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## The Company

Blumotix designs and manufactures KNX technology devices for intelligent building management. The company was founded in 2003 as a Research and Development undertaking specialised in touch technology.

In 2010, Blumotix launched a partnership with Teleco SpA Group, resulting in the company starting to specialising in the design of devices operating with KNX protocol. In parallel with the research activities came Blumotix's production division for semi-finished products dedicated to home and building automation and the intelligent automation of caravans.



From 2014 to 2020, the company focused on developing a complete catalogue of finished products for KNX home automation before veering off into sectorial production lines (home, hotel, retail/service businesses, industrial and civil systems).

This came following a 2019 review conducted on the internal organisation after the appointment of a new General Manager, currently CEO, with the task to turn the company from being "research-oriented" to being "market-oriented" for production also in OEMs.

Today, Blumotix develops its business by integrating logistics, engineering and production services with those of Teleco Group SpA (a European multinational leader in electronics in the Open-air market). From this integration, Blumotix has obtained a significant efficiency in terms of procurement costs and flexibility in order management (from small to large in very short times), whilst also guaranteeing its customers a continuous service of technical assistance and training in the use of devices.

Blumotix designs and manufactures from its headquarters in Italy, near Ravenna, where the management, Research and Development laboratories and production/assembly areas are located.

In 2009, the company became a member of the Konnex Association as a device manufacturer (License 160 – A0), whilst in 2010 a Stack usage license was obtained along with the ISO 9001:2015 - Quality certification.

A marked propensity for innovation and personalisation of the devices, accompanied by Italian style and design, characterise Blumotix products, setting them apart from all other products on the market.









## Why choose Blumotix?

Blumotix designs, develops and produces KNX devices for the automation of buildings, with all devices being made and assembled in Italy, availing of innovation and technology in combination with the elegance of Italian Design.

#### Personalization

The development of every Blumotix device includes firmware (FW), software (SW) and hardware (HW). Each component is conceived, designed and produced by in-house technicians who operate in compliance with the specifications and standards in force at a national and international level.

The high degree of competence achieved in capacitive technology has allowed us to create a collection of keypads for glass control panels and thermostats, which can also be customised to the specific requests of architects and end customers. The result is an elegant device that is unique in terms of aesthetics, capable of characterising and adapting completely to the environment.

#### **Guaranteed traceability**

All Blumotix products are tested one-by-one and identified individually, guaranteeing complete traceability in Italy and around the world.

#### Certifications

- Blumotix operates with a Quality Management System in respect of UNI EN ISO 9001 standards;

- Blumotix devices are designed and manufactured in compliance with the European standards in force: LVD 2014/35/EU (EN IEC 63044-3, EN IEC 62368-1), EMC 2014/30/EU (EN IEC 63044-5-1, EN IEC 63044-5-2, EN IEC 63044-5-3, IEC 61000-6-1, 2, 3, 4, IEC 61000-3-2, 3, IEC 61000-4-2, 3, 4, 5, 6, 8, 11), RAEE, RoHS 2011/65/EU (IEC 63000:2018), REACH/EN, EN 50090-2-2 concerning fundamental aspects such as waste management, the substances used, electromagnetic compatibility, electrical safety and the environmental conditions for use; - The devices comply with all specifications required by the association KNX.

#### Technical assistance and training

Blumotix is structured with a technical assistance service in Italy and abroad. Through the new Blumotix Academy, periodic training courses on the KNX protocol, devices in the Blumotix catalogue and their installation are offered to all customers.

#### Remote control of systems via PC, Smartphone and Tablet

All Blumotix Touch Panels can be remotely controlled via PC, Smartphone and iOS or Android tablets, simply by downloading the KRIM application dedicated to the supervision of the systems.

#### The human capital

Human Resources is at the heart of Blumotix's management, considering people as the indispensable factor for entrepreneurial success and business development, also in terms of social responsibility towards the environment and the community in which the company is located.

"Technology is nothing. What's important is that you have faith in people, that they're basically good and smart — and if you give them tools, they'll do wonderful things with them.

(cit. Steve Jobs)



#### A communication protocol that renders buildings intelligent and interoperable

Thanks to KNX technology, Building Automation solutions are becoming increasingly indispensable components, able to integrate all functions pertaining to energy and comfort within buildings. The decentralised management of each individual component, hailing from the distributed intelligence, guarantees the safety of the system in terms of service and helps reduce the Operating Expense (OpEx) for management.

#### A single Standard recognised worldwide

KNX is a unique standard for intelligent building management that has received worldwide recognition from over 400 producers.

#### A certified system

Regardless of the manufacturer, all KNX products are certified by the Association, guaranteeing their compatibility and interoperability.

KNX is the first globally-standardised system for automation control and management in residential and commercial buildings, in conformity with EN50090 and ISO/IEC 14543.

#### The scalable system ensures rapid implementation

The KNX system renders it possible to adapt the building to the changing needs of users. No masonry work or invasive operations are needed – in a few steps, it is possible to change the intended use or simply increase internal performance.

#### An advantageous choice

The economic parameters that characterise the management of a building are generally connected to the Capital Expense (CapEx) and Operating Expense (OpEx). The latter are substantially those that most affect the average life of a building, calculated over a period of 25 years. The choice of adopting a KNX-standard Building Automation solution means significant savings compared to a traditional system together with greater possibilities for growth in terms of integration.

On average, operating costs during the life-cycle of the building account for more than 70%. Often even simple functions – such as scenarios or commands that change position within the areas – are extremely advantageous if made with intelligent KNX solutions.

With a traditional installation, it proves complicated and burdensome to follow the various evolutions of a building. Yet with KNX solutions, adapting to organisational changes is simple and economical. From lighting control to temperature regulation, controlling curtains and blinds through to the management of alarms and automatisms, everything is aimed at achieving an optimal running of energy efficiency.

#### The three phases that define a KNX solution

Almost all Building Automation systems work well in the laboratory but it is only on real units that these systems demonstrate their validity and effectiveness. In fact, many factors can compromise the final result, from installation and sizing to the choice of the most suitable device, not to mention the actual commissioning and proper configuration.

To ensure that everything works according to expectations, it is important to define the three main phases: design, configuration and commissioning.

500 members 8.000 products 500 training centers 95.000 partners 190 countries in the world

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#### 1. Choice and Design

The right choice of what to install is the basic aspect behind any design. Interoperability is assured with the KNX protocol, allowing the most suitable device to be chosen from the thousands of certified products. On the basis of the functional specifications, it is then possible to identify the list of necessary components, in developing a suitable type of system. The correct flow of data is guaranteed via a suitable architecture behind the lines and areas that comprise the system. A protocol based on the transmission to an event prevents the proliferation of data and the saturation of the bus.

#### 2. Configuration

The individual products are configured through the ETS software, which is certified and distributed by the international KNX association.

Each device is distinguished by a physical address (comparable to the name) and by a group address (attributable to the function). Through ETS, it is possible to parameterise each individual component by choosing from amongst dozens of features made available for each product. When done well, programming guarantees the operation and efficiency of the system. It is throughout this phase that the scenarios and automatisms that characterise each system are also created.



#### 3. Commissioning

Commissioning follows the configuration phase. At this point, together with the end customer, the aspects related to performance and personalisation are undertaken. During commissioning, each individual object is fully tested both electrically and functionally.



#### System architecture

The basic component of each KNX system is the line.

Each line requires at least one power supply, sized according to the number of connected devices. Up to 64 devices can be connected to each line. Indeed, it is possible – through the use of special Line Cou-

plers (LCs) to connect up to a maximum of 15 lines (AREA).

A system can consist in up to a maximum of 15 Areas linked together by area or field couplers (AAs).

The power supply necessary for operating the devices and data signal (telegrams) is conveyed by the same bus cable, also certified (twisted pair).

All devices are characterised by specific addresses on the bus.

To avoid collisions between the telegrams and any loss of data, the CSMA/CA (Carrier Sense Multiple Access/Collision Avoidance) protocol is utilised.



#### LEGEND

ZC = Zone coupler 0 035 16 PS = Power supply 0 035 12

LC = Line coupler 0 035 16

#### Installation standards

The characteristics of the KNX communication protocol offer the utmost freedom of connection between the devices connected to the line. Indeed, there is no limit or topological constraint. What's more, it is possible to connect the components in series, in a star, tree or in mixed configuration. There are also few installation rules which, if respected, ensure the utmost reliability of the system in any application.



Within the bus line, the following precautions must be observed:

- Maximum cable length between the power supply and the bus device: 350 m.
- Maximum line length between two bus devices: 700 m.
- Total length of all cables within a line: 1,000 m.
- Maximum number of power supplies on the same line: 2 (at least 200 m apart)

The sizing of the power supply to be utilised on each line is also simple. It is possible to associate a maximum consumption of 10mA for each KNX bus device, an assumption which renders the choice of power supply type swift and intuitive, being now available in three different sizes:

- 160mA for up to 16 devices
- 320mA for up to 32 devices
- 640mA for up to 64 devices

If more than one line is present, the sizing must take into account an additional power supply capable of powering the backbone and the same number of line couplers as there are lines present.



#### Principle of operation

The principle of operation is simple: every device is assigned a physical address that is unique and even traceable within the architecture to the single component.



Via the bus, each component communicates with one or more devices by means of a data telegram. Within the telegram there is generally a range of useful information for operation, in addition to the address of the sender and the recipient.

To allow communication between the devices, the group address is utilised. This can have either a 2-level (main group/sub-group) or 3-level (main group/intermediate group/sub-group) structure.

Each device also has its own intelligence, which makes it completely independent from the other devices. This characteristic of distributed intelligence ensures the general continuity of service to the system and allows to immediately recognise any system failure.

The physical address identifies the name of the device and its location within the system, being generally defined in the configuration phase by pressing a button.

The group address, rather, defines the logical connection and determines the mutual assignment of the devices connected to the bus.

#### Different solutions for different areas of application

The office is where the main automation of the building must converge. An intelligent environment will react and adapt to the various conditions of the day, ensuring everyday comfort only when it serves to benefit greater energy efficiency.

The constant luminosity varies and adjusts according to sunlight, with fan coils that are activated only in case of presence detection, air quality is constantly monitored, along with the activation of preferential sockets whilst security is guaranteed by elegant numeric code keypads.



#### Meeting rooms

Thanks to Blumotix's KNX systems, it becomes easy to setup a room for a presentation or meeting. The room thus adapts to the needs at hand, hence it proves no longer necessary to make adjustments to suit the various nature of each event.

In a "smart" meeting room, there is no need to turn the lights on or off individually – simply press a single button or – even more simply – control the desired scenario from a smartphone to simultaneously activate a series of functions: the presentation screen automatically lowers, the blinds come down, the projector and microphone switch on and the lighting dims.



## Control of the buildings

Blumotix manufactures intelligent devices for the automation and control of homes and buildings, developed according to the data communication protocol of the international KNX standard. Creating a system with Blumotix devices means increasing the comfort and safety of use, reducing energy consumption and increasing the value of the building thanks to the products characterised by their ease of use along with their elegant and customizable design.

Producing a Blumotix home automation system is simple and economically sustainable. In the planning stages, simply select the most suitable devices for performing the desired function before arranging them in field according to the regulation and directions set out under the KNX protocol. The connection, completed by means of a special bus cable, guarantees communication between the various components installed and represents the network for information exchange.

The scalability, typical of a Building Automation system created with KNX technology and distributed intelligence typical of such systems, also means costs can be broken down proportionally, avoiding having to make any large initial investments.

Blumotix KNX product range includes system devices, devices dedicated to individual application functions and accessories.

The system devices facilitate the operation of the bus system, whilst the equipment dedicated to the individual application functions is developed to perform command, control and/or monitor the various technical installations of the building – such as lighting, heating, shading, audio and so on. Each object has an internal module for communication with the KNX bus, rendering each autonomous and interoperable, capable of working with over 7,000 devices on the market belonging to the same international standard.









## Fields and Applications

#### Hall and waiting rooms

The Qubik multifunctional control panel with integrated temperature regulator renders it possible to create a comfortable and pleasant environment. Here there are two appliances in one: an elegant multifunctional and freely-configurable keypad for controlling lighting, scenarios, shutters or any other command along with an intelligent control unit for adjusting the room temperature according to individual needs and times.



#### Corridors

Corridors in offices are often used only in transit yet always require a guaranteed minimum degree of brightness, which remains constant throughout the various hours of the day even as the sun exposure changes. Thanks to Blumotix's motion and presence detectors, it is possible to define the degree of brightness and have the system adapt to the external conditions and the passage of people.

Everyday comfort, safety and energy efficiency coexist at all times on the KNX protocol.



#### KNX solutions for shops, advanced services and shopping centres

Lighting management is certainly one of the salient features to bear in mind within any retail environment. After all, illuminating objects in the right way and enhancing their characteristics helps to sell quicker and better. Through a single DALI actuator, up to 64 bulbs can be adjusted to define the degree of brightness and the status of each light, along with setting 16 different predefined scenarios.



Temperature regulation also becomes an important factor. Visiting a commercial area in which there is the right temperature and correct humidity means customers and visitors are in the ideal conditions, encouraging them to remain in the space for a long time and significantly increasing the chances of making a purchase. Even the management of signage can now be automated – not only in terms of defined timeframes but also the activation with light sensors or through astronomical calendars that turn on the signage at sunset.



#### Theaters, cinemas but also churches and sports centres

The main feature of such environments is to accommodate large numbers of people who gather to participate in events, shows and all kinds of gatherings. Safety along with comfort and operational flexibility are the main components that must be taken into account in managing buildings for such occasions.

Programmed commands activate predefined scenarios to adjust the intensity of the lights and create the right atmosphere, CO<sub>2</sub> sensors to always guarantee proper air quality and to automatically activate forced ventilation when necessary, safety numeric keypads that enable areas reserved for personnel only and touch screens capable of centralising commands and on which alarms and supervision devices converge.



#### **Schools and Universities**

School environments are generally multidisciplinary areas in which there are various environments, such as classrooms, corridors, gyms and assembly areas. Each of these needs to be managed in terms of light, temperature and presence, along with safety and supervision.

The set-up can also manage the transition from standard time to summer time with predefined schedules, whilst there is the possibility to utilise the technology in the classrooms in a variable manner, integrating the different technological tools present (PCs, interactive whiteboard, laboratory equipment) with home automation, along with air-quality control and general supervision of security systems.

The opportunity to respond to such needs renders schools and universities ideal buildings in which to use KNX systems.



#### Hotels and accommodation facilities

Particular attention is paid to all accommodation facilities, which in Italy exceed 34,000 units. B&Bs, farmhouses, motels and hotels of all categories and levels scattered throughout the Italian territory represent a fundamental resource in a market that is always seeking elements able to guarantee customers a distinctive experience in terms of comfort and safety. Needs vary according to the type of structure. Thanks to the Blumotix solutions, however, it is possible to customize services according to the requirements at hand. Through "Doory" numeric keypad, the real heart of the system, it is possible to manage entrance to the rooms with the utmost security and flexibility. Differentiated management according to the type of accommodation facility, option to send the security codes via email if there is no reception (such as for farmhouses and B&Bs) or advanced solutions for hotels equipped with management software dedicated to billing and technological supervision of the systems.



#### Aesthetic coordination and simplicity

"Doory" glass numeric keypads perfectly coordinate with the KNX commands of the "Qubik" collection in offering a complete solution for the internal and external management of the rooms (presence, power, lights, shutters, climate and so on) and common areas. Each device can store up to 100 codes, guaranteeing customers and service personnel maximum flexibility.





#### From small establishments to five-star hotels

Hotel management systems must always guarantee extreme safety for customers and managers. If there is no continuous supervision, access keys must be issued to customers in a safe manner. It is in this context that the characteristics of Blumotix solutions truly come to the fore.

Indeed, thanks to a special application provided free of charge, it is possible to remotely send to customers the numerical security codes able to open and operate the room for the period reserved. Moreover, a suitably-configured motion detector signals the presence of the guest inside the room and optimises energy consumption.



In addition to the numeric keypad for access control, on large complex structures where it is necessary to have more capillary management of the individual services and where it is essential for staff to have a total overview of the systems, a complete solution is available that is able to provide a 360° view of the establishment. This solution can also communicate with the (optional) billing management systems and connect remotely, facilitating the interoperability between different reception areas.



## doory

#### Some advantages of using the home automation system for room management are:

- Optimisation and reduction of management costs in terms of accommodation services: reception and concierge

- Energy Saving: integrated control of lights, climate, windows, curtains and shutters
- Security: room attendance control, through the access control system



NEMO (Networking Enterprise Management Optimisation) management software has a simple graphic interface for handling all technological systems present within the structure (even with technologies other than KNX). It is available on a number of platforms (PC, tablet, smartphone). The simple and intuitive graphic interface offers a high-quality service to hotel managers whilst reducing consumption and management costs.



## The European Directive EN 15232 on energy savings

It is estimated that buildings in the residential and tertiary market utilise over 40% of available energy, conseguently becoming the main contributors to carbon dioxide  $(CO_2)$  emissions.

Energy efficiency inevitably becomes the first strategy in coping with the growing demand for power. There are three main ways to obtain it, through:

- passive system
- active system
- behaviours

EN 15232 is the standard introduced through the European Directive in the field of energy efficiency. The EPBD (Energy Performance of Buildings Directive) defines the impact of automation set-ups (active systems) on the energy performance of the edifice.

By way of example, four efficiency classes have been introduced, each of which is identified by a letter (from A to D). The letter "D" marks the lower class, being equivalent to a building without any automation system. The letters "C" to "A" represent a higher degree of automation, with the letter "A" being the maximum level.



Class D - "NON-ENERGY EFFICIENT": includes traditional technical systems without automation and control, not being efficient from an energy point of view;

Class C - "STANDARD" (reference): corresponds to systems equipped with "traditional" Building Automation and Control Systems (BACS), possibly equipped with a communication BUS;

Class B - "ADVANCED": includes systems equipped with an advanced Building Automation and Control System (BACS) whilst also being fitted with certain functions for the Technical Building Management (TBM) systems specific to the centralised and coordinated handling of individual systems. "Room controller devices must be able to communicate with the building automation system."

Class A - "HIGH ENERGY PERFORMANCE": corresponds to the best BAC and TBM systems, offering levels of precision and completeness for the automatic control such as to guarantee the best energy functioning for the system. "Room controllers must be able to manage HVAC systems, taking into account various factors (for example, pre-set values based on presence detection, air quality, etcetera) and include additional integrated functions for multidisciplinary rapports between HVAC and various building services (such as the electricity, lighting, sunshading, and so on)."

Once equipped with automation and control systems, one of these classes is assigned to the building. The potential for thermal and electrical energy can be calculated for each class based on the type of building and its relative use. The values of Energy Class C are used as a reference for comparing the efficiency.

BACS energy-efficiency factors in non-residential buildings									
	BAC	S efficiency cl	asses and fact	ors	Ene	Energy saving		Energy saving	
Type of building/	D	C (rif.)	В	A	(ref.	Class D)	(ref. C	lass C)	
place	Without automation	Standard automation	Advanced automation	High efficiency	C/D	B/D A/D	B/C	A/C	
Offices	1.10	1.00	0.93	0.87	9%	15% 21%	7%	13%	
Conference rooms	1.06	1.00	0.94	0.89	6%	11% 16%	6%	11%	
Schools	1.07	1.00	0.93	0.86	7%	13% 20%	7%	14%	
Hospitals	1.05	1.00	0.98	0.96	5%	7% 9%	2%	4%	
Hotels	1.07	1.00	0.95	0.90	7%	11% 16%	5%	10%	
Restaurants	1.04	1.00	0.96	0.92	4%	8% 12%	4%	8%	
Shops/Wholesalers	1.08	1.00	0.95	0.91	7%	12% 16%	5%	9%	

	BACS efficiency classes and factors		Energy saving		Energy saving				
Type of building/	D	C (rif.)	В	A	(ref. Class D)		(ref. Class C)		
place	automation	automation	automation efficiency	C/D	B/D	A/D	B/C	A/C	
Apartments, villas, other buildings	1.08	1.00	0.93	0.92	7%	14%	15%	7%	8%

#### A NEED FOR AWARENESS: home automation and energy savings

Why connect the need for awareness with energy savings? It may seem like a bit of a gamble but home automation integrated with solar power and heating systems ensures great economic and comfort advantages. A smart home is also an eco-friendly home. Not surprisingly, home automation systems increase the energy class and value of the property. The systems that can be managed include: boilers, air-conditioners, heat pumps and solar-run appliances.



Only when INTEGRATION achieves HARMONY, technology transforms itself in beauty.







## **Command keypads**

# **QUBIK** COLLECTION

Qubik is a push-button panel equipped with a level of KNX touch control technology that is truly state-of-the-art. The technological innovation behind Qubik is represented by the possibility of programming the functions of the device in a customised manner, based on the needs of the end user. Specifically, it is possible to activate them in three different ways: with a simple touch (short press), with a long press or a sequential press (multifunction).

The push-button panel supports the following functions: switches, shutters and blinds, dimmers, scenarios, and so on. With a white or black base, this device has up to 8 capacitive keys - including in the square version - and is equipped with 2–4 RGB LEDs that can light up in 7 different colours: red, green, blue, yellow, turquoise, magenta and white. The Qubik keypad has a temperature measurement sensor with thermostat function that can be programmed and integrated into the system for remote control of the climate in the various environments in which the keypad is installed.

The collection includes 5 different and exclusive designs: Qubik Line, Qubik Button, Qubik Icon, Qubik Murble and Qubik Sensitive.







Every model in Qubik Collection offers the great opportunity to customise the front panels based on the specific needs of the customer.

Having a single electronic engineering and wall-recessed base, it is possible to choose and combine the various designs in an original way, thanks to the interchangeability of the front panels.

This means the front panels can be changed at any time after initial purchase, without having to replace the entire device.

For all glass lines, the collection includes the equivalent thermostats, which can also be customised.

## **CAPACITIVE KEYPADS** Glass Line

















#### **TECHNICAL DATA**

- Dimensions: square 80X80 mm
- Dimensions: rectangular 120X80 mm
- Thickness: 8 mm
- Version with up to 8 customizable functions
- 4 freely configurable RGB Leds
- Integrated temperature sensor
- Room thermostat function





#### **COVER CODES:**

**BX-F-RKWG-Silver** KNX Glass keypad, rectangular, white

**BX-F-QKWG-Silver** KNX Glass keypad, square, white

BX-F-RKBG-Silver KNX Glass keypad, rectangular, black

BX-F-QKBG-Silver KNX Glass keypad, square, black

**BX-F-RKWG-Gold** KNX Glass keypad, rectangular, white

**BX-F-QKWG-Gold** KNX Glass keypad, square, white

**BX-F-RKBG-Gold** KNX Glass keypad, rectangular, black

**BX-F-QKBG-Gold** 

KNX Glass keypad, square, black

- Plastic case
- Bus line connection via KNX terminal
- Flush-mounted on round, rectangular of square box
- Degree of protection IP20 (installed)
- Power Supply 30 Vdc via KNX bus
- Current Consumption by KNX bus <10 mA
- Operating Temperature: -5°C +45 °C (internal use)

ELECTRICAL ENGENEERING CODES AND FLUSH-MOUNTING CODES: BX-E-RW8, BX-E-RB8, BX-E-QW8, BX-E-QB8

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**CAPACITIVE KEYPADS** Glass Button



#### **TECHNICAL DATA**

- Dimensions: square 80X80 mm
- Dimensions: rectangular 120X80 mm
- Thickness: 8 mm
- Version with 4/8 configurable functions
- Freely configurable 2/4 RGB Leds
- Integrated temperature sensor
- Room thermostat function



#### COVER CODES:

BX-F-RW4 4 buttons, rectangular, white BX-F-QW4 4 buttons, square, white

BX-F-RB4 4 buttons, rectangular, black BX-F-QB4 4 buttons, square, black

BX-F-RW8 8 buttons, rectangular, white BX-F-QW8 8 buttons, square, white

BX-F-RB8 8 buttons, rectangular, black BX-F-QB8 8 buttons, square, black

- Plastic case
- Bus line connection via KNX terminal
- Flush-mounted on round, rectangular of square box
- Degree of protection IP20 (installed)
- Power Supply 30 Vdc via KNX bus
- Current Consumption by KNX bus <10 mA
- Operating Temperature: -5°C +45 °C (internal use)

#### ELECTRICAL ENGENEERING CODES AND FLU-SH-MOUNTING CODES::

BX-E-RW4, BX-E-RB4, BX-E-RW8, BX-E-RB8, BX-E-QW4, BX-E-QB4, BX-E-QW8, BX-E-QB8

## QUBIK Glass Marble

## CAPACITIVE KEYPADS Glass Marble









100









#### **TECHNICAL DATA**

- Dimensions: square 80X80 mm
- Dimensions: rectangular 120X80 mm
- Thickness: 8 mm
- Version with 4/8 configurable functions
- Freely configurable 2/4 RGB Leds
- Room thermostat function





#### COVER CODES:

**BX–F–RWM4** 4 buttons, rectangular, white marble effect **BX–F–QWM4** 4 buttons, square, white marble effect

**BX–F–RBM4** 4 buttons, rectangular, black marble effect

**BX-F-QBM4** 4 buttons, square, black marble effect

**BX–F–RWM8** 8 buttons, rectangular, white marble effect

**BX-F-QWM8** 8 buttons, square, white marble effect

BX-F-RBM8 8 buttons, rectangular, black marble effect BX-F-QBM8

8 buttons, square, black marble effect

- Plastic case
- Bus line connection via KNX terminal
- Flush-mounted on round, rectangular of square box
- Degree of protection IP20 (installed)
- Power Supply 30 Vdc via KNX bus
- Current Consumption by KNX bus <10 mA
- Operating Temperature: -5°C +45 °C (internal use)

ELECTRICAL ENGENEERING CODES AND FLUSH-MOUNTING CODES:

BX-E-RW4, BX-E-RB4, BX-E-RW8, BX-E-RB8, BX-E-QW4, BX-E-QB4, BX-E-QW8, BX-E-QB8



## **CAPACITIVE KEYPADS** Glass Icon

#### COVER CODES:

Glass keypad with 1 shutter command and 2 ON/OFF light commands =BX-F-QQWIg (square-white) BX-F-QRWIg (rectangular-white) BX-F-QQBIg (square black) BX-F-QRBIg (rectangular black)

Glass keypad with 1 light adjustment and 2 ON/OFF light commands = BX-F-QQWIh (square-white) BX-F-QRWIh (rectangular-white) BX-F-QQBIh (square black) BX-F-QRBIh (rectangular black)

**Glass keypad with 2 ON/OFF light commands** = BX–F–QQWIa (square white) BX-F-QRWIa (rectangular white) BX-F-QQBIa (square black) BX-F-QRBIa (rectangular black)

Glass keypad with 2 shutters/blinders commands= BX-F-QQWId (square white) BX-F-QRWId (rectangular white) BX-F-QQBId (square black) BX-F-QRBId (rectangular black)

Square Glass Keypad with 2 predefined scenarios "at home/away from **home"** and "shutters up/shutters down" = BX-F-QQWIi (square white) BX-F-QRWIi (rectangular white) - BX-F-QQBIi (square black) BX-F-QR-Bli (rectangular black)

**Glass Keypad with 2 light adjustments** = BX–F–QQWIf (square white) BX-F-QRWIf (rectangular white) BX-F-QQBIf (square black) BX-F-QRBIf (rectangular black)

Square Glass Keypad with 4 predefined scenarios "at home/away from home" – "shutters up/shutters down" – ON/OFF light – Thermo ON/ **Thermo OFF** = BX-F-QQWIm (square white) BX-F-QRWIm (rectangular white) - BX-F-QQBIm (square black) BX-F-QRBIm (rectangular black)

**Glass Keypad with 4 ON-OFF light commands** = BX–F–QQWIb (square white) BX-F-QRWIb (rectangular white) BX-F-QQBIb (square black) BX-F-QRBIb (rectangular black)

**Glass Keypad with 1 light adjustment** = BX–F–QQWIe (square white) BX-F-QRWIe (rectangular white) BX-F-QQBIe (square black) BX-F-QR-Ble (rectangular black)

**Glass Keypad with 1 shutters/blinds command** = BX–F–QQWIc (square white) BX-F-QRWIc (rectangular white) BX-F-QQBIc (square black) BX-F-QRBIc (rectangular black)

#### **TECHNICAL DATA**

- Dimensions: square 80X80 mm
- Dimensions: rectangular 120X80 mm
- Thickness: 8 mm
- Version with 4/8 configurable functions
- Freely configurable 2/4 RGB Leds
- Integrated temperature sensor
- Room thermostat function

ELECTRICAL ENGENEERING CODES AND FLUSH-MOUNTING CODES: BX-E-RB4, B BX-E-RB8L, BX-E-QB4, BX-E-QB8, BX-E-QB4L, BX-E-QB8L, BX-E-RW4, BX-E-RW8, BX-E-RW4L, BX-E-RW8L, BX-E-QW4, BX-E-QW8, BX-E-QW4L, BX-E-QW8L

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- Plastic case
- Bus line connection via KNX terminal
- Flush-mounted on round, rectangular of square box
- Degree of protection IP20 (installed)
- Power Supply 30 Vdc via KNX bus
- Current Consumption by KNX bus <10 mA
- Operating Temperature: -5°C +45 °C (internal use)

## **Capacitive Thermostat**

## QUBIK Capacitive Thermosta **Glass Line**





#### **CAPACITIVE THERMOSTAT** Glass Line

















#### **TECHNICAL DATA**

- Dimensions: square 80X80 mm
- Dimensions: rectangular 120X80 mm
- Thickness: 8 mm
- OLED display with blue backlight
- 4 capacitive buttons to control thermostat functions
- Freely configurable 4 RGB rear Leds
- 4 freely configurable inputs



#### **COVER CODES:**

**BX-F-RKWGT-Silver** KNX Glass Thermostat, rectangular, white BX-F-QKWGT-Silver KNX Glass Thermostat, square, white

**BX-F-RKBGT-Silver** KNX Glass Thermostat, rectangular, black BX-F-QKBGT-Silver KNX Glass Thermostat, square, black

**BX-F-RKWGT-Gold** KNX Glass Thermostat, rectangular, white BX-F-QKWGT-Gold KNX Glass Thermostat, square, white

**BX-F-RKBGT-Gold** KNX Glass Thermostat, rectangular, black BX-F-QKBGT-Gold KNX Glass Thermostat, square, black

- Plastic case
- Bus line connection via KNX terminal
- Button and programming Led on the back
- Flush-mounted on round, rectangular of square box
- Degree of protection IP20 (installed)
- Power Supply 30 Vdc via KNX bus
- Current Consumption by KNX bus <10 mA
- Operating Temperature: -5°C +45 °C (internal use)

**ELECTRICAL ENGENEERING CODES** AND FLUSH-MOUNTING CODES: BX-E-QWT8, BX-E-QBT8, BX-E-RWT8, **BX-E-RBT8** 

QUBIK

Capacitive Thermostat **Glass Button** 





## **CAPACITIVE THERMOSTAT** Glass Button

#### **COVER CODES:**





**BX-F-RWT4** KNX Glass Thermostat rectangular, white with 4 programmable functions **BX-F-QWT4** KNX Glass Thermostat square, white with 4 programmable functions











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**BX-F-RBT BX-F-QBT** 

#### **TECHNICAL DATA**

- Dimensions: square 80X80 mm
- Dimensions: rectangular 120X80 mm
- Thickness: 8 mm
- OLED display with blue backlight
- 4 capacitive buttons to control thermostat functions
- Freely configurable 2 Leds (only in BX-RWT4, BX-RBT4, BX-QWT4, BX-QBT4)
- 4 freely configurable inputs (only in BX-RWT4, BX-RBT4, BX-QWT4, BX-QBT4)



KNX Glass Thermostat rectangular, black, with 4 programmable functions

KNX Glass Thermostat square, black with 4 programmable functions

KNX Glass Thermostat rectangular, white KNX Glass Thermostat square, white

KNX Glass Thermostat rectangular, black

KNX Glass Thermostat square, black

- Plastic case
- Bus line connection via KNX terminal
- Button and programming Led on the back
- Flush-mounted on round, rectangular of square box
- Degree of protection IP20 (installed)
- Power Supply 30 Vdc via KNX bus
- Current consumption by KNX bus< 10 mA
- Operating Temperature: -5°C +45 °C (internal use)

#### **ELECTRICAL ENGENEERING CODES AND FLUSH-MOUNTING CODES:**

BX-E-QWT, BX-E-QBT, BX-E-RWT, BX-E-RBT, BX - E - QWT4, BX - E - RWT4, BX - E - QBT4, BX -E - RBT4

# QUBIK

Capacitive Thermostat Glass Marble

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## **CAPACITIVE THERMOSTAT** Glass Marble

#### **COVER CODES:**



**BX-F-RWMT4 BX-F-QWMT4** 



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**BX-F-RWMT** KNX Glass Thermostat rectangular, marble effect, white **BX-F-QWMT** KNX Glass Thermostat square, marble effect, white



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**BX-F-RBMT** KNX Glass Thermostat rectangular, marble effect black **BX-F-QBMT** KNX Glass Thermostat square, marble effect, black

#### **TECHNICAL DATA**

- Dimensions: square 80X80 mm
- Dimensions: rectangular 120X80 mm
- Thickness: 8 mm
- OLED display with blue backlight
- 4 capacitive buttons to control thermostat functions
- Freely configurable 2 Leds (BX-RWMT4, BX-RBMT4, BX-QWMT4, BX-QBMT4)
- 4 freely configurable inputs (only in BX-RWMT4, BX-RBMT4, BX-QWMT4, BX-QBMT4)



KNX Glass Thermostat rectangular, marble effect, white, with 4 programmable functions KNX Glass Thermostat square, marble effect, white, with 4 programmable functions

#### **BX-F-RBMT4**

KNX Glass Thermostat rectangular, marble effect black, with 4 programmable functions **BX-F-QBMT4** KNX Glass Thermostat square, marble effect, black, with 4 programmable functions

- Plastic case
- Bus line connection via KNX terminal
- Button and programming Led on the back
- Flush-mounted on round, rectangular of square box
- Degree of protection IP20 (installed)
- Power Supply 30 Vdc via KNX bus
- Current consumption by KNX bus< 10 mA
- Operating Temperature: -5°C +45 °C (internal use)

ELECTRICAL ENGENEERING CODES AND FLUSH-MOUNTING CODES: BX-E-QWT, BX-E-QBT, BX-E-RWT, BX-E-RBT, BX -E - QWT4, BX -E - RWT4, BX -E - QBT4, BX -E - RBT4

# QUBIK

**KNX** sensitive multifunction

## KNX sensitive multifunction keypads

**COVER CODES:** 

BX-F-QKB-Silver KNX multifunction Keypad in ABS, square 8 buttons - Black **BX-F-RKB-Silver** KNX multifunction Keypad in ABS, rectangular 8 buttons - Black

**BX-F-RKB-Gold** KNX multifunction Keypad in ABS, rectangular 8 buttons - Black BX-F-QKB-Gold KNX multifunction Keypad in ABS, square 8 buttons - Black

ELECTRICAL ENGENEERING CODES AND FLU-SH-MOUNTING CODES: BX-E-RW8, BX-E-RB8, BX-E-QW8, BX-E-QB8



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**BX-F-QKW-Silver** KNX multifunction Keypad in ABS, square, 8 buttons - White **BX-F-RKW-Silver** KNX multifunction Keypad in ABS, rectangular, 8 buttons - White

BX-F-RKW-Gold KNX multifunction Keypad in ABS, rectangular 8 buttons - White BX-F-QKW-Gold KNX multifunction Keypad in ABS, square 8 buttons - White

BX-F-RKW-Chrome KNX multifunction Keypad in ABS, rectangular 8 buttons - White BX-F-QKW-Chrome KNX multifunction Keypad in ABS, square 8 buttons - White

BX-F-RKB-Chrome KNX multifunction Keypad in ABS, rectangular 8 buttons - Black BX-F-QKB-Chrome KNX multifunction Keypad in ABS, square 8 buttons - Black

#### **TECNHICAL DATA**

- Dimensions: square 80X80 mm
- Dimensions: rectangular 120X80 mm
- Thickness 6 mm
- Version of 8 configurable functions
- Freely configurable 4 RGB rear Leds
- Integrated temperature sensor
- Ambient thermostat function
- Plastic case
- Bus line connection via KNX terminal
- Flush-mounted on round, rectangular of square box
- Degree of protection IP20 (installed)
- Power Supply 30 Vdc via KNX bus
- Current consumption by KNX bus< 10 mA
- Operating Temperature: -5°C +45 °C (internal use)

## DOORY Capacitive glass keypad for access control

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Doory is an intelligent numeric keypad for remote access code input, rendering it possible to welcome guests even without an operator being present upon arrival. The Doory keypad receives the codes from the KNX Blumotix Miniserver that can in turn communicate with the guest's smartphone via the KRIM App, which can be downloaded from iTunes or Google Play at no cost.

doory

## KRISTAL LINE – Doory Numeric Keypad



**BX-R120B** 

BX-R12VB

#### Doory numeric keypad

It is the ideal touch device for the safe and automated control of any type of environment through the remote supervision of controlled access.

The keypad can thus be utilised to compartmentalise industrial, civil and service structures in general – without the need for keys.

Being an intelligent capacitive keypad, it is particularly suited to the hospitality sector since it can be managed through integration with certain apps specifically designed for booking and hotel room management services. There are two options for remotely managing an accommodation facility equipped with Doory numerical access control:

A basic version for Bed & Breakfasts, farmhouses and small resorts that is included in the price of the numeric keypad, involving the integrated use of both Doory and KRIM apps.

An advanced version for complex accommodation facilities that uses the software Nemo with the main hotel management systems on the market - in this case, it is necessary to purchase the suite corresponding to the number of rooms/environments of the hotel to be controlled with the software BX-NEMO.

#### Doory and KRIM apps

allow check-in and check-out operations to be managed from a smartphone/tablet as well as to renew and update the access key when new guests arrive or whenever necessary. Furthermore, the hotel manager can automatically open a door if the code is forgotten, by simply pressing a button on their telephone. For interfacing with the hotel management, the software BX-NEMO is necessary.

#### **TECHNICAL DATA**

- Numeric keypads in glass, white or black
- Dimensions: rectangular 120X80 mm
- Thickness 8 mm
- Each keypad has numbers from 0 to 9 and the # and \* keys
- Keys with blue backlight
- Proximity sensor
- Front programming button
- The installed KNX firmware is dedicated to access control, with the possibility to store up to 100 codes of length 6 digits.

#### **BX-R120W**

KNX glass horizontal Keypad for access control, white

#### **BX-R12VW**

KNX vertical glass keypad for access control, white

KNX glass horizontal Keypad for access control, black

KNX vertical glass keypad for access control, black



- PRG signalling LED
- Plastic case
- Bus line connection via KNX terminal
- Flush-mounted on rectangular box
- Degree of protection IP20 (installed)
- Power Supply 30 Vdc via KNX bus
- Current consumption by KNX bus< 10 mA
- Operating Temperature: -5°C +45 °C (internal use)

## Power Supply BX-B640



#### DESCRIPTION

BX-B640 is a KNX 640mA power supply. Ideal for powering networks with up to 64 devices.

It is equipped with Soft Start, a gradual ignition mechanism that allows the loading of the capacities present in the system without causing lowering of the output voltage and protects the system from malfunctions caused by sudden blackouts or inefficiencies of the public network.

#### **TECHNICAL DATA**

- Input Voltage: 110/230VAC 50/60Hz
- KNX connector: d=0,8mm
- Degree of protection: IP20
- Dimensions: 4 DIN modules
- Fuse: 2A rapid
- Power Consumption: 20W
- Operating Temperature: -5°C +45 °C (internal use)

#### DIMENSIONS

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## Power Supply BX-B320

#### DESCRIPTION

BX-B320 is a KNX 320mA power supply. Ideal for powering networks with up to 32 devices.

It is equipped with Soft Start, a gradual ignition mechanism that allows the loading of the capacities present in the system without causing lowering of the output voltage and protects the system from malfunctions caused by sudden blackouts or inefficiencies of the public network.

#### **TECHNICAL DATA**

- Input Voltage: 110/230VAC 50/60Hz
- KNX connector: d=0,8mm
- Degree of protection: IP20
- Dimensions: 4 DIN modules
- Fuse: 2A rapid
- Power Consumption: 15W
- Operating Temperature: -5°C +45 °C (internal use)

#### DIMENSIONS







## Power Supply BX-B160



#### DESCRIPTION

BX-B160 is a KNX 160mA power supply.

Ideal for powering networks with up to 16 devices.

It is equipped with Soft Start, a gradual ignition mechanism that allows the loading of the capacities present in the plant without causing lowering of the output voltage and protects the plant from malfunctions caused by sudden blackouts or inefficiencies of the public network.

## Power Supply BX-PW15 Generic Use -12V/15W

#### DESCRIPTION

Device for powering Touch Panels, particularly suitable for Kairos 24, Kairos 27 and Theo 10 models. The power supply can work with input voltages between 100V and 240V.

#### **TECHNICAL DATA**

- Input voltage: 110/230VAC 50/60hz
- KNX connector: d=0,8mm
- Degree of protection: IP20
- Dimensions: 4 DIN modules
- Fuse: 2A rapid
- Power consumption: 10W
- Operating Temperature: -5°C +45 °C (internal use)

#### DIMENSIONS



#### TECHNICAL DATA

- Input voltage: 100-240 VAC 50/60hz
- Output voltage: 12VDC
- Maximum power: 15W
- Insulation: Class II
- Cable section: >1mm
- Degree of protection: IP30 (EN60529)
- Storage temperature: -20°C/+70°C
- Operating Temperature: -5°C +45 °C (internal use)
- Humidity: 10% / 90%



## Line Coupler **BX-LC01**

#### DESCRIPTION

BX-LCO1 is KNX line coupler with a compact design. It connects two KNX segments (for example a KNX line with a KNX area).



## Interface **BX-IP01**

#### DESCRIPTION

Device for interfacing between a KNX line and an IP (Internet Protocol) network.

BX-IPO1 is the ideal KNX interface for programming the system with ETS via an active network connection on your PC (Eibnet/ IP Tunneling standard).

The IP address of the interface can be assigned manually by ETS or automatically if a DHCP service is activated on the network. BX-IPO1 has a RJ45 connector to support IP connection, a standard KNX connector (2 x 0.8mm) for connection to the bus line and a third connector (2 x 0.8mm) for auxiliary power supply (12-24 VDC).

#### **TECHNICAL DATA**

• Ethernet card: 10mb

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- Supported protocols: ARP ICMP IGMP UDP/IP DHCP
- Eibnet/IP in agreement with KNX: Core, Tunneling, Device Management
- Operating Temperature: -5°C +45 °C (internal use)



## **USB** Interface **BX-USB**

#### DESCRIPTION

BX-USB is a two-way KNX communication interface KNX / USB that allows to connect your PC to a bus line. The USB connection is galvanically isolated from the KNX bus.

Ideal for the use of ETS software, both during programming and for data monitoring sessions. Compatible with KNX Association Falcon driver.

## **Terminals BX-SP01**



#### DESCRIPTION

BX-SP01 is the box of 50 KNX connectors. These are connectors for applications that comply with the European Installation Bus (EIB) standart and allow communication between the device and the KNX bus.

## **KNX** cable **BX-SP05/06**

#### THE CABLE IS COMPOSED OF:

1. Holder 2. Insulation 3. Separator 4. Shielding 5. Drainage 6. Sheath



#### DESCRIPTION

BX-SP05/06 is the 100-meter skein of KNX 4/2 pole cable. The cable is made with 2 twisted cables of 0.8 mm section, shielded with AI/Pet tape, not propagating fire and low halogen emission.



#### **TECHNICAL DATA**

- Compatibility: ETS3 and later Falcon
- Power consumption: USB 200mw KNX 100mw
- Dimensions (L1-L2-H): 90-91-12 mm

#### **TECHNICAL DATA**

- Number of contacts: 8
- Number of potentials: 2
- Min wire dimensions: 22AWG
- Max wire dimensions: 18AWG •
- Rated voltage: 100VAC
- Maximum current: 6A



#### **TECHNICAL DATA**

- Cable 2 x 2 x 0,80 mm
- Conductor: annealed copper (cl. 1) •
- Insulation: PVC quality R2
- Separator: Pet tape
- Drainage: tinned copper
- Annealed (formation 1 x 0,40 mm)
- Shielding: Al/Pet tape
- Sheath: PVC quality RZ
- Sheath colour: RAL 6018
- Reduced halogen emission: 22%
- Capacity according to: 100pf/m at 10khz
- Inductance: 0,85uH/m at 10khz
- Rated voltage: 300V
- Maximum voltage: 330V
- Test voltage: 4000V
- Temp. Max exercise: 70
- Short-circuit temp. 160
- Temp. Installation: 0 whole C
- Radius of curvature: 53mm

## Gateway Actuator **BX-DALI**



#### DESCRIPTION

The BX-DALI Gateway is a fully revamped device that allows the union of a KNX line with a DALI. BX-DALI operates as a "master" on the DALI and presents the traditional 16-18 VCC output on the terminals called D+ and D- and current limitation max to 250ma. It allows the control and adjustment of up to 64 DALI devices, managed individually or in groups up to a maximum of 16. Allowing to control up to 16 scenarios.

Individual reactor and lamp error messages may be transmitted to the KNX by means of appropriate communication objects. You can control individual DALI devices even if assigned to different groups. A DALI device can be part of multiple groups. It is equipped with a post-installation function for the modification of systems already in service and advanced functions for DALI driver addresses programming.

It is possible to configure the device via ETS or via DCA interface that can be downloaded from the KNX Site or from the Blumotix Site.

#### **TECHNICAL DATA**

- Supply voltage: 100- 240 V AC/DC, 50/60 Hz
- Outputs: DALI D+, D-, 16-1 8 V DC, 250 mA max, short circuit proof
- Interfaces: KNX, DALI
- Type: Control device (single master)
- Max. clamping diameter of power cables: 230V = 2.5 mm2/DALI line = 2.5 mm2
- Degree of protection: IP 20
- Dimensions: 4 DIN modules
- Equipment: bus connection terminal.
- Compatible with led lamp drivers (DT6)
- Operating Temperature: -5°C +45 °C (internal use)

#### DIMENSIONS





## Universal Dimmer **BX-DUNIV**

#### DESCRIPTION

KNX Blumotix universal dimmer actuator (RLC, LED, CFL) with 2 channels. BX-DUNIV is the dimmer capable of delivering up to 300W at 230VAC on each of the two available lines. Dimming curves can be configured to suit the type of light source used. The front panel has manual controls for adjusting the outputs. Possibility to control the lamps in 2 models: LE (Leading Edge) with phase start cut and TE (Trailing Edge) phase end cut. BX-DUNIV is able to achieve low light even in modern fluorescent or LED lamps, stabilizes the brightness of energy-saving sources and solves unwanted side effects: buzzing, flashing, unstable operation

#### **TECHNICAL DATA**

- KNX section with bus power supply: 29VDC consumption 10ma
- Connection type WAGO: TP1 pair with 0.80mm section
- External power supply: 110-250VAC (50/60hz)
- Storage temperature: -20°C -55°C
- Operating humidity: 5% -95%
- Storage humidity: 5% -95%
- Degree of protection: IP20
- Protection Class III
- Mounting device for DIN bar 35mm
- Dimensions: 4 DIN modules
- Weight 240g
- Operating Temperature: -5°C +45 °C (internal use)

#### DIMENSIONS





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Front view			

## Constant voltage dimmer **BX-DM04**



## Constant voltage dimmer **BX-DM03**

#### DESCRIPTION

KNX Blumotix 4 channel dimmer actuator for dimming of White and RGB LED strips (common anode connection) operating at 12 and 24 Volts.

It allows to deliver a max current for each channel of 7.8A corresponding to a strip of RGB LED of 40 meters (14.4W/ but 24V). BX-DMO4 adjusts brightness by modulating the output voltage of the external power supply. The device works with constant input voltages of 12V and 24V.

#### **TECHNICAL DATA**

- Auxiliary power supply 12-24 VDC Max 750 W
- Output voltage: PWM (Vout = Vin)
- Output current: max 7.8A per channel
- Operating Temperature: -5°C +45 °C (internal use)
- Relative humidity: 5% to 95%
- Degree of protection: IP20
- Dimensions: 4 DIN modules

#### **KNX FUNCTIONS**

- LED intensity adjustment
- Modulation output voltage of the power supply
- 4 independent channels

#### DIMENSIONS





#### DESCRIPTION

BX-DM03, KNX Blumotix actuator, Anode Common dimmer for LED lamps with current control. It has 4 channels that can be programmed to work independently with white lamps or can be synchronized to control the colors of a RGB/ RGBW lamp.

Main feature is to work with an external power supply that can be chosen according to the power to be applied. Each channel can be programmed by means of a dip switch to supply the current appropriate to the type of lamp installed according to the preset standard values: 350ma, 700ma and 1000ma with 12 or 24 or 48vdc power supplies.

#### **TECHNICAL DATA**

- Number of outputs: 4
- Maximum output current: 350ma, 700ma, 1000ma
- Maximum output voltage modulated as a function of input voltage
- Input voltage: up to 48V
- Power consumption: up to 200W
- Operating Temperature: -5°C +45 °C (internal use)
- Dimensions: 96mm x 86mm x 36m



#### **KNX FUNCTIONS**

- Individually programmable channels
- Brightness adjustment with 4-bit objects (DT3 incremental method) and 1 Byte objects (DT5 brightness percentage)
- On and off function with 1-bit objects (DT1 on off)
- Saving the brightness value when the channel is switched off • Notification of status
- RGBW operating mode with synchronized channels
- Timed management of power-on, power-off and transition of 24 programmable scenarios and execution in sequence of colored transitions exploiting the order of the scenarios in sequential or causal way.

## Interfaces with Led BX-T2XIOL BX-T4XIOL



#### DESCRIPTION

BX-T2XIOL and BX-T4XIOL are 2/4 channel push-button and output control interfaces.They differ from other interfaces due to the presence of the signaling LED.On the 15cm long cable there are 2 or 4 twisted pairs for direct connection to the buttons.The management of the outputs is completely independent from the inputs and allows a very flexible configuration.

#### **KNX FUNCTIONS**

- Power-on utilities
- Opening and closing of shutters/blinds
- Scenarios
- Setting of a light source
- Cyclic sending of values
- Sending forcing and blocking values
- Multi-action commands

#### TECHNICAL DATA

- Degree of protection: IP20
- Dimensions: 54mm x 44mm x 17mm
- Maximum cable length: 10mt
- KNX connector: d=0,8mm
- Operating Temperature: -5°C +45 °C (internal use)

#### OUTPUTS

- On-off state
- Alarm status 1
- Alarm status 2
- Led control with 2 1-bit communication objects
- Fixed and variable frequency flashing

#### DIMENSIONS





## KNX Inputs BX-TE



#### DESCRIPTION

BX-TE is a 4-input KNX push-button interface device for transforming a traditional push button into a KNX source. It does not have local adjustment commands, therefore it needs a supervision device present in the system to proceed with the setting and display operations, such as a Blumotix Touch Panel or an iOS and Android Smartphone with KRIM installed, the application produced by Blumotix.

The temperature probe provides a precise reading of the ambient temperature and the necessary adjustments for air conditioning control. It has small dimensions and can be installed on the back of the hole covers of the traditional civil series, properly drilled to allow a correct measurement of the room temperature.

#### **KNX FUNCTIONS**

- Power-on utilities
- Opening and closing of shutters/blinds
- Scenarios
- Setting of a light source
- Very precise temperature reading thanks to digital temperature probe
- Climate control: set-point setting; summer/winter mode selection; fancoil/velux function; PID control; temperature control

#### DIMENSIONS



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#### **TECHNICAL DATA**

- Degree of protection: IP20
- Power supply: via KNX bus (29V)
- Power consumption: 0,25W
- Maximum length of input cables and probe: 10m
- KNX connector: d=0,8mm
- Dimensions: 54mm x 44mm x 17mm
- Operating Temperature: -5°C +45 °C (internal use)



## KNX Inputs BX-TU



#### DESCRIPTION

BX-TU is a 4-input KNX push-button interface device to transform a traditional push-button into a KNX source. It does not have local adjustment commands, therefore it needs a supervision device present in the system to proceed with the setting and display operations, such as a Blumotix Touch Panel or an iOS and Android Smartphone with KRIM installed, the application produced by Blumotix.

The temperature probe provides a precise reading of the ambient temperature and provides the necessary adjustments for air conditioning control. BX-TU is equipped with an extremely sophisticated solid-state digital temperature and humidity probe, capable of temperature measurements between -40 C and 125 C, and relative humidity between 0% and 100% and does not require any calibration procedure.

It has a small size and can be installed on the back of the hole covers of the traditional civil series, properly drilled to allow a correct measurement of the room temperature. The version with humidity probe is able to measure the dew temperature.

#### **KNX FUNCTIONS**

- Power-on utilities
- Opening and closing of shutters/blinds
- Scenarios
- Setting of a light source
- Very precise temperature reading thanks to digital temperature probe
- Climate control: set-point setting; summer/winter mode selection; fancoil/velux function; PID control; humidity level control.

#### **TECHNICAL DATA**

- Degree of protection: IP20
- Power supply: via KNX bus (29V)
- Power consumption 0,25W
- Maximum length of input cables and probe: 10m
- KNX connector: d=0,8mm
- Dimensions: 54mm x 44mm x 17mm
- Operating Temperature: -5°C +45 °C (internal use)

## Current meter BX-ES03 with optional current clamp BX-TA01

#### DESCRIPTION

BX-ESO3 is a KNX device for the measurement of Alternating Electric Current. Specifically, it measures the alternating current absorbed by an integrated power line. The device provides an intelligent load control logic.
The meter consists of 3 analog inputs with which to perform independent current measurements, acquiring the values from the current clamps BX-TA01. The 3 inputs are independently programmable.
BX-TA01 allows the induction measurement of absorption on an electric line without interrupting the conductor.
This is possible thanks to the snap mechanism that can attach cables up to 13 mm in diameter. The clamp has a sensitivity of 60 A/V and allows the instrument to measure electric currents up to a maximum value of 150A.

#### KNX FUNCTIONS

- Energy saving: by enabling thresholds capable of notifying events on the KNX bus
- Load control: detection of overloads and possible intervention to limit consumption.
- Power measurement
- Energy accounting
- External probe input

#### DIMENSIONS







#### **TECHNICAL DATA**

- Integrated load control (up to 8)
- KNX connector: d=0,8mm2
- Clamp sensitivity: 60 A/V
- Maximum detectable power: 10,7kw (230VAC)
- Degree of protection: IP20
- Dimensions: 54mm x 44mm x 17mm
- Operating Temperature: -5°C +45 °C (internal use)

## Presence/motion sensors and detectors

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## Radio frequency motion detector **BX-DET01**

#### DESCRIPTION

This concealed motion detector is made for ceiling or flush-mounting installation. It can also be fitted in masonry, wood, plasterboard walls, and so on. The device offers a broad and easy parameterisation through ETS, being suitable for lighting, the presence detection and anti-intrusion functions. It avails of radio frequency technology.

#### **TECHNICAL DATA**

- Detection area 2.5 m from the floor: Guaranteed 6x3 m/Maximum: 12x6 m.
- Power: 29V DC from auxiliary power supply or from KNX BUS
- Consumption (depending on the source)
- Auxiliary power supply of 12-30 V DC (recommended), 35mA from the auxiliary power supply, 1mA from KNX BUS
- BUS KNX (Optional) 35mA from BUS KNX
- Type of protection: IP20
- Safety low-voltage SELV, direct current 24V
- Dimensions/weight: 25 x 45 x 65 mm/115 g
- Mounting: on false ceilings or recessed in plasterboard and brick walls
- Operating Temperature: -5°C +45 °C (internal use)

The range of Blumotix motion and presence sensors makes it possible to automate the control of bus functions, such as room lighting or air-conditioning. All versions contain a KNX communication module within. The presence sensors are connected to the signalbus cable. The configuration and commissioning of the devices is conducted using the ETS software.



## **Motion Detectors**

## BX-93382

Entirely made of white polycarbonate, the KNX presence and brightness detector with infrared technology in the false ceiling version is suitable for detection in offices, meeting rooms, schools and hotel rooms. Equipped with a special optical system, it is designed to detect even minimal movements, with a 360° detection area and the possibility to be installed at up to 5 metres in height. Constant adjustment and control outputs for HVAC, Operating Temperature: -5°C +45 °C (internal use).





## BX-93383

Entirely made of white polycarbonate, the KNX presence and brightness detector with infrared technology, in the semi-recessed version, can also be installed on the ceiling with base Code 93307 and it is suitable for detection in offices, meeting rooms, schools and hotel rooms. Equipped with a special optical system, it is designed to detect even minimal movements, with a 360° detection area and the possibility to be installed at up to 5 metres in height. Constant adjustment and control outputs for HVAC, Operating Temperature: -5°C +45 °C (internal use).

## BX-93384

Entirely made of white polycarbonate, the KNX presence and brightness detector with infrared technology in the false ceiling version is suitable for detection in offices, meeting rooms, schools and hotel rooms.

Equipped with a special optical system, it is designed to detect even minimal movements, with a  $360^{\circ}$  detection area and the possibility to be installed at up to 10 metres in height. Constant adjustment and control outputs for HVAC, Operating Temperature:  $-5^{\circ}C + 45^{\circ}C$  (internal use).



#### DIMENSIONS





#### DIMENSIONS





## BX-93385

The KNX presence and brightness detector with infrared technology, in the semi-recessed version for

detection in large areas, is entirely made of white polycarbonate. Equipped with a special optical system, it is designed to detect even minimal movements, with a  $360^{\circ}$ detection area and the possibility to be installed at up to 10 metres in height. Constant adjustment and control outputs for HVAC, Operating Temperature:  $-5^{\circ}C + 45^{\circ}C$  (internal use).



## Switching Actuator 12 channels BX-ACT12



#### DESCRIPTION

BX-ACT12 is a 12-channel actuator to be mounted on a DIN rail for independent switching of loads via the relay contacts. The 230 V switching output can be controlled by the front buttons. A green LED indicates the status of the channel. It is equipped with 16A bistable relays with contacts connected directly on the terminals, without phase sharing. The screw terminals can accommodate cable sections up to 5 mm2.

The relays used withstand a starting current (Inrush Current) up to 320A in the first 2ms, therefore they are particularly suitable in the piloting of inductive loads typical of fluorescent or neon lamps.

#### **KNX FUNCTIONS**

- Switching function
- Stairs light function
- Scenarios
- Logic functions: 16 generic logic operators are available to be assigned to the desired channels
- Channel status feedback

#### **TECHNICAL DATA**

- Rated voltage: 230 V CA ±10%
- Rated current of contacts: 16A
- Network frequency: 50-60 Hz ±10%
- Degree of protection: IP 20
- Dimensions: 8 DIN modules
- Operating Temperature: -5°C +45 °C (internal use)

## Switching Actuator 8 channels BX-ACT08

#### DESCRIPTION

BX-ACT08 is an 8-channel actuator to be mounted on a DIN rail for independent switching of loads via relay contacts.
The 230 V switching output can be controlled by the front buttons. A green LED indicates the status of the channel.
It is equipped with 16A bistable relays with contacts connected directly on the terminals, without phase sharing. The screw terminals can accommodate cable sections up to 5 mm2.
The relays used withstand a starting current (Inrush Current) up to 320A in the first 2ms, therefore they are particularly suitable in the piloting of inductive loads typical of fluorescent or neon lamps.

#### **KNX FUNCTIONS**

- Switching function
- Stairs light function
- Scenarios
- Logic functions: 16 generic logic operators are available to be assigned to the desired channels
- Channel status feedback

#### DIMENSIONS





#### DIMENSIONS





#### **TECHNICAL DATA**

- Rated voltage: 230 V CA ±10%
- Rated current of contacts: 16A
- Network frequency: 50-60 Hz ±10%
- Degree of protection: IP 20
- Dimensions: 8 DIN modules
- Operating Temperature: -5°C +45 °C (internal use)

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142 Front view	<u>i</u> i

## Switching Actuator 4 channels BX-ACT04



#### DESCRIPTION

BX-ACTO4 is a 4-channel actuator to be mounted on a DIN rail for independent switching of loads via the relay contacts. The 230 V switching output can be controlled by the front buttons. A green LED indicates the status of the channel. It is equipped with 16A bistable relays with contacts connected directly on the terminals, without phase sharing. The screw terminals can accommodate cable sections up to 5 mm2.

The relays used withstand a starting current (Inrush Current) up to 320A in the first 2ms, therefore they are particularly suitable in the piloting of inductive loads typical of fluorescent or neon lamps.

#### **KNX FUNCTIONS**

- Switching function
- Stairs light function
- Scenarios
- Logic functions: 16 generic logic operators are available to be assigned to the desired channels
- Channel status feedback

#### **TECHNICAL DATA**

- Rated voltage: 230 V CA ±10%
- Rated current of contacts: 16A
- Network frequency: 50-60 Hz ±10%
- Degree of protection: IP 20
- Dimensions: 4 DIN modules
- Operating Temperature: -5°C +45 °C (internal use)

## Blind/Roller shutter Actuator 2 channels BX-BLD2

#### DESCRIPTION

BX-BLD2 is an actuator for 2 blind/roller shutters with 16 A 230V~ 50/60 Hz relay outputs, KNX standard, DIN rail installation (60715TH35), it occupies 4 modules of 17.5 mm each. Blind/roller shutter actuator controls independent 230 V ~ drives for the control and handling of blinds, roller shutters, venetian blinds. The devices are powered by the bus and do not require an external auxiliary voltage; the output contacts are interlocked and potential-free so as to protect the drives from any damage.

#### **KNX FUNCTIONS**

- Complete up and down movement
- Partial stroke with stop in position from 0 to 100% of stroke length
- Position setting (it changes during the operation of the preset position)
- Adjustment of the inclination of the slats (for venetian blinds)Scenarios
- Scenario
- Automatic control for direct sunlight protection
- Automatic control for weather protection (rain, wind, frost)

#### DIMENSIONS





#### DIMENSIONS





#### **TECHINCAL DATA**

- BUS power supply voltage: 30 V d.c. SELV.
- Consumption on bus: 12 mA
- 2 independent outputs
- Rated voltage UN: 230 V ~ 50/60 Hz
- Rated current IN: 16 A
- Degree of protection: IP20
- 4 modules of 17,5mm each
- Operating Temperature: -5°C +45 °C (internal use)

#### CONNECTIONS

The connection to the bus and to the roller shutter control devices is carried out directly from the terminals on the front of the actuator.



## Blind/Roller shutter Actuator 4 channels BX-BLD4



#### DESCRIPTION

BX-BLD4 in an actuator for 4 blind/roller shutters with 16 A 230V~ 50/60 Hz relay outputs, KNX standard, DIN rail installation (60715TH35), it occupies 8 modules of 17,5 mm each. Blind/roller shutter actuator controls independent 230 V ~ drives for the control and handling of blinds, roller shutters, venetian blinds. The devices are powered by the bus and do not require an external auxiliary voltage; the output contacts are interlocked and potential-free so as to protect the drives from any damage.

#### **KNX FUNCTIONS**

- Complete up and down movement
- Partial stroke with stop in position from 0 to 100% of stroke length
- Position setting (it changes during the operation of the preset position)
- Adjustment of the inclination of the slats (for venetian blinds)
- Scenarios
- Automatic control for direct sunlight protection
- Automatic control for weather protection (rain, wind, frost)

#### **TECHNICAL DATA**

- BUS power supply voltage: 30 V d.c. SELV.
- Consumption on bus: 12 mA
- 2 independent outputs
- Rated voltage UN: 230 V ~ 50/60 Hz
- Rated current IN: 16 A
- Degree of protection IP20
- 8 modules of 17,5mm each
- Operating Temperature: -5°C +45 °C (internal use)

#### CONNECTIONS

The connection to the bus and to the roller shutter control devices is carried out directly from the terminals on the front of the actuator.



## Blind/Roller shutter Actuator 6 channels BX-BLD6



BX-BLD6 in an actuator for 6 blind/roller shutters with 16 A 230V~ 50/60 Hz relay outputs, KNX standard, DIN rail installation (60715TH35), it occupies 8 modules of 17,5 mm each. Blind/roller shutter actuator controls independent 230 V ~ drives for the control and handling of blinds, roller shutters, venetian blinds. The devices are powered by the bus and do not require an external auxiliary voltage; the output contacts are interlocked and potential-free so as to protect the drives from any damage.

#### **KNX FUNCTIONS**

- Complete up and down movement
- Partial stroke with stop in position from 0 to 100% of stroke length
- Position setting (it changes during the operation of the preset position)
- Adjustment of the inclination of the slats (for venetian blinds)
- Scenarios
- Automatic control for direct sunlight protection
- Automatic control for weather protection (rain, wind, frost)

#### DIMENSIONS



DIMENSIONS





#### **TECHNICAL DATA**

- BUS power supply voltage: 30 V d.c. SELV.
- Consumption on bus: 12 mA
- 2 independent outputs
- Rated voltage UN: 230 V ~ 50/60 Hz
- Rated current IN: 16 A
- Degree of protection: IP20
- 8 modules of 17,5mm each
- Operating Temperature: -5°C +45 °C (internal use)

#### CONNECTIONS

The connection to the bus and to the roller shutter control devices is carried out directly from the terminals on the front of the actuator.

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	Front view	

## Multifunction Actuator 24 channels BX-SW24



#### DESCRIPTION

BX-SW24 is a 24-channel multifunction actuator (lights/roller shutters) to be mounted on a DIN rail for independent switching of loads via the relay contacts.

The 230 V switching output can be controlled by the front buttons. A green LED indicates the status of the channel. It is equipped with 16A bistable relays with contacts connected directly on the terminals, without phase sharing.

The screw terminals can accommodate cable sections up to 5 mm2.

The relays used withstand a starting current (Inrush Current) up to 320A in the first 2ms, therefore they are particularly suitable in the piloting of inductive loads typical of fluorescent or neon lamps.

#### **KNX FUNCTIONS**

- