

ingenium \*  
**Bes**  
[www.besknx.com](http://www.besknx.com)

2019 products

---



## touch-buttons & thermostats

### [1] basic

#### [PL] touch-buttons

<input type="checkbox"/> Cubik-SQ2	WHITE ➔ PL112100 BLACK ➔ PL112200
<input type="checkbox"/> Cubik-SQ4	WHITE ➔ PL114100 BLACK ➔ PL114200
<input type="checkbox"/> Cubik-SQ6	WHITE ➔ PL116100 BLACK ➔ PL116200
<input type="checkbox"/> Cubik-V6	WHITE ➔ PL126100 BLACK ➔ PL126200
<input type="checkbox"/> Cubik-V8	WHITE ➔ PL128100 BLACK ➔ PL128200

#### hotel - DND/MUR

<input type="checkbox"/> Cubik-VH	
<input type="checkbox"/> Cubik-VHD	WHITE ➔ PL122100 BLACK ➔ PL122200

#### [SR] sensors

<input type="checkbox"/> Cubik-T	WHITE ➔ SR591110 BLACK ➔ SR591120
<input type="checkbox"/> Cubik-TH	WHITE ➔ SR591310 BLACK ➔ SR591320
<input type="checkbox"/> Cubik-TL	WHITE ➔ SR591210 BLACK ➔ SR591220

#### [DS] displays

<input type="checkbox"/> TRMD-K	WHITE ➔ DS421100 BLACK ➔ DS421200
---------------------------------	--------------------------------------

### [2] design

Cubik-SQ2	WHITE ➔ PL212100 BLACK ➔ PL212200
Cubik-SQ4	WHITE ➔ PL214100 BLACK ➔ PL214200
Cubik-SQ6	WHITE ➔ PL216100 BLACK ➔ PL216200
Cubik-V6	WHITE ➔ PL226100 BLACK ➔ PL226200
Cubik-V8	WHITE ➔ PL228100 BLACK ➔ PL228200

Cubik-VH	WHITE ➔ PL221100 BLACK ➔ PL221200
Cubik-VHD	WHITE ➔ PL222100 BLACK ➔ PL222200

Cubik-T	WHITE ➔ SR592110 BLACK ➔ SR592120
Cubik-TH	WHITE ➔ SR592310 BLACK ➔ SR592320
Cubik-TL	WHITE ➔ SR592210 BLACK ➔ SR592220

TRMD-K	WHITE ➔ DS422100 BLACK ➔ DS422200
--------	--------------------------------------

### [3] capriccio

Cubik-SQ2	WHITE ➔ PL312100 BLACK ➔ PL312200
Cubik-SQ4	WHITE ➔ PL314100 BLACK ➔ PL314200
Cubik-SQ6	WHITE ➔ PL316100 BLACK ➔ PL316200
Cubik-V6	WHITE ➔ PL326100 BLACK ➔ PL326200
Cubik-V8	WHITE ➔ PL328100 BLACK ➔ PL328200

Cubik-T	WHITE ➔ SR593110 BLACK ➔ SR593120
Cubik-TH	WHITE ➔ SR593310 BLACK ➔ SR593320
Cubik-TL	WHITE ➔ SR593210 BLACK ➔ SR593220

pag.  
6 & 7

pag.  
8 & 9

pag.  
10 & 11


## [GL] glasses

 Cristal Cubik Capriccio SQ ..... ➔ GL310000

 Cristal Cubik Capriccio V ..... ➔ GL320000

## [DS] displays

 SmartTouch-K BASIC ..... WHITE ➔ DS342100  
BLACK ➔ DS342200

 SmartTouch-K PLUS ..... WHITE ➔ DS343100  
BLACK ➔ DS343200


 PPKL4 ..... WHITE ➔ DS241100  
BLACK ➔ DS241200

 PPKL7 ..... WHITE ➔ DS271100  
BLACK ➔ DS271200

 PPKL10 ..... WHITE ➔ DS211100  
BLACK ➔ DS211200

 4" box ..... WHITE ➔ DS940100  
BLACK ➔ DS940200

 7" box ..... WHITE ➔ DS970100  
BLACK ➔ DS970200

 ETHBUS-K ..... ➔ DS202000


pag.  
12

pag.  
13

pag.  
14

pag.  
15

## [CT] actuators


 22S-K ..... PARAM ➔ CT432220  
MANUAL ➔ CT432240

 16S-K ..... PARAM ➔ CT431620  
MANUAL ➔ CT431640


 9S-K ..... PARAM ➔ CT430920  
MANUAL ➔ CT430940


 7SZ-K ..... PARAM ➔ CT430720


 6E4S-16A-K ..... PARAM ➔ CT416420  
MANUAL ➔ CT416440

 6E4S-30A-K ..... PARAM ➔ CT416430


 3E2S-K ..... PARAM ➔ CT423220

 2E2S-K ..... PARAM ➔ CT422220

 4E4SL-K ..... PARAM ➔ CT454420


 4E-K ..... PARAM ➔ CT454000


## [DM] dimmers


 RK1102C ..... ➔ DM460200


 RK1103C ..... ➔ DM460300


 RK0104C ..... ➔ DM460400

 RKU1S200 ..... ➔ DM470120

 RKU2S200 ..... ➔ DM470220

 RKU3S200 ..... ➔ DM470322

 RGBL-K ..... ➔ DM480330

 RGBWL-K ..... ➔ DM480440

pag.  
16

pag.  
17

pag.  
18

pag.  
19

pag.  
20

pag.  
21

pag.  
22

## [SR] sensors

### movement

↓ SIFKNX .....	WHITE → SR510000
	BLACK → SR510200
↓ SIFLUX .....	→ SR530000
∨ SIFKNX-S .....	→ SR511000
∨ SIFLUX-S .....	→ SR531000
■ SRKNX .....	→ SR570000

