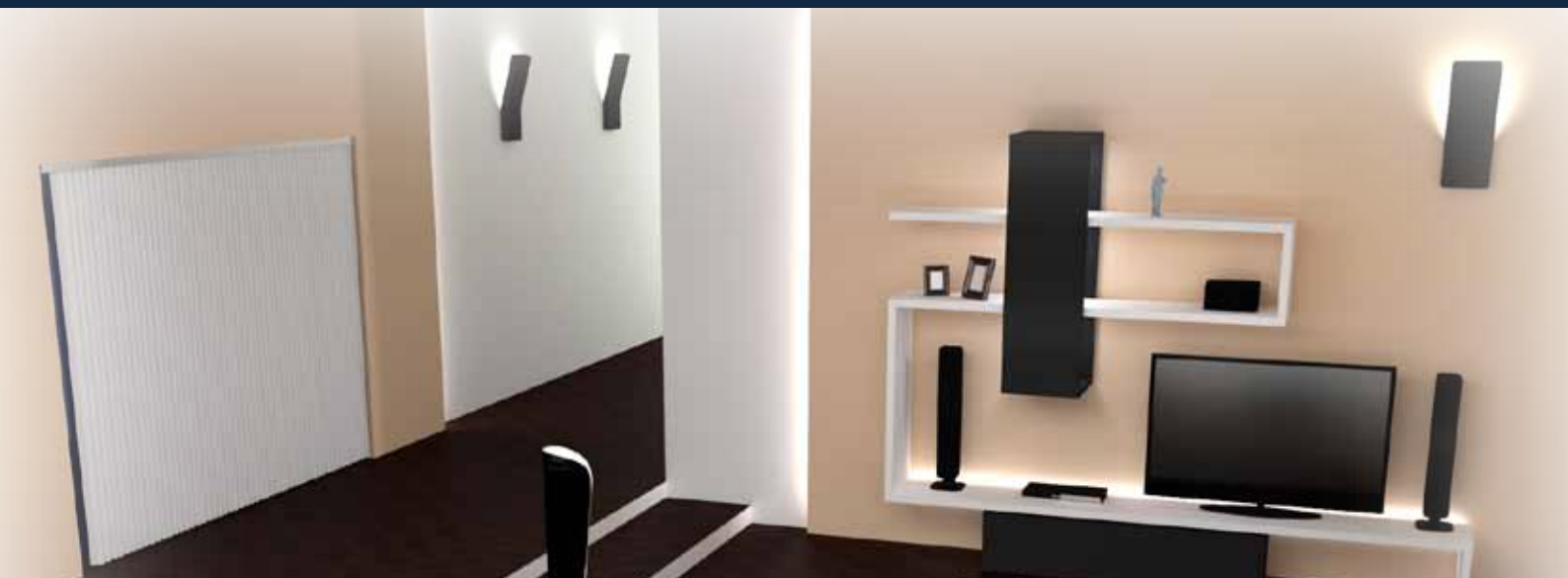
The user-friendly interface of this software guides the user in the creation of the pre-defined functions.

At the same time, thanks to many basic functions, the most skilled user can also create customized applications.

Test modes are getting easier by the several debug features available.

# Home Automation

## Lighting control



**Light Switches**  
44x44 mm

**B4X-LS4-U**  
**SHA4XLS4TH**

**Light Switches**  
55x55 mm

**B5X-LS4-U**  
**SHE5XLS4TH**

**Light Switches**  
Wireless

**SHA4XWLS4**  
**SHE5XWLS4**

**PIR Detectors**  
and  
**LUX Meter**

**SHE5XP150L**  
**SHA4XP150L**

**Dimmer**  
**Modules**

**SH2D500WE230**  
**SH2D10V424**

**I/O**  
**Modules**

**SH2RE16A4**  
**SH2RE16A2E230**  
**SHDWRE16E230**

Carlo Gavazzi offers integrated lighting automation and control. Lighting sets the perfect scene and creates the desired ambience for any occasion. Whether it is a movie night, an intimate dinner for two or a party with friends, lighting establishes the right mood.

The lights can create pre-programmed scenes to simulate the chosen lifestyle patterns. Dimmers do not just set the right atmosphere and create specific entertainment options, they can save money too. Most of the time we do not need to set our lights to full brightness to light a room, and if you dim your lights you are using less energy to run them. This is the aim of the new dimming technology by Carlo Gavazzi,

in addition to the integration of brand new energy-saving alternatives such as LED lamps.

The garden lights can be turned on by a light level sensor, whereas the entrance lights can be activated by a movement sensor.

Occupancy sensing, which turns off

lights when they are not needed, makes Carlo Gavazzi solutions ideal also for special applications such as light management in corridors and staircases.

Comfort and energy saving at a single touch are assured, without sacrificing style or convenience.





# Climate control



## Temperature Controls with display

SHA4XTEMDIS  
SHE5XTEMDIS

## Temperature Controls

SHA4XLS4TH  
SHE5XLS4TH

## Outdoor Temperature Sensors

BSI-TEMANA  
BSI-TEMANAB

## Environmental Sensors

SHSUXXXXD  
SHSUXXXXL  
SHSUXXXX

## Analogue I/O

SHPINV2T1P124  
SHPOUTV224

## Relay Modules

SH2SSTRI424  
BDA-RE13A-U  
SH2RE16A2E230

Carlo Gavazzi maintains your home at a comfortable level at all times, monitoring temperature and humidity levels automatically.

