

EN22

ingenium



ΔBUSing®

wings



***The future in your hands***



After more than two decades of activity, **Ingenium** continues with its activity of **development, design and manufacture** of home automation solutions, and 100% of this activity is carried out at the headquarters in **Asturias, Spain**. All this time has served to strengthen Ingenium product line based on BUSing protocol, as well as to complement **Wings** wireless range, which allows any BUSing wired installation to be extended. The ZBus product line for zoned air conditioning control is also emerging as a business line with great potential and interest. Since 2020, Ingenium has been developing **new IoT devices** that allow Ingenium to evolve in an agile way in this changing and innovative market. A family of **new IoT sensors for CO<sub>2</sub> measurement or the connectable thermostats** are a perfect example of this.

## New VIIP screens with SIP support

This 2022 version of BUSing catalog includes all the new references of the **new VIIP home automation screen**, with **integrated video intercom system functionality**, support for **SIP installations and call forwarding**. A screen with an extremely slim design, available in 7.1" or 10.1", and with **different network interfaces** such as Wi-Fi connection and / or up to two ethernet connectors. At visualization level, it allows to show the BUSing installation in plans with customizable images, or organized by rooms, so that the client can choose

the option that is most comfortable for him and design it to his liking through the mobile applications for iOS or Android. More information on page 19.

As a complement to the new family of VIIP screens, an **IoT web server** is added in DIN lane format with support for **call forwarding** in installations with SIP video intercom, in addition to having native support for third-party integration, and many other functionalities.

## Thermostats and CO<sub>2</sub> detectors

Regarding **CUBIC** temperature and humidity sensors range, there are added references incorporating **CO<sub>2</sub> measurement** to TH and TL models, which allow controlling **air quality** in the room in which they are installed. With this new version of CUBIC sensors, Ingenium is committed to innovation and adaptability to new times, where air quality control becomes very important, especially in closed spaces. More information on page 12.

A new **temperature and humidity** sensor, **CUBIC-TLRV**, has been added to the **CUBIC thermostats family**, with an attractive circular panel at the top that allows controlling the desired temperature, as well as different operating modes. It has also 8 programmable touch areas. More information on page 13.

Ingenium HQ in Asturias, Spain.



|                   |                                                                                     |
|-------------------|-------------------------------------------------------------------------------------|
| Visualization     |    |
| Integrations      |    |
| Energy Efficiency |    |
| Technical Alarms  |    |
| Lighting          |    |
| Supply            |   |
| Presence          |  |
| Blinds            |  |
| Clima             |  |
| Audio             |  |
| Hotel             |  |



## INGENIUM

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## CLIMATE CONTROL BY ZONES

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# PUSH-BUTTONS & THERMOSTATS

Cubic V8  
Cubic V6  
Cubic SQ6  
Cubic SQ4  
Cubic SQ2

Cubic T  
Cubic TH  
Cubic TL  
Cubic TLV  
Cubic TLRV  
TRMD



PUSH-BUTTONS

The new CUBIC series has several models with different number of touch areas.

A LED light indicator is associated with each of these areas.

There are two sizes depending on the model: square format and vertical rectangular format.

Design tool:



Glasses:

CUBIC Capriccio SQ: GCC-SQ

CUBIC Capriccio V: GCC-V



CUBIC V8



Capacitive push-button with 8 independent touch areas, completely programmable. LED indicator associated with each touch area.

Vertical rectangular format. Mounting on universal mechanism box.

Built-in temperature sensor with PI thermostat for better energy efficiency and comfort.



CUBIC V6



Capacitive push-button with 6 independent touch areas, completely programmable. LED indicator associated with each touch area.

Vertical rectangular format. Mounting on universal mechanism box.

Built-in temperature sensor with PI thermostat for better energy efficiency and comfort.



CUBIC SQ6



Capacitive push-button with 6 independent touch areas, completely programmable. LED indicator associated with each touch area.

Square format. Mounting on universal mechanism box.

Built-in temperature sensor with PI thermostat for better energy efficiency and comfort.



CUBIC SQ4



Capacitive push-button with 4 independent touch areas, completely programmable. LED indicator associated with each touch area.

Square format. Mounting on universal mechanism box.

Built-in temperature sensor with PI thermostat for better energy efficiency and comfort.



CUBIC SQ2



Capacitive push-button with 2 independent touch areas, completely programmable. LED indicator associated with each touch area.

Square format. Mounting on universal mechanism box.

Built-in temperature sensor with PI thermostat for better energy efficiency and comfort.

Basic

Front glass fixed, white or black.

White: CB-V8B

Black: CB-V8N

White: CB-V6B

Black: CB-V6N

White: CB-SQ6B

Black: CB-SQ6N

White: CB-SQ4B

Black: CB-SQ4N

White: CB-SQ2B

Black: CB-SQ2N

Design

Front glass fixed, print customizable.

White: CD-V8B

Black: CD-V8N

White: CD-V6B

Black: CD-V6N

White: CD-SQ6B

Black: CD-SQ6N

White: CD-SQ4B

Black: CD-SQ4N

White: CD-SQ2B

Black: CD-SQ2N

Capriccio

Front glass interchangeable, print customizable.

White: CC-V8B

Black: CC-V8N

White: CC-V6B

Black: CC-V6N

White: CC-SQ6B

Black: CC-SQ6N

White: CC-SQ4B

Black: CC-SQ4N

White: CC-SQ2B

Black: CC-SQ2N



THERMOSTATS

With or without graphical interface. They include temperature and humidity sensors. Versions available with CO<sub>2</sub> measurement on TH, TL, TLV and TLR models.

Design tool:



Glasses:

CUBIC Capriccio SQ: GCC-SQ

CUBIC Capriccio V: GCC-V

|                                    |                                  |
|------------------------------------|----------------------------------|
| Basic                              | White: CB-TB / CB-THB / CB-THCAB |
| Front glass fixed, white or black. | Black: CB-TN / CB-THN / CB-THCAN |

|                                        |                                  |
|----------------------------------------|----------------------------------|
| Design                                 | White: CD-TB / CD-THB / CD-THCAB |
| Front glass fixed, print customizable. | Black: CD-TN / CD-THN / CD-THCAN |

|                                                  |                                  |
|--------------------------------------------------|----------------------------------|
| Capriccio                                        | White: CC-TB / CC-THB / CC-THCAB |
| Front glass interchangeable, print customizable. | Black: CC-TN / CC-THN / CC-THCAN |

CUBIC-T / CUBIC-TH



Thermostat for temperature control of one independent air conditioning area.

Includes PI regulator for controlling temperature with higher accuracy for better energy efficiency and comfort.

CUBIC-TH includes humidity sensor.

\* Available with humidity and air quality sensor, CUBIC-THCA.



CUBIC-TL



Thermostat with LED indicators for the control of one air conditioning area.

Five touch areas.

Includes a discretized PI regulator to achieve greater comfort and energy savings.

Humidity sensor embedded.

\* Available with air quality sensor, CUBIC-TLCA.

|                          |
|--------------------------|
| White: CB-TLB / CB-TLCAB |
| Black: CB-TLN / CB-TLCAN |

|                          |
|--------------------------|
| White: CD-TLB / CD-TLCAB |
| Black: CD-TLN / CD-TLCAN |

|                          |
|--------------------------|
| White: CC-TLB / CC-TLCAB |
| Black: CC-TLN / CC-TLCAN |



CUBIC-TLV



Thermostat with LED indicators for the control of one independent air conditioning area.

4 non-editable tactile areas for mode and setpoint temperature selection.

4 completely programmable independent tactile areas through SIDE.

Includes a discretized PI regulator to achieve a greater comfort and energy savings.

Humidity sensor embedded.

\* Available with air quality sensor, CUBIC-TLVCA.

|                             |
|-----------------------------|
| White: CB-TLVB / CB-TLV CAB |
| Black: CB-TLVN / CB-TLV CAN |

|                             |
|-----------------------------|
| White: CD-TLVB / CD-TLV CAB |
| Black: CD-TLVN / CD-TLV CAN |

|                              |
|------------------------------|
| White: CC-TLVB / CC- TLV CAB |
| Black: CC-TLVN / CC-TLV CAB  |



CUBIC-TLR



Thermostat with LED indicators for temperature control of one independent air conditioning area.

Selection of mode, on/off and fancoil speed through tactile areas.