### conventional

⊙ ING-DTV
↓ ING-SIF
□ ING-SIN-3H

## [GW] gateways

### clima

■ DKAC-K .....	→ GW630100
■ MBAC-K .....	→ GW631100
■ LGAC-K .....	→ GW632210
■ IRKNX .....	→ GW640000
■ IRKNX-BI .....	→ GW640200

### lighting

■ DMXBUS-K .....	→ GW612110
■ DALIK .....	→ GW611100
■ DALIK-BRD3 .....	→ GW610300

pag.  
23

pag.  
24

pag.  
25

pag.  
26

pag.  
27

pag.  
28

### hotel

■ Room Controller-K .....	→ GW669900
---------------------------	------------

### integration

■ KNX-Fermax .....	→ GW620000
--------------------	------------

### energy efficiency

■ MET-3C .....	→ GW650300
■ MET-60A .....	→ GW650060

## [BD] BUS devices

■ USB-K .....	→ BD910000
■ LIN-K .....	→ BD920000
■ IPR-K .....	→ BD930000

## [PS] power supply

■ BFK80 .....	→ PS110800
■ BFK160 .....	→ PS111600
■ BFK320 .....	→ PS113200
■ BFK640 .....	→ PS116400
■ BFK640-BU .....	→ PS116410

pag.  
29

pag.  
30

pag.  
31

pag.  
32



The new Cubik series push-buttons have several models with different number of tactile areas. They have a LED indicator associated with each of these areas. There are two sizes depending on the model: square format and vertical rectangular format.

Designed with built-in temperature and humidity sensors to measure and to send the information to the BUS.

...hi-tec home automation  
with customizable design

Available with the back casing in WHITE or BLACK,  
within a range of up to 3 levels of customization...

[1] basic

Front glass fixed,  
white or black.

## [PL] touch-buttons

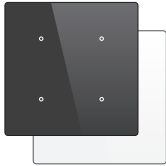


### □ Cubik-SQ2

#### KNX Square touch panel - 2 areas - Temperature and humidity sensor

WHITE → PL112100  
BLACK → PL112200

This model has 2 independent touch areas, completely programmable.  
Square format.

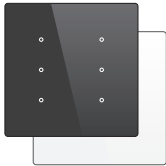


### □ Cubik-SQ4

#### KNX Square touch panel - 4 areas - Temperature and humidity sensor

WHITE → PL114100  
BLACK → PL114200

This model has 4 independent touch areas, completely programmable.  
Square format.



### □ Cubik-SQ6

#### KNX Square touch panel - 6 areas - Temperature and humidity sensor

WHITE → PL116100  
BLACK → PL116200

This model has 6 independent touch areas, completely programmable.  
Square format.

The SQ line has the following common technical characteristics:

- Supply: 29V DC from KNX BUS
- Size: 88 x 88 x 6mm
- Mounted on universal box, screwed on wall
- Available in black or white finish

## [2] design

*Front glass fixed,  
 print customizable.*



### □ Cubik-SQ2

WHITE → PL212100  
 BLACK → PL212200



### □ Cubik-SQ4

WHITE → PL214100  
 BLACK → PL214200



### □ Cubik-SQ6

WHITE → PL216100  
 BLACK → PL216200

## [3] capriccio

*Front glass interchangeable,  
 print customizable.*



### □ Cubik-SQ2

WHITE → PL312100  
 BLACK → PL112200



### □ Cubik-SQ4

WHITE → PL314100  
 BLACK → PL314200

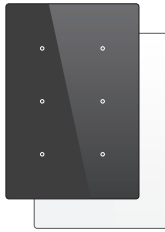


### □ Cubik-SQ6

WHITE → PL316100  
 BLACK → PL316200

## [1] basic

Front glass fixed,  
white or black.



### Cubik-V6

#### KNX Vertical touch panel - 6 areas - Temperature and humidity sensor

WHITE ➔ PL126100

BLACK ➔ PL126200

*This model has 6 independent touch areas, completely programmable.  
Rectangular vertical format.*



### Cubik-V8

#### KNX Vertical touch panel - 8 areas - Temperature and humidity sensor

WHITE ➔ PL128100

BLACK ➔ PL128200

*This model has 8 independent touch areas, completely programmable.  
Rectangular vertical format.*

#### **The V line has the following common technical characteristics:**

- Supply: 29V DC from KNX BUS
- Size: 88 x 129 x 6mm
- Mounted on universal box, screwed on wall
- Available in black or white finish

## hotel - DND/MUR

### Cubik-VH

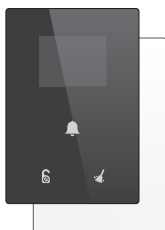
#### KNX Vertical touch panel - Hotel door - MUR/DND

*MUR/DND device for hotel room. It includes two icons to distinguish between "Do not disturb" and "Make up the room" modes. Besides, doorbell button and room number printed in the glass are added.*

**Cubik-V line common technical characteristics in supply, size and installation.**

next page

[2] design  
format only



### Cubik-VHD

#### KNX Vertical touch panel - Hotel door - MUR/DND - Integrated display

WHITE ➔ PL122100

BLACK ➔ PL122200

*MUR/DND device for hotel room. It includes two icons to distinguish between "Do not disturb" and "Make up the room" modes. Besides, a doorbell button is added. This model has an integrated 2.8" display to show room number and other functionalities.*

**Cubik-V line common technical characteristics in supply, size and installation.**



## [2] design

*Front glass fixed,  
 print customizable.*



### Cubik-V6

WHITE ➔ PL226100  
 BLACK ➔ PL226200



### Cubik-V8

WHITE ➔ PL228100  
 BLACK ➔ PL228200



### Cubik-VH

WHITE ➔ PL221100  
 BLACK ➔ PL221200



### Cubik-VHD

WHITE ➔ PL222100  
 BLACK ➔ PL222200

## [3] capriccio

*Front glass interchangeable,  
 print customizable.*



### Cubik-V6

WHITE ➔ PL326100  
 BLACK ➔ PL326200



### Cubik-V8

WHITE ➔ PL328100  
 BLACK ➔ PL328200

[1] basic

Front glass fixed,  
white or black.