There is no need to get up or even be at home to adjust the temperature: with our Home Automation range of products you can control multiple

zones from one location and easily pre-set temperature set points.

You can keep your home at a more energy efficient temperature while you are out and programme it to automatically adjust to more comfortable levels by the time you get home.

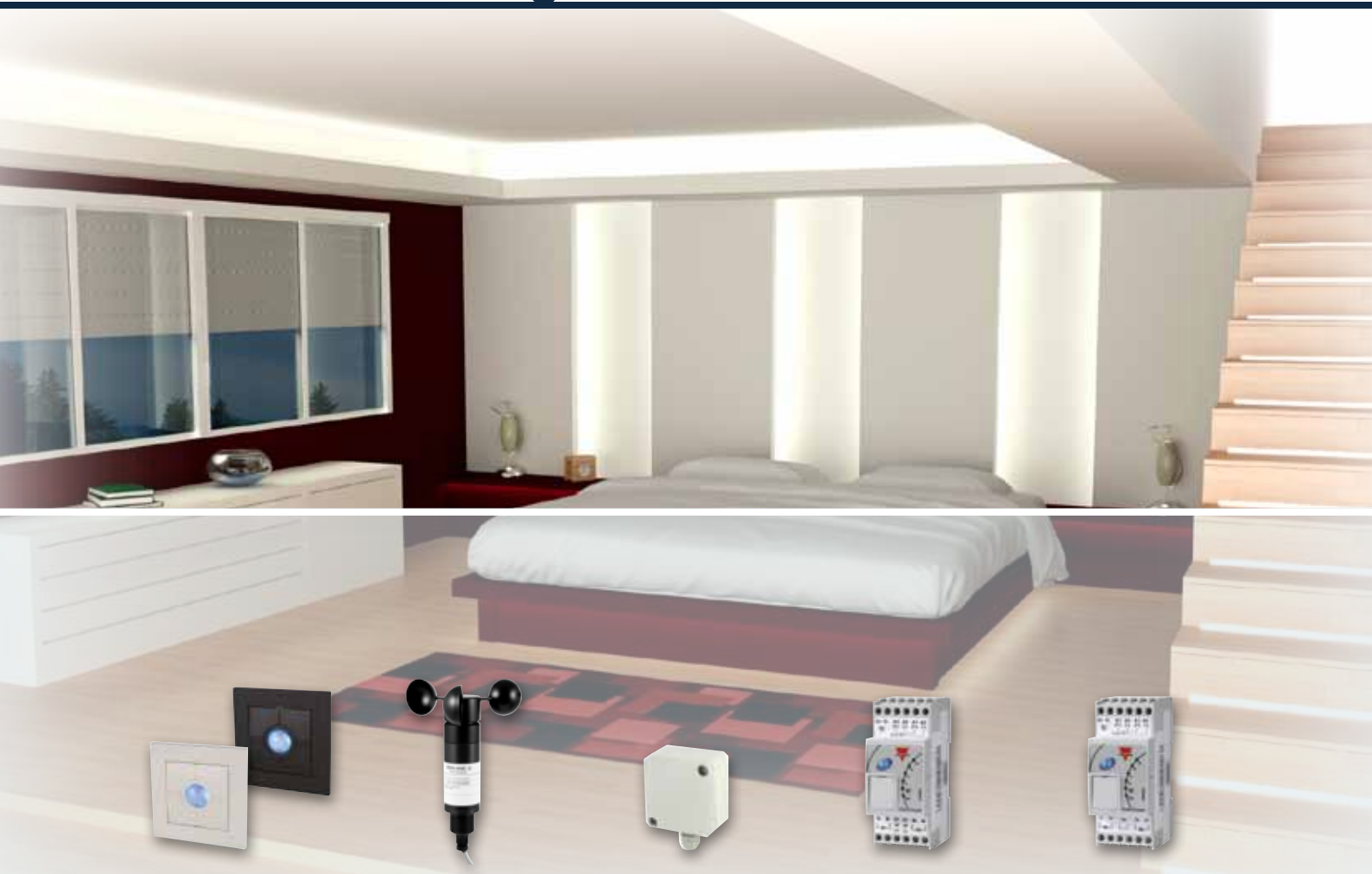
Coming home early? Use your mobile phone or PC to control the climate remotely, even monitoring the wine cellar or greenhouse temperature and humidity level.

The Home Automation system by Carlo Gavazzi also helps you to save energy and money: demand-based energy use can be achieved via a timer program with a temperature profile or even via a presence signal. As the temperature variables of all the rooms are available centrally via the bus system, heating and cooling energy can be generated according to demand and with a high level of efficiency.



# Home Automation

## Blind and awning control



### Light Switches, PIR and LUX Meter

SHA4XLS4P90L  
SHE5XLS4P90L

### Anemometer

BSN-ANE-U

### LUX Sensor

BSH-LUX-U

### DC up&down Module

SH2RODC224

### AC up&down Modules

SH2ROAC224  
SHDRODC230

The installation of intelligent control technology in houses allows for the flexible control of blinds and shutters. In this way you can select various control options as:

- Classic control with conventional buttons and switches
- Control from remote PCs and smartphones
- Connection of multiple blinds/shutters to groups
- Realization of central functions such as "all up" buttons, "all blinds on the south side up" or similar

Thanks to full flexibility, it is possible to change switch assignment. Shutter-groups can be created at any time through our configuration software.

