



2018 price list

Сенсорные панели и термостаты

 pags.
 6 & 7

[1] basic

[2] design

[3] capriccio

[PL] touch-buttons

<input type="checkbox"/> Cubik-SQ2	WHITE ➔ PL112100 BLACK ➔ PL112200	196,00 €	WHITE ➔ PL212100 BLACK ➔ PL212200	226,00 €	WHITE ➔ PL312100 BLACK ➔ PL312200	246,00 €
<input type="checkbox"/> Cubik-SQ4	WHITE ➔ PL114100 BLACK ➔ PL114200	216,00 €	WHITE ➔ PL214100 BLACK ➔ PL214200	246,00 €	WHITE ➔ PL314100 BLACK ➔ PL314200	266,00 €
<input type="checkbox"/> Cubik-SQ6	WHITE ➔ PL116100 BLACK ➔ PL116200	234,00 €	WHITE ➔ PL216100 BLACK ➔ PL216200	264,00 €	WHITE ➔ PL316100 BLACK ➔ PL316200	286,00 €
<input type="checkbox"/> Cubik-V6	WHITE ➔ PL126100 BLACK ➔ PL126200	184,00 €	WHITE ➔ PL226100 BLACK ➔ PL226200	314,00 €	WHITE ➔ PL326100 BLACK ➔ PL326200	334,00 €
<input type="checkbox"/> Cubik-V8	WHITE ➔ PL128100 BLACK ➔ PL128200	308,00 €	WHITE ➔ PL228100 BLACK ➔ PL228200	340,00 €	WHITE ➔ PL328100 BLACK ➔ PL328200	358,00 €
<input type="checkbox"/> Cubik-VH	WHITE ➔ PL121100 BLACK ➔ PL121200	Consult	WHITE ➔ PL221100 BLACK ➔ PL221200	Consult		

 pags.
 8 & 9

[SR] sensors

<input type="checkbox"/> Cubik-T	WHITE ➔ SR591110 BLACK ➔ SR591120	70,00 €	WHITE ➔ SR592110 BLACK ➔ SR592120	86,00 €	WHITE ➔ SR593110 BLACK ➔ SR593120	98,00 €
<input type="checkbox"/> Cubik-TH	WHITE ➔ SR591310 BLACK ➔ SR591320	97,00 €	WHITE ➔ SR592310 BLACK ➔ SR592320	113,00 €	WHITE ➔ SR593310 BLACK ➔ SR593320	125,00 €
<input type="checkbox"/> Cubik-TL	WHITE ➔ SR591210 BLACK ➔ SR591220	155,00 €	WHITE ➔ SR592210 BLACK ➔ SR592220	171,00 €	WHITE ➔ SR593210 BLACK ➔ SR593220	183,00 €

[DS] displays

<input type="checkbox"/> TRMD-K	WHITE ➔ DS421100 BLACK ➔ DS421200	206,00 €	WHITE ➔ DS422100 BLACK ➔ DS422200	225,00 €
---------------------------------	--------------------------------------	----------	--------------------------------------	----------

[GL] Стекло

- Cristal Cubik Capriccio SQ
→ GL310000 56,00 €
- Cristal Cubik Capriccio V
→ GL320000 60,00 €

[DS] Дисплеи

- SmartTouch-MEK
W → DS341100 476,00 €
B → DS341200
- SmartTouch-K BASIC
W → DS342100 668,00 €
B → DS342200
- SmartTouch-K PLUS
W → DS343100 798,00 €
B → DS343200
- PPKL4
WHITE → DS241100 980,00 €
BLACK → DS241200
- PPKL7
WHITE → DS271100 1700,00 €
BLACK → DS271200
- PPKL10
WHITE → DS211100 299,00 €
BLACK → DS211200
- 4" box
WHITE → DS940100 14,00 €
BLACK → DS940200
- 7" box
WHITE → DS970100 16,00 €
BLACK → DS970200
- ETHBUS-K → DS202000 818,00 €