Setpoint temperature set through a scroll.

8 completely programmable through SIDE tactile areas.

Includes a discretized PI regulator to achieve a greater comfort and energy savings.

Humidity sensor embedded.

\* Available with air quality sensor, CUBIC-TLRCA.

|                            |
|----------------------------|
| White: CB-TLRB / CB-TLRCAB |
| Black: CB-TLRN / CB-TLRCAN |

|                            |
|----------------------------|
| White: CD-TLRB / CD-TLRCAB |
| Black: CD-TLRN / CD-TLRCAN |

|                              |
|------------------------------|
| White: CC-TLRB / CC- TLR CAB |
| Black: CC-TLRN / CC-TLR CAB  |



TRMD



Thermostat with 2.8" integrated screen to manage an independent climate zone.

Includes speed control, modes, measured and setpoint temperature, etc.

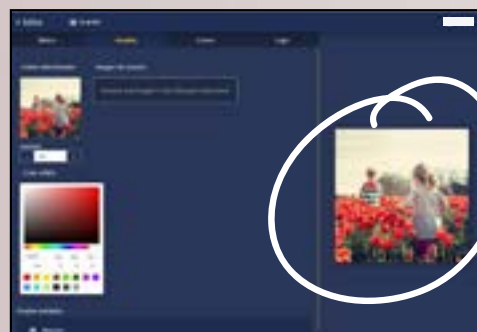
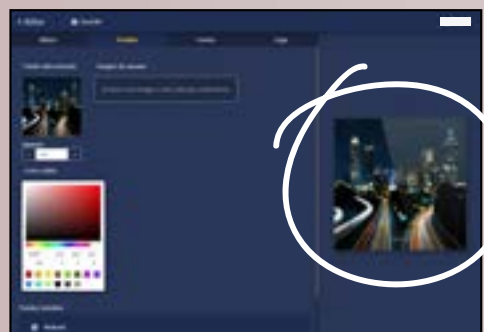
8 non programmable tactile areas for clima control, with 8 leds associated to each touch area.

Supports weekly timings for thermostat configuration.

Includes a discretized PI regulator to achieve a greater comfort and energy savings.

|                 |
|-----------------|
| White: CB-TRMDB |
| Black: CB-TRMDN |

|                 |
|-----------------|
| White: CD-TRMDB |
| Black: CD-TRMDN |



→ Choose your background images



→ Select and edit your icons



→ Add your logo



Design tool:



**Customize 100%  
your Cubic  
with our online tool**

<https://cubic.ingeniumsl.com/>

...and much more





# VISUALIZATION<sup>+</sup>



VIIP7 - VIIP10  
ETHBUS-4

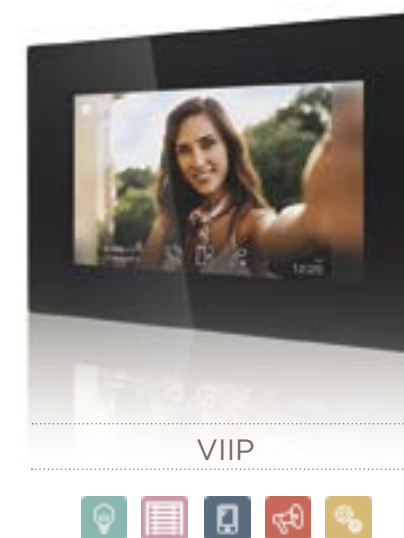
ETHBUS-IoT  
ST2



: entering the future...

advanced home automation control and video intercom in a single touch device

*Color capacitive touch screen with SIP video intercom support*



Color capacitive touch screen with SIP video intercom support that also includes monitoring and control of a BUSing installation.  
Available in 7,1" and 10,1".

Visualization by plans or by rooms totally configurable by the user.

Possibility of call forwarding to mobile.

Versions available with WiFi, and / or up to 2 Ethernet network interfaces.

Incorporates web server for remote control from the free Ingenium Apps for iOS or Android.

It allows users creating scenes and programming annual timings, technical alarms or emails, push notifications, etc.

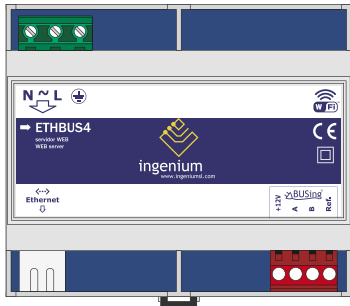
Supports arithmetic and logic unit and scripting.

Compatible with Google Home and Alexa. Native integration with devices of other protocols such as ZWave, Zigbee, etc.

IFTTT Support, and MQTT Broker. Possibility of configuration as a Modbus client or server.

Support for Python programming, intended for advanced user scripting.

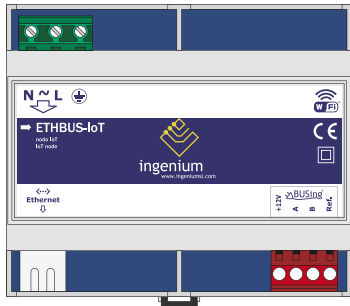
|       | Wi-Fi             | Wi-Fi + 1xRJ45    | Wi-Fi + 2xRJ45    | Concierge         |
|-------|-------------------|-------------------|-------------------|-------------------|
| 7,1"  | White: VIIP-7W-B  | White: VIIP-7E-B  | White: VIIP-7D-B  | White: VIIP-7C-B  |
|       | Black: VIIP-7W-N  | Black: VIIP-7E-N  | Black: VIIP-7D-N  | Black: VIIP-7C-N  |
| 10,1" | White: VIIP-10W-B | White: VIIP-10E-B | White: VIIP-10D-B | White: VIIP-10C-B |
|       | Black: VIIP-10W-N | Black: VIIP-10E-N | Black: VIIP-10D-N | Black: VIIP-10C-N |



ETHBUS-4



- Web server for a remote control of a BUSing installation from Ingenium free apps (iOS or Android) and from a web browser.
- Visualization by plans or by rooms totally configurable by the user.
- SIP video intercom support with possibility of call forwarding to mobile.
- Integrated WiFi, and Ethernet network interface.
- It allows users creating scenes and programming annual timings, technical alarms or emails, push notifications, etc
- Supports arithmetic and logic unit and scripting.
- Compatible with Google Home and Alexa.
- Possibility of configuration as a Modbus server.



ETHBUS-IoT



- Web server for remote control of a BUSing installation from Ingenium free apps (iOS or Android) and from a web browser.
- Visualization by plans or by rooms totally configurable by the user.
- SIP video intercom support with possibility of call forwarding to mobile.
- Integrated WiFi, and Ethernet network interface.
- It allows users creating scenes and programming annual timings, technical alarms or emails, push notifications, etc.
- Supports arithmetic and logic unit and scripting.
- Compatible with Google Home and Alexa. Native integration with devices of other protocols such as ZWave, Zigbee, etc.
- IFTTT Support, and MQTT Broker. Possibility of configuration as a Modbus client or server. It also includes support for BACnet communications, allowing bidirectional control and monitoring of different parameters and functionalities.
- Support for Python programming, intended for advanced user scripting.



SmartTouch 2



4.3" capacitive and vertical touch screen for controlling and monitoring a BUSing installation.

Renovated design, more compact, all-in-one and with a 100% customizable front glass in line with the CUBIC product family.

Curved rear for easy wall mounting. Surface installation with the adapter plate included for fixing to a universal mechanism box.

The electronics have also been completely redesigned, adding more power and processor capacity, resulting in greater fluidity and a better user experience.

It includes WiFi connectivity, and Web server for remote control from Ingenium free apps (iOS or Android).

Compatible with Google Home and Alexa.

In-built temperature sensor with thermostat. Supports weekly timings for thermostat configuration.

It allows programming timings, sending alarm emails and push notifications, etc.

32 control icons distributed in 4 pages.

Fully customizable appearance by software.

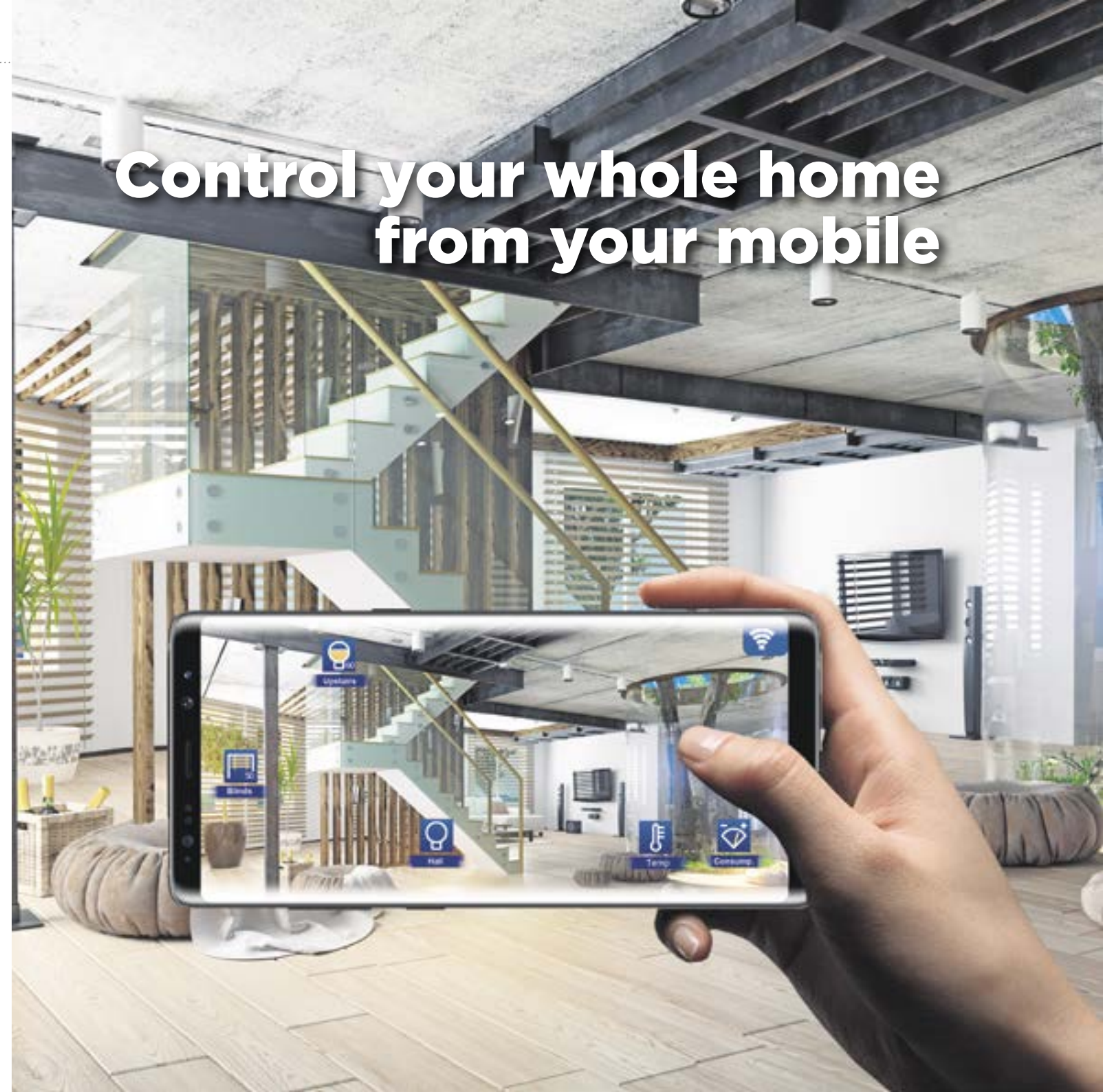
Gestural shortcuts and password lock.

Technical alarms support.

White: ST2-B

Black: ST2-N

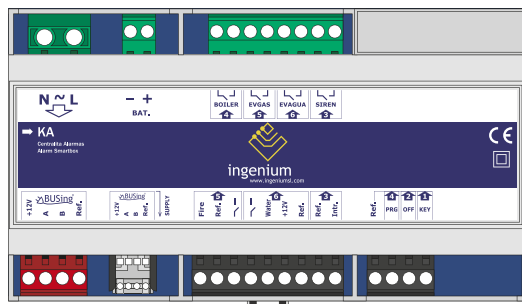
# Control your whole home from your mobile



# SECURITY

KA  
GSMing  
KCtr-BS

RFIDBUS  
TjRFID



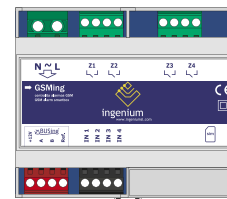
## KA



Technical alarms (intrusion, flood, fire, gas, smoke) central management.

It can be programmed for different actions depending on detection (eg. closing the gas valve in the event of a gas leak).

It has 4 outputs, one reserved for the siren and 6 inputs for connection of conventional sensors.



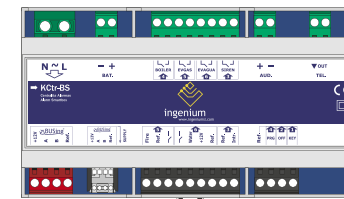
## GSMing



Technical alarms central management (intrusion, flood, fire, gas, smoke).

Installation monitoring and alarm notification via SMS.

Supports up to 3 different phone numbers to notify technical alarms (max 5).



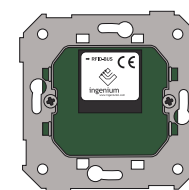
## KCTR-BS



Technical alarms central management (intrusion, flood, fire, gas, smoke).

Allows telephone management through spoken menus, similarly to KCTR.

Does not include calls to an internal telephone.



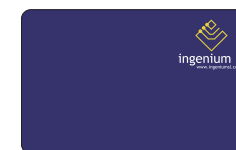
## RFiDBUS



Smart card reader can distinguish up to 255 different users (5 groups of priority).

Each of those 5 groups will have some times and some custom access permissions.

Also can be used for activation and deactivation of intrusion alarms.



## TjRFiD



Smart card to be used with RFiDBUS devices.

It has a unique user code.

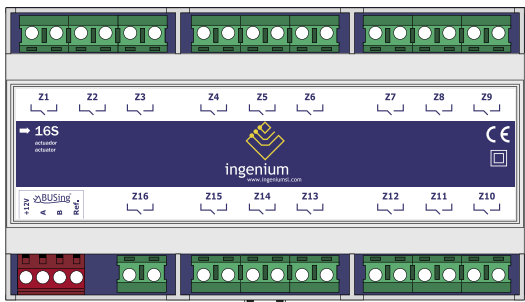
Provides access to all functions programmed in the RFiDBUS.



# INPUTS OUTPUTS

16S  
4E8S  
6E6S  
6E6S-F2A  
4E4S  
4E4S-F4A

2E2S  
2E2S-C30A  
FC-2V  
MECing  
MECing-4  
MECing-C

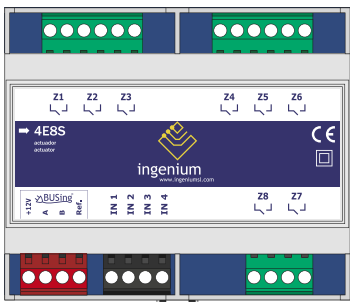


16S



16 outputs actuator to control 16 electric loads or 8 blinds.  
Allows manual control through screens or pushbuttons and / or switches connected to any BUSing® input device.

Includes two logical units.



4E8S



Actuator equipped with 8 outputs to control eight electric charges or four blinds. It incorporates cutting power relays with 10A per output.

Allows manual control via push buttons and/or switches.  
4 programmable inputs.

Includes two logical units.



6E6S



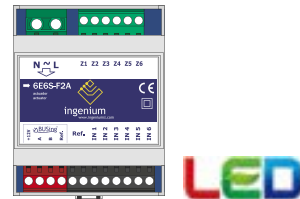
Actuator equipped with 6 outputs to control 6 electrical loads or 3 blinds. It integrates an internal power supply capable of providing power to the BUS.

Allows manual control via push buttons and/or switches.

It incorporates cutting power relays with 6A per output.

6 programmable inputs.

Includes two logical units.



6E6S-F2A

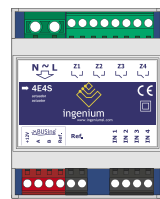


On/off actuator provided with 6 triac outputs internally connected to the power supply phase of the device, with a maximum cut-off power (totaling all outputs) of 12 A.

Device specially indicated for fluorescence or LED control.

