



BES, Ingenium's KNX commitment





Ingenium HQ in Asturias, Spain.

BES, Ingenium's KNX commitment

In 2018, **Ingenium** celebrates 20 years as a specialist in home automation and automation. Twenty years have served to develop and strengthen its own protocol BUSing in the market, expanding it this year 2018 with the new **Wings** wireless range, which allows to extend any wired BUSing installation. During the last decade, Ingenium has also developed and complemented the **BES KNX** product line that is shown throughout this catalog, based on the KNX standard.

The **BES** product range has been growing significantly during this time, especially over the last 10 years. It started with the hidden presence sensor SRKNX, and has been completed with touch screens, actuators, dimmers, sensors, gateways to other protocols or power supplies, trying to offer professionals the largest portfolio possible to cover all types of home automation installations.

This new 2018 version of the **BES KNX** catalog comes to complete the **Ingenium** KNX proposal even more. The new CUBIK line (capacitive pushbuttons -5 formats and 3 customization levels- and thermostats -3 formats and 3 customization levels-), the new 1-10V and 0-10V dimmers, the new DAIKIN AC gateway, some new solutions for hotel or the manual control incorporated onto the actuators, are some of the most important novelties for this year in the **BES** portfolio.

Absolutely all the products of this catalog are designed, developed, and manufactured at the **Ingenium** headquarters in Asturias, defining one of the hallmarks of the company without a doubt. It is this will to innovate, without neglecting the manufacturing process, which gives us the confidence of our customers and makes every year more users taking interest in **BES**.



Visualization

Integrations

Energy Efficiency

Technical Alarms

Lighting

Supply

Presence

Blinds

Clima



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CUBIK SERIE

Cubik V8 Cubik V6 Cubik SQ6 Cubik SQ4 Cubik SQ2 Cubik T Cubik TH Cubik TL



PUSH-BUTTONS

with different number of touch areas.

model: square format and vertical

They incorporate built-in temperature and

humidity sensors capable of sending the













Capacitive push-button with eight 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. On/Off, PWM or continuous temperature controller for main heat/cool system and additional.

Buil-in humidity sensor with dew point measurement according to relative humidity and temperature.

> Arithmetic Logic Unit and timers/counters.



CUBIK V6









Capacitive push-button with six 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. On/Off, PWM or continuous temperature controller for main heat/cool system and additional.

Buil-in humidity sensor with dew point measurement according to relative humidity and temperature.

> Arithmetic Logic Unit and timers/counters.



CUBIK SQ6







Capacitive push-button with six 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. On/Off, PWM or continuous temperature controller for main heat/cool system and additional.

Buil-in humidity sensor with dew point measurement according to relative humidity and temperature.

> Arithmetic Logic Unit and timers/counters.



CUBIK SQ4





Capacitive push-button with four 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. On/Off, PWM or continuous temperature controller for main heat/cool system and additional.

Buil-in humidity sensor with dew point measurement according to relative humidity and temperature.

> Arithmetic Logic Unit and timers/counters.



CUBIK SQ2







Capacitive push-button with two 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. On/Off, PWM or continuous temperature controller for main heat/cool system and additional.

Buil-in humidity sensor with dew point measurement according to relative humidity and temperature.

> Arithmetic Logic Unit and timers/counters.









THERMOSTATS

With or without graphical interface. They include temperature and humidity sensors.

CUBIK Capriccio SQ: GL310000 CUBIK Capriccio V: GL320000



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

On/Off, PWM or continuous temperature controller for main and additional heat/cool system.

Easy Logic Unit.

CUBIK-TH includes humidity sensor. Dew point measurement according to relative humidity and temperature.

CUBIK-TL







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

Eight completely programmable independent touch areas.

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

Built-in humidity sensor.

Dew point measurement according to relative humidity and temperature.

> Arithmetic Logic Unit and timers/counters.

Basic	White: SR591110 / SR591310	White: SR591210
Front glass fixed, white or black.	Black: SR591120 / SR591320	Black: SR591220
Design	White: SR592110 / SR592310	White: SR592210
Front glass fixed, print customizable.	Black: SR592120 / SR592320	Black: SR592220
Capriccio	White: SR593110 / SR593310	White: SR593210
Front glass interchangeable, print customizable.	Black: SR593120 / SR593320	Black: SR593220

And for a hotel room?