## [SR] sensors



### □ Cubik-T

#### KNX Square thermostat - Temperature sensor

WHITE → SR591110

BLACK → SR591120

For temperature control of one independent air conditioning area. On/Off, PWM or continuous temperature controller for main and additional heat/cool system. It includes PI regulator for controlling temperature with higher accuracy for better energy efficiency and comfort. It supports easy logic unit.



### □ Cubik-TH

#### KNX Square thermostat - Temperature and humidity sensor

WHITE → SR591310

BLACK → SR591320

Device analogous to the **Cubik-T** that adds a built-in humidity sensor with dew point measurement according to relative humidity and temperature.

**Cubik-SQ** line common technical characteristics in supply, size and installation.



### □ Cubik-TL

#### KNX Vertical touch panel thermostat - Integrated LED indicator

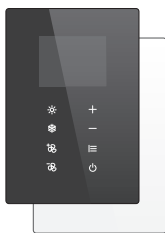
WHITE → SR591210

BLACK → SR591220

Device analogous to the **Cubik-TH** adding LED indicators for control of one independent air conditioning area. It has 8 completely programmable independent touch areas. It supports easy logic unit and timers/counters.

**Cubik-V** line common technical characteristics in supply, size and installation.

## [DS] displays



### □ TRMD-K

#### KNX Vertical touch panel thermostat - 2.8" integrated screen

WHITE → DS421100

BLACK → DS421200

Thermostat with 8 touch areas and integrated 2.8" color touch screen to manage an independent climate zone. It incorporates PI regulator to control the temperature with greater precision, improving comfort and energy saving. On/Off, PWM or continuous temperature controller for main and additional heat/cool system. Includes speed control, modes, measured temperature, setpoint, etc. Includes built-in temperature sensor with thermostat and supports weekly timings for the thermostat configuration. It has a menu with options for themes of appearance, brightness, language, etc.

**Cubik-V** line common technical characteristics in supply, size and installation.

## [2] design

Front glass fixed,  
 print customizable.



### ☐ Cubik-T

WHITE ➔ SR592110  
 BLACK ➔ SR592120



### ☐ Cubik-TH

WHITE ➔ SR592310  
 BLACK ➔ SR592320



### ☐ Cubik-TL

WHITE ➔ SR592210  
 BLACK ➔ SR592220



### ☐ TRMD-K

WHITE ➔ DS422100  
 BLACK ➔ DS422200

## [3] capriccio

Front glass interchangeable,  
 print customizable.



### ☐ Cubik-T

WHITE ➔ SR593110  
 BLACK ➔ SR593120



### ☐ Cubik-TH

WHITE ➔ SR593310  
 BLACK ➔ SR593320



### ☐ Cubik-TL

WHITE ➔ SR593210  
 BLACK ➔ SR593220

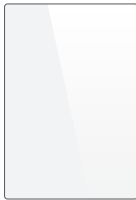
☐ Additional Capriccio range custom glasses can be purchased separately.

## [GL] glasses



Cristal Cubik Capriccio SQ      Custom Cubik Capriccio Glass - Square  
➔ GL310000

---



Cristal Cubik Capriccio V      Custom Cubik Capriccio Glass - Vertical  
➔ GL320000

---

## [DS] displays



### SmartTouch-K BASIC KNX 4.3" vertical color touch screen, fully customizable, integrated Wi-Fi

WHITE → DS342100  
 BLACK → DS342200

Vertical capacitive touch screen to control and monitor all installation devices by icons on customizable images. The background design, the controls, the icons and the text will be completely editable and can set up different themes which can be programmed to change automatically when you want. In this way the panel can be fully customized according to the place where it will be installed.

The panel has been designed to show all controls on a single page including 8 controls. However, if necessary it may include up to 32 controls, divided into 4 pages (8 controls per page) whose navigation is done by a simple lateral displacement. It also includes a specific interface for climate control with an internal thermostat.

The ability of the panel to generate a wifi network to allow it to be controlled locally from any iOS or Android device, simply by downloading the official Ingenium applications. It is also full compatible with Google Home for voice control of the smart home installation.

Other interesting features are gestural "shortcuts" that allow you to perform default actions with a simple movement while the screen remains in stand-by mode, multilanguage support and security issues such as blocking by numerical code or to restricting the access to the settings menu.

- Resolution: 800x480 pixels
- Color: 18-bit
- Supply: 18-30V DC
- Consumption: 350mA@24V DC from auxiliary / 1mA from KNX BUS
- Programming: FTP Upload
- Size: 88 x 129 x 4 mm (13mm depth)
- Mounted on universal box, screwed on wall, flush mount
- Available in black or white finish



### SmartTouch-K PLUS KNX 4.3" vertical color touch screen with Internet connectivity

WHITE → DS343100  
 BLACK → DS343200

This interface has the same features as the basic model, expanding the capacity of local connectivity to remote, allowing control of the installation using cloud service. It also has a higher quality display with more contrast and viewing angle.

The PPKL series are capacitive touch screens to control and monitor all installation devices by icons on color 3D drawings or photographs (maximum 16 images). Their interface allows the users editing their own scenes as well as programming intuitively annual timings.

They include Wi-Fi, configurable within the own local network, and it incorporates the benefits of our device ETHBUS-K, allowing the installation to connect wirelessly either through PC or through mobile devices locally or remotely. Besides, they are voice control compatible with Google Home.

As new feature, they send Push notifications to Ingenium iOS and Android Apps or by email. Also, the included Wi-Fi allows the device updating via internet to the latest version of available software.

They also include the possibility of IP cameras visualization, to arm/disarm alarm, the presence simulation, interface to check the weather forecast, a graphical whiteboard notes, etc.

#### PPKL4

WHITE ➔ DS241100  
BLACK ➔ DS241200



#### KNX 4.3" Color Touch screen

PPKL series interface with the most compact size.

