



BES, Ingenium's KNX commitment





BES, Ingenium's KNX commitment

Ingenium HQ in Asturias, Spain

After more than two decades of activity, **Ingenium** continues with its activity of **development**, **design and manufacture** of home automation solutions, and 100% of this activity is carried out at the headquarters in **Asturias**, **Spain**. All this time has served to strengthen Ingenium product line based on BUSing protocol, as well as to evolve **KNX BES** line or to complement **Wings** wireless range, which allows any BUSing wired installation to be extended. Since 2020, Ingenium has been developing **new IoT devices** that allow Ingenium to evolve in an agile way in this changing and innovative market. A family of **new IoT sensors for CO₂ measurement** are a perfect example of this.

BES KNX product line continues to evolve, and this catalog includes all of **Ingenium's KNX** product portfolio from a commercial view. The range of **BES KNX** solutions continues to grow with the intention of covering all types of home automation installations that require KNX solutions. Few examples:

New VIIP screens

This 2021 version of BES KNX catalog includes all the **new** references of the new VIIP home automation screen, with integrated video intercom system functionality and support for SIP installations. A screen with an extremely slim design, available in 7.1" or 10.1", and with different network interfaces such as Wi-Fi connection and / or up to two ethernet connectors. At visualization level, it allows to show the KNX installation in plans with customizable images, or organized by rooms, so that the client can choose the option that is most comfortable for him and design it to his liking through the mobile applications for iOS or Android. (Page 19)

As a complement to the new family of VIIP screens, an IoT web server is added with support for call forwarding in installations with SIP video intercom, in addition to having IFTTT.

Thermostats and CO₂ detectors

Regarding **CUBIK** temperature and humidity sensors range, there are added references incorporating $\mathbf{CO_2}$ measurement to TH and TL models, which allow controlling **air quality** in the room in which they are installed. With this new version of CUBIK sensors, Ingenium is committed to innovation and adaptability to new times, where air quality control becomes very important, especially in closed spaces. (Page 12)

A new **temperature and humidity** sensor, CUBIK-TLR, has been added to the **CUBIK family of thermostats**, with an attractive circular panel at the top that allows controlling the desired temperature, as well as different operating modes. It has also 8 programmable touch areas. (Page 13)



Visualization

Energy Efficiency

Integrations

Technical Alarms







Clima



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PUSH-BUTTONS & THERMOSTATS*



Cubik V8
Cubik V6
Cubik SQ6
Cubik SQ4
Cubik SQ2

Cubik T Cubik TH Cubik TL Cubik TLR















PUSH-BUTTONS

A LED light indicator is associated with

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

They incorporate built-in temperature and humidity sensors capable of sending the



CUBIK Capriccio V: GL320000

CUBIK V8





Capacitive push-button with 8

independent touch areas, completely

with each touch area.

Vertical rectangular format. Mounting on

and comfort. On/Off, PWM or continuous

system and additional.

measurement according to relative

humidity and temperature.

Arithmetic Logic Unit









independent touch areas, completely

CUBIK V6

Vertical rectangular format. Mounting on

system and additional.

measurement according to relative humidity and temperature.

> Arithmetic Logic Unit and timers/counters.

CUBIK SQ6







Capacitive push-button with 6

Square format. Mounting on universal

and comfort. On/Off, PWM or continuous system and additional.

measurement according to relative humidity and temperature.

> Arithmetic Logic Unit and timers/counters.

CUBIK SQ4





Capacitive push-button with 4

with each touch area. Square format. Mounting on universal

and comfort. On/Off, PWM or continuous

measurement according to relative humidity and temperature.

> Arithmetic Logic Unit and timers/counters.

CUBIK SQ2







Capacitive push-button with 2 independent touch areas, completely

Square format. Mounting on universal

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

> Arithmetic Logic Unit and timers/counters.

Basic	White: PL128100	White: PL126100	White: PL116100	White: PL114100	White: PL112100
Front glass fixed, white or black.	Black: PL128200	Black: PL126200	Black: PL116200	Black: PL114200	Black: PL112200
Design	White: PL228100	White: PL226100	White: PL216100	White: PL214100	White: PL212100
Front glass fixed, print customizable.	Black: PL228200	Black: PL226200	Black: PL216200	Black: PL214200	Black: PL212200
Capriccio	White: PL328100	White: PL326100	White: PL316100	White: PL314100	White: PL312100
Front glass interchangeable,	Black: PL328200	Black: PL326200	Black: PL316200	Black: PL314200	Black: PL312200





THERMOSTATS

With or without graphical interface. They include temperature and humidity sensors. Versions available with CO₂ measurement on TH and TL models.

Basic

Design

Capriccio



Front glass fixed, white or black.

Front glass interchangeable,

Front glass fixed, print customizable. Black: SR592120



Thermostat for temperature control of one independent air conditioning area.

temperature with higher accuracy for better energy efficiency and comfort

On/Off, PWM or continuous temperature

point measurement according to relative

CUBIK-T

Black: SR591120

CUBIK-T / CUBIK-TH



humidity and temperature.

CUBIK-TL









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

Eight completely programmable

and energy savings.

Built-in humidity sensor.

relative humidity and temperature.

Arithmetic Logic Unit and timers/counters.

Black: SR593220 / SR593221

CUBIK-TLR





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

touch areas, plus thermostat controls in the upper area of the device to control working modes or fan speeds.

Includes a discretized PI regulator to achieve

Built-in humidity sensor. Dew point humidity and temperature.

Arithmetic Logic Unit and timers/counters.

CUBIK-TH CUBIK-TLR Black: SR591320 / SR591321 Black: SR591220 / SR591221 Negro: SR591420 Black: SR592320 / SR592321 Black: SR592220 / SR592221 Negro: SR592420



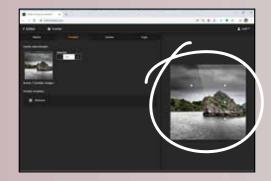
1803

And for a hotel room?

Discover our CUBIK-VH series for hotels on page 57.



Black: SR593320 / SR593320





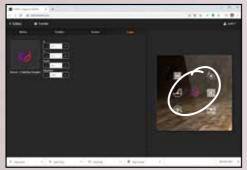




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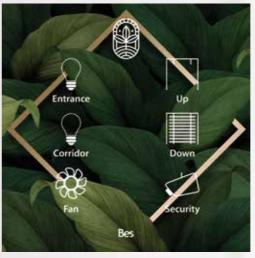


Select
and edit
your icons



_> Add
your logo





Design tool:

Customize 100% your Cubik with our online tool

https://cubik.besknx.com/







: entering the future...

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



Color capacitive touch screen with SIP video intercom support





VIIP









Color capacitive touch screen with SIP video intercom support that also includes monitoring and control of a KNX installation.

Available in 7,1" and 10,1".

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

Possibility of call forwarding to mobile.

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

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

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

Supports arithmetic and logic unit and scripting.

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

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

Support for Python programming, intended for advanced user scripting.

	Wi-Fi	Wi-Fi + 1xRJ45	Wi-Fi + 2xRJ45
7,1"	White: DS170100	White: DS171100	White: DS172100
	Black: DS170200	Black: DS171200	Black: DS172200
10,1"	White: DS110100	White: DS111100	White: DS1112100
	Black: DS110200	Black: DS111200	Black: DS112200















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

Web server for remote control from Ingenium free apps (iOS or Android). Compatible with Google Home and Alexa.

Logical unit and scripts included.

Fully customizable appearance by software.

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

White: DS343100

Black: DS343200

White mounting box: DS940100



TRMD-K







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

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

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

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

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

Arithmetic logical unit and timers.

Basic White: DS421100

Black: DS421200

Design White: DS422100

Black: DS422200

White mounting box: DS940100





ETHBUS-K-IoT











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

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

SIP video intercom support with possibility of call forwarding to mobile.

Integrated WiFi, and Ethernet network interface.

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

Supports arithmetic and logic unit and scripting.