6 programmable inputs for connecting conventional pushbuttons or switches.

Includes two logical units.

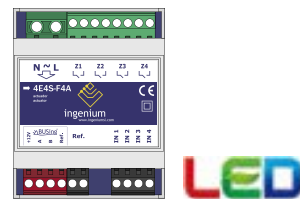


4E4S



Actuator equipped with 4 outputs potential-free relay with 10A or 30A switching capacity each. It permits controlling up to 4 electrical loads or 2 blinds. It can also control all types of motors or solenoids engines.

Allows manual control via pushbuttons and/or switches. Four programmable inputs that can work independently. It integrates a power supply capable of providing power to the BUS.  
Includes two logical units.



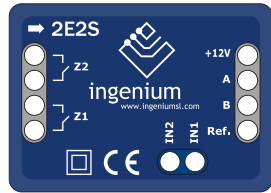
4E4S-F4A



Actuator equipped with 4 TRIAC outputs with maximum cutting power of 4A per output. Device specially indicated for the fluorescent or LED lights control.

Allows manual control via push buttons and/or switches.  
4 programmable inputs.

Includes two logical units.



2E2S



2 outputs actuator to control two electric charges or 1 blind.

It incorporates cutting power relays with 10A per output.

Allows manual control via push buttons and/or switches.

2 programmable inputs.

Small size equipment designed to be installed in register box.

Includes two logical units.



2E2S-C30A

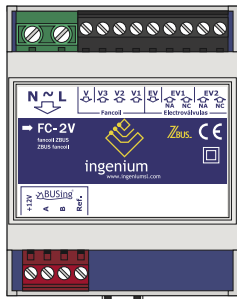


2 outputs actuator to control electrical high power loads.

It incorporates cutting power relays with 30A per output.

Allows manual control via push buttons and/or switches.

2 programmable inputs.



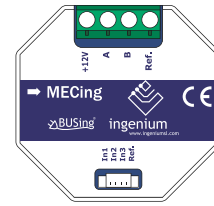
FC-2V



5 outputs actuator to control a fancoil unit.

It incorporates cutting power relays with 6A per output.

Three dedicated outputs to control fancoil speeds, and another two to manage electrovalves for cooling or heating.



MECing

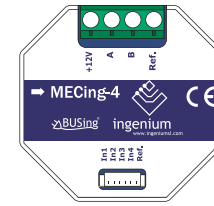


Conventional mechanisms adapter (buttons and/or switches, sensors, etc.) for BUSing®.

It has 3 digital inputs.

Especially useful to distribute the installation and to execute scenes.

Designed to be installed in universal mechanism box behind pushbuttons and/or switches.



MECing-4



Conventional mechanisms adapter (buttons and/or switches, sensors, etc.) for BUSing®.

It has 4 digital inputs.

Especially useful to distribute the installation and to execute scenes.

Designed to be installed in universal mechanism box behind pushbuttons and/or switches.



MECing-C



DIN rail mounted version of MECing device (2 modules).

It has 3 digital inputs.

Especially useful to distribute the installation and to execute scenes.

Allows high distance of wiring (approx 100 meters).

Specially designed for noisy environments.

# DIMMERS<sup>◇</sup>



RU1S200  
RU2S200  
RGBL  
RGBWL

RGBL-C  
RGBWL-C  
DMXBUS  
DALing  
RBF10A



RU1S200



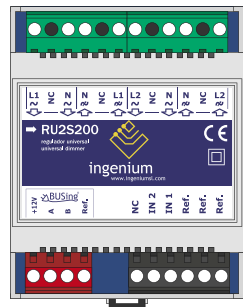
1 channel universal dimmer.

200W maximum output power.

Suitable for all types of lighting: LED, halogen or incandescent.

Built-in mounting in universal distribution box.

\* Soon, dimmable on both flanks and with the possibility of selecting the regulation flank.



RU2S200



2 channel universal dimmer.

200W maximum output power per channel.

Suitable for all types of lighting: LED, halogen or incandescent.

2 inputs for conventional pushbutton control.

\* Soon, dimmable on both flanks and with the possibility of selecting the regulation flank.



RGBL



RGB lighting controller, can act on each of the 3 channels independently or all three at once.

Suitable for color RGB LED strips control, creating different environments thanks to the combination of colors.

Possibility to control this device from other devices such as MECing, touch screens, apps etc.



RGBWL



RGBW lighting controller, can act on each of the 4 channels independently or all four at once.

Suitable for color RGBW LED strips control, creating different environments thanks to the combination of colors.

Possibility to control this device from other devices such as MECing, touch screens, apps etc.



RGLB-C



Dimmer for RGB LED modules of 12V to 24V, with 3 channels.

Possibility of controlling 3 monochromatic channels individually or simultaneously for RGBW.

Allow to dim brightness or choose from the whole color range with pushbuttons.



RGBWL-C



Dimmer for RGBW LED modules of 12V to 24V, with 4 channels.

Possibility of controlling 4 monochromatic channels individually or simultaneously for RGBW.

Allow to dim brightness or choose from the whole color range with pushbuttons.



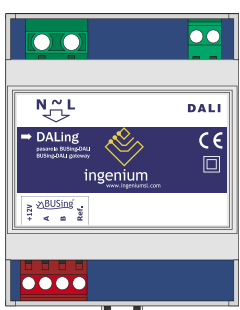
DMXBUS



Gateway to control color LEDs regulation by DMX512 protocol from BUSing®.

Can emulate every channel of a digital dimmer (up to 255).

It can configure a full color wheel, being able to control the level of brightness of each LED.



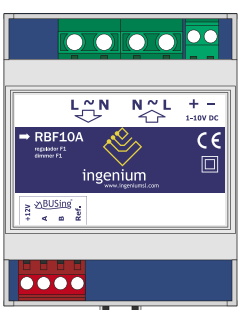
DALing



Gateway to control luminaires with DALI protocol from BUSing®. It includes an integrated power supply.

Controls up to 64 DALI luminaires and 16 DALI lighting groups.

Possibility to control this device from other devices such as MECing, touch screens, apps etc.



RBF10A



1 regulation channel controller for electronic ballasts 1-10V lighting.

Suitable for dimming fluorescent or discharge lighting with electronic ballasts.

Possibility to control this device from other devices such as MECing, touch screens, apps etc.

# SENSORS<sup>◇</sup>



## **Movement**

Sif  
SifBUS-E  
SRBUS  
SifBUS-S

## **Movement + Light**

SifBUS-L  
SifBUS-LS

## **Contact**

DMBUS

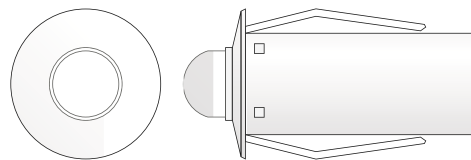
## **Flooding**

Sin-2H  
Sin-3H  
SinBUS

## **Fire/smoke**

DH  
DTV  
DHBUS  
DTVBUS

## movement



### Sif



Infrared motion detector ready for connection to PBX KCtr or input modules such as MECing.

Conventional sensor with high immunity to false alarms, electromagnetic fields and temperature variations.

Placing recessed interior ceilings avoiding heavily exposed to direct sunlight and air drafts zones.

\* Black version available.

### SifBUS-E



Infrared motion detector for cable connection to BUSing®.

BUS sensor with high immunity against false alarms, electromagnetic fields and temperature variations.

Embedded installation avoiding places heavily exposed to direct sunlight and air drafts.

\* Black version available.

## movement



### SRBUS



Sensor that detects movement through walls and ceilings of any nonmetallic material.

Its hidden installation behind walls, ceilings, partitions, manholes or watertight boxes, guarantees protection against unwanted intrusion or vandalism acts being not accessible nor visible.

It can be used for both intrusion on lighting and climate control among others. It is possible to set parameters such as sensitivity, sampling period, timing, etc.

It can detect up to 25 meters straight. When installing at 2.5m high, it covers an area of 12x6m. The detection area can be screened with metal tape on device surface.



### SifBUS-S

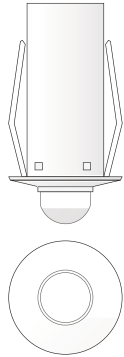


Presence infrared detector prepared for cable connection to BUSing®.

BUS sensor with high immunity against false alarms, electromagnetic and temperature variations.