- Resolution: 800x480 pixels
- Color: 18-bit
- Supply: 18-30V DC from auxiliary power supply
- Consumption:
  - 350mA@24V DC from aux. output
  - 1mA from KNX BUS
- Size: 129 x 88 x 4mm (13mm depth)
- Mounted on universal box, screwed on wall, flushed
- Available in black or white finish

#### PPKL7

WHITE ➔ DS271100  
BLACK ➔ DS271200



#### KNX 7.1" Color Touch screen

PPKL series interface with medium screen size.

- Resolution: 800x480 pixels
- Color: 18-bit
- Supply: 18-30V DC from auxiliary power supply
- Consumption:
  - 450mA@24V DC from aux. output
  - 1mA from KNX BUS
- Size: 207 x 140 x 4mm (13mm depth)
- Mounted on universal box, screwed on wall, flushed
- Available in black or white finish

#### PPKL10

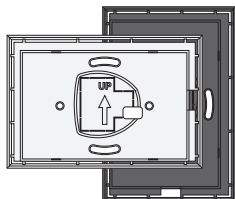
WHITE ➔ DS211100  
BLACK ➔ DS211200



#### 10.4" Color Touch screen

Interface with all the features of the PPKL range, featuring its biggest screen size.

- Resolution: 640x480 pixels
- Color: 18-bit
- Supply: 18-30V DC from auxiliary power supply
- Consumption:
  - 900mA@24V DC from aux. output
  - 1mA from KNX BUS
- Size: 307 x 224 x 4mm (24mm depth)
- Mounted on universal box, screwed on wall
- Available in black or white finish



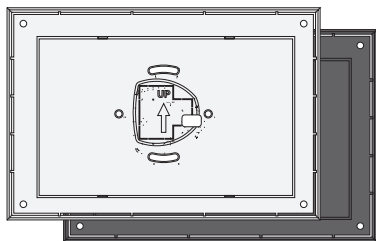
□ 4" box

**Box for flush mounting - 4.3" screens**

WHITE → DS940100  
 BLACK → DS940200

*Allows wall embedded pre-installation labor of PPKL4 and SmartTouch-K screens.*

- Size: 129 x 88 x 4mm (13mm depth)



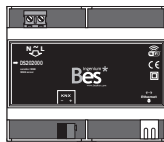
□ 7" box

**Box for flush mounting - 7.1" screens**

WHITE → DS970100  
 BLACK → DS970200

*Allows wall embedded pre-installation labor of PPKL7 touch screens.*

- Size: 207 x 140 x 4mm (13mm depth)



☰ ETHBUS-K

→ DS202000

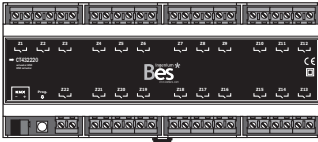
**Web server for remote control of KNX installations**

*Device to control a KNX installation from any iOS, Android or Samsung Smart TV device or using a PC connected to the internet. It is also full compatible with Google Home for voice control of the smart home installation.*

*Wi-Fi and Ethernet connectivity. It supports up to 100 control planes and up to 100 scenes. It has free updating via internet to the latest version of available software.*

- Supply: 230V AC
- Max. Power Consumption: 2.6VA @ 230V AC
- KNX supply: 29V DC from KNX BUS
- Consumption: 1mA from KNX BUS
- DIN rail mounted (6 modules)

## [CT] actuators



### 22S-K KNX actuator with 22 digital outputs

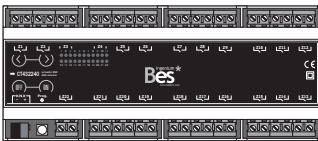
➔ CT432220 · PARAM

On/Off actuator with 22 outputs, free voltage relays 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 (ALU).

- Supply: 29V DC from KNX BUS
- Consumption: 9mA from KNX BUS
- Switching capacity: 16A @ 230V AC per output
- DIN rail mounted (12 modules)

Available in two versions depending on programming mode:

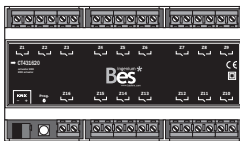
1. **PARAM:** Programming by ETS parameter application.
2. **MANUAL:** Manual control system for relay outputs.



### 22S-K KNX actuator with 22 digital outputs - Manual

➔ CT432240 · MANUAL

This version has manual control for the activation/deactivation of the outputs from the device itself, and LED indicators for the selection and status of them. For this, there are capacitive pushbuttons on the cover and LED indicators for the selection and on/off of the outputs.



### 16S-K KNX actuator with 16 digital outputs

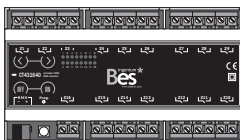
➔ CT431620 · PARAM

On/Off actuator with 16 outputs, free voltage relays 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 (ALU).

- Supply: 29V DC from KNX BUS
- Consumption: 9mA from KNX BUS
- Switching capacity: 16A @ 230V AC per output
- DIN rail mounted (9 modules)

Available in two versions depending on programming mode:

1. **PARAM:** Programming by ETS parameter application.
2. **MANUAL:** Manual control system for relay outputs.



### 16S-K KNX actuator with 16 digital outputs - Manual

➔ CT431640 · MANUAL

This version has manual control for the activation/deactivation of the outputs from the device itself, and LED indicators for the selection and status of them. For this, there are capacitive pushbuttons on the cover and LED indicators for the selection and on/off of the outputs.





**9S-K KNX actuator with 9 digital outputs**

➔ **CT430920 · PARAM** *On/Off actuator with 9 outputs, free voltage relays with a cutting power of 16A@230V each one. Multifunction programming. Outputs of this device work simultaneously or independently in different modes (binary outputs, blinds, fan-coil, etc). Arithmetic-Logic Unit (ALU).*

- Supply: 29V DC from KNX BUS
- Consumption: 9mA from KNX BUS
- Switching capacity: 16A @ 230V AC per output
- DIN rail mounted (6 modules)

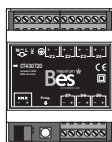
Available in two versions depending on programming mode:

1. **PARAM:** Programming by ETS parameter application.
2. **MANUAL:** Manual control system for relay outputs.