Compatible with Google Home and Alexa. Native integration with devices of other protocols such as

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

Support for Python programming, intended for advanced user scripting.



ETHBUS4-K









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

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

Integrated WiFi, and Ethernet network interface.

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

Supports arithmetic and logic unit and scripting.

Compatible with Google Home and Alexa.

Possibility of configuration as a Modbus server.







2E2S-K





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

Multifunction programming.

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

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

Arithmetic-logic unit and timers/counters.

Programming by ETS parameter application.

CT422220



3E2S-K





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

Multifunction programming.

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

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

Arithmetic-logic unit and timers/counters.

Programming by ETS parameter application.

T/27220



4E-K



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

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

Arithmetic-logic unit and timers/counters.

ogramming by ETS parameter application.

CT454020



4E4SL-K





Binary actuator with 4 SELV outputs for the control of 5Vdc signalling LEDs.

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

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

Arithmetic-logic unit and timers/counter

Programming by ETS parameter application.

6E4S-K

Statatatatata





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

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

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

Arithmetic-logic unit and timers/counters.

Programming by ETS parameter application.

16 amps: 6E4S-K-16A

CT416420

Manual control: CT416440

30 amps: 6E4S-K-30A*

CT416430

* This reference allows manual control

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7S-K



KNX climate zone actuator with 7 outputs (18V DC)

Device for controlling motorized grilles to zoning the air conditioning of a KNX installation.

It has 7 independent channels, corresponding to each zone/grill.

Arithmetic-logic unit and timers/counters.

Programming by ETS parameter application.

CT430720

9S-K







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

Multifunction programming. different modes (binary outputs, blinds, fan-coil, etc.).

Arithmetic-logic unit and timers/counters.

16S-K







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

Multifunction programming. different modes (binary outputs, blinds, fan-coil, etc.).

Arithmetic-logic unit and timers/counters.

22S-K







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

different modes (binary outputs, blinds, fan-coil, etc.).

Arithmetic-logic unit and timers/counters.

Manual control: CT430940

Manual control: CT431640

Manual control: CT432240

DIMMERS RGBWL-K **RKU1S200 RKU2S200** DMXBUS-K **RKU3S200** DALIK RK0104C DALIK-BRD3 RK1103C RK1102C



Universal dimmers











1 channel universal dimmer.

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

Easy and functional configuration: ramps,

Built-in mounting in universal

RKU2S200





2 channel universal dimmer.

Suitable for all types of lighting:

Easy and functional configuration: ramps,

RKU3S200





3 channel universal dimmer.

channel.

Suitable for all types of lighting:

Easy and functional configuration: ramps,

0-10V



1-10V





RK0104C









Suitable for 0-10Vdc lighting control or AC

RK1103C





3 channels dimmer.

16 A maximum output power per channel.

ramps, staircase timer, scenes, etc.

RK1102C





2 channels dimmer.

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

box or in false ceiling next to the ballast

DM470120

DM470220

DM470322

DM460400

DM460300

DM460200



RGBW

DMX

DALI



RGBWL-K





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

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

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

Easy configuration of up to 8 scenes and 8 color sequences

Built-in on universal distribution box.

DM480440



DMXBUS-K







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

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

Control up to 48 DMX channels simultaneously.

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

CVV610110



DALIK





ateway between KNX and DALI protocols.

DALI power source integrated

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

Supports emergency lights.

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

GW611100



DALIK-BRD3







Gateway between KNX and DALI protocol

DALI power supply integrated.

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

Ability to configure up to 64 scenes.

nputs available for conventional pushbutton control.

Possibility of using it as an autonomous device.

GW610300

4

SENSORS*

SIFKNX SIFKNX-S SIFLUX SIFLUX-S SRKNX





SIFKNX







2 detection channels.

Suitable for lighting control by threshold, motion

Also available in black color.



Black: SR510200



SIFKNX-S











Surface installation with 360° detection.

2 detection channels.





SIFLUX















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

with 360° detection.

2 detection channels.

control, motion detection, intrusion control,

additional measurement.



SIFLUX-S







Presence infrared detector with constant regulation.