Furthermore, automation can be specified to respond to a number of different factors:

- Solar control, where the device operates automatically when a certain intensity of light is received by the sensor.
- Timers may be specified.

- An anemometer (wind speed sensor) is fitted so that the blind is retracted in windy conditions.
- Rain sensors may be used in order not to wet the blinds or dirty the window glass.





# Alarms



## Infrared Detectors

**SHSQP360L**  
**BSx-PIR90-U**  
**BxX-PIR90-U**

## Programmable Keypad

**BACC-KEYPAD-DC-U**

## Smoke Detectors

**BSG-SMO-U**  
**BSG-SMOA-U**

## Water Detector

**BSF-WAT-U**

## Digital Input Module

**BDD-INCON4-U**

Carlo Gavazzi protects your home. A water leakage in your kitchen or laundry room can be immediately detected by a sensor at floor level and the water supply will be interrupted, preventing loss and damage. At the same time an SMS message will promptly inform you when you are away from home.

Smoke detectors at different locations in your house are the main elements in the fire alarm system, and can be combined with other functions, for example lights can be switched on and fans switched off in case of fire.

The intruder alarms can be programmed so that house lights flash when there is a security breach, as well as sounding

the siren. Switching lights on and off in each room at two-second intervals is psychologically distracting and makes it extremely difficult for an intruder to search for jewellery and information such as credit card details. It also draws attention to the house from outside, further deterring any intruder



from their actions. The system can also play back loud music or alarm sounds in each room, to further persuade the intruder to leave. Naturally, the police can be notified automatically, along with key-holders and other designated people.



# Home Automation

## Energy saving



**Relay Module with Energy Reading**

**SH2RE16A2E230**

**Wireless Relay with Energy Reading**

**SHDWRE16AE230**

**Dimmer Module with Energy Reading**

**SH2D500WE230**

**Pulse Counter**

**SH2INDI424**

**Energy Meters**

**EM33  
EM21 - EM23  
EM24 - EM26**

Incorporating a home automation system into a new or existing structure makes it easier to reduce energy consumption, also in combination with energy efficient lighting, Energy Star appliances and alternative energy sources.

Another effortless way to enhance the energy efficiency in your home is to take control of your energy consumption, by finding out exactly how much you are using.

Many electricity companies offer lower rates during off-peak hours, such as evenings and weekends. Using appliances such as washing machines, dryers, air conditioners and dishwashers during these hours can

lead to substantial savings on your electricity bill.

These real-time energy usage measurements will lead you to become more efficient with your energy consumption needs and will result in significant energy savings.

The system reads and logs the energy consumption of the whole installation or of a single load.

Data can be accessed anytime by means of a webserver/webapp and shown as instantaneous values, or in the form of graphs and/or diagrams.



# Scenarios



**Touch Screen 4"**

**Touch Screen 7"**

**BTM-T4-24**

**BTM-T7-24**

### Entertainment scenario

- TV and Home Theatre
- Music Surround
- Lights
- Heating or Air Conditioning
- Roller Blinds

### Holidays scenario

- Heating
- Alarms
- Roller Blinds
- Doors and Windows
- Automatic Irrigation
- Automatic turn on/off of lights

### Night & Day scenario

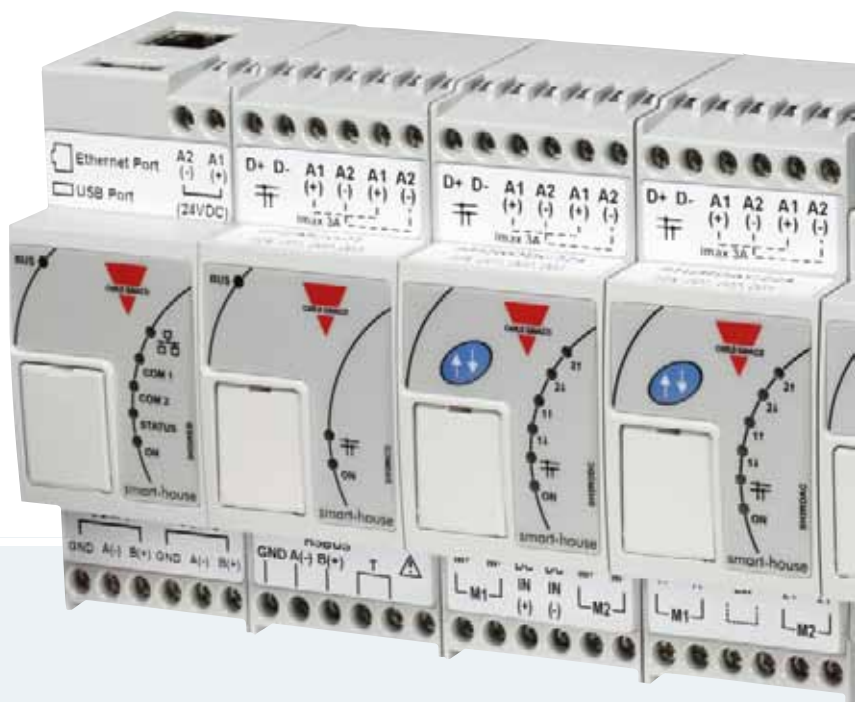
- Roller Blinds & Awnings
- Exterior Lighting
- Heating or Air Conditioning
- Automatic Irrigation (at the set time)





# Home Automation

## The controller



### Universal Mobile Modem

SH2UMMF124

### Master Unit

SH2WEB24

### Dupline Bus generator

SH2MCG24

### Up/down module for AC/DC motors

SH2ROAC224  
SH2RODC224

### Dimmer module with energy reading

SH2D500WE230

### 1-10 V Dimmer module

SH2D10V424

The Carlo Gavazzi smart-house system is based on a central CPU, the SH2WEB24, a Linux based embedded PC that manages all the smart functions.