**9S-K KNX actuator with 9 digital outputs - Manual**

➔ **CT430940 · MANUAL** *This version has manual control for the activation/deactivation of the outputs from the device itself, and LED indicators for the selection and status of them. For this, there are capacitive pushbuttons on the cover and LED indicators for the selection and on/off of the outputs.*



**7SZ-K KNX climate zone actuator with 7 outputs (18V DC)**

➔ **CT307200 · PARAM** *Device for controlling motorized grilles to zoning the air conditioning of a KNX installation. It has 7 independent channels, corresponding to each zone/grill. Programming by ETS parameter application.*

- Supply: 29V DC from KNX BUS
- DIN rail mounted (4 modules)



### 6E4S-16A-K KNX actuator with 6 digital inputs and 4 digital outputs (16A)

---

→ CT416420 - PARAM

On/Off actuator with 4 digital outputs, free voltage relays. Multifunction programming. Outputs work simultaneously or independently in different modes (binary outputs, blinds, fan-coil, etc). This device has 6 low-voltage digital inputs for connecting conventional pushbuttons or switches. Arithmetic-Logic Unit (ALU).

- Supply: 29V DC from KNX BUS
- Consumption: 9mA from KNX BUS
- Switching capacity: 16A @ 230V AC per output
- DIN rail mounted (4 modules)

---

Available in two versions depending on programming mode:

1. **PARAM:** Programming by ETS parameter application.
2. **MANUAL:** Manual control system for relay outputs.



### 6E4S-16A-K KNX actuator with 6 digital inputs and 4 digital outputs (16A) - Manual

---

→ CT416440 - MANUAL

This version has manual control for the activation/deactivation of the outputs from the device itself, and LED indicators for the selection and status of them. For this, there are capacitive pushbuttons on the cover and LED indicators for the selection and on/off of the outputs.



### 6E4S-30A-K KNX actuator with 6 digital inputs and 4 digital outputs (30A)

---

→ CT416430 - PARAM

On/Off actuator with 4 digital outputs, free voltage relays. Multifunction programming. Outputs work simultaneously or independently in different modes (binary outputs, blinds, fan-coil, etc). This device has 6 low-voltage digital inputs for connecting conventional pushbuttons or switches. Arithmetic-Logic Unit (ALU).

- Supply: 29V DC from KNX BUS
- Consumption: 9mA from KNX BUS
- Switching capacity: 30A @ 230V AC per output
- DIN rail mounted (4 modules)



● **3E2S-K** **KNX actuator with 3 digital inputs and 2 digital outputs**

→ CT423200 · PARAM

On/Off actuator with 2 digital outputs, free voltage relays. Multifunction programming. Outputs work simultaneously or independently in different modes (binary outputs, blinds, etc). This device has 3 low-voltage digital inputs for connecting conventional pushbuttons or switches. Arithmetic-Logic Unit (ALU). Programming by ETS parameter application. Programming by ETS parameter application.

- Supply: 29V DC from KNX BUS
- Consumption: 9mA from KNX BUS
- Switching capacity: 16A @ 230V AC per output
- Size: 48 x 48 x 25mm
- Mounted on distribution box



● **2E2S-K** **KNX actuator with 2 digital inputs and 2 digital outputs**

→ CT422220 · PARAM

Actuator homologous to model 3E2S-K (CT423200) but with 2 digital inputs instead of 3 inputs.



● **4E4SL-K** **Adaptor for mechanical controls to KNX with 4 and 4 digital outputs (SELV)**

→ CT454420 · PARAM

4 extra-low voltage (SELV) digital inputs module for connecting conventional pushbuttons or switches. This device has programmable inputs for working simultaneously or independently in different modes (binary inputs, blinds, dimmers, etc). 4 outputs for the control of signalling LEDs. Arithmetic-Logic Unit (AUL). Programming by ETS parameter application.

- Supply: 29V DC from KNX BUS
- Consumption: 9mA from KNX BUS
- Inputs: 4 extra-low voltage (SELV)
- Outputs: 4 extra-low voltage (SELV)
- Maximum cabled distance: 30 meters
- Size: 45 x 45 x 10mm
- Mounting: Built-in on universal distribution box



● **4E-K** **Adaptor for mechanical controls to KNX with 4 digital low voltage inputs**

→ CT454020 · PARAM

4 low-voltage (SELV) digital inputs module for connecting conventional pushbuttons or switches. This device has programmable inputs for working simultaneously or independently in different modes (binary inputs, blinds, dimmers, etc). Arithmetic-Logic Unit (AUL). Programming by ETS parameter application.

- Supply: 29V DC from KNX BUS
- Consumption: 9mA from KNX BUS
- Inputs: 4 low voltage inputs (SELV)
- Maximum cabled distance: 30 meters
- Size: 45 x 45 x 10mm
- Mounting: Built-in on universal distribution box

## [DM] dimmers



### ■ RK1102C 2-channel dimmer for electronic ballasts (1-10V) with KNX control

---

→ DM460200

*Illumination controller for KNX BUS for fluorescence adjustable by signal 1-10V.  
Maximum current of 10A in the ON/OFF relay and 35mA in the output 1-10V.*

- Supply: 230V AC
- Size: 77 x 35 x 17mm



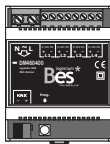
### ■ RK1103C 3-channel dimmer for electronic ballasts (1-10V) with KNX control

---

→ DM460300

*Illumination controller for KNX BUS for fluorescence adjustable by signal 1-10V.  
Maximum current of 10A in the ON/OFF relay and 35mA in the output 1-10V.*

- Supply: 29V DC from KNX BUS
- DIN rail mounted (4 modules)



### ■ RK0104C 4-channel dimmer, triac output (0-10V) with KNX control

---

→ DM460400

*Controller for KNX BUS control by 0-10 V signal with triac output that allows lighting control, as well as electrovalves and other elements controlled by 0-10 V signal.*

