velbus®

**makes
life
easy**

inspiration catalog **en**

I use the 'all off' button daily when I leave the house. That way, all lights and devices are switched off!

We chose to install Velbus when we built our home 19 years ago, as we were promised the installation would always be expandable. Recently, we built a porch. New panels were easily connected to the existing Velbus installation!

The app on my smartphone allows me to select a cosy nightly atmosphere when we're watching a movie. That's why we installed the Netflix and Velbus apps next to one another!

The control panel in our kitchen displays the actual energy consumption. Clever as the capacity fee is coming!

Introduction

Choosing to build or renovate your home is never easy. Numerous decisions are to be made, including the electricity. Read all about Velbus and its possibilities in this magazine.

Should you go for a classic installation or are you going for a home automation system? What does it cost? Isn't home automation too complicated? Is it expandable in the future? Our team will answer all your questions.

Velbus is a Belgian brand, developed and produced by Velleman Group in Gavere. With 20 years of experience in home automation and 50 years of know-how in the electronics development, Velleman Group will help you realize all of your projects.

We wish you lots of inspirational fun!
The Velbus Team

**Meet our Velbus team,
part of the even bigger
Velleman Group-team!**
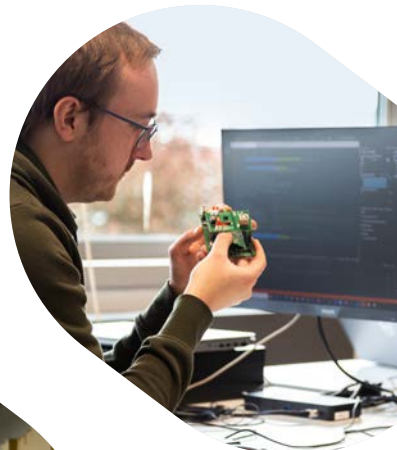
Why choose Velbus?
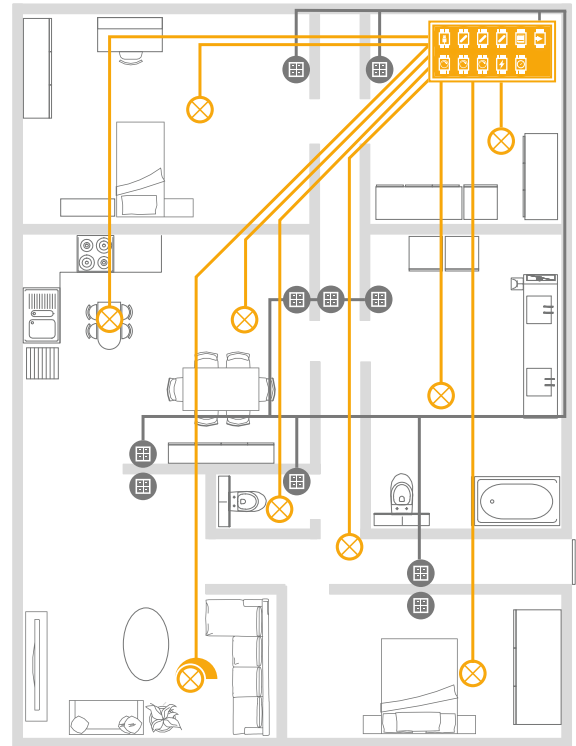
Velbus v. classic installation

Velbus is a home automation system which differs from a classic installation.

In a classic installation, the power sockets are directly connected to the electrical panel per room or floor. In a Velbus home automation system, each power socket can be connected separately. This way, you can separately switch each power socket, such as the garden lighting or coffee machine.

In a classic installation, the lighting points are grouped per room and connected to a single switch in that room. Only that particular switch can control that lighting point. In the Velbus home automation system, the lighting points are connected directly to the electrical panel. All switches are connected using 1 cable, the bus cable. Then, Velbus modules in the electrical panel are connected to the bus cable, which will switch the power sockets and lighting points. This system allows you to control every power socket and lighting point from any control panel in the house.

Also, it is possible to equip the control panel next to the front door or your bed with an 'all off' button. This one button will switch off all desired lights and power sockets at once. You won't have to worry whether the light in the bathroom is switched off ever again.

The Velbus home automation system has many more possibilities. You will be able to create atmospheres (combinations of dimmed and non-dimmed lights), set switching times, check the state of devices, consult the actual energy consumption, open and close the sun blinds based on the weather and so much more.

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The same price as a traditional system

Home automation is still considered as being expensive. Did you know that you pay nearly the same price for a Velbus system than for a classic installation? Actually, it's cheaper than a traditional installation because a home automation system offers you loads of possibilities.

Only pay what you are using

Velbus is an ever-expandable modular system. The basic package is an already complete system at a bargain price. Compared to other home automation systems, Velbus does not feature an expensive central unit. When you decide to expand your installation, you will only pay for the necessary extra modules.

Save on energy

Once correctly configured, the Velbus system allows you to save on energy. The lighting and heating switch off automatically, the 'all off' button switches off all standby devices... The newest Velbus developments will even notify you as soon as your energy consumption is excessive. That's how you will save money on your bill.

Avoid follow-up costs

After your Velbus installation has been installed and configured by your approved installer, fine-tuning the system to your wishes is a walk in the park. There is no need to call upon your installer or pay for every single adjustment.

Give your house added value

An automated home is worth money. Thanks to the Velbus system you will recoup your investment when selling your house.

Reliable

Made in Belgium

Velbus is a Belgian brand, developed and produced by Velleman Group, with 50 years of experience in the development and productions of electronics solutions.

With Velbus, Velleman Group has been on the home automation market for 20 years. Besides a Belgian engineers team, the Velbus system is made in Belgium to guarantee quality and short delivery times.

10 years warranty

At Velbus, we believe in what we do. That's why we offer a 10-year warranty on our modules from the first use of your installation. This warranty will be registered by your approved installer.

Expandable without limits

The Velbus system can be expanded without any limits. By keeping our standard communication protocol as is, newly added modules will always be backwards compatible with the older modules.

Users from the first hour (almost 20 years ago) can still expand their existing installation today. Replacing older control modules with newer models? It's all possible!

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Safe(ty)

Velbus is a very safe system where it is shielded from the outside world. Your privacy is guaranteed and data will not be saved onto foreign servers.