Discover our CUBIK series for hotels on page 55.









SmartTouch-K PLUS







4.3" multifunction button panel for controlling and monitoring a KNX installation.

Web server for remote control from Ingenium free apps (iOS or Android).

32 control icons distributed in 4 pages.

Logical unit and scripts included.

Fully customizable appearance by software.

In-built temperature sensor with thermostat.

Technical alarms support.

White: DS343100

Black: DS343200

White mounting box: DS940100 Black mounting box: DS940200



SmartTouch-K BASIC



4.3" multifunction button panel for controlling and monitoring a KNX installation.

Local control from Ingenium free apps (iOS or Android).

32 control icons distributed in 4 pages.

Logical unit and scripts included.

Fully customizable appearance by software.

In-built temperature sensor with thermostat.

White: DS342100

Black: DS342200

White mounting box: DS940100

Black mounting box: DS940200





SmartTouch-MEK



4.3" vertical multifunction pushbutton for controlling and monitoring a KNX installation.

It supports 32 controls distributed in 4 pages, as well as scenes.

Predefined appearance themes.

In-built temperature sensor with thermostat.

White: DS341100

Black: DS341200

White mounting box: DS940100

Black mounting box: DS940200



PPKL4





4.3" color capacitive touch screen for controlling and monitoring the devices of a KNX installation.

Web server for remote control from Ingenium free apps (iOS, or Android).

User can program scenes and annual schedules, email sending with alarm messages, display of IP cameras, etc.

Schedules can be programmed taking an astronomical clock as a reference.

Logical unit included.

Wifi connection and free updating from Internet.

White: DS241100

Black: DS241200

White mounting box: DS940100

Black mounting box: DS940200



PPKL7



7.1" color capacitive touch screen for controlling and monitoring the devices of a KNX installation.

Web server for remote control from Ingenium free apps (iOS or Android).

User can program scenes and annual schedules, email sending with alarm messages, display of IP cameras, etc.

Schedules can be programmed taking an astronomical clock as a reference.

Logical unit included.

Wifi connection and free updating from Internet.

White: DS271100

Black: DS271200

White mounting box: DS970100

Black mounting box: DS970200





FFNLIO



Full color capacitive 10.4" touch screen for controlling and monitoring the KNX installation.

It incorporates web server for remote control from the free Ingenium App for iOS or Android.

It allows programming scenes and annual timed events. Also is possible to arm/disarm the intruder alarm or activate/deactivate the presence simulation, IP cameras visualization, alarms emails sending, etc.

Wifi connection and free updates from the internet.

It allows to realize timings taking as reference an astronomical clock.

Supports arithmetic and logic unit and scripting.

White: DS211100

Black: DS211200



ETHBUS-K



Web server for remote control from Ingenium free apps (iOS or Android) and from a web browser.

User can program scenes and annual schedules, email sending with alarm messages, display of IP cameras, etc.

Schedules can be programmed taking an astronomical clock as a reference.

Logical unit included.

Ethernet and Wifi connection, and free updating from Internet.

DS202000



TRMD-K



KNX vertical thermostat, with large touch area and integrated 2.8" screen to manage an independent climate zone. It includes speed control, modes, measured temperature, setpoint temperature, etc.

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

Menu with options for themes of appearance, brightness, language, etc.

It incorporates PI automatic regulation algorithms to control the temperature with greater precision, improving comfort and energy saving.

On/Off, PWM or continuous temperature controller, which allows control of the main and additional cold / heat systems.

Simple logical unit.

Basic White: DS421100

Black: DS421200

Design White: DS422100

Black: DS422200

White mounting box: DS940100

Black mounting box: DS940200







2E2S-K





Binary actuator with 2 potential-free relay outputs with a cutting power of 16A @ 230V each one.

Multifunction programming. Outputs work simultaneously or independently in different modes (binary outputs, blinds, etc.).

2 low-voltage digital inputs for connecting conventional pushbuttons or switches.

Arithmetic-logic unit.

Programming by ETS parameter application.

Plug-in: CT422200

Parameter: CT422220

3E2S-K







Binary actuator with two digital outputs, free voltage relays with a cutting power of 16A @230V each one.

Three low-voltage digital inputs for connecting conventional pushbuttons or switches.

Outputs work simultaneously or independently in different modes (binary outputs, blinds, etc.).