- Supply: 230V AC
- DIN rail mounted (4 modules)



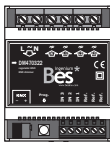
**■ RKU1S200 1x200W-channel universal dimmer with KNX control**

- ➔ **DM470120** *1 channel universal dimmer. 200W maximum output power. Suitable for all types of lighting: incandescent, halogen or LED. Easy and functional configuration: ramps, staircase timers, scenes, etc.*
- Voltage Supply: 230V AC
  - KNX Supply: 29V DC from KNX BUS
  - Current Consumption: 5mA from KNX BUS
  - Max. Output Power: 200W
  - Size: 77 x 35 x 17mm



**■ RKU2S200 2x200W-channel universal dimmer with KNX control**

- ➔ **DM470220** *2 channel universal dimmer. 200W maximum output power for each channel. Suitable for all types of lighting: incandescent, halogen or LED. 2 inputs for conventional pushbutton control. Easy and functional configuration: ramps, staircase timers, scenes, etc.*
- Voltage Supply: 230V AC
  - KNX Supply: 29V DC from KNX BUS
  - Current Consumption: 5mA from KNX BUS
  - Max. Output Power: 200W per channel
  - DIN rail mounted (4 modules)



**■ RKU3S200 3x200W-channel universal dimmer with KNX control**

- ➔ **DM470322** *3 channel universal dimmer. 200W maximum output power for each channel. Suitable for all types of lighting: incandescent, halogen or LED. 3 inputs for conventional pushbutton control. Easy and functional configuration: ramps, staircase timers, scenes, etc.*
- Voltage Supply: 230V AC
  - KNX Supply: 29V DC from KNX BUS
  - Current Consumption: 5mA from KNX BUS
  - Max. Output Power: 200W per channel
  - DIN rail mounted (4 modules)



■ **RGBL-K**      **3-channel dimmer to regulate RGB LED modules with KNX control**

---

➔ **DM480330**

*Proportional actuator to regulate RGB LED modules, including the possibility to control each channel individually. Color scenes and sequences programming. Maximum operating output current: 3A per channel. PWM dimming method.*

- *Input voltage: 10–24V DC from LED transformer supply*
- *Output power: 3x30W (10V DC) / 3x78W (24V DC)*
- *Supply: 29V DC from KNX BUS*
- *Consumption: 5mA from KNX BUS*
- *Size: 77 x 35 x 17mm*
- *Mounting: Luminaire or ceiling integration*



■ **RGBWL-K**      **4-channel dimmer to regulate RGB+White LED modules with KNX control**

---

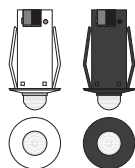
➔ **DM480440**

*Proportional actuator to regulate RGB LED modules with additional white color, including the possibility to control each channel individually. Color scenes and sequences programming. Max. operating output current: 3A per channel. PWM dimming method.*

- *Input voltage: 10–24V DC from LED transformer supply*
- *Output power: 4x30W (10V DC) / 4x78W (24V DC)*
- *Supply: 29V DC from KNX BUS*
- *Consumption: 5mA from KNX BUS*
- *Size: 77 x 35 x 17mm*
- *Mounting: Luminaire or ceiling integration*

## [SR] sensors

### movement



#### ⇓ SIFKNX

WHITE → SR510000  
 BLACK → SR510200

#### KNX infrared movement detector - Light regulation -

---

*Infrared movement 360° detector within an area of 5m diameter at 2.5m height. It has 2 detection channels. Possibility to adjust the light working-time as well as the threshold light level. Wide and easy parameterization, being suitable for lighting functions, as well as people detection and intruder control. It also includes an additional channel that can work in dependence of daylight or permanently.*

- Supply: 29V DC from KNX BUS
- Consumption: 4mA from KNX BUS
- Size: Ø36 (visible) x Ø25 (built-in) x 50mm
- Built in mounted on ceiling



#### ⇓ SIFLUX

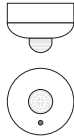
→ SR530000

#### KNX infrared movement detector - Constant regulation

---

*Infrared movement 360° detector within an area of 5m diameter at 2.5m height. It has 2 detection channels. In combination with a dimmer it can maintain a constant brightness in a room. It is possible to adjust the presence sensor sensitivity in an easy way. This device also includes an additional thermostat to measure temperature where it is installed.*

- Supply: 29V DC from KNX BUS
- Consumption: 4mA from KNX BUS
- Size: Ø36 (visible) x Ø25 (built-in) x 50mm
- Built in mounted on ceiling



▼ **SIFKNX-S**

**KNX infrared movement detector - Light regulation - Surface install.**

---

➔ **SR511000**

*Infrared movement 360° detector within an area of 5m diameter at 2.5m height. It has 2 detection channels. Possibility to adjust the light working-time as well as the threshold light level. Wide and easy parameterization, being suitable for lighting functions, as well as people detection and intruder control. It also includes an additional channel that can work in dependence of daylight or permanently.*

- Supply: 29V DC from KNX BUS
- Consumption: 4mA from KNX BUS
- Size: Ø44 x 30mm
- Mounting: Screwed on ceiling or indoor wall



▼ **SIFLUX-S**

**KNX infrared movement detector - Constant regulation - Surface install.**

---

➔ **SR531000**

*Infrared movement 360° detector within an area of 5m diameter at 2.5m height. It has 2 detection channels. In combination with a dimmer it can maintain a constant brightness in a room. It is possible to adjust the presence sensor sensitivity in an easy way. This device also includes an additional thermostat to measure temperature where it is installed.*

- Supply: 29V DC from KNX BUS
- Consumption: 4mA from KNX BUS
- Size: Ø44 x 30mm
- Mounting: Screwed on ceiling or indoor wall