The same communication protocol as used in the automotive industry

Velbus is based on the industrial CAN-bus communication system, which is also used in the security system in cars. This bus cable guaranteed that a sent signal actually arrives at the recipient. Every Velbus module scans the bus continuously and executes the (recovery) instruction whenever necessary. Like a vehicle's airbag will deploy at a crash, so will Velbus switch on the light whenever you need it.

Decentralized system

Each Velbus module is independent from any other module thanks to the internal communication and execution body. There is no expensive central server/module executing all commands. That's why we talk about a decentralized system. A module in your Velbus system with deviant behaviour will not affect the rest of your installation.
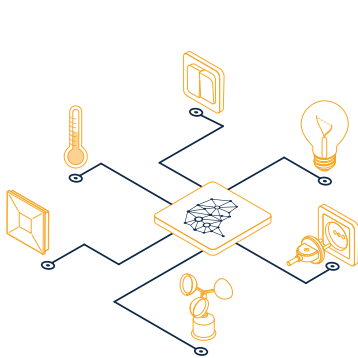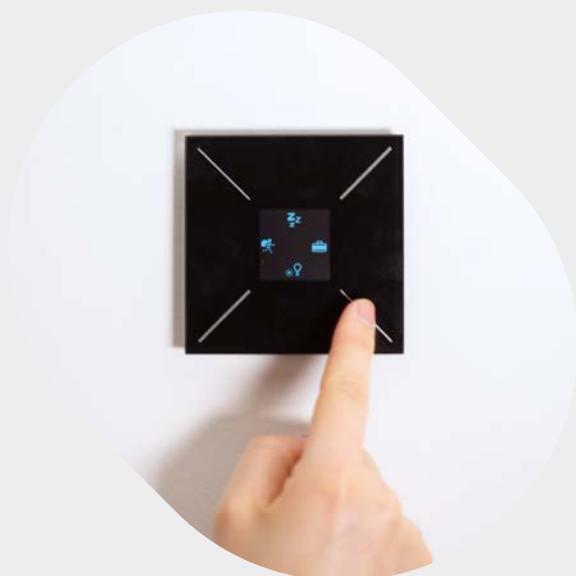
central system
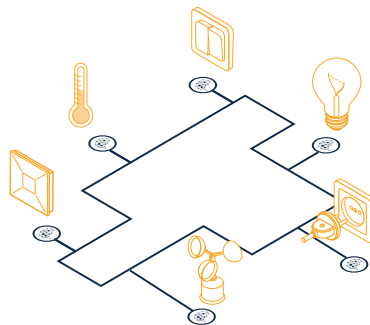
decentralized system
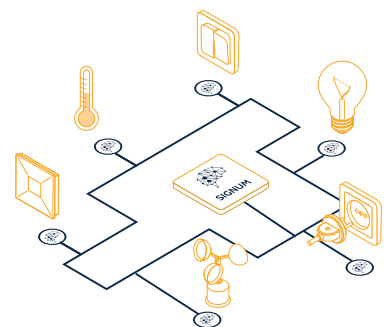
hybride system

Simplicity

Easy to use

Velbus is easy to use! Control all your lighting and devices with a simple stroke on our stylish glass control panels.

- Feedback through LEDs on the control panel and/or Edge Lit illumination

- Assign a name or picture to each action

- Control the status of your home lighting or devices on only one panel

- Navigate between multiple pages on a panel

Easy to configure

Configuring and programming may sound like a difficult task, but not with Velbus. Once the basic configuration completed by your approved Velbus installer, setting your system using our free Velbuslink software on your PC is a walk in the park.

Easy to install

Even your approved Velbus installer will gladly work with Velbus. Compared to competing systems, we can always offer you the most attractive quote for both home automation and larger projects. Choosing a Velbus solution speaks for itself. Your electrician or installer does not know Velbus? No problem! After a basic training, every professional electrician will be able to work with Velbus.
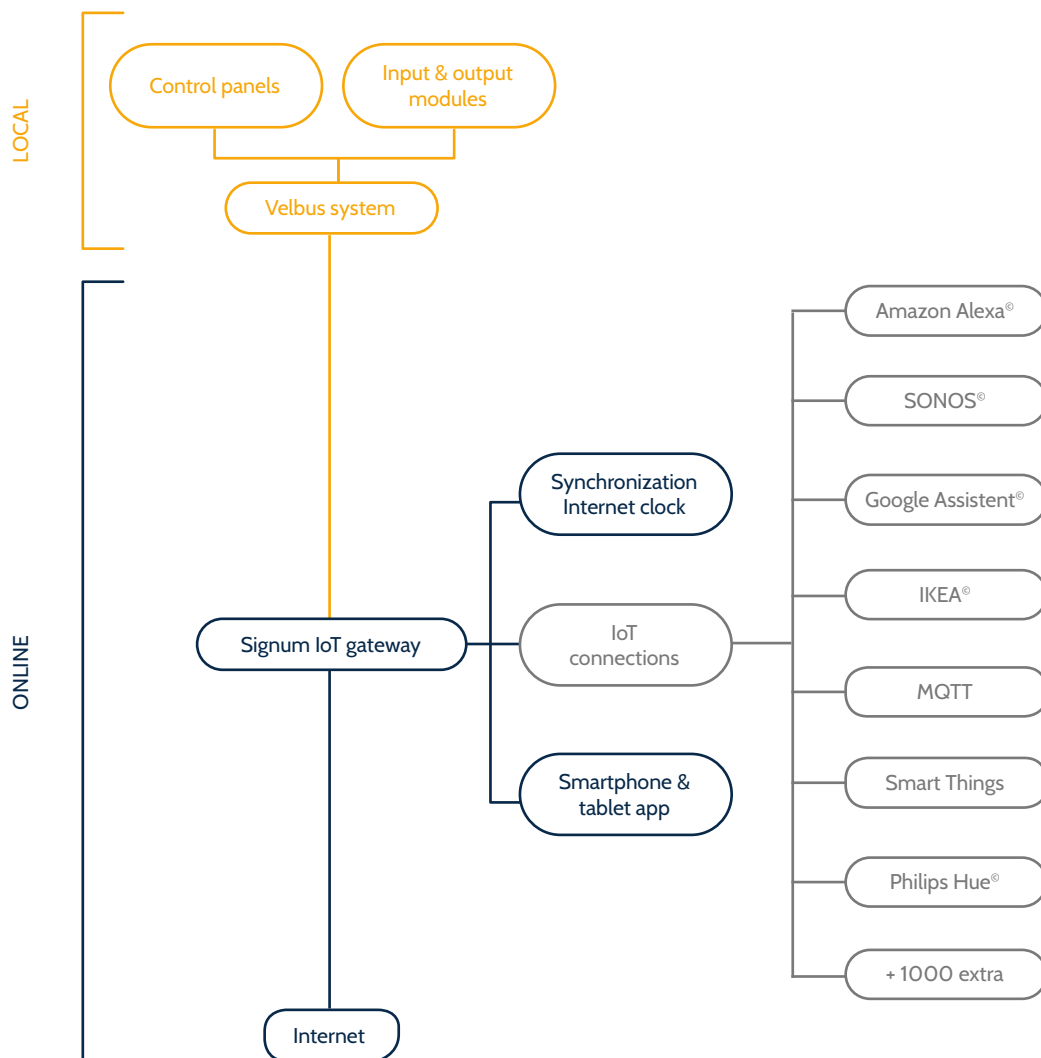
Velbus makes your life easy