Surface installation in interior ceilings avoiding places heavily exposed to direct sunlight and air drafts.

## movement + light



SifBUS-L



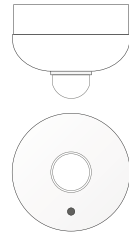
Double sensor (infrared motion detector + light level sensor), for cable connection to BUSing®.

It has the ability to program events during and at the end of the detection, or in case of lack of brightness.

It is possible to work with the presence and light detections at the same time or separately.

It has a high level of immunity to false alarms, electromagnetics fields and temperature variations.

Build for indoor installations.



SifBUS-LS



Double sensor (infrared motion detector + light level sensor), for cable connection to BUSing®.

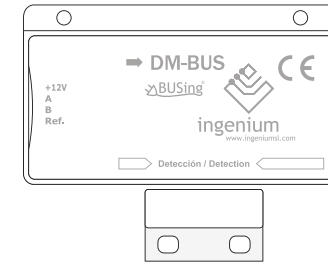
It has the ability to program events during and at the end of the detection, or in case of lack of brightness.

It is possible to work with the presence and light detections at the same time or separately.

It has a high level of immunity to false alarms, electromagnetics fields and temperature variations.

Surface installation.

## contact



DMBUS



Magnetic detector for doors or windows, prepared for cable connection to BUSing®.

BUS sensor that detects the opening of doors or windows.

Anti-intrusion security or climate control for energy savings functions.

## flooding



Sin-2H



2 wires flood conventional probe for connection to KA or KCtr-BS or to input modules such as MECing device.

Designed to be located where there is a risk of leakage or accumulation of water.



Sin-3H



3 wires flood conventional probe for connection to KA or KCtr-BS or to input modules such as MECing device.

Designed to be located where there is a risk of leakage or accumulation of water.



SinBUS

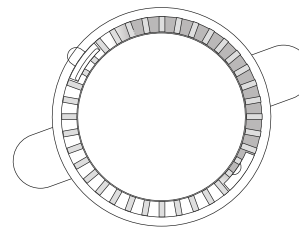


Flood vertical probe designed for cabled connection to BUSing®.

2 programmable scenes for activation and deactivation of the sensor.

Designed to be located where there is a risk of leakage or accumulation of water.

## fire/smoke



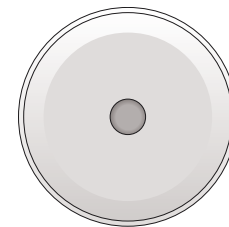
DH



Optical smoke detector for connection to KA or KCtr-BS.

Conventional probe for smoke detection.

Suitable for installation in areas where the presence of smoke is unusual such as hallways, rooms, etc.



DTV



Temperature-increasing detector for connection to KA or KCtr-BS or input modules such as MECing.

Conventional probe for fire detection in the installation by sudden changes in temperature.

Suitable for installation in areas where the presence of smoke is usual such as kitchens, garages, etc.

DHBUS



Optical smoke detector for cable connection to BUSing®.

BUS probe for smoke detection.

Suitable for installation in areas where the presence of smoke is unusual such as hallways, rooms, etc.

DTVBUS



Temperature-increasing detector for cable connection to BUSing®.

BUS probe for detecting fires in the installation by sudden changes in temperature.

Suitable for installation in areas where the presence of smoke is usual such as kitchens, garages, etc.

# CLIMA

 BUSing-LGAC-I  
BUSing-LGAC-D  
BUSing-DKAC-I  
BUSing-DKAC-IR  
BUSing-DKAC-MD  
BUSing-DKAC-D

BUSing-MBAC-D  
BUSing-PNAC-D  
BUSing-MDAC-D  
BUSing-CRAC-I  
RejiBUS  
IRing  
IR-BI



### BUSing-LGAC-I

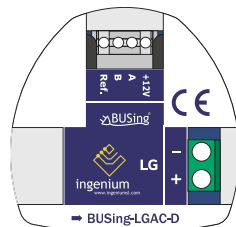


Gateway for integration of LG air conditioning system with BUSing® control system.

The device has connection to RS485 bus for external LG units.

It controls up to 64 LG indoor units.

For each of the indoor units is possible to: on/off control, choosing the operation mode, fan speed and temperature setpoint and know the measured temperature at any time.



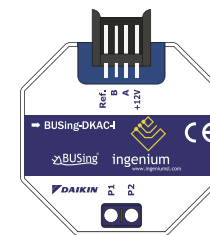
### BUSing-LGAC-D



Gateway for integration of LG air conditioning system with BUSing® control system.

The device has two wires connection to the indoor LG unit. It allows to control one LG unit.

It is possible to: on/off control, choosing the operation mode, fan speed and temperature setpoint and know the measured temperature at any time.

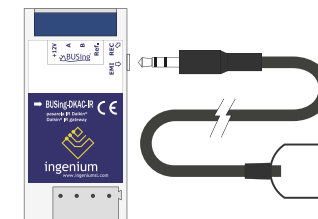


### BUSing-DKAC-I



Gateway for integration of DAIKIN air conditioning system, SKY and VRV line, with BUSing® control system. The device has a direct connection to the Daikin indoor unit door through two wires without polarity.

It allows to turn on/off the unit, set its operating mode, fan speed and setpoint temperature.



### BUSing-DKAC-IR



Gateway to control DAIKIN domestic indoors with infrared receptor. It allows to turn on/off the unit, set its operating mode, fan speed and setpoint temperature.

Easy installation close to the domestic clima unit.



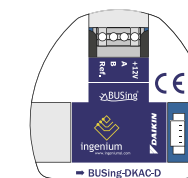
### BUSing-DKAC-MD



Gateway for Daikin air conditioning system integration with BUSing® system. Direct connection to BUS RS485 of DAIKIN outdoor unit through Modbus DIII interface.

Allows to control up to 64 indoor units.

For each indoor unit is possible to: on/off control, choosing operation mode, fan speed and setpoint temperature and read measure temperature at any time.



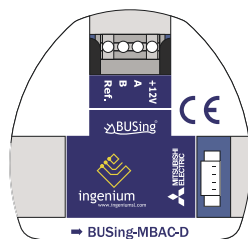
### BUSing-DKAC-D



Gateway for integrating Daikin air conditioning system with BUSING control.

Communication with Daikin air conditioning indoor unit through a supply wire.

Allows to control on/off, choosing operation mode, fan speed and setpoint temperature.



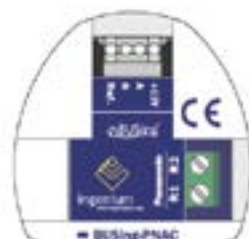
### BUSing-MBAC-D



Gateway between Mitsubishi air conditioning system and BUSing® control system.

It allows to control one Mitsubishi indoor unit.

It permits to on/off the unit, set the operating mode, fan speed and setpoint temperature.



### BUSing-PNAC-D



Gateway for integrating Panasonic air conditioning system with BUSing control.

Communication with Panasonic air conditioning indoor unit through a direct connection of 2 wires with polarity.

Allows to control on/off, choosing operation mode, fan speed, setpoint temperature and measured temperature.



### BUSing-MDAC-D



Gateway for integrating Midea® air conditioning system with BUSing® control system.

It allows to control one Midea indoor unit, through a 2 wires with no polarity.

It permits to on/off the unit, set the operating mode, fan speed and setpoint temperature.



### BUSing-CRAC-I

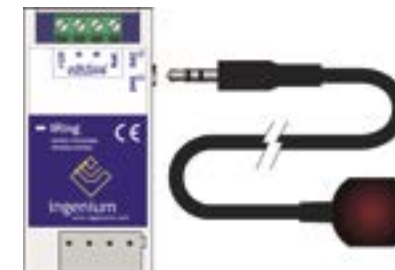


Gateway for integration of Carrier® air conditioning system with BUSing® control system.

The device has a connection to RS-485 bus for Carrier® outdoor units.

It controls up to 32 Carrier® indoor units.

For each indoor unit is possible to: on/off control, choosing the operation mode, fan speed and temperature setpoint as well as knowing the ambient temperature.



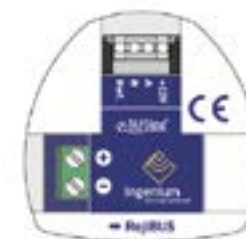
### IRing



Infrared transmitter with memory for 255 codes.