Arithmetic-logic unit and timers/counters.

Programming by ETS parameter application.

Parameter: CT423220



4E-K







connecting conventional pushbuttons or switches. Programmable inputs for working

simultaneously or independently in different modes (binary inputs, blinds, dimmers, etc).

Arithmetic-Logic Unit.

Programming by ETS parameter application.

Plug-in: CT454000

Parameter: CT454020



4E4SL-K



Binary actuator with four SELV outputs for the control of 5Vdc signalling LEDs.

> 4 low-voltage digital inputs for connecting conventional pushbuttons or switches.

Inputs work simultaneously or independently in different modes (binary outputs, blinds, dimmers, etc.).

Arithmetic-logic unit and timers/counters.

Programming by ETS parameter application.

Parameter: CT454420



6E4S-K







Binary actuator with 4 potential-free relay outputs with a cutting power of 16A or 30A @ 230V each one.

Multifunction programming. Outputs work simultaneously or independently in different modes (binary outputs, blinds, fan-coil, etc.).

6 low-voltage digital inputs for connecting conventional pushbuttons or switches.

Arithmetic-logic unit.

Programming by ETS parameter application or plug-in according to reference.

16 amps: 6E4S-K-16A

Plug-in: CT416400

Parameter: CT416420

Manual control: CT416440

30 amps: 6E4S-K-30A*

Plug-in: CT416410

Parameter: CT416430

* Both references allow manual control.







9S-K







Binary actuator with 9 potential-free relay outputs with a cutting power of 16A @ 230V each one.

Multifunction programming. Outputs work simultaneously or independently in different modes (binary outputs, blinds, fan-coil, etc.).

Arithmetic-logic unit.

Programming by ETS parameter application.

Plug-in: CT430900

Parameter: CT430920

Manual control: CT430940

16S-K







Binary actuator with 16 potential-free relay outputs with a cutting power of 16A @ 230V each one.

Multifunction programming. Outputs work simultaneously or independently in different modes (binary outputs, blinds, fan-coil, etc.).

Arithmetic-logic unit. Programming by ETS parameter application.

Parameter: CT431620

Manual control: CT431640

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22S-K







Binary actuator with 22 potential-free relay outputs with a cutting power of 16A @ 230V each one.

Multifunction programming.

Outputs work simultaneously or independently in different modes (binary outputs, blinds, fan-coil, etc.).

Arithmetic-logic unit.

Programming by ETS parameter application.

Parameter: CT432220

Manual control: CT432240

DIMMERS RGBL-K RK1000 RGBWL-K RK2000 RKLED500 RK3x500 RKLED1000 RK0104C RK1103C RKLED2S400 RK1102C







RGBL-K



Dimmer for RGB LED modules (12V to 24V).

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

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

Easy configuration of up to 32 scenes or color sequences.

RGBWL-K





Dimmer for RGBW LED modules (12V to 24V).

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

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

Easy configuration of up to 8 scenes and 8 color sequences.

LED







RKLED500





1 channel dimmer.

500W maximum output power.

Suitable for LED lighting.

Input for conventional pushbutton control.

Easy and functional configuration: ramps, staircase timers, scenes, etc.

RKLED1000



1 channel dimmer.

1000W maximum output power.

Suitable for LED lighting.

Input for conventional pushbutton control.

Easy and functional configuration: ramps, staircase timers, scenes, etc.

RKLED2S400





2 channel dimmer.

400W maximum output power.

Suitable for LED lighting.

2 inputs for conventional pushbutton control.

Easy and functional configuration: ramps, staircase timers, scenes, etc.

DM490120

DM490140

DM490220

DM480330

DM480440

30

.3















RK1000



1 channel dimmer.

1000W maximum output power.

Suitable for incandescent or halogen lighting (with or without transformer).

> Input for conventional pushbutton control.

Easy and functional configuration: ramps, staircase timers, scenes, etc...

RK2000





1 channel dimmer.

2000W maximum output power.

Suitable for incandescent or halogen lighting (with or without transformer).

> Input for conventional pushbutton control.

Easy and functional configuration: ramps, staircase timers, scenes, etc...

RK3X500







3 channel dimmer.

500W maximum output power for each channel.

Suitable for incandescent or halogen lighting (with or without transformer).

> 3 inputs for conventional pushbutton control.