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

with 360° detection.

additional measurement.

O White: SR531000



SRKNX









Presence detector with radio-frequency

surfaces for installation in technical and

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

2 detection channels.

O White: SR530000

CONVENTIONAL SENSORS







ING-SIF



nfrared movement sensor 12 Vdc.

Requires a digital input connection (e.g

ING-DTV



Fire thermovelocimetric detector

Requires a digital input connection (e. CT454020).

Surface mounted.

ING-SIN-3H



Flooding sensor.

3 wires.

12Vdc-32Vdc supply required.

Requires a digital input connection (e.g.



ING-SIF















DKAC-K



Gateway between KNX protocol and Daikin air conditioning system.

Integrates an indoor Daikin climate unit (SKY or VRV series) with KNX system.

ventilation and dry).

3 fan speeds (low, medium, high). Includes energy saving mode.

Arithmetic-logic unit and timers/counters.

DKAC-D







Gateway between KNX protocol and Daikin air conditioning system.

KNX system.

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

Includes energy saving mode.

Arithmetic-logic unit and timers/counters.

MBAC-K









Gateway between KNX protocol and Mitsubishi air conditioning system.

Integrates an indoor Mitsubishi climate unit with KNX system through CN105 connector.

ventilation and dry).

3 fan speeds (low, medium, high).

Includes energy saving mode.

Arithmetic-logic unit and timers/counters.

LGAC-K







Gateway between KNX and LG HVAC

with the KNX system.

Possibility of controlling up to 64 interior

ventilation, drying and auto).

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

LGAC-D









the KNX system.

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

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













MDAC-K







Gateway between KNX protocol and Midea air conditioning system.

Integrates an indoor Midea climate unit with KNX systems.

ventilation, dry).

3 fan speeds (low, medium, high).

Includes energy saving mode.

Arithmetic-logic unit and timers/counters.



* Check compatibility of each gateway in the lists published on our website.



PNAC-K











(series ECOi or PACi) with KNX systems

ventilation, dry).

Includes energy saving mode.

Arithmetic-logic unit and timers/counters.





IRKNX







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

Allows to control many devices with the same transmitter.

with a mini-jack-wire transmitter for controlling the device.



IRKNX-BI











for control of either IR devices from KNX and KNX devices from infrared devices.

Allows controlling multiple IR devices from the same equipment.

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



ENERGY MET-3C MET-60A

energy efficiency



MET-3C





Possibility of establishing consumption limits.

Alarm function in case of leaving the thresholds.