■ **SRKNX**

**KNX radiofrequency movement detector - Hidden install.**

---

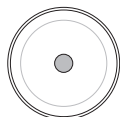
➔ **SR570000**

*Movement sensor with hidden installation that detects movements through walls and ceilings of any non metallic material. It has 2 detection channels. This device is suitable for lighting, motion detection, intrusion control, etc. Detection maximum area of 12x6m, to 2.5m height.*

- Supply: 29V DC from auxiliary power supply or from KNX BUS
- Consumption (depends on source):
  - Auxiliary Power Supply 12-30V DC (Recommended):  
35mA from auxiliary power supply + 1mA from KNX BUS
  - KNX BUS (Optional): 35mA from KNX BUS
- Size: 65 x 25 x 45mm
- Mounted hidden at register box, sealed box, or false ceiling



## conventional



### ⊙ ING-DTV **Fire thermovelocimetric detector**

*Thermovelocimetric fire detector for areas where smoke is usual (detects sudden temperature increases). Suitable for connection to KNX actuators.*

- Supply: 12V DC (KCTr)
- Size: Ø74 x 26mm
- Surface mounted, screwed on ceiling



### ▣ ING-SIF **Built-in Infrared movement sensor flush mounted**

*Infrared movement detector for connection to any inputs KNX device. This device has 360° detection angle with an area of 5m diameter to 2.5m height. Normally open (NO) contact.*

- Supply: 12V DC
- Consumption: 25mA
- Size: Ø34 (visible) x Ø23 (built-in) x 52mm
- Built in mounted on ceiling or internal wall



### ▣ ING-SIN-3H **Flooding sensor - 3 wires**

*Vertical flooding sensor for 3 wire connection to KNX actuators. Possibility of connecting several sensors always in parallel.*

- Supply: 12V DC
- Consumption: 40mA
- Size: 34 x 70 x 14mm
- Surface mounted, at ground level

## [GW] gateways

### clima



#### DKAC-K KNX – DAIKIN® air conditioning gateway

---

→ GW630100

Gateway between KNX protocol and DAIKIN® air conditioning system. It allows the integration of an indoor DAIKIN® climate unit with five operating modes (auto, heat, cold, ventilation and dehumidification) and three ventilation speeds (low, medium, high). It includes energy saving mode and arithmetic/logic unit and timers/counters.

- Supply: 29V DC from KNX BUS
- Consumption: 100mA from KNX BUS
- DIN rail mounted (2 modules)



#### MBAC-K KNX – MITSUBISHI® air conditioning gateway

---

→ GW631100

Gateway between KNX protocol and MITSUBISHI ELECTRIC® air conditioning system. It allows the integration of an indoor MITSUBISHI® climate unit with five operating modes (auto, heat, cold, ventilation and dehumidification) and three ventilation speeds (low, medium, high). It includes energy saving mode and arithmetic/logic unit and timers/counters.

- Supply: 29V DC from KNX BUS
- Consumption: 20mA from KNX BUS
- DIN rail mounted (2 modules)



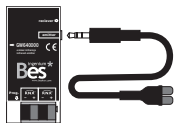
#### LGAC-K KNX – LG HVAC air conditioning gateway

---

→ GW632210

Gateway for integration of LG air conditioning system with KNX control system. Connection to external LG units bus RS485. Control up to 64 LG indoor units.

- Supply: 230V AC
- Max. Power Consumption: 0.5W @ 230V AC
- KNX supply: 29V DC from KNX BUS
- Consumption: 1mA from KNX BUS
- DIN rail mounted (4 modules)



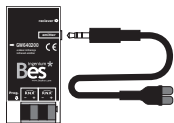
■ IRKNX

**KNX infrared transmitter with learning capability**

➔ GW640000

*Allows management in a KNX installation of any air conditioning system that has infrared control, substituting its own remote control.*

- Supply: 29V DC from KNX BUS
- Consumption: 5mA from KNX BUS
- Size: 75 x 30 x 12mm
- Mounting: hidden next to AC device or ceiling integration



■ IRKNX-BI

**KNX bidirectional infrared transmitter with learning capability**

➔ GW640200

*Allows bidirectional emission and reception of infrared codes for control of either IR devices from KNX and KNX elements from infrared devices. It allows to control several IR devices from the same device allowing to storage up to 255 codes.*

- Supply: 29V DC from KNX BUS
- Consumption: 5mA from KNX BUS
- Size: 75 x 30 x 12mm
- Mounting: hidden next to AC device or ceiling integration

## lighting



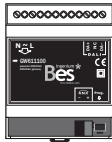
### DMXBUS-K KNX – DMX 512 gateway

---

#### → GW612110

*Bidirectional communication gateway between KNX protocol and DMX 512 protocol completely configurable by ETS. Controls up to 48 DMX channels simultaneously and can execute up to 8 scenes and 8 fully customizable sequences.*

- Supply: 230V AC
- Max. Power Consumption: 2.6VA @ 230V AC
- KNX supply: 29V DC from KNX BUS
- Consumption: 1mA from KNX BUS
- DIN rail mounted (4 modules)



### DALIK KNX – DALI gateway with unique physical address

---

#### → GW611100

*Gateway for controlling DALI protocol lighting through KNX. It allows to control and address up to 64 lights and 16 groups, including an integrated power supply for them.*

- Supply: 230V AC
- Max. Power Consumption: 3.2VA @ 230V AC
- KNX supply: 29V DC from BUS KNX
- Consumption: 5mA
- DIN rail mounted (4 modules)



### DALIK-BRD3 KNX – DALI gateway with broadcast control for 3 channels and up to 64 ballasts

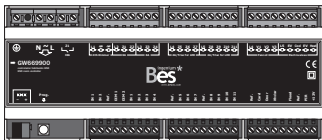
---

#### → GW610300

*Gateway for controlling DALI protocol lighting through KNX. 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 16 scenes. 3 inputs available for conventional pushbutton control. Possibility of use it as an autonomous device.*

- Supply: 230V AC
- Max. Power Consumption: 3.2VA @ 230V AC
- KNX supply: 29V DC from BUS KNX
- Consumption: 5mA
- DIN rail mounted (4 modules)

## hotel



### Room Controller-K KNX hotel room controller - Inputs/Outputs

➔ GW669900

Complete solution to control a hotel room. It has outputs to control from lighting dimming, on/off LED and/or conventional lighting, fan coil, electrovalves and a total on/off of the room. It also has inputs for the control and management of all outputs, as well as inputs for card reader, technical alarms sensors and magnetic door and window detectors. Integrable device with Cubik SQ and V devices, with the Cubik-VH room door and any KNX device.