It is programmed by means of powerful software, the SH tool.

The SH2WEB24 has Ethernet communication capability in order to be remotely controlled and monitored by smart-devices/PCs. It also acts as a datalogger, which can record any kind of value/event coming from the many buses it can be connected to (Wireless and Dupline buses, two RS485 ports).

The master unit is also provided with an sd-card and USB port, which allow data uploading/downloading and system configurations.

Where wired Internet access is not available, Carlo Gavazzi provides a specific mobile modem to be added to the SH2WEB24.

This modem makes it possible to control any remote installation, whether it be a cabin in the mountains or a house at the seaside.

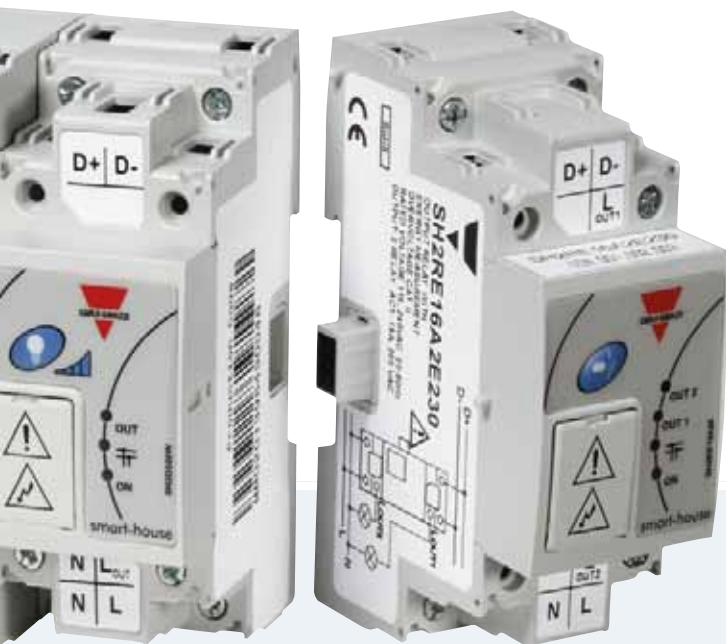
If the SH2WEB24 can be considered the "brain" of the smart-house system, the two bus generators are the pulsating "heart" that makes all the information flow.

They are connected to the SH2WEB24 via the high speed bus that is present both on the local bus and on the terminals at the bottom.

This means that the connection is very fast and easy in a cabinet, since the modules just have to be plugged together without any wiring.

At the same time it is very straightforward if the bus generators have to be mounted in different cabinets.

Up to 7 bus generators can be connected to one SH2WEB24.



**Output relay module with energy reading**

SH2RE16A2E230

**Relay module**

SH2RE16A4  
SH2RE1A424

**Input module and pulse counter**

SH2INDI424

**Wireless base unit**

SH2WBU230

**Wireless relay with Energy Reading**

SHDWRE16AE230

**Wireless Light Switches**

SHA4XWLS4  
SHE5XWLS4

### SH2MCG24 - the wired bus generator of smart Dupline®

The SH2MCG24 module is the smart Dupline bus generator, which provides the dupline bus on the local bus and on the terminals at the top.

Thanks to this, the DIN-rail slave modules (dimmers, relays, rollerblind modules, etc...) can simply be plugged into the SH2MCG24, without the need for any wiring.

The decentral modules, such as light switches, PIR sensors and temperature display, are connected to the SH2MCG24 with the two wires coming out from the terminals at the top.

### SH2WBU230 - the wireless bus generator of wiDup

The smart-house system also provides a solution where it is not possible to use existing wiring, especially during the renovation of buildings.

The SH2WBU230 is the wireless bus generator that can control wireless light

switches and output relay modules.

The wireless bus is based on the standard IEE 802.15.4 @2.4Ghz.

Up to 250 modules can be managed by one SH2WBU230.

The open-space operating distance is 100 metres.



# Home Automation

## Our product range

### Light switches



#### B4X-LS4-U B5X-LS4-U

- 4 individually programmable push button inputs
- 4 individually programmable LEDs for true response
- Bus powered, no external supply required

#### MAIN FEATURES

- B4X-LS4-U: Developed to fit into wall socket and frames from Fuga, NIKO and Bticino
- B5X-LS4-U: Developed to fit into wall socket and frames from Elko, Gira and Jung

### Light switches



#### BEW-LS4-U BEA-LS4-U

- 4 individually programmable push buttons
- 4 individually programmable LEDs for true response
- Bus powered, no external supply required

#### MAIN FEATURES

- Developed to fit into wall socket and frames from Elko
- Deliver in white, antracite and grey

### Wireless light switches



#### SHA4XWLS4 SHE5XWLS4

- 4 individually programmable push buttons
- Blue and red LEDs' for wireless field power and battery level
- Battery supplied
- Range up to 100 m in open air