pag.
10

pag.
11

pag.
12

pag.
13

[CT] Актуаторы

- 22S-K PARAM → CT432220 840,00 €
MANUAL → CT432240 908,00 €
- 16S-K PARAM → CT431620 720,00 €
MANUAL → CT431640 778,00 €
- 9S-K PLUG-IN → CT430900 490,00 €
PARAM → CT430920 530,00 €
MANUAL → CT430940 530,00 €
- 6E4S-16A-K PLUG-IN → CT416400 414,00 €
PARAM → CT416420 446,00 €
MANUAL → CT416440 446,00 €
- 6E4S-30A-K PLUG-IN → CT416410 544,00 €
PARAM → CT416430 544,00 €
- 3E2S-K PARAM → CT423220 210,00 €
- 2E2S-K PLUG-IN → CT422200 190,00 €
PARAM → CT422220
- 4E4SL-K PARAM → CT454420 164,00 €
- 4E-K PLUG-IN → CT454000 154,00 €
PARAM → CT454020

pag.
14

pag.
15

pag.
16

pag.
17

[DM] Диммеры

- RK1000 → DM470140 258,00 €
- RK2000 → DM470180 338,00 €
- RK3x500 → DM470320 278,00 €
- RK1102C → DM460200 292,00 €
- RK1103C → DM460300 410,00 €
- RK0104C → DM460400 444,00 €
- RKLED500 → DM490120 310,00 €
- RKLED1000 → DM490140 358,00 €
- RKLED2S400 → DM490220 336,00 €
- RGBL-K → DM480330 218,00 €
- RGBWL-K → DM480440 312,00 €

pag.
18

pag.
19

pag.
20

pag.
21

[SR] sensors

movement

▣ SIFKNX	BI-MANDE → SR510000	150,00 €
	TELEMANDE → SR510200	
▣ SIFLUX	BI-MANDE → SR530000	196,00 €
	TELEMANDE → SR530200	
▣ SIFKNX-S	BI-MANDE → SR511000	150,00 €
	TELEMANDE → SR511200	
▣ SIFLUX-S	BI-MANDE → SR531000	196,00 €
	TELEMANDE → SR531200	
▣ SRKNX	→ SR570000	198,00 €

pag.
22

решения для отеля

▣ Room Controller-K	→ GW669900	1398,00 €
---------------------	------------	-----------

pag.
27

integration

▣ KNX-Fermax	→ GW620000	560,00 €
--------------	------------	----------

pag.
23

energy efficiency

▣ MET-3C	→ GW650300	246,00 €
▣ MET-40A	→ GW650040	52,00 €
▣ MET-60A	→ GW650060	56,00 €

pag.
28

[GW] шлюзы

clima

▣ LGAC-K	→ GW632200	964,00 €
▣ DKAC-I	→ GW630100	376,00 €
▣ IRKNX	→ GW640000	318,00 €
▣ IRKNX-BI	→ GW640200	356,00 €

pag.
24

[PS] блоки питания

▣ BFK80	→ PS110800	170,00 €
▣ BFK160	→ PS111600	220,00 €
▣ BFK320	→ PS113200	290,00 €
▣ BFK640	→ PS116400	350,00 €
▣ BFK640-BU	→ PS116410	Consult

pag.
29

lighting

▣ DMXBUS-K	→ GW612110	470,00 €
▣ DALIK	→ GW611100	476,00 €
▣ DALIK-BRD1	→ GW610100	314,00 €
▣ DALIK-BRD2	→ GW610200	336,00 €
▣ DALIK-BRD3	→ GW610300	358,00 €

pag.
25

[ING] accessories

⦿ ING-DH	100,00 €
⦿ ING-DTV	72,00 €
▣ ING-SIF	72,00 €
▣ ING-SIN-3H	32,00 €

pag.
26

pag.
30



...hi-tec home automation
with customizable design

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.