Programming the switch-off time of lighting, rolling down the sun blinds on a sunny summer day, automatically switch on the coffee machine in the morning... A properly configured Velbus system makes your life so much easier!

Flexibility

Velbus is a flexible and modular system which adapts to your changing needs. Not only can you extend the system with extra modules, you have access to more than 1000 extra IoT services through our Signum IoT gateway such as Amazon Alexa®, Google Assistant®, Philips Hue®, SONOS®, IKEA®... These services allow new and innovative opportunities, and total flexibility in integration possibilities.

Besides these online services, the Signum module also facilitates synchronization of your local Velbus installation with an Internet clock. The system will always display the correct time, even after a power failure. Additionally, apps for your tablet and smartphone are available to control and consult your Velbus installation, wherever you are

LOCAL

Control panels

Input & output modules

Velbus system

ONLINE

Signum IoT gateway

Synchronization Internet clock

IoT connections

Smartphone & tablet app

Internet

Amazon Alexa®

SONOS®

Google Assistent®

IKEA®

MQTT

Smart Things
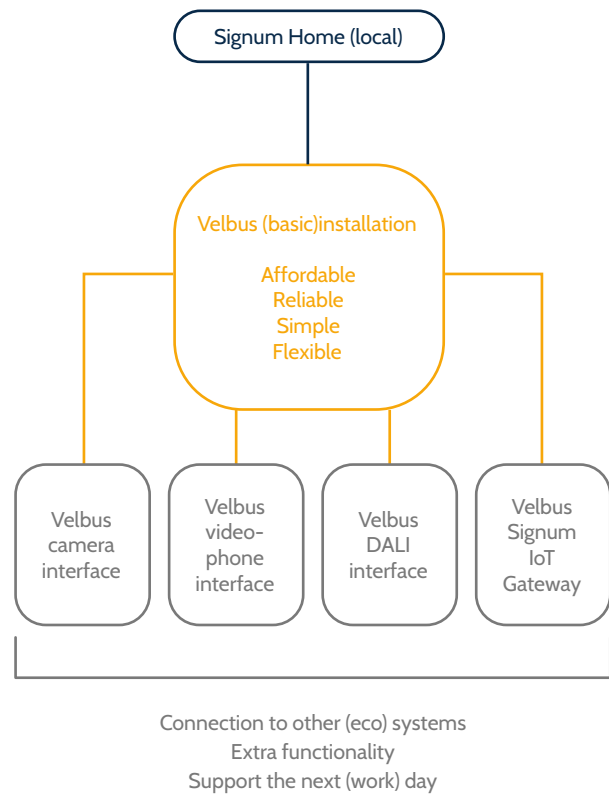
Philips Hue®

+ 1000 extra

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Difference between Velbus standard installation and interfacing

A distinction should be made between your Velbus installation and the extension using interfaces. Like aforementioned, Velbus is decentralized guaranteeing an affordable, reliable and easy-to-use system.

Interfaces such as the Signum IoT gateway and DALI interface allow you to connect to other services or (eco) systems. These interfaces function independently in the Velbus installation and execute specific actions through that module. Your installation becomes hybridal, to make your local (basic) installation ever reliable and flexible with extra functions.

Adding interfaces, however, brings other challenges. It is literally a translation of Velbus commands to a third-party system. Although very extensively tested, there may be external factors which we have no influence on, such as a stable Wi-Fi connection or a decent 4G/5G reception. Consequently, an interface can never be 100 % reliable. That's why we offer technical support from the next (working) day.

For a stable installation, we recommend starting with a local (basic) installation, customizing it to your needs, adding modules and only then completing it with extra interfaces. This will ensure your system will work reliably in the case of a faulty connection.

Signum Home (local)

Velbus (basic)installation

Affordable
Reliable
Simple
Flexible

Velbus camera interface

Velbus video-phone interface

Velbus DALI interface

Velbus Signum IoT Gateway

Connection to other (eco) systems
Extra functionality
Support the next (work) day

Comparison with other systems

Velbus allies reliability with simplicity, while other parties try to convince you with technical gadgets. Admitted, we too are fan of these gadgets, but they may not be at the expense of a button which switches the light on or off. We will be happy to sit together with you and find a stable, simple and custom-made solution which suits your needs.