- Supply: 230V AC
- DIN rail mounted (12 modules)

Consult  
 availability

## integration



### KNX-Fermax KNX – Fermax Smile Dominium gateway

➔ GW620000

Bi-directional gateway between KNX protocol and Fermax Smile Dominium video door entry system. It allows control of KNX devices from the video door system. No programming required. Direct connection to the video door system and the KNX bus.

- Supply: 230V AC
- Max. Power Consumption: 2.6VA @ 230V AC
- KNX supply: 29V DC from KNX BUS
- Consumption: 1mA from KNX BUS
- DIN rail mounted (4 modules)

## energy efficiency



### ▣ MET-3C

#### 3 Channel consumption meter for KNX

---

➔ GW650300

*Electric consumption meter of up to three channels, which allows the possibility of establishing consumption limits. It also includes alarm function in case of leaving the thresholds established by programming. Interaction with the device is possible through the BES interfaces and Ingenium Apps for iOS and Android.*

- Supply: 29V DC from KNX BUS
- DIN rail mounted (2 modules)



### ▣ MET-60A

#### Split core current transformer 60A

---

➔ GW650060

*Accessory for use with the MET-3C consumption meter. Each channel requires one MET transformer.*

- Input current: 1-60A
- Output type: 1-10V
- Size: 56 x 30 x 22mm

## [BD] BUS devices



### USB-K USB interface - KNX

---

➔ **BD910000**

*USB2.0 interface device with Type B connector. Enables a data connection between PC and KNX bus line without need for an extra application program. Access to every bus device in the KNX bus system for commissioning, addressing, setting parameters, visualization, protocolling and diagnostics..*

- Supply: 29V DC from KNX BUS
- DIN rail mounted (2 modules)



### LIN-K Line coupler - KNX

---

➔ **BD920000**

*Can be used as a line/backbone coupler or as a line repeater in any KNX network. Galvanic isolated data connection between two separate KNX bus lines (for both coupler and repeater function).*

- Supply: 29V DC from KNX BUS
- DIN rail mounted (2 modules)



### IPR-K IP Router - KNX

---

➔ **BD930000**

*IP routing & tunneling device without external power supply. Data connection between (upper) KNXnet/IP line and (lower) TP KNX bus line. Integrated KNX tunneling interface for commissioning, monitoring and diagnostics via ETS.*

- Supply: 29V DC from KNX BUS
- DIN rail mounted (2 modules)

## [PS] power supply



### **BFK80** KNX 80mA power supply - 29V DC auxiliary output

---

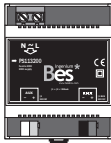
- ➔ PS110800
- Supply: 230V AC
  - Current: KNX BUS + AUX < 80mA
  - Output voltage: 29V DC
  - DIN rail mounted (2 modules)



### **BFK160** KNX 160mA power supply - 29V DC auxiliary output

---

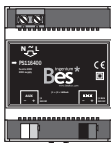
- ➔ PS111600
- Supply: 230V AC
  - Current: KNX BUS + AUX < 160mA
  - Output voltage: 29V DC
  - DIN rail mounted (2 modules)



### **BFK320** KNX 320mA power supply - 29V DC auxiliary output

---

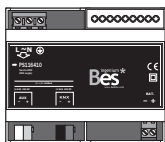
- ➔ PS113200
- Supply: 230V AC
  - Current: KNX BUS + AUX < 320mA
  - Output voltage: 29V DC
  - DIN rail mounted (4 modules)



### **BFK640** KNX 640mA power supply - 29V DC auxiliary output

---

- ➔ PS116400
- Supply: 230V AC
  - Current: KNX BUS + AUX < 640mA
  - Output voltage: 29V DC
  - DIN rail mounted (4 modules)



### **BFK640-BU** KNX 640mA backup power supply - 29V DC auxiliary output

---

- ➔ PS116410
- Power supply with possibility of battery connection to keep the KNX installation active in case of power failure.
- Supply: 230V AC / AUX: 12V DC (Battery)
  - Current: KNX BUS + AUX < 640mA
  - Output voltage: 29V DC
  - DIN rail mounted (6 modules)



## warranty

Our products are guaranteed for 2 years beginning at the invoice date. They must be correctly stored, installed and maintained, in conformity with the good professional practice, with the ongoing legislation and with the condition that failures are not a consequence of bad use, negligence or external accidents.

In case of valid warranty, INGENIUM INGENIERÍA Y DOMÓTICA SL responsibility is limited to substitute the old product for a new one without cost for the client, being excluded any responsibility of damages and other charges and compensations.

Our general sales conditions prevail over the customers' purchase general conditions of the customer that INGENIUM INGENIERÍA Y DOMÓTICA SL does not expressly accepted.

The non observance of our delivery times will not involve any penalty or compensation.

Both parts renounce to their own legislation in case of conflict and will be subject to the jurisprudence of the Asturias Tribunals (Spain), for every question related with the contract or sales terms.

INGENIUM INGENIERÍA Y DOMÓTICA SL, reserves itself the right to admit the orders.

*All the information contained on this document is valid, except in case of a misprint mistake.*



*Bes™ is a registered trademark of Ingenium Ingeniería y Domótica, S.L. for the KNX® protocol products line.*



# ingenium \* Bes

[www.besknx.com](http://www.besknx.com)

Parque Tecnológico de Asturias, Parcela 50  
33428 Llanera - Asturias - Spain

tel (+34) 985 118 859

[export@besknx.com](mailto:export@besknx.com)



Samsung  
SMART TV