One device allows to control more than one device with infrared receptor.

Hidden installation in a mechanism box with a mini-jack wire transmitter for controlling the device.



### RejiBUS



Actuator to control motorized grating (12V) to zone A/C.

Thanks to its small size, it can be installed inside the very mechanism of the grating.

It can be controlled from any BUSing® device: Cubic-T/TL, MECing, touch screens, apps, etc.

### IR-BI



Bidirectional infrared transmitter with memory for 255 codes.

One device allows to control more than one device with infrared receptor.

Hidden installation in a mechanism box with a mini-jack wire transmitter for controlling the device.

\* Consult availability.

# ENERGY EFFICIENCY



MeterBUS-3C-50A  
MET-50A



MeterBUS-3C-50A



Electric consumption meter of up to 3 channels.  
Current transformer rings are used to perform measurements on the physical channels.  
Measurements can be displayed on the touch screens or official Ingenium Apps.  
Do not include current transformer MET-50A.



MET-50A



Current transformer ring of 50 A.

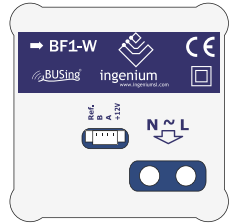
energy efficiency

# POWER<sup>◇</sup> SUPPLIES



BF1-W  
BF2  
BF-VIIP

BF22  
BF2-BU



BF1-W



BUSing® power supply with integrated wireless repeater.

It allows to supply BUSing® power and send and receive telegrams wirelessly.

Mounted in universal register box.



BF2



BUSing® power supply capable of providing 500 mA.

It allows to supply power to equipments connected to the BUS.

It is necessary for the proper functioning of the BUSing® installation depending on the connected devices.



BF-VIIP



BUSing power supply especially indicated to supply VIIP screens.

Its installation is recommended for the correct operation of VIIP screens, guaranteeing adequate supply.



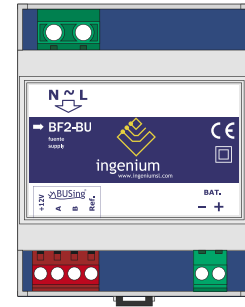
BF22



BUSing® power supply capable of providing 1000 mA.

It allows to supply power to equipments connected to the BUS.

It is necessary for the proper functioning of the BUSing® installation depending on the connected devices.



BF2-BU



BUSing® power supply capable of providing 500 mA to supply power to equipments connected to the BUS.

In case of power failure, it can maintain the installation through the external battery.

It requires an external battery. It has an auxiliary output to charge external battery.

4 modules DIN rail mounted device.



# OTHER<sup>◇</sup> DEVICES

## Audio

SoniBUS

## Programation

BPC-USB

BPC-USB-W

BPC-WiFi

LOGing

## Communication

BW-Wings

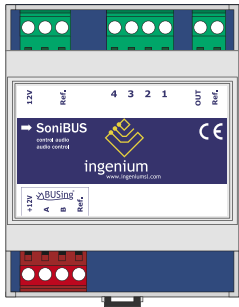
ROUTing

REPinG-T

EndBUS

BUSing-KNX

audio



SoniBUS



Equipment used to control audio.

It has 4 inputs in which it is possible to connect different audio sources (MP3, mini stereo, radio, etc).

It permits to select between 4 different channels and volume control.

It offers the possibility of connection to pre-amplified speakers.

programming

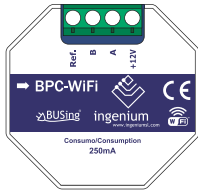


BPC-USB

It allows the connection of a PC via the USB port with a wired BUSing® installation.

It allows the programming of BUS devices using the system development software SIDE.

COM port selection and configuration of the communication speed.



BPC-WiFi

It allows the connection of a PC via WiFi or AP with a wired BUSing® installation.

It allows the programming of BUS devices using the system development software SIDE.

COM port selection and configuration of the communication speed.



BPC-USB-W

It allows the connection between a PC and a Wireless BUSing® installation through USB port.

It permits programming wireless devices using SIDE.

COM port selection, communication speed configuration and radio communications channel selection.



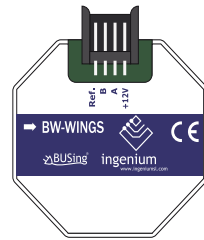
LOGing

BUSing® device that allows the development of programs based in C language applied to BUSing®.

3 analog inputs.

Programmable through SIDE.

## communication



BW-Wings

Device that allows communication between BUSing® wiring devices and Wings wireless devices.

It performs bidirectional conversion of the commands sent to different devices in the installation.

It has up to 12 radio communication channels and 255 id to avoid interferences.



ROUTing

Coupling between BUSing® main line and secondary line.

It has two BUSing® connections (main and secondary line).

It allows selective filtering of traffic to some devices.

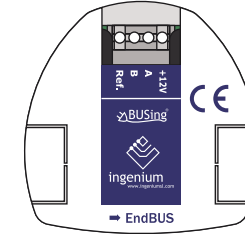


REPinG-T

Signal repeater device that retransmits the received data packets.

Lengthens the distance of the bus and the number of devices connected to a line.

It has two BUSing® connections.



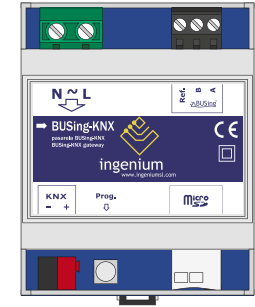
EndBUS

Device that connects the two ends of the line of BUS as active terminator.

It polarizes the BUS line, improving communications and monitoring the activity.

Allows detection of possible errors in communications.

Error checking from SIDE.



BUSing-KNX

Gateway that allows connecting a BUSing® installation with a KNX installation.

Programming is done through the development system SIDE or ETS.

There are two possibilities for integration; KNX/BUSing® device or installation in BUSing®/KNX installation.



# SOFTWARE & APPS



SIDE - Software for programming screens and web servers

APP-iOS - App for iPhone and iPad

APP-Android - App for Android devices

Google Home - Voice control integration for installations

Alexa - Voice control integration for installations

# LOCKS

## Opening doors



BUSing-Yale  
BUSing-Tesa  
BUSing-ISEO



BUSing-Yale

BUSing® integration with Yale locks.  
Permits the control from BUSing® devices.



BUSing-Tesa

BUSing® integration with Tesa locks.  
Permits the control from BUSing® devices.



BUSing-ISEO

Electronic security lock.  
Indicated to install in different door types  
in order to control from BUSing® devices.  
Allows alarm events.  
Communication with BUSing through  
radiofrequency.

# HOTEL<sup>◇</sup> SOLUTIONS



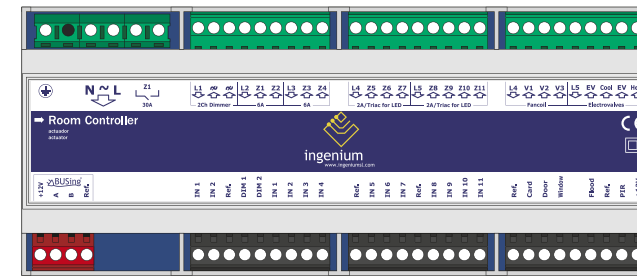
ROOM CONTROLLER  
CUBIC-VH



*The best solution  
for a hotel*

Home automation solutions which make hotel management more effective and efficient. That is what Ingenium offers in this sector. New tools that open a wide range of new functional and management possibilities, and that will facilitate the daily work.

Besides, with home automation system, greater energy savings and greater comfort for the guest are achieved.



## ROOM CONTROLLER



Device specially indicated for hotel room control.

Enables light dimming, binary outputs, on/off LED lighting, fancoil, electrovalves, card reader and binary inputs for technical alarms.

Inputs for control and management of all the outputs, as well as inputs for card reader, technical alarm sensors and magnetic door and window detectors.

Integrable device with Cubic-SQ and V, and door room device, Cubic-VH. Also compatible with any BUSing® device.



## CUBIC-VH



MUR/DND device for hotel room.

2 touch areas for two different modes: "Do not disturb" and "Make up the room".

Doorbell button and room number indicator added.