Installation example

The following example shows a possible configuration of Velbus® glass control modules in an average home..
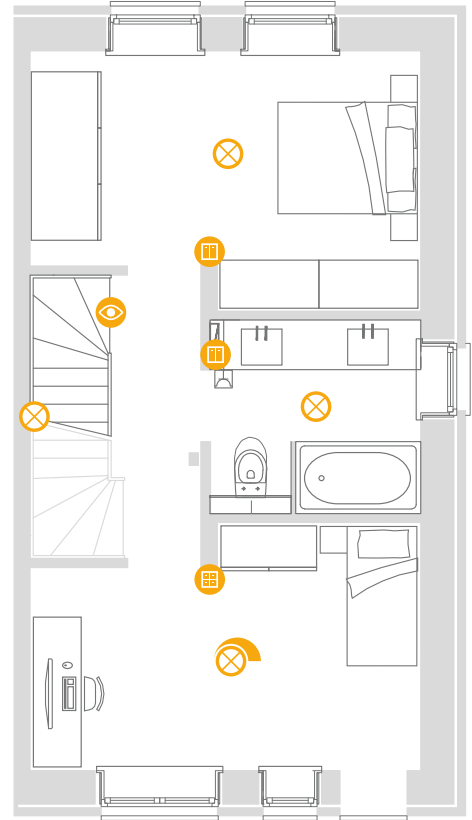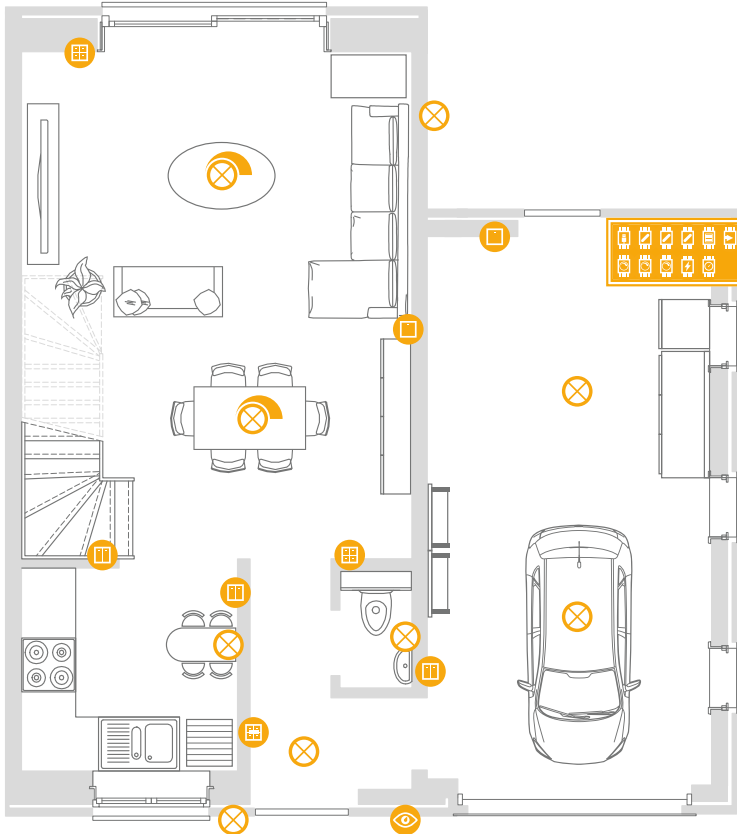
- your home is equipped with 13 glass panels with feedback all around the house
- your system includes one glass control module with OLED display
- you can control all items in your home automation system from your smartphone or tablet (wireless network required)
- a Velbus motion and twilight sensor is installed at the front door
- the lights in the staircase are being triggered with a Velbus movement sensor
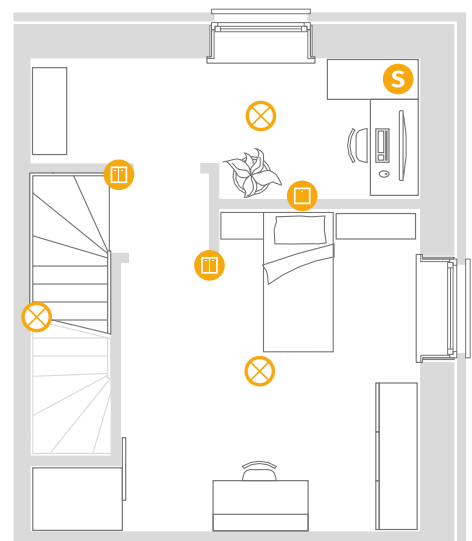
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Velbus modules used in the example

3 glass control modules with 1 touch key

7 glass control modules with 2 touch keys

3 glass control modules with 4 touch keys

1 glass control module with OLED display

1 ceiling motion and twilight sensor

1 outdoor motion, twilight and temperature sensor

1 IoT gateway

1 configuration module with USB and RS-232 interface

3 four-channel relay modules

1 two-channel blind control module

1 input module

3 dimmer modules

1 switching power supply module

1 kilowatt hour counter

Features

- the glass control module with OLED display can contain up to 8 pages with 4 functions each
- the system can be reprogrammed at any moment (even without having to restarting the system)
- use the OLED screen to monitor and manage the temperature in every room of the house
- the system can display your energy consumption on your mobile device or on the OLED display (requires VELBUS kilowatt hour counter)
- the system can display the indoor and outdoor temperature on your mobile device or on the OLED display
- every module has a daily, monthly and yearly schedule with astronomical clock
- each light point can be configured in 40 different ways: on/off, delayed off, staircase lighting, blinking, double timers, etc...
- a single button can be used for two functions (for example a short press switches everything off and a long press switches everything on.
- you can activate or deactivate programs and program steps from wherever you are
- you can use all buttons for any function: controlling lighting, locking other buttons, activate or deactivate program steps...
- date and time are always correct thanks to an internet clock
- all settings are remembered in case of a power failure
- you can control the blinds manually or set them to react to sunrise or sunset, alarm signals, temperatures...
- all glass touch panels have a built-in temperature sensor that you can use to operate anything
- you can set the light in your bedroom to wake you up gradually
- you can activate any mood in every room from the OLED display
- you can use the LEDs on the buttons to display the status of inputs and outputs (lights, alarms...) and for night lighting
- you can set different access levels for the smartphone or tablet app depending on the user For example, you can let the children control their own rooms only.
- if the system detects movement in the evening, it will illuminate the driveway
- and so on

Our solutions

Operation

With Velbus, controlling your smart home starts with glass touch panels. The range offers 5 different models per colour: choose a model with one, two or four buttons, with integrated PIR sensor or a multi-page model with OLED display.

The sleek design with white or black finishing fits every interior. All models are touch sensitive and have LED feedback lights. These control modules can be connected directly to the Velbus bus system and universally recessable.

We distinguish two versions: **the GP series** (glass panels) features touch buttons (arranged in an X-pattern) with feedback/night indication via white LEDs at the front. The **Edge Lit series** features touch buttons (arranged in an X-pattern) with feedback/night indication via lateral RGBW LEDs.