Easy and functional configuration: ramps, staircase timers, scenes, etc.

RK0104C







Four channel dimmer.

Suitable for 0-10Vdc lighting control or AC units with 0-10V interface.

Simple and functional parameterization: ramps, staircase timer, scenes, etc.

DIN rail mounted.

RK1103C



Three channel dimmer.

10 A maximum output power per channel

Suitable for 1-10Vdc lighting control

Simple and functional parameterization: ramps, staircase timer, scenes, etc.

DIN rail mounted.

RK1102C





Two channel dimmer.

10 A maximum output power per channel Suitable for 1-10Vdc lighting control.

Simple and functional parameterization: ramps, staircase timer, scenes, etc.

Built-in mounting, in universal distribution box or in false ceiling next to the ballast 1-10Vdc.

DM470140

DM470180

DM470320

DM460400

DM460300

DM460200

SENSORS*

SIFKNX SIFKNX-S SIFLUX SIFLUX-S SRKNX





SIFKNX







Presence infrared detector with brightness sensor. Built-in and discreet installation with 360° detection.

Two detection channels. Suitable for lighting control by threshold, motion detection, intrusion control, etc.

White: SR510000

Black: SR510200



SIFKNX-S













Presence infrared detector with brightness sensor. Surface installation with 360° detection.

Two detection channels.

Suitable for constant brightness control, motion detection, intrusion control, etc.

White: SR511000

Black: SR511200



SIFLUX











Allows to keep a constant lighting level in a room, working together with a dimmer.

> Built-in and discreet installation with 360° detection.

> > Two detection channels.

Suitable for constant brightness control, motion detection, intrusion control, etc.

Incorporates temperature sensor for additional measurement.

White: SR530000

Black: SR530200



SIFLUX-S









Allows to keep a constant lighting level in a room, working together with a dimmer.

> Surface and discreet installation with 360° detection.

> > Two detection channels.

Suitable for constant brightness control, motion detection, intrusion control, etc.

Incorporates temperature sensor for additional measurement.

White: SR531000

Black: SR531200

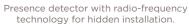












360° detection through non-metallic surfaces for installation in technical and false ceilings.

Safe against sabotage and non-desired manipulation due to its hidden installation.

2 detection channels.

Suitable for lighting, motion detection, intrusion control, etc.

SR570000

GATEWAYS CLIMA LIGHTING DMX-BUS LGAC-K DALIK

VIDEO INTERCOM **KNX-FERMAX**

DALIK-BRD1

DALIK-BRD2 DALIK-BRD3

With the same

111 65

DKAC-I IRKNX IRKNX-BI

ENERGY EFFICIENCY MET-3C MET-40A MET-60A



lighting



DMXBUS-K







Bi-directional communication gateway between KNX protocol and DMX512 protocol.

Allows to control DMX devices from the KNX system, being possible to choose between master or slave mode.

Control up to 48 DMX channels simultaneously.

Possibility to program and execute up to 8 scenes and 8 sequences.

GW612110









Gateway between KNX and DALI protocols.

DALI power source integrated.

Allows to control 64 lights and 16 groups from the KNX system.

Supports emergency lights.

Multiple functionalities for each light: dimmering, on/off, scenes, failure warnings, etc.

GW611100

lighting



DALIK-BRD1







Gateway between KNX and DALI protocols, with DALI power supply integrated.

It allows to control 1 channel and up to 64 ballasts by broadcast orders.

Ability to configure up to 64 scenes.

1 input available for conventional pushbutton control.

> Possibility of using it as an autonomous device.

DALIK-BRD2







It allows to control 2 channels and up to 64 ballasts by broadcast orders, being possible to split number of ballast per channel as interested.

Ability to configure up to 64 scenes.

2 inputs available for conventional pushbutton control.

Possibility of using it as an autonomous device.

DALIK-BRD3







Gateway between KNX and DALI protocols, with DALI power supply integrated.

It allows to control 3 channels and up to 64 ballasts by broadcast orders, being possible to split number of ballast per channel as interested.

Ability to configure up to 64 scenes.

3 inputs available for conventional pushbutton control.

Possibility of using it as an autonomous device.

GW610300

GW610100



clima



LGAC-K





Gateway between KNX and LG HVAC protocols.

Integrates LG systems (VRV series) with the KNX system.

Possibility of controlling up to 64 interior units.