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

196,00 €

WHITE → PL112100
BLACK → PL112200

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



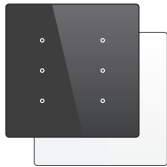
Cubik-SQ4

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

216,00 €

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

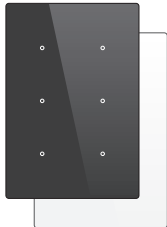
234,00 €

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



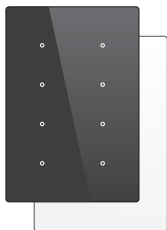
Cubik-V6

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

284,00 €

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

308,00 €

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

[2] design

*Front glass fixed,
 print customizable.*



Cubik-SQ2 226,00 €

WHITE → PL212100
 BLACK → PL212200



Cubik-SQ4 246,00 €

WHITE → PL214100
 BLACK → PL214200



Cubik-SQ6 264,00 €

WHITE → PL216100
 BLACK → PL216200



Cubik-V6 314,00 €

WHITE → PL226100
 BLACK → PL226200



Cubik-V8 338,00 €

WHITE → PL228100
 BLACK → PL228200

[3] capriccio

*Front glass interchangeable,
 print customizable.*



Cubik-SQ2 246,00 €

WHITE → PL312100
 BLACK → PL112200



Cubik-SQ4 266,00 €

WHITE → PL314100
 BLACK → PL314200



Cubik-SQ6 284,00 €

WHITE → PL316100
 BLACK → PL316200



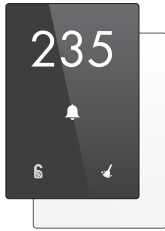
Cubik-V6 334,00 €

WHITE → PL326100
 BLACK → PL326200



Cubik-V8 358,00 €

WHITE → PL328100
 BLACK → PL328200



Cubik-VH

KNX Vertical touch panel - Hotel door - MUR/DND

Consult

WHITE → PL121100
BLACK → PL121200

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 indicator are added.

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

[1] basic

Front glass fixed,
white or black.

[SR] sensors



Cubik-T

KNX Square thermostat - Temperature sensor

140,00 €

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

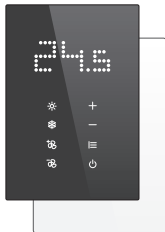
KNX Square thermostat - Temperature and humidity sensor

194,00 €

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

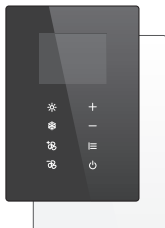
310,00 €

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

412,00 €

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.



Cubik-VH Consult

WHITE ➔ PL221100
 BLACK ➔ PL221200

[2] design

*Front glass fixed,
 print customizable.*



Cubik-T 172,00 €

WHITE ➔ SR592110
 BLACK ➔ SR592120



Cubik-TH 226,00 €

WHITE ➔ SR592310
 BLACK ➔ SR592320



Cubik-TL 342,00 €

WHITE ➔ SR592210
 BLACK ➔ SR592220



TRMD-K 340,00 €

WHITE ➔ DS422100
 BLACK ➔ DS422200



[3] capriccio

*Front glass interchangeable,
 print customizable.*

Cubik-T 196,00 €

WHITE ➔ SR593110
 BLACK ➔ SR593120




Cubik-TH 250,00 €

WHITE ➔ SR593310
 BLACK ➔ SR593320



Cubik-TL 366,00 €

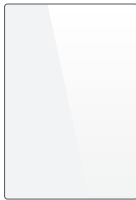
WHITE ➔ SR593210
 BLACK ➔ SR593220

 Additional Capriccio range custom glasses can be purchased separately.

[GL] glasses



Cristal Cubik Capriccio SQ Custom Cubik Capriccio Glass - Square 56,00 €
→ GL310000



Cristal Cubik Capriccio V Custom Cubik Capriccio Glass - Vertical 60,00 €
→ GL320000

[DS] displays



SmartTouch-MEK KNX 4.3" vertical color touch screen 476,00 €
WHITE → DS341100
BLACK → DS341200

Capacitive touch screen that allows to control the automated installation elements in an intuitive way through icons. It has up to 16 point to point controls and 16 scenes, with icons of control shown directly on screen.

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

Consult availability



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

668,00 €

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. Other interesting features of the new vertical panel is 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

798,00 €

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.