You do not like the design of those control modules? No problem! Thanks to the push-button interfaces you control your Velbus installation with push buttons of the brand of your choice.

The **GP series** with feedback/
night indication via white LEDs at
the front.

The **Edge Lit series** with
feedback/night indication via
lateral RGBW LEDs.

Each panel is made of security glass with smart touch technology and features an internal temperature sensor and thermostat function. This way, you can set a temperature for each room.

Use the touch buttons to execute any pre-programmed function (light and power socket switching, button locking, (de)activation of program steps...). With a control panel, it is easy to control the garden lighting or sprinkler system from the comfort of your bedroom.

You can also program other actions between a short or a long press. For example, program an 'all off' button to execute the action after a press of 2 seconds. Furthermore, program a button as a 2-channel or multichannel control button. The system will select a different action at each press.

The feedback LEDs display the status of the in-/outputs (e.g. lights, alarm, devices...). The Edge Lit panels allow you to choose between 256 different colours per button (combination of red, green, blue and warm white LEDs) and to select the light intensity as ambient or feedback illumination. The GP series features dimmable white LEDs. They allow you to select a different intensity for both day and night, and to use them as night illumination.
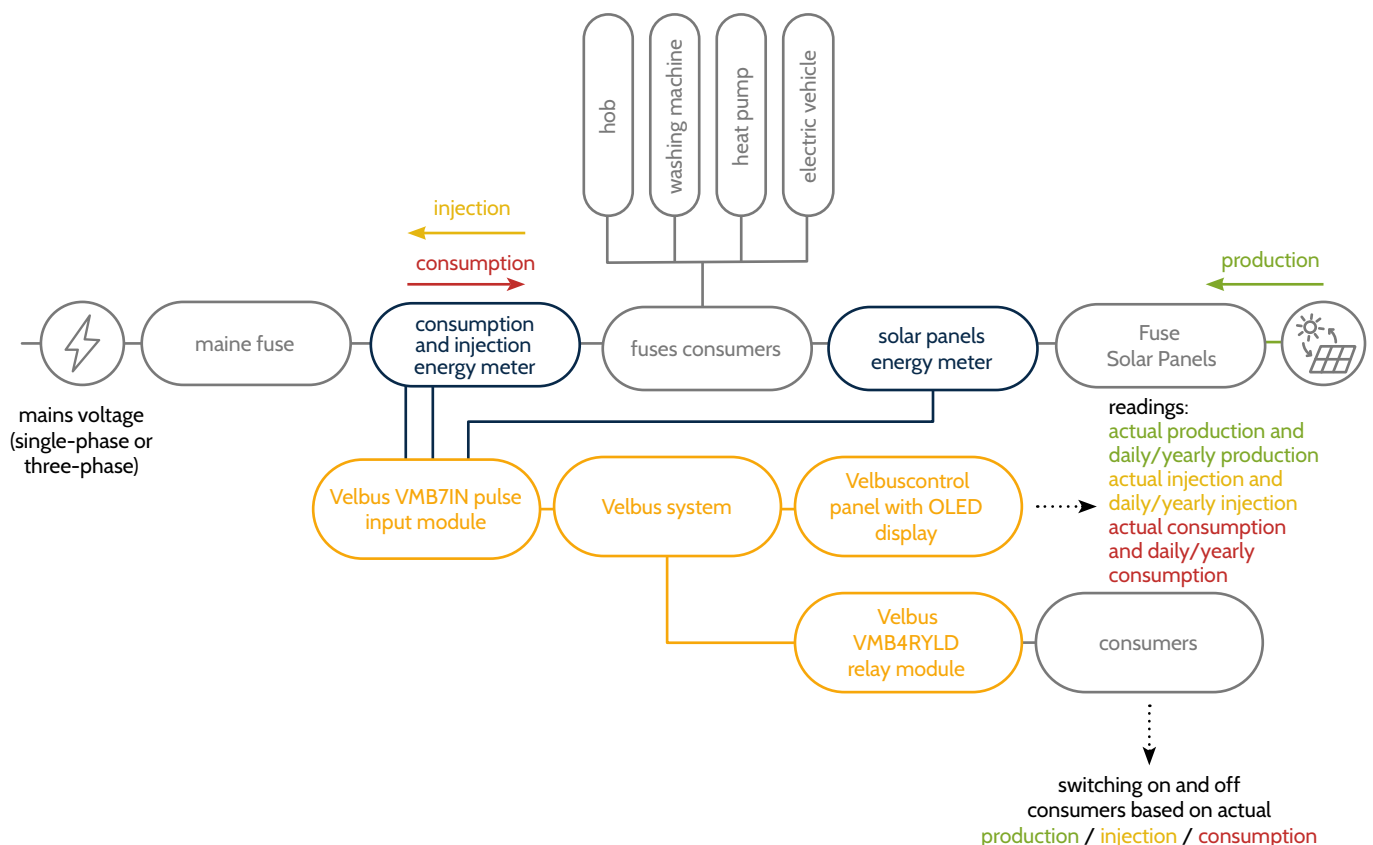
The PIR panels have an integrated movement and light intensity sensor. They automatically switch on the lights when movement is detected or when it's getting dark. Of course, you can always switch on the light manually with a single press on the control panel.

Energy management

Energy management is crucial to keep your energy bill low. With the new digital meter, the capacity fee will be introduced mid-2022 to calculate the quarter-hour demand. Consumers with peak demand will pay more than consumers spreading their electricity demand.

An example: When you arrive at home after your workday, plug in the EV, switch on the heating (heat pump) and start cooking on the electric hob, you will consume a large amount of energy (peak load). You risk paying much more, as the capacity fee is calculated based on this peak load for the rest of the month, even if you do not consume any further energy!

With the capacity fee, it will be capital to spread the use of these electrical large-scale consumers (heat pump, EV charging, cooking hob, dryer, dishwasher, air conditioning). This way, monthly peak loads will be limited and you will noticeably save on your energy bills. To do so, Velbus can be used for monitoring and smart switching

.

mains voltage (single-phase or three-phase)

injection

consumption

production

hob · washing machine · heat pump · electric vehicle

maine fuse · consumption and injection energy meter · fuses consumers · solar panels energy meter · Fuse Solar Panels

Velbus VMB7IN pulse input module · Velbus system · Velbuscontrol panel with OLED display

Velbus VMB4RYLD relay module · consumers

readings:
actual production and daily/yearly production
actual injection and daily/yearly injection
actual consumption and daily/yearly consumption

switching on and off consumers based on actual production / injection / consumption

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Energy monitoring

The Velbus energy meters measure both the energy consumption as the backfeeding into the electricity grid of surplus energy (e.g. by solar panels). The measured values are displayed on the control panel using different colour codes: green for the backfeeding into the electricity grid, orange for consumption between 0 and 2.5 kWh, and red for large-scale consumption from 2.5 kWh. This gives you a clear view on your consumption and allows for intervention if necessary.