#### MAIN FEATURES

- SHA4XWLS4: Developed to fit into wall socket and frames from Fuga, NIKO and Bticino
- SHE5XWLS4: Developed to fit into wall socket and frames from Elko, Gira and Jung

### Light switch + temperature and humidity sensor



#### SHA4XLS4TH SHE5XLS4TH

- 4 individually programmable push button
- Integrated temperature and humidity sensor
- Temperature range: -40° to 60°C
- Humidity range: 5 to 95 %

#### MAIN FEATURES

- SHA4XLS4TH: Developed to fit into wall socket and frames from Fuga, NIKO and Bticino
- SHE5XLS4TH: Developed to fit into wall socket and frames from Elko, Gira and Jung

### Temperature displays



#### SHA4XTEMDIS SHE5XTEMDIS SHEKxTEMDIS

- Temperature controller with display
- Shows current room, outdoor and auxiliary temperature
- Turns on/off heating and cooling
- Energy Save through 3 different setpoints: comfort, activity, economy

#### MAIN FEATURES

- Bus powered
- SHA: Developed to fit into wall socket from Fuga, NIKO and Bticino
- SHE: Developed to fit into wall socket from Elko, Gira and Jung

### PIR detectors



#### B4X/B5X/BSB/BSB/BSP-PIR90-U

- Passive infrared detector (PIR)
- Detects movement and presence
- Indoor and outdoor applications
- Operating angle: 90°

#### MAIN FEATURES

- Bus powered
- Walk test: LED indication
- Programmable sensitivity

### PIR detectors + integrated LUX meter



#### SHA4XP90L / SHE5XP90L SHSDP90L / SHSBP90L SHSPP90L / SHSQP360L

- Passive infrared detector (PIR)
- Detects movement and presence
- Indoor and outdoor applications
- Operating angle: 90° and 360°
- Lighting measuring range: 0 to 20 K lux

#### MAIN FEATURES

- Bus powered
- Walk test: LED indication
- Programmable sensitivity

### Light switch + PIR + LUX meter



#### SHA4XLS4P90L SHE5XLS4P90L









- 4 individually programmable push button
- Integrated 90° PIR and luxmeter sensor

#### MAIN FEATURES

- SHA4XLS4P90L: Developed to fit into wall socket and frames from Fuga, NIKO and Bticino
- SHE5XLS4P90L: Developed to fit into wall socket and frames from Elko, Gira and Jung



# Our product range

PIR detectors	PIR detectors + LUX meter	Outdoor temperature sensor	Environmental sensors
 <p><b>SHE5XP150</b> <b>SHA4XP150</b></p> <ul style="list-style-type: none"> <li>• Passive infrared detector (PIR)</li> <li>• Detects movement and presence</li> <li>• Indoor and outdoor applications</li> <li>• Operating angle: 150°</li> <li>• Operating distance: 8 m</li> </ul> <p><b>MAIN FEATURES</b></p> <ul style="list-style-type: none"> <li>• Bus powered</li> <li>• SHA4XP150: Developed to fit into wall socket and frames from Fuga, NIKO and Bticino</li> <li>• SHE5XP150: Developed to fit into wall socket and frames from Elko, Gira and Jung</li> </ul>	 <p><b>SHA4XP150L</b> <b>SHE5XP150L</b></p> <ul style="list-style-type: none"> <li>• Integrated 150° PIR and luxmeter sensor</li> <li>• Operating angle: 150°</li> <li>• Operating distance: 8 m</li> </ul> <p><b>MAIN FEATURES</b></p> <ul style="list-style-type: none"> <li>• SHA4XP150L: Developed to fit into wall socket and frames from Fuga, NIKO and Bticino</li> <li>• SHE5XP150L: Developed to fit into wall socket and frames from Elko, Gira and Jung</li> </ul>	 <p><b>BSI-TEMANAx-U</b></p> <ul style="list-style-type: none"> <li>• Temperature range: -40° to +60°C</li> <li>• BSI-TEMANA-U is delivered with a M12 plug</li> <li>• BSI-TEMANAB-U is delivered with 2 m cable</li> </ul> <p><b>MAIN FEATURES</b></p> <ul style="list-style-type: none"> <li>• Easily mountable</li> <li>• Bus powered</li> </ul>	 <p><b>SHSUXXXXD</b> <b>SHSUXXXXL</b> <b>SHSUXXXX</b></p> <ul style="list-style-type: none"> <li>• Room sensors for CO<sub>2</sub>, temperature and humidity measurement</li> <li>• Available with display, RGB LED or neutral</li> <li>• Temperature range: -20°C to +50°C</li> <li>• Humidity range: 0 to 100 %RH</li> <li>• CO<sub>2</sub> range: 0 to 2000 ppm</li> </ul> <p><b>MAIN FEATURES</b></p> <ul style="list-style-type: none"> <li>• Easily mountable</li> <li>• Bus powered</li> <li>• Low current consumption</li> </ul>
LUX meter for outdoor installation	Light switch interface	Digital input module	Voltage input module
 <p><b>BSH-LUX-U</b></p> <ul style="list-style-type: none"> <li>• Lighting measuring range: 0 to 20K lux</li> <li>• For indoor and outdoor installation</li> <li>• Working temperature: -30° to +60°C</li> </ul> <p><b>MAIN FEATURES</b></p> <ul style="list-style-type: none"> <li>• Easily mountable</li> <li>• Bus powered</li> </ul>	 <p><b>BDB-INCON4-U</b> <b>BDB-IOCON4-U</b> <b>BDB-IOCP8x-U</b></p> <ul style="list-style-type: none"> <li>• Small-sized 4 or 8 I/O modules</li> <li>• 4 or 8 contact inputs for push buttons</li> </ul> <p><b>MAIN FEATURES</b></p> <ul style="list-style-type: none"> <li>• Compact housing</li> <li>• Bus powered</li> </ul>	 <p><b>BDD-INCON4-U</b></p> <ul style="list-style-type: none"> <li>• 4 contacts or NPN transistor inputs</li> <li>• LED-indications for supply and bus status</li> <li>• LED-indication for armed when using bus supply</li> <li>• 3-wire system with bus and supply of module through external power supply</li> </ul> <p><b>MAIN FEATURES</b></p> <ul style="list-style-type: none"> <li>• Open PCB with terminal connection</li> <li>• Bracket for DIN-rail mounting available</li> </ul>	 <p><b>BDA-INVOL-U</b></p> <ul style="list-style-type: none"> <li>• Input voltage module for building automation</li> <li>• 1 opto-isolated voltage input 90-265 VAC</li> </ul> <p><b>MAIN FEATURES</b></p> <ul style="list-style-type: none"> <li>• Compact housing</li> <li>• Bus powered</li> </ul>