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

980,00 €

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

1700,00 €

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

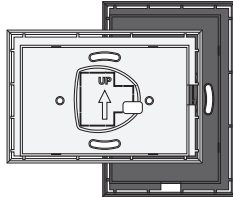


10.4" Color Touch screen

2992,00 €

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

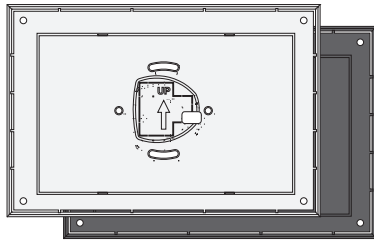
Box for flush mounting - 4.3" screens

14,00 €

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

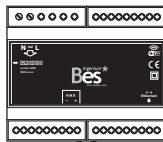
Box for flush mounting - 7.1" screens

16,00 €

WHITE → DS970100
 BLACK → DS970200

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

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



■ ETHBUS-K

Web server for remote control of KNX installations

818,00 €

→ DS202000

Device to control a KNX installation from any iOS, Android or Samsung Smart TV device or using a PC connected to the internet.

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



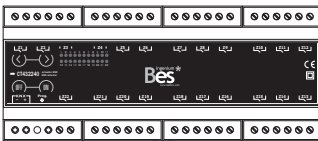
22S-K KNX actuator with 22 digital outputs 840,00 €

➔ 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)

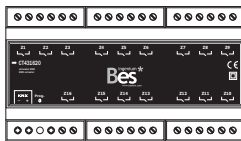
Available in two versions depending on programming mode:

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



22S-K KNX actuator with 22 digital outputs - Manual 908,00 €

➔ 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.



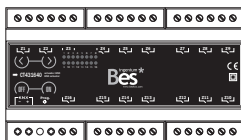
16S-K KNX actuator with 16 digital outputs 720,00 €

➔ 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)

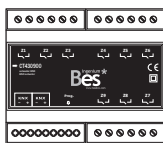
Available in two versions depending on programming mode:

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



16S-K KNX actuator with 16 digital outputs - Manual 778,00 €

➔ 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 490,00 €

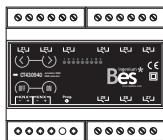
- ➔ CT430900 · PLUG-IN
 - ➔ CT430920 · PARAM
- On/Off actuator with 9 outputs, free voltage relays with a cutting power of 16A@230V each one. Multifunction programming. Outputs of this device work simultaneously or independently in different modes (binary outputs, blinds, fan-coil, etc).*

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)

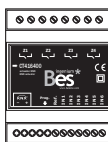
Available in three versions depending on programming mode:

1. **PLUG-IN:** Includes advanced programming mode through scripts.
2. **PARAM:** Programming by ETS parameter application.
3. **MANUAL:** Manual control system for relay outputs.



9S-K KNX actuator with 9 digital outputs - Manual 530,00 €

- ➔ 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.*



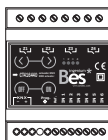
6E4S-16A-K KNX actuator with 6 digital inputs and 4 digital outputs (16A) 414,00 €

- ➔ CT416400 · PLUG-IN
 - ➔ 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)

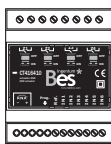
Available in three versions depending on programming mode:

1. **PLUG-IN:** Includes advanced programming mode through scripts.
2. **PARAM:** Programming by ETS parameter application.
3. **MANUAL:** Manual control system for relay outputs.



6E4S-16A-K KNX actuator with 6 digital inputs and 4 digital outputs (16A) - Manual 446,00 €

- ➔ 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)** 544,00 €

- ➔ CT416410 · PLUG-IN *On/Off actuator with 4 digital outputs, free voltage relays. Multifunction programming.*
- ➔ CT416430 · PARAM *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)

Available in two versions depending on programming mode:

1. **PLUG-IN:** Includes advanced programming mode through scripts.
2. **PARAM:** Programming by ETS parameter application.



3E2S-K **KNX actuator with 3 digital inputs and 2 digital outputs** 210,00 €

- ➔ 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).*

PARAM: 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** 190,00 €

- ➔ CT422200 · PLUG-IN *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 2 low-voltage digital inputs for connecting conventional pushbuttons or switches. Arithmetic-Logic Unit (ALU).*
- ➔ CT422220 · PARAM

- 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

Available in two versions depending on programming mode:

1. **PLUG-IN:** Includes advanced programming mode through scripts.
2. **PARAM:** Programming by ETS parameter application.



● **4E4SL-K** **Adaptor for mechanical controls to KNX with 4 and 4 digital outputs (SELV)** **164,00 €**

➔ **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** **154,00 €**

➔ **CT454000 · PLUG-IN**
 ➔ **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).*

- 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

Available in two versions depending on programming mode:

1. **PLUG-IN:** Includes advanced programming mode through scripts.
2. **PARAM:** Programming by ETS parameter application.