Smart switching

Go even further and automatically switch heavy consumers on or off based on your energy consumption. This way, your EV will automatically start charging only if the general energy consumption is lower than a programmed value and vice-versa. Thanks to a programmed management, energy consumption is spread to reduce your electricity bills.

Access control and alarm

A home is where you feel safe. Velbus helps you with multiple solutions: access control and intrusion prevention.

Access control

The Etiampro video intercom is the ideal solution to secure the access to your home. As soon as a visitor rings the doorbell, you receive a notification on your smartphone. The video intercom allows you then to see live what is happening. A simple action on the Velbus module will open the front door and simultaneously switch on the lighting in the hall. Are you not at home? The Signum IoT app does the same at a distance.

Even if you are abroad, Velbus will simulate your presence at home. During your absence, a programmed sequence will randomly switch particular lighting points on and off to simulate your presence in your home in order to put off unwanted visitors.

Intrusion prevention

We also offer a solution for intrusion prevention. Etiampro CCTV systems help you to keep an eye on your home while the Velbus home automation system focusses on presence detection using sensors. The window and door contacts detect which window or door is opened. By connecting them directly to your alarm system, you put off potential burglars.
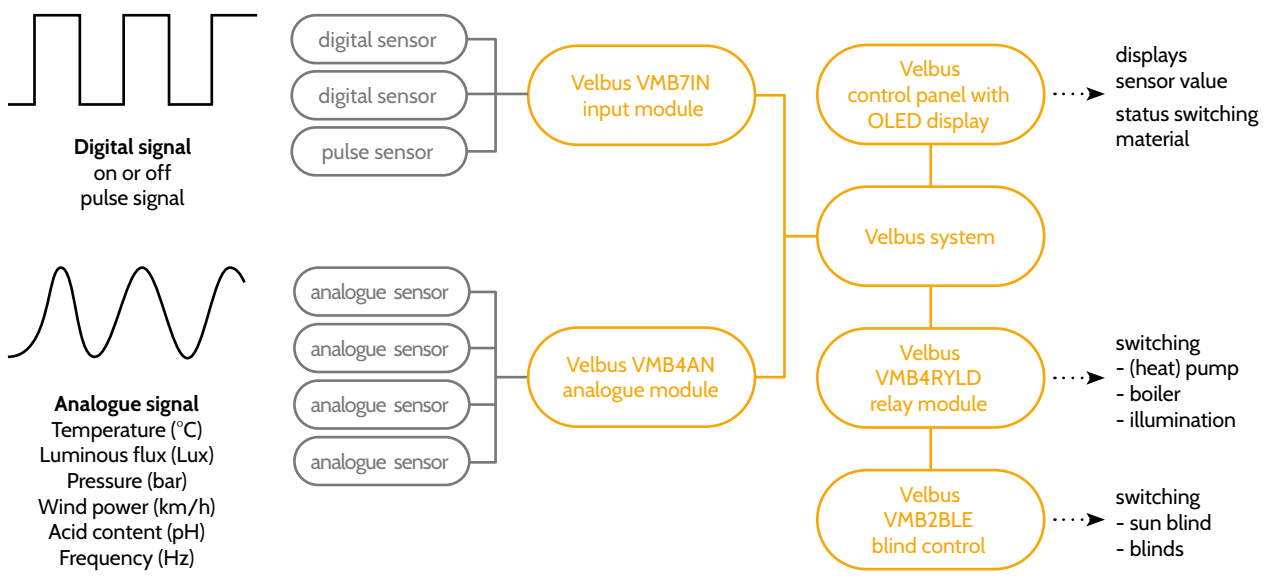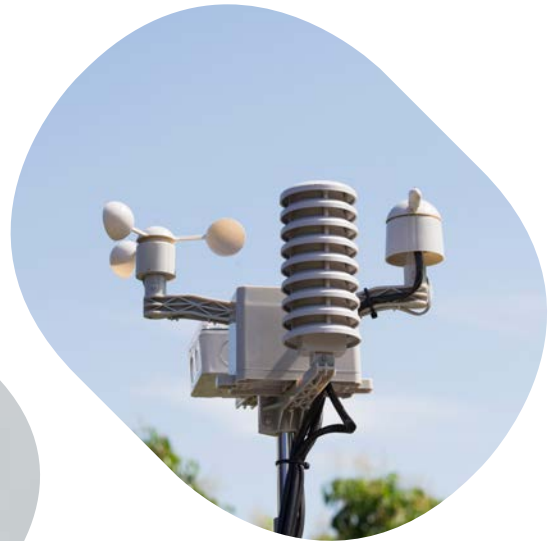
Wireless solutions

Extend your Velbus installation with the Signum IoT gateway and control the lights, power sockets and every other action via an app on your smartphone. Also, use our 2- or 4-channel control module and open or close the garage door without stepping out of the car.

Sensors

Sensors installed inside your home gather useful information. The Velbus system uses this information to execute automatic actions. For example, think of a PIR sensor which will switch on the outside lighting as soon as someone walks the driveway. Or use the actual weather data to automatically roll the sun blinds up and down.