# Home Automation

## Our product range

### Smoke detectors



#### BSG-SMO-U BSG-SMOA-U

- Detection of smouldering and flaming fires with smoke development
- Without radioactive sources
- Detection of up to 60 m<sup>2</sup>
- Transmission of alarms and Alive signal via bus

#### MAIN FEATURES

- Battery backup if the connection is interrupted
- Constant monitoring of sensor sensitivity
- Bus powered

### Water detector



#### BSF-WAT-U

- Integrated water sensor input
- Water resistant PCB with screw terminals
- External input for Felson moisture cable

#### MAIN FEATURES

- Easily mountable with unique mounting bracket
- Constant monitoring of sensor sensitivity
- Bus powered

### Anemometer



#### BSN-ANE-U

- Measuring range: 2 m/s to 25 m/s
- Built-in alarm output with programmable threshold

#### MAIN FEATURES

- Easily mountable
- Bus powered

### Weather station



#### SHOWEAGPS

- Light, wind, temperature measurement
- Ranges: 0 to 100K lux, 0 to 35 m/s, -40° to 80°C
- Rain sensor included

#### MAIN FEATURES

- Integrated GPS receiver
- Modbus RS485 protocol

### Analogue input module



#### SHPINV2T1P124 SHPINT1P1/ SHPINNI2 SHPINV324

- Input modules for thermistor, resistor and voltage measuring
- Ranges: 10 K3 thermistor input, 1-11 K resistor input, 0-10 V input, pt1000/ni1000

#### MAIN FEATURES

- SHPINV324: three 0-10 V input
- SHPINV2T1P124: two voltage input, one thermistor and one resistor input
- SHPINT1P1: one thermistor and one resistor input
- Bus powered

### Analogue output module



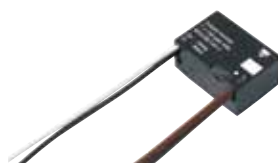
#### SHPOUTV224

- Output modules with two 0-10 V outputs
- Small dimensions for decentralized installations

#### MAIN FEATURES

- DC power supply

### Decentral output module



#### BDA-RE13A-U

- Small sized single relay output
- Load: 16 A/250 VAC
- Withstands 130 A inrush current

#### MAIN FEATURES

- Bus powered

### Wireless relay with energy reading



#### SHDWRE16AE230

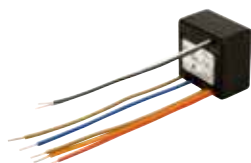
- Small sized single relay output for eurobox mounting
- Energy reading
- Range up to 100 m in open air
- Load: 16 A/250 VAC

#### MAIN FEATURES

- Wireless transmission based on IEEE802.15.4 @ 2.4 GHz
- Programmable routing function

# Our product range

Decentral rollerblind module	Programmable keypad	Master unit	Dupline master generator
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## SHDRODC230

- Up/down control of 1 AC rollerblind motor
- Up/down interlocking for motor
- AC power supply

### MAIN FEATURES

- Design for mounting in eurobox
- Relay load 5 A



## BACC-KEYPAD-DC-U

- Keypad for building access control and alarm control
- Indoor or outdoor applications
- 28 user-programmable codes
- Programmable LED indication
- Buzzer output

### MAIN FEATURES

- DC power supply



## SH2WEB24

- Master unit: home automation functions and energy data logging configurable by software
- Two RS485 communication ports (Modbus)
- One Ethernet port
- Two multi purpose USB 2.0 ports
- Micro SD

### MAIN FEATURES

- Dimensions: 2-DIN modules
- DC power supply



## SH2MCG24

- Connection to SH2WEB24 via internal bus or terminals via the high speed bus
- Up to 7 SH2MCG24 can be connected on the same network, considering the sum of SH2MCG24 and SH2WBU24

### MAIN FEATURES

- Dimensions: 2-DIN modules
- DC power supply

Wireless base unit	Universal mobile modem	Relay module	Relay module with energy reading
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## SH2WBU230

- Wireless transmission based on IEE 802.15.4, @ 2.4 GHz
- Maximum slave number: 250
- Up to 4 SH2WBU230 can be connected on the same network
- Connection to SH2WEB24 via internal bus or terminals via the high speed bus