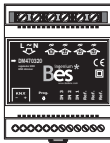
[DM] dimmers



- | | | |
|-----------------|---|-----------------|
| ■ RK1000 | 1x1000W-channel proportional actuator, triac dimmer with KNX control | 268,00 € |
| ➔ DM470140 | <p><i>Proportional actuator to regulate 1 channel of 1000W maximum power output. Suitable for incandescent or halogen lighting (with or without transformer). One input for conventional pushbutton control. Easy and functional configuration: ramps, staircase timers, scenes, etc.</i></p> <ul style="list-style-type: none">• Voltage Supply: 230V AC• Max. Power consumption: 0.5W @ 230V AC• KNX Supply: 29V DC from KNX BUS• Current Consumption: 5mA from KNX BUS• DIN rail mounted (4 modules) | |



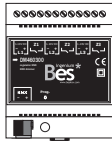
- | | | |
|-----------------|---|-----------------|
| ■ RK2000 | 1x2000W-channel proportional actuator, triac dimmer with KNX control | 338,00 € |
| ➔ DM470180 | <p><i>Proportional actuator to regulate 1 channel of 2000W maximum power output. Suitable for incandescent or halogen lighting (with or without transformer). One input for conventional pushbutton control. Easy and functional configuration: ramps, staircase timers, scenes, etc.</i></p> <ul style="list-style-type: none">• Voltage Supply: 230V AC• Max. Power consumption: 0.5W @ 230V AC• KNX Supply: 29V DC from KNX BUS• Current Consumption: 5mA from KNX BUS• DIN rail mounted (4 modules) | |



- | | | |
|------------------|--|-----------------|
| ■ RK3x500 | 3x500W-channel proportional actuator, triac dimmer with KNX control | 278,00 € |
| ➔ DM470320 | <p><i>Proportional actuator to regulate 3 channels of 500W maximum power output each. 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.</i></p> <ul style="list-style-type: none">• Voltage Supply: 230V AC• Max. Power consumption: 0.5W @ 230V AC• KNX Supply: 29V DC from KNX BUS• Current Consumption: 10mA from KNX BUS• DIN rail mounted (4 modules) | |



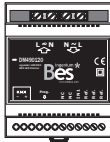
- **RK1102C** **2-channel dimmer for electronic ballasts (1-10V) with KNX control** 292,00 €
- DM460200 *Illumination controller for KNX BUS for fluorescence adjustable by signal 1-10V. Maximum current of 10A in the ON/OFF relay and 35mA in the output 1-10V.*
- Supply: 230V AC
 - Size: 77 x 35 x 17mm



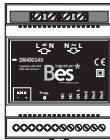
- **RK1103C** **3-channel dimmer for electronic ballasts (1-10V) with KNX control** 410,00 €
- DM460300 *Illumination controller for KNX BUS for fluorescence adjustable by signal 1-10V. Maximum current of 10A in the ON/OFF relay and 35mA in the output 1-10V.*
- Supply: 29V DC from KNX BUS
 - DIN rail mounted (4 modules)



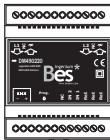
- **RK0104C** **4-channel dimmer, triac output (0-10V) with KNX control** 444,00 €
- DM460400 *Controller for KNX BUS control by 0-10 V signal with triac output that allows lighting control, as well as electrovalves and other elements controlled by 0-10 V signal.*
- Supply: 230V AC
 - DIN rail mounted (4 modules)



- RKLED500** **Dimmer for LED lighting with KNX control - 500W** 310,00 €
- ➔ DM490120 *Proportional actuator to regulate 1 channel with a maximum of 500W. Suitable for LED lighting. Input for conventional pushbutton control. Easy and functional configuration: ramps, staircase timers, scenes, etc.*
- Supply: 29V DC from KNX BUS
 - Current Consumption: 5mA from KNX BUS
 - Maximum load supported: 500W
 - Minimum load required: 7W
 - DIN rail mounted (4 modules)