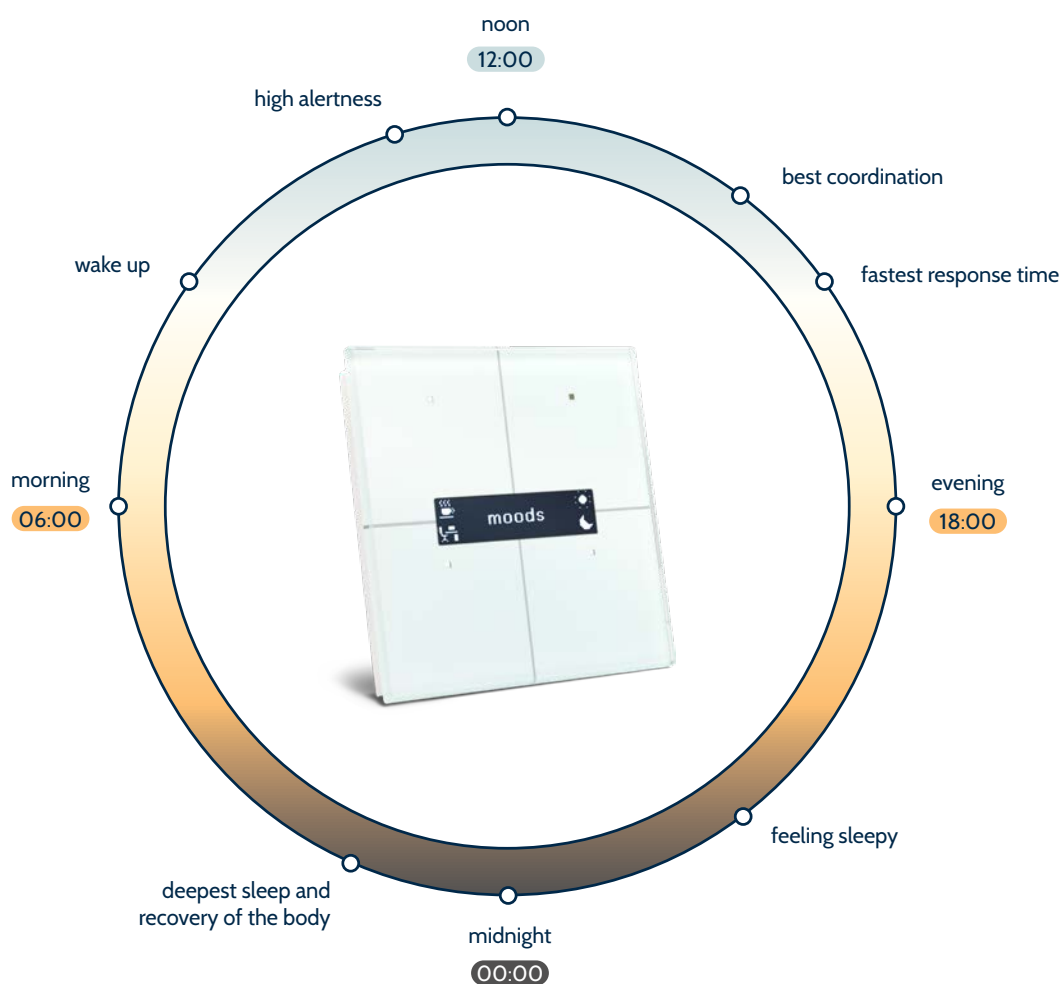The more sensors you install, the smarter your Velbus installation.

Digital signal
on or off
pulse signal

digital sensor
digital sensor
pulse sensor

Velbus VMB7IN
input module

Velbus
control panel with
OLED display

····► displays
sensor value

status switching
material

Velbus system

Analogue signal
Temperature (°C)
Luminous flux (Lux)
Pressure (bar)
Wind power (km/h)
Acid content (pH)
Frequency (Hz)
...

analogue sensor
analogue sensor
analogue sensor
analogue sensor

Velbus VMB4AN
analogue module

Velbus
VMB4RYLD
relay module

····► switching
- (heat) pump
- boiler
- illumination

Velbus
VMB2BLE
blind control

····► switching
- sun blind
- blinds

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Lighting control

Why dim the lighting?

Besides an 'all off' button, light dimming is a useful function offered by the Velbus home automation system. Appropriate lighting according to the moment of the day brings the ideal atmosphere. To create multiple atmospheres, we recommend combining professional Etiampro LED strips with a Velbus control system and a universal dimmer module or DALI interface.

The LED strips, available in multiple colour temperatures and intensities, are ideal to create the desired atmosphere.

Velbus also allows you to select a factory atmosphere through the control panels. This way, you can choose a factory setting and colour configuration for the morning, evening or a party, and manually modify the setting to your needs.

noon
12:00

high alertness

best coordination

fastest response time

wake up

morning
06:00

evening
18:00

moods

feeling sleepy

deepest sleep and
recovery of the body

midnight
00:00

morning	noon	evening	night
cool light high intensity	white light high intensity	warm light low intensity	indicator light

Relay modules

Our relay solutions allow you to switch a large number of devices, such as indoor and outdoor lighting, boiler or heat pump, EV charger...

A relay module can generate pulses. These pulses will open a garage door or establish a connection to other systems. This way, you will be able to program a 'leave-the-house' action, where the module will arm the alarm as soon as this action is executed.

Also, a relay module can be used to switch a power socket which is difficult to reach, a standing lamp, a music installation, TV set, etc.

Sun-blind control

Your house has electric shutters or sun blinds? Did you know that you can automatize them with Velbus? Control the inside ambient temperature and keep direct sunlight out by lowering the blinds automatically. The wind starts blowing harder? The blinds automatically raise to avoid damage.

To control all of this, the Velbus system uses time schedules, weather data captured by sensors, sunrise and sunset times or the simple manual action by the user.
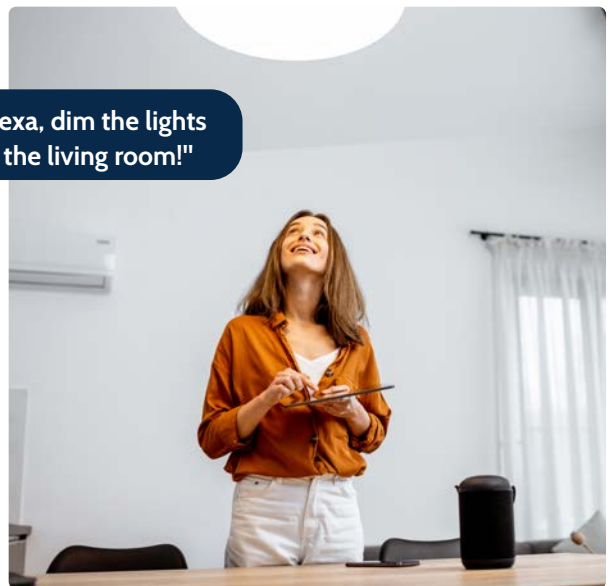
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IoT-services

The Signum IoT gateway allows to extend the Velbus installation with over 1000 extra online IoT services. This way you can couple and voice-control your Velbus installation to services such as Amazon Alexa, Google Assistant or Philips Hue.