### MAIN FEATURES

- Dimensions: 2-DIN modules
- DC power supply



## SH2UMMF124

- Universal modem extension for SH2WEB24
- Connection to SH2WEB24 via internal bus
- Compatibility with quad-band GSM-GPRS-EDGE
- Compatibility with dual-band UMTS-GPRS-HSPA

### MAIN FEATURES

- Dimensions: 2-DIN modules
- DC power supply



## SH2RE16A4/ SH2RE1A424

- 4 separate outputs relay
- LED-indications for supply, bus and outputs status
- Connection to other cabinet modules via local bus
- Push button for local on/off switching

### MAIN FEATURES

- Dimensions: 2-DIN modules
- Bus supplied
- SH2RE16A4: bus supplied
- SH2RE1A424: DC power supply



## SH2RE16A2E230

- 2 outputs relay
- Energy reading
- LED-indications for supply, bus and outputs status
- Connection to other cabinet modules via local bus
- Push button for local on/off switching

### MAIN FEATURES

- Dimensions: 2-DIN modules
- 230 V supplied



# Home Automation

## Our product range

### Solid state relay module



**SH2SSTRI424**

- 4 triac output
- Module load: 4 x 10 W
- LED-indications for supply, bus and outputs status
- Connection to other cabinet modules via local bus
- Push button for local on/off switching

#### MAIN FEATURES

- Dimensions: 2-DIN modules
- DC power supply

### Dimmer with energy reading



**SH2D500WE230**

- Universal dimmer switch for R, L, C up to 500 W and LED loads
- Integrated heat sink for temperature dissipation
- Energy reading
- Connection to other cabinet modules via local bus
- Push button for local on/off switching

#### MAIN FEATURES

- Dimensions: 2-DIN modules
- 230 V supplied

### 500 W dimmer module



**SH2D500W1230**

- Universal dimmer switch for R, L, C up to 500 W and LED loads
- Integrated heat sink for temperature dissipation
- Automatic load detection for L, R, C load
- Connection to other cabinet modules via local bus
- Push button for local on/off switching

#### MAIN FEATURES

- Dimensions: 2-DIN modules
- 230 V supplied

### 1-10V dimmer module



**SH2D10V424**

- Switching and dimming adjustable ballasts 1 to 10 V
- 4 independent dimmable outputs
- LED-indications for supply, bus and outputs status
- Connection to other cabinet modules via local bus
- Push button for local on/off switching

#### MAIN FEATURES

- Dimensions: 2-DIN modules
- DC power supply

### Up/down control for AC/DC motor



**SH2ROAC224 / SH2RODC224**

- Up/down control of 2 AC / DC rollerblind motors
- LED indication for power supply, dupline bus, motor up, motor down
- Connection to other cabinet modules via local bus
- Push button for local on/off switching

#### MAIN FEATURES

- Dimensions: 2-DIN modules
- DC power supply

### Digital input module and pulse counter



**SH2INDI424**

- 4 digital inputs NPN, PNP, voltage free
- The 4 inputs can be configured as contact or counter
- LED indication for power supply, dupline bus, input activated
- Connection to other cabinet modules via local bus

#### MAIN FEATURES

- Dimensions: 2-DIN modules
- DC power supply

### Dupline transparent module



**SH1DUPFT**

- Transparent dupline module
- The dupline bus is present on the top/bottom connectors and internal bus
- Connection to other cabinet modules via local bus

#### MAIN FEATURES

- Dimensions: 1-DIN module
- No supply is needed

### Touch screen/ data logger



**BTM-T4-24/BTM-T7-24**

- 4" and 7" colour display
- Easy setup of graphic pages and functions with the powerful software Wizard
- Activation of internet links through touch buttons
- Support viewing from IP cameras

#### MAIN FEATURES

- Ethernet connection
- Wide screen display, 64 K colours
- USB port, SD memory, Modbus RTU serial port

## OUR SALES NETWORK IN EUROPE

**AUSTRIA** - Carlo Gavazzi GmbH  
Ketzergasse 374, A-1230 Wien  
Tel: +43 1 888 4112  
Fax: +43 1 889 10 53  
office@carlogavazzi.at

**BELGIUM** - Carlo Gavazzi NV/SA  
Mechelsesteenweg 311, B-1800 Vilvoorde  
Tel: +32 2 257 4120  
Fax: +32 2 257 41 25  
sales@carlogavazzi.be

**DENMARK** - Carlo Gavazzi Handel A/S  
Over Hadstenvej 40, DK-8370 Hadsten  
Tel: +45 89 60 6100  
Fax: +45 86 98 15 30  
handel@gavazzi.dk

**FINLAND** - Carlo Gavazzi OY AB  
Petaksentie 2-4, FI-00661 Helsinki  
Tel: +358 9 756 2000  
Fax: +358 9 756 20010  
myynti@gavazzi.fi

**FRANCE** - Carlo Gavazzi Sarl  
Zac de Paris Nord II, 69, rue de la Belle  
Etoile, F-95956 Roissy CDG Cedex  
Tel: +33 1 49 38 98 60  
Fax: +33 1 48 63 27 43  
french.team@carlogavazzi.fr

**GERMANY** - Carlo Gavazzi GmbH  
Pfnorstr. 10-14  
D-64293 Darmstadt  
Tel: +49 6151 81000  
Fax: +49 6151 81 00 40  
info@gavazzi.de