- RKLED1000** **Dimmer for LED lighting with KNX control - 1000W** 358,00 €
- ➔ DM490140 *Proportional actuator to regulate 1 channel with a maximum of 1000W. Suitable for LED lighting. Input for conventional pushbutton control. Easy and functional configuration: ramps, staircase timers, scenes, etc.*
- Supply: 29V DC from KNX BUS
 - Current Consumption: 5mA from KNX BUS
 - Maximum load supported: 1000W
 - Minimum load required: 7W
 - DIN rail mounted (4 modules)



- RKLED2S400** **Dimmer for LED lighting with KNX control - 2x400W** 336,00 €
- ➔ DM490220 *Proportional actuator to regulate 2 channels with a maximum of 400W each. Suitable for LED lighting. 2 Input for conventional pushbutton control. Easy and functional configuration: ramps, staircase timers, scenes, etc.*
- Supply: 29V DC from KNX BUS
 - Current Consumption: 5mA from KNX BUS
 - Maximum load supported: 400W per channel
 - Minimum load required: 7W per channel
 - DIN rail mounted (4 modules)



■ **RGBL-K** **3-channel dimmer to regulate RGB LED modules with KNX control** 218,00 €

➔ **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** 312,00 €

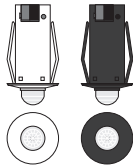
➔ **DM480440**

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

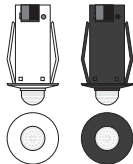
WHITE → SR510000
BLACK → SR510200

KNX infrared movement detector - Light regulation -

150,00 €

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

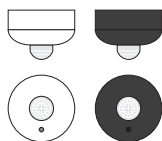
WHITE → SR530000
BLACK → SR530200

KNX infrared movement detector - Constant regulation

196,00 €

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**

WHITE → SR511000

BLACK → SR511200

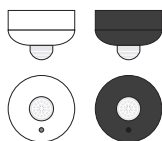
KNX infrared movement detector - Light regulation - Surface install.

150,00 €

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.

Consult availability

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



▼ **SIFLUX-S**

WHITE → SR531000

BLACK → SR531200

KNX infrared movement detector - Constant regulation - Surface install.

196,00 €

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.

Consult availability

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



► **SRKNX**

► SR570000

KNX radiofrequency movement detector - Hidden install.

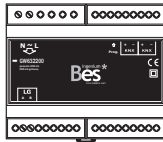
198,00 €


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


[GW] gateways

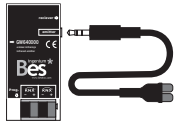
clima



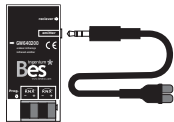
	LGAC-K	KNX – LG HVAC air conditioning gateway	964.00 €
➔	GW632200	<p>Gateway for integration of LG air conditioning system with KNX control system. Connection to external LG units bus RS485. Control up to 64 LG indoor units.</p> <ul style="list-style-type: none">• Supply: 230V AC• Max. Power Consumption: 2.6VA @ 230V AC• KNX supply: 29V DC from KNX BUS• Consumption: 1mA from KNX BUS• DIN rail mounted (6 modules)	



	DKAC-I	KNX – DAIKIN® air conditioning gateway	376.00 €
➔	GW630100	<p>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.</p> <ul style="list-style-type: none">• Supply: 29V DC from KNX BUS• Consumption: 100mA from KNX BUS• DIN rail mounted (2 modules)	Consult availability

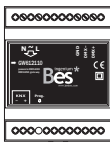


IRKNX	KNX infrared transmitter with learning capability	318,00 €
→ GW640000	<p>Allows management in a KNX installation of any air conditioning system that has infrared control, substituting its own remote control.</p> <ul style="list-style-type: none"> • Supply: 29V DC from KNX BUS • Consumption: 5mA 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	356,00 €
→ GW640200	<p>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.</p> <ul style="list-style-type: none"> • 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 	Consult availability

lighting

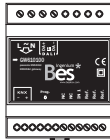


DMXBUS-K	KNX - DMX 512 gateway	470,00 €
→ GW612110	<p>Bidirectional communication gateway between KNX protocol and DMX 512 protocol completely configurable by ETS. Controls up to 48 DMX channels simultaneously and can execute up to 8 scenes and 8 fully customizable sequences.</p> <ul style="list-style-type: none"> • 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) 	