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

MET-60A



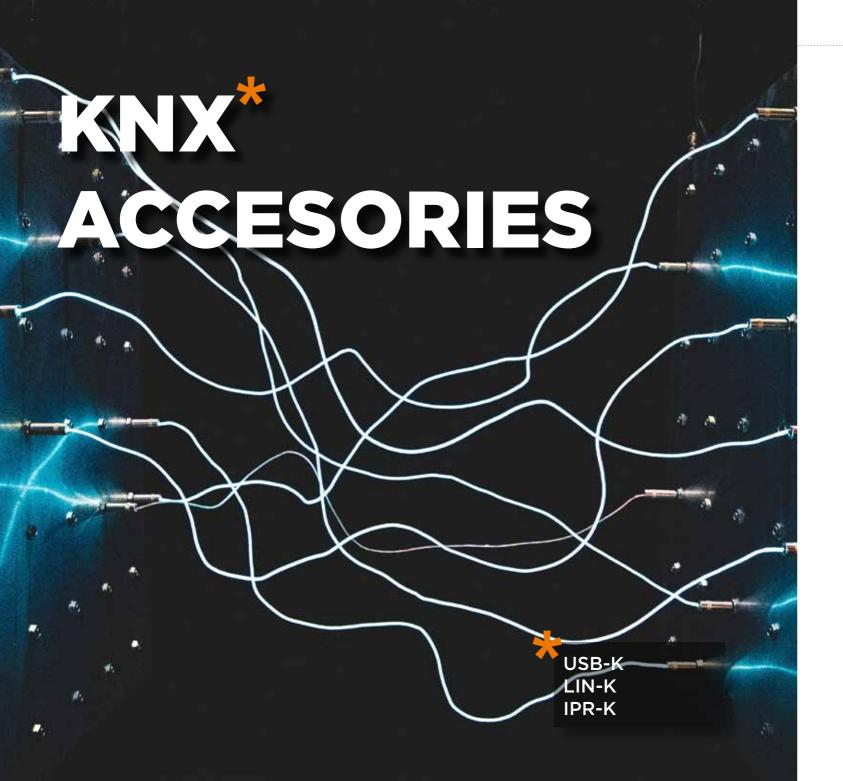




Current transformer of 60A.

GW650060















USB2.0 interface device with Type B connector.

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.

BD910000

LIN-K



Line coupler. 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). IPR-K



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.

BD93000

POWER* SUPPLIES



BFK640-BU BFK640 BFK320

BFK160 BFK80













BFK640-BU



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

Rail DIN mounted (six modules)

PS116410

BFK640



640mA KNX power supply.
29Vdc extra output.

PS116400

320mA KNX power supply.

PS113200

BFK320

BFK160



160mA KNX power supply.

BFK80



80mA KNX power supply.
29Vdc extra output.

PS111600

PS110800

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5

SOLUTIONS FOR * HOTEL* ROOM CONTROLLER-K CUBIK-VH







management more effective and efficient. That that open a wide range of new functional and the daily work.

energy savings and greater comfort for the guest



ROOM CONTROLLER-K











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

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

Cubik-VH. Also compatible with any KNX device.

GW669900



CUBIK-VH



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

Doorbell button and room number indicator added.

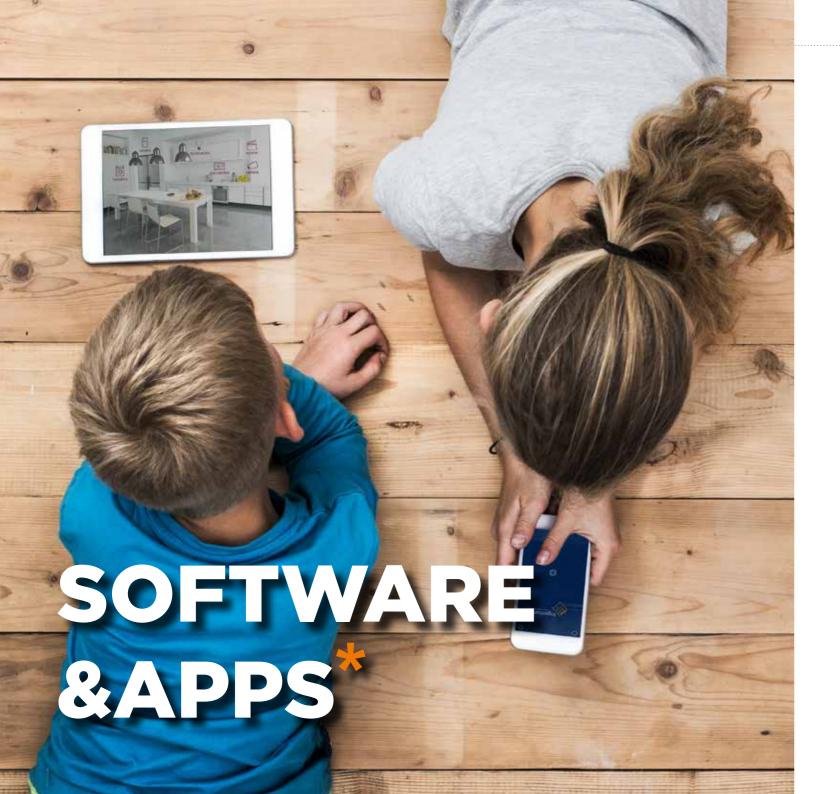
Without display

Design White: PL221100

With display

White: PL122100 Black: PL122200 **Design** White: PL222100 Black: PL222200













April 2021

This catalog is subject to changes and modification by Ingenium ST

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