The software features a user-friendly interface which allows you to connect your Velbus installation and to these online services. By installing the Signum IoT app on your smartphone or tablet, you can control all Velbus actions from the comfort of your armchair or any place with an Internet connection. Are you out of the house? Velbus allows you to remotely switch on the heating so that you enter a warm home.

Our tablet holders are the ideal solution to affix the tablet on the wall. Their elegant design will fit every interior.

"Alexa, dim the lights in the living room!"

Starting with Velbus

Why not install the Velbus system yourself

Get the introductory Velbus pack and install the glass control panel with OLED display, a 4-channel relay module and configuration module. We also offer all necessary power supplies and connection cables. Our quickstart guide and detailed instructions will guide you through the configuration and installation process.

Training

Your installer does not have any experience with Velbus? We regularly organize home automation trainings, both online as face-to-face at our headquarters in Gavere. Once completed, we offer technical support through our ticketing system at the first use of the installation. This way, your installer will have all necessary elements to help you with a reliable solution.

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Your approved Velbus installer expert in connected solutions

You can leave the installation of the Velbus system to one of our approved installers. Together, we will find an affordable, reliable, simple and flexible solution. Your installer will assure the electrical installation, the connection of the Velbus modules and a basic configuration which will suit your needs.

Velbus Experience Center

Visit our Velbus Experience Center in Gavere and discover all the possibilities of the Velbus home automation. Contact us or make an appointment now on **velbus.eu**.

References

Houses

Single-family house

Bostoen, market leader in the field of passive houses, chooses Velbus for its light, shutter and heat control. Thanks to the easy installation of the Velbus system, building a home takes less time and both the end user as Bostoen take advantage of the excellent price-quality of Velbus. The intuitive Velbus home automation system combines a push-button interface with traditional control buttons for even more ease-of-use!

Villa

More and more villas are being equipped with the Velbus home automation system. The combination of glass control panels, mood lighting and LEDs brings a modern touch to every interior. A wall-mounted tablet in the centre of the house displays a handy status of all the devices in every room. Moreover, Velbus is compatible with your alarm system and door video doorbell.

Terraced house

Choosing Velbus in your terraced house is a smart thing to do. Thanks to its flexibility and lifelong extensibility you can add – when renovating gradually – more functions and rooms to the existing system. Velbus evolves with your needs, just like your house. Less expensive than a traditional system, you can spend the extra budget on energy-saving measures.

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Industrial building

Velbus is also very usable in industrial buildings! The interior layout of a building can change regularly. That's why it is interesting to choose for Velbus here also. When the layout is redesigned you can easily adapt the modules to the new layout. The system is easy to install as all control panels are connected to the electrical panel using only one single cable.

"

We chose to use Velbus to control all indoor and outdoor lighting in our new commercial building, offices and workplace.

At Cadcamatic, certain lighting circuits are equipped with the DALI interface, and it works perfectly. It is striking that the control panels are so easy to use. No more endless fiddling with a myriad of traditional push buttons.

The simple configuration of the system allowed us to install everything ourselves. The only time we needed support, Velbus's technical department helped us quickly.

A nice piece of Belgian technology... Highly recommended!

Alexandre Rogiers
managing director Cadcamatic

Retirement homes

The modular aspect of the Velbus system is of great advantage in retirement homes. Each room has its own individual controls but can also be supervised through a centralised control position. This way, health care providers can immediately intervene in case of a problem, e.g. the bathroom lamp which hasn't been switched off, a movement sensor which hasn't detected a movement for several hours, a resident using the control panel to ask for help...
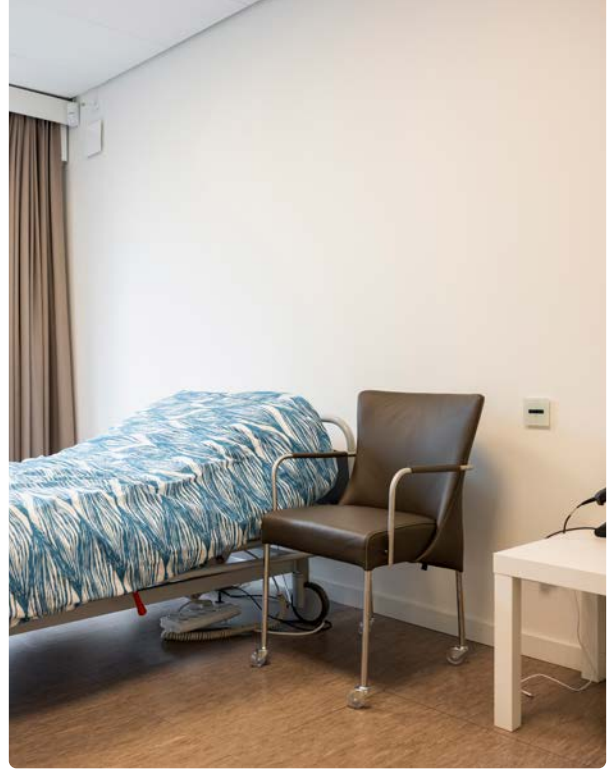
Restaurant

The mood in a restaurant is just as important as the quality of the food it serves. The Velbus control panel features pre-programmed mood actions which allow you to quickly select a cosy evening atmosphere or a powerful illumination to work in safe circumstances. Prepare the dining room and then dim the light to the desired setting with a single press on the button. The 'all off' button will switch everything off when you leave the premises.

Man cave or game room

Velbus is also suited for smaller installations. Control some LED strips in your game room or man cave and pay only for the used modules. Would you like to install a projection screen to create your own home cinema? You only need to add those modules to roll out the screen and nothing more.

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Contact information

Visit our Velbus Experience Center in Gavere

Contact our approved installers

Do you want to become a Velbus installer?
Participate in our next training session.

Contact us

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9890 Gavere, België

velbus®
makes life easy

Affordable

Simple

Reliable

Flexible

Developed and
produced in Belgium

Expandable
without limits

10 years warranty

Safe(ty)