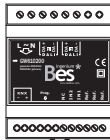
DALIK **KNX – DALI gateway with unique physical address** **476,00 €**

- 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)



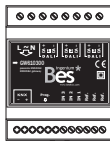
DALIK-BRD1 **KNX – DALI gateway with broadcast control for 1 channel and up to 64 ballasts** **314,00 €**

- GW610100 Gateway for controlling DALI protocol lighting through KNX. It allows to control one channel and up to 64 ballasts by broadcast orders. Ability to configure up to 16 scenes. 1 input 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)



DALIK-BRD2 **KNX – DALI gateway with broadcast control for 2 channels and up to 64 ballasts** **336,00 €**

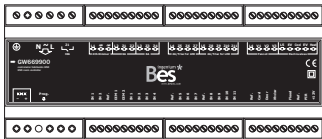
- GW610200 Gateway for controlling DALI protocol lighting through KNX. It allows to control 2 channels and up to 64 ballasts by broadcast orders, being possible to split number of ballast per channel as interested. Ability to configure up to 16 scenes. 2 inputs available for conventional pushbutton control. 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)



DALIK-BRD3 **KNX – DALI gateway with broadcast control for 3 channels and up to 64 ballasts** **358,00 €**

- 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

1398,00 €

➔ 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.

Consult availability

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

integration



KNX-Fermax KNX - Fermax Smile Dominium gateway

560,00 €

➔ 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	256,00 €
➔ GW650300	<i>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.</i> <ul style="list-style-type: none">• Supply: 29V DC from KNX BUS• DIN rail mounted (2 modules)	<i>Consult availability</i>



▣ MET-40A	Current transformer 40A	52,00 €
➔ GW650040	<i>Accessory for use with the MET-3C consumption meter</i>	<i>Consult availability</i>



▣ MET-60A	Current transformer 60A	56,00 €
➔ GW650060	<i>Accessory for use with the MET-3C consumption meter</i>	<i>Consult availability</i>

[PS] power supply



BFK80 **KNX 80mA power supply - 29V DC auxiliary output** 170,00 €

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



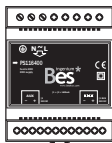
BFK160 **KNX 160mA power supply - 29V DC auxiliary output** 220,00 €

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



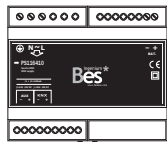
BFK320 **KNX 320mA power supply - 29V DC auxiliary output** 290,00 €

- ➔ 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** 350,00 €

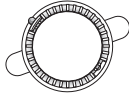
- ➔ PS116400
 - Supply: 230V AC
 - Current: KNX BUS + AUX < 640mA
 - Output voltage: 29V DC
 - DIN rail mounted (4 modules)



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

- ➔ 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)

[ING] accessories



⦿ ING-DH

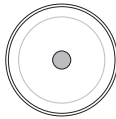
Smoke optical detector

100,00 €

Optical smoke sensor for fire detection in areas where smoke is not usual. Suitable for connection to KNX actuators.

Consult availability

- Supply: 12V DC
- Consumption: 40mA
- Size: 60 x 85 x 58mm
- Surface mounted, screwed on ceiling



⦿ ING-DTV

Fire thermovelocimetric detector

72,00 €

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

68,00 €

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

32,00 €

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

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.

prices

Our sales prices will be those currently used at the moment of the materials order.

VAT

It will be applied according to each country's current legislation.

return policy

No devolution will be accepted without the written approval by INGENIUM INGENIERÍA Y DOMÓTICA SL, being required to indicate the origin of the invoice and, in any case, never 30 days after the receipt of the goods.

In case of devolution due to a mistake in the order or reasons unrelated to INGENIUM INGENIERÍA Y DOMÓTICA SL, goods will be paid to the same prices to which they were billed before, with a discount of 10% in concept of expenditures.

Goods must be in a good condition, complete packaging and with their catalogue reference that corresponds to the data of the goods devolution. Transportation costs will be responsibility of the buyer.



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



ingenium *
Bes

www.besknx.ru

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

tel (+7) 968 825 37 77

hello@besknx.ru

 [®] 



Samsung SMART TV



Bes™ is a registered trademark of Ingenium Ingeniería y Domótica, S.L.