**GREAT BRITAIN** - Carlo Gavazzi UK Ltd  
7 Springlakes Industrial Estate,  
Deadbrook Lane, Hants GU12 4UH,  
GB-Aldershot  
Tel: +44 1 252 339600  
Fax: +44 1 252 326 799  
sales@carlogavazzi.co.uk

**ITALY** - Carlo Gavazzi SpA  
Via Milano 13, I-20020 Lainate  
Tel: +39 02 931 761  
Fax: +39 02 931 763 01  
info@gavazziacbu.it

**NETHERLANDS** - Carlo Gavazzi BV  
Wijkermeerweg 23,  
NL-1948 NT Beverwijk  
Tel: +31 251 22 9345  
Fax: +31 251 22 60 55  
info@carlogavazzi.nl

**NORWAY** - Carlo Gavazzi AS  
Melkeveien 13, N-3919 Porsgrunn  
Tel: +47 35 93 0800  
Fax: +47 35 93 08 01  
post@gavazzi.no

**PORTUGAL** - Carlo Gavazzi Lda  
Rua dos Jerónimos 38-B,  
P-1400-212 Lisboa  
Tel: +351 21 361 7060  
Fax: +351 21 362 13 73  
carlogavazzi@carlogavazzi.pt

**SPAIN** - Carlo Gavazzi SA  
Avda. Iparraguirre, 80-82,  
E-48940 Leioa (Bizkaia)  
Tel: +34 94 480 4037  
Fax: +34 94 480 10 61  
gavazzi@gavazzi.es

**SWEDEN** - Carlo Gavazzi AB  
V:a Kyrkogatan 1,  
S-652 24 Karlstad  
Tel: +46 54 85 1125  
Fax: +46 54 85 11 77  
info@carlogavazzi.se

**SWITZERLAND** - Carlo Gavazzi AG  
Verkauf Schweiz/Vente Suisse  
Sumpfstrasse 3,  
CH-6312 Steinhausen  
Tel: +41 41 747 4535  
Fax: +41 41 740 45 40  
info@carlogavazzi.ch

## OUR SALES NETWORK IN THE AMERICAS

**USA** - Carlo Gavazzi Inc.  
750 Hastings Lane,  
Buffalo Grove, IL 60089, USA  
Tel: +1 847 465 6100  
Fax: +1 847 465 7373  
sales@carlogavazzi.com

**CANADA** - Carlo Gavazzi Inc.  
2660 Meadowvale Boulevard,  
Mississauga, ON L5N 6M6, Canada  
Tel: +1 905 542 0979  
Fax: +1 905 542 22 48  
gavazzi@carlogavazzi.com

**MEXICO** - Carlo Gavazzi Mexico S.A. de C.V.  
Calle La Montaña no. 28, Fracc. Los Pastores  
Naucalpan de Juárez, EDOMEX CP 53340  
Tel & Fax: +52.55.5373.7042  
mexicosales@carlogavazzi.com

**BRAZIL** - Carlo Gavazzi Automação Ltda.  
Avenida Brig. Luís Antônio, 3067  
B. J. Paulista CEP 01401-000 São Paulo  
Tel: +55 11 3052 0832  
Fax: +55 11 3057 1753  
info@carlogavazzi.com.br

## OUR SALES NETWORK IN ASIA AND PACIFIC

**SINGAPORE** - Carlo Gavazzi Automation  
Singapore Pte. Ltd.  
61 Tai Seng Avenue  
#05-06 UE Print Media Hub  
Singapore 534167  
Tel: +65 67 466 990  
Fax: +65 67 461 980  
info@carlogavazzi.com.sg

**MALAYSIA** - Carlo Gavazzi Automation  
(M) SDN. BHD.  
D12-06-G, Block D12,  
Pusat Perdagangan Dana 1,  
Jalan PJU 1A/46, 47301 Petaling Jaya,  
Selangor, Malaysia.  
Tel: +60 3 7842 7299  
Fax: +60 3 7842 7399  
sales@gavazzi-asia.com

**CHINA** - Carlo Gavazzi Automation  
(China) Co. Ltd.  
Unit 2308, 23/F.,  
News Building, Block 1, 1002  
Middle Shennan Zhong Road,  
Shenzhen, China  
Tel: +86 755 83699500  
Fax: +86 755 83699300  
sales@carlogavazzi.cn

**HONG KONG** - Carlo Gavazzi  
Automation Hong Kong Ltd.  
Unit 3 12/F Crown Industrial Bldg.,  
106 How Ming St., Kwun Tong,  
Kowloon, Hong Kong  
Tel: +852 23041228  
Fax: +852 23443689

## OUR COMPETENCE CENTRES AND PRODUCTION SITES

**DENMARK** - Carlo Gavazzi Industri A/S  
Hadsten

**MALTA** - Carlo Gavazzi Ltd  
Zejtun

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**LITHUANIA** - Uab Carlo Gavazzi Industri Kaunas  
Kaunas

**CHINA** - Carlo Gavazzi Automation  
(Kunshan) Co., Ltd.  
Kunshan

## HEADQUARTERS

Carlo Gavazzi Automation SpA  
Via Milano, 13 - I-20020  
Lainate (MI) - **ITALY**  
Tel: +39 02 931 761  
info@gavazziautomation.com



**CARLO GAVAZZI**  
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