5 working modes (cooling, heating, ventilation, drying and auto).

4 fan speeds (low, medium, high and auto).





DKAC-I







Gateway between KNX protocol and Daikin air conditioning system.

Integrates an indoor Daikin climate unit with KNX system.

Five operating modes (auto, heat, cold, ventilation and dry).

Three fan speeds (low, medium, high).

Includes energy saving mode.

Arithmetic-logic unit and timers/counters.

GW630100



IRKNX







Substitutes the infrared remote control of any device and integrates the control in the KNX system.

Allows to control many devices with the same transmitter.

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

GW640000

IRKNX-BI







Allows controlling multiple IR devices from the same equipment.

devices from infrared devices.

Hidden installation in mechanism box with minijack cable for controlling the device.







KNX-Fermax





Bi-directional communication gateway between KNX protocol and Fermax Smile Dominium video intercom.

Allows to control and manage KNX devices from the Smile Dominium video intercom, using a project uploaded from the SiDEKNX software.

No programming required.

Direct connection to the Fermax Smile Dominium video entry system and the KNX bus.





energy efficiency



MET-3C





Electric consumption meter of up to three channels.

Possibility of establishing consumption limits.

Alarm function in case of leaving the thresholds.

Interference to procedures of the interfaces of Bes and Apps of Ingenium.

GW650300

MET-40A





Current transformer of 40A.

GW650040









Current transformer of 60A.

MET-60A

POWER* SUPPLIES



BFK640-BU BFK640 BFK320

BFK160 BFK80





NÇL Bes'

BFK640-BU



640mA KNX power supply with possibility of battery connection to maintain active the KNX installation in case of power failure.

Rail DIN mounted (six modules).

PS116410

BFK640



640mA KNX power supply.

29Vdc extra output.

PS116400

BFK320



320mA KNX power supply.
29Vdc extra output.

PS113200

BFK160



160mA KNX power supply. 29Vdc extra output.

PS111600

BFK80



80mA KNX power supply.
29Vdc extra output.

PS110800

50

5







The best solution for the hotel

Home automation solutions which make hotel management more effective and efficient. That is what BES 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-K



Complete solution to control a hotel room.

Outputs for light dimming, on/off LED and/or conventional lighting, fancoil, electrovalves and total room on/off.

Inputs for the 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 Cubik SQ and V, and door room device Cubik-VH. Also compatible with any KNX device.

GW669900

CUBIK-VH



MUR/DND device for hotel room.

Includes two icons to distinguish between "Do not disturb" and "Make up the room" modes.

Doorbell button and room number indicator added.

 Basic
 White: PL121100

 Black: PL121200

 Design
 White: PL221100

 Black: PL221200

55













App Samsung SMART TV



To local control installations from a Samsung television with SMART TV system.

Requires a web server in the installation, which will work as gateway between the Smart TV and the control elements. (See Visualization section, page 15).

App LG SMART TV



To local control installations from a LG television with SMART TV system.

Requires a web server in the installation, which will work as gateway between the Smart TV and the control elements. (See Visualization section, page 15).

App Android



To control installations from devices running Android operating system.

Requires a web server in the installation, which will work as gateway between the Android device and the control elements. (See Visualization section, page 15).

Download here:

App iOS



To control installations from devices running iOS operating system (iPhone, iPad or iPod touch).

Requires a web server in the installation, which will work as gateway between the iOS device and the control elements. (See Visualization section, page 15).

Download here:



SiDEKNX



Fast and intuitive software for programming screens and web servers. (See Visualization section, page 15)

Possibility of importing the group addresses of an ETS project.

Project transfer to the devices with FTP download.

Easy and free updating from the internet.

Download here:



ACCESORIES*

ING-DH ING-DTV

ING-SIF ING-SIN-3H

ING-DH



Optical smoke detector.

ING-DTV



Thermovelocimetric fire detector.

ING-SIF



Infrared motion detector 12 Vdc.

Recessed.

ING-SIN-3H



Flood detector.

Three threads.



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The present catalog is subject to realization of changes and modifications by Ingenium S.L.

Parque Tecnológico de Asturias Parcela 50 33428, Llanera. Asturias (Spain)

> T. +34 985.11.88.59 F. +34 984.28.35.60

NATIONAL: bes@besknx.com EXPORT: export@besknx.com

besknx.com