# CLIMATE CONTROL BY ZONES



MasterClima-Z  
MasterClima-Z4  
Fancoil-Z

RejiBUS-Z  
Cubic-TZ  
Cubic-TLZ

# The complete solution in climate control by zones

Our system automatically manages all the elements of a climate installation, so the user can simply choose the desired temperature.



The MasterClima-Z unit is responsible for facilitating the entire zoning process. It has BUSing® and ZBUS connection.

ZBUS.

The new ZBUS connection simplifies the installation of zone thermostats and motorized grilles control devices, thanks to its simple two-wire system with no polarity.

BUSing®

Through BUSing® communications protocol, the climate installation can be completed with air conditioning control devices.

It also allows home automation integration with other smart house elements, and remote control devices such as touchscreens, mobile, tablets...



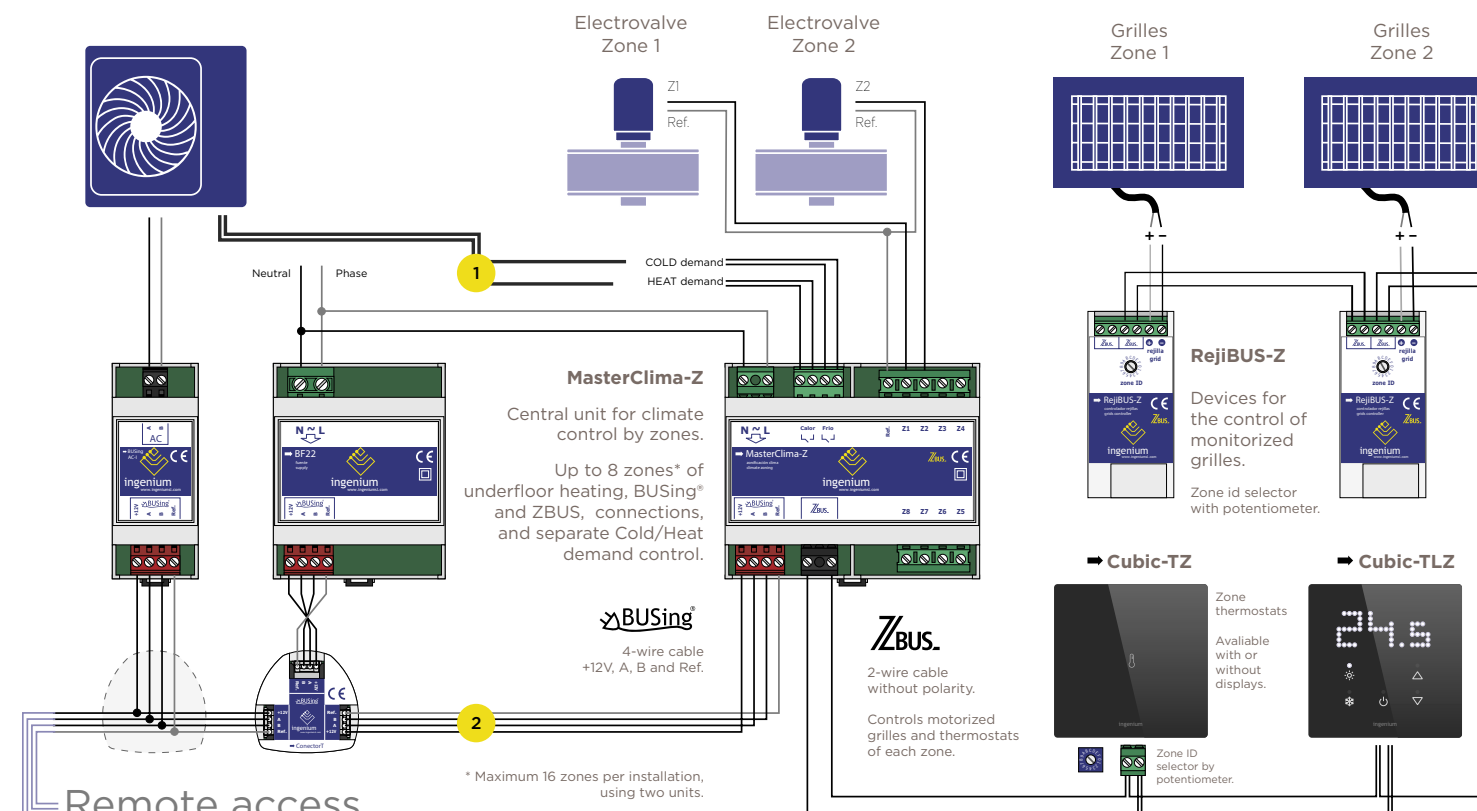
## Air conditioner

## Underfloor heating

## Motorized grilles

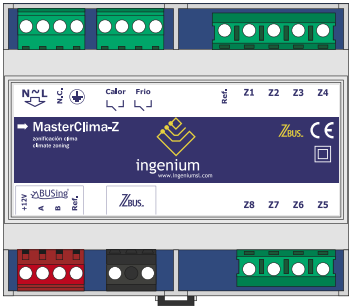
1. **Direct option:** Through the integrated Cold/Heat demand controls connection.

2. **BUSing® option:** Using devices for the AC control and BUS power supply required.



BUSing® allows you to control the installation using our touch screens and applications for mobile devices.

## thermostats



MasterClima-Z



Central unit for climate control by zones.

It enables the control of up to 8 zones of underfloor heating, BUSing and ZBUS connections, and separate cold/heat demand control.

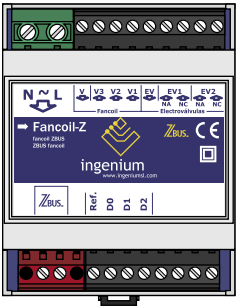
Possibility to control this device from other devices such as touch screens, apps etc.

### MasterClima-Z4

Central unit for climate control by zones.

It enables the control of up to 4 zones of underfloor heating, BUSing and ZBUS connections, and separate cold/heat demand control.

Possibility to control this device from other devices such as touch screens, apps, etc.



Fancoil-Z



Actuator for the control of a three-speed fancoil together with two fluid electrovalves for cooling or heating.

Includes option to select the acting zone.

It responds to the orders of its zone thermostat and the Masterclima-Z.



RejiBUS-Z



Actuator for the control of motorized grilles.

Includes potentiometer for zone selector.

It is controlled by Masterclima-Z.



CUBIC-TZ



Temperature sensor for temperature control of each zone.

Discretized PI controller included for greater comfort and energy savings.

Zone ID selector by potentiometer.

It permits the same modes as Masterclima-Z.



CUBIC-TLZ



Temperature sensor for zone temperature control with LED indicators for temperature.

Zone ID selector by push-buttons.

It permits the same modes as Masterclima-Z.



  
**wings**  
ingenium **J** RF

A wide-angle photograph of a modern, open-plan living and dining area. The room features dark wood flooring, white walls, and large windows that offer a view of greenery outside. In the foreground, there is a dark leather sofa and a round, light-colored marble coffee table. A large, irregularly shaped rug is on the floor. In the background, a dining table with white and black chairs is set up. To the left, a kitchen area with a bar counter and stools is visible. The ceiling has recessed lighting, and a modern chandelier hangs over the dining area.

*Automation is  
within your reach*

**Wings, Ingenium's** wireless line, maintains the standards of quality, design and versatility of the company's products.

The main characteristic of this range is its ease of installation at any home, without the need to carry out works or modifications on the electrical wiring.

It is possible to control lighting, blinds, technical alarms, etc. by RF communication. In addition, it is compatible with wired **Ingenium installations**, thus **allowing their expansion in a simple way.**

## visualization



### Center Link

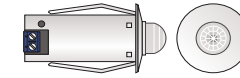


Concentrator module RF + WiFi.

It allows to program, configure and manage the full BUSing® Radio installation remotely via the mobile application through the Ingenium server.

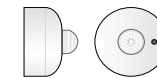
Wi-Fi connectivity for remote control via smartphone or tablet from your iOS or Android device.

## sensors



### SEIR360

Presence infrared detector.  
Built-in and discreet installation with 360° detection.  
Suitable for motion detection, intrusion control, etc.



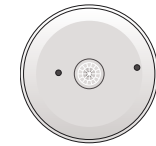
### SEIR360BS

Presence infrared detector.  
Surface and discreet installation with 360° detection.  
Suitable for motion detection, intrusion control, etc.



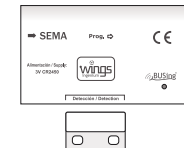
### SEFO

Flood vertical probe designed for wireless connection to BUSing®.  
2 programmable scenes for activation and deactivation of the sensor.  
Designed to be located where there is a risk of leakage or accumulation of water.



### SEFI

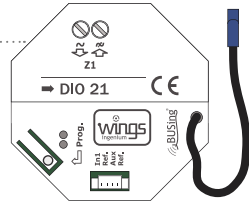
Temperature-increasing detector for wireless connection to BUSing®.  
Wireless sensor for detecting fires in the installation by sudden changes in temperature.  
Suitable for installation in areas where the presence of smoke is usual such as kitchens, garages, etc.



### SEMA

Magnetic detector for doors or windows, prepared for wireless connection to BUSing®.  
Wireless sensor that detects the opening of doors or windows.  
Anti-intrusion security or climate control for energy savings functions.

## dimmers



### DIO21



1 channel dimmer.

400 W maximum output power.

Suitable for incandescent or halogen lighting (with or without transformer) or LED with leading edge or trailing-leading edge dimming.

2 programmable inputs.

Allows manual control via pushbuttons and/or switches.

### DIO22



2 channel dimmer.

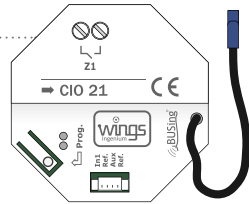
400 W maximum output power.

Suitable for incandescent or halogen lighting (with or without transformer) or LED with leading edge or trailing-leading edge dimming.

2 programmable inputs.

Allows manual control via pushbuttons and/or switches.

## inputs-outputs



### CIO21



On/off actuator with 1 digital output with triac and a cut-off power of 2 A per output.

Allows manual control via pushbuttons and/or switches.

2 programmable inputs.

Device used for lighting control and/or any other type of electrical load with a working voltage of 230 Vac.

### CIO22



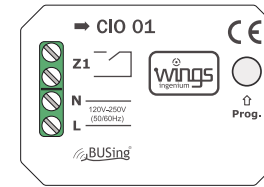
On/off actuator with 2 digital outputs with triac and a cut-off power of 2 A per output.

Allows manual control via pushbuttons and/or switches.

2 programmable inputs.

Device used for lighting control and/or any other type of electrical load with a working voltage of 230 Vac.

## inputs-outputs



### CIO01



On/off actuator with a potential-free relay output with a cut-off power of 10 A.

### CIO22NT



On/off actuator with 2 digital outputs with triac and a cut-off power of 2 A per output.

Allows manual control via pushbuttons and/or switches.

2 programmable inputs.

Device used for lighting control and/or any other type of electrical load with a working voltage of 230 Vac.

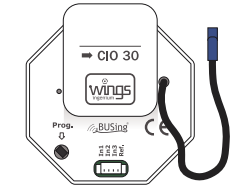
### CIO22BL



On/off actuator with 2 digital outputs with triac and a cut-off power of 2 A per output. Allows manual control via pushbuttons and/or switches. 2 programmable inputs.

Device used for lighting control and / or any other type of electrical load with a working voltage of 230 Vac.

Device used for controlling blinds that have motors with a working voltage of 230Vac.

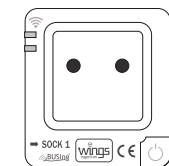


### CIO30



Device to convert conventional mechanism commands (pushbuttons and/or switches) into BUS wireless commands.

3 programmable low-voltage digital inputs



### SOCK1



Socket controlled via BUSing® Radio home automation system.

Direct connection to an installation wall socket.

It has a potential-free relay output with a cutting power of 10 A @230V to connect the device or lamp to be controlled.

Consumption measurement.

## inputs-outputs



SOCK1T



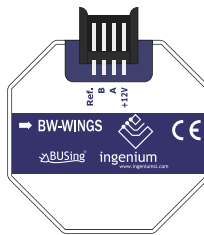
Socket controlled via BUSing® Radio home automation system.

Direct connection to an installation wall socket.

It has a potential-free relay output with a cutting power of 6 A @230V to connect the boiler.

It incorporates input for conventional thermostat signal.

## communication



BW-WINGS



Device that allows communication between BUSing® wiring devices and Wings wireless devices.

It performs bidirectional conversion of the commands sent to different devices in the installation.

It has up to 12 radio communication channels and 255 id to avoid interferences.

## thermostats



Cubic-TW



BUSing® Radio temperature sensor.

Allows the temperature control remotely of a Wings RF installation.

The device is connected to the installation through SOCK-1BT.



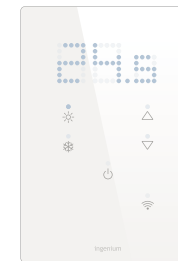
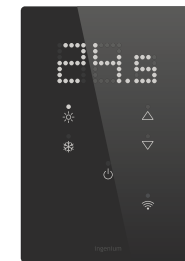
Cubic-TLW



BUSing® Radio temperature sensor with tactile areas to modify the set point temperature.

Allows the temperature control remotely of a Wings RF installation.

The device is connected to the installation through SOCK-1BT.



CUBIC-TLWC



Temperature sensor with tactile areas to modify the set point temperature, operating mode and on/off.

It allows remote control and monitoring of the temperature in an installation thanks to the WiFi connectivity of the thermostat itself.

The equipment is connected to the installation through the SOCK-1BT controller.

Available in white color (CUBIC-TLWC-B) or black color (CUBIC-TLWC-N).



SOCK-1BT



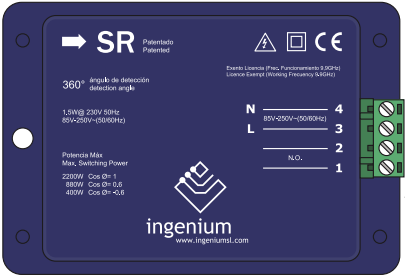
Socket controlled via BUSing® Radio home automation system.

Direct connection to an installation wall socket.

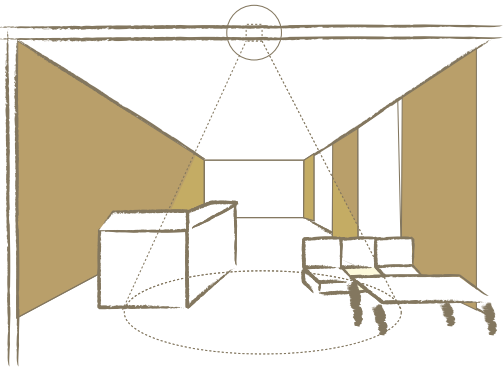
It has a potential-free relay output with a cutting power of 6 A @230V to connect the boiler.

It incorporates input for Wings thermostat signal or IoT model (CUBIC-TLWC).

\* Control this device with CUBIC-TLW or CUBIC-TLWC

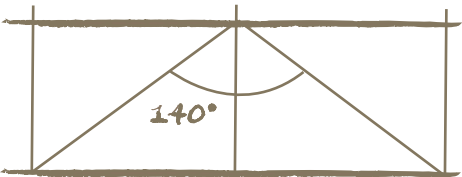
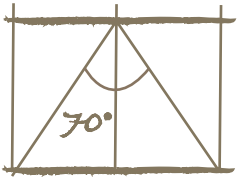


## HIDDEN MOVEMENT DETECTOR



Transverse detection

Longitudinal detection



360° Movement detector designed for hidden installation in false ceilings or walls.

Able to detect through non-metallic solid surfaces using radio frequency technology.

It works autonomously without BUSing® connection. Timing (0-17 mins) and sensitivity (up to 20m) adjustable by potentiometers.

Practical, easy to install and discreet: does not alter the building interior design and saves energy.

# CA-AUT

CO<sub>2</sub> autonomous detector



Air quality autonomous sensor that measures CO<sub>2</sub> level.  
Direct connection to power outlet.

It has 2 central leds to indicate on which level it is,  
through a play of lights.

It has an audible warning through a buzzer built into.

# CA-IoT

Quality air detector



Air quality IoT sensor that measures CO<sub>2</sub>, VOCs,  
temperature and humidity level. Direct connection to  
power outlet.

It has an audible warning through a buzzer built into, that  
will be activated when the limit, previously stablished by  
the user, is exceed.

WiFi connection, the data can be consulted through the  
Cloud.



April 2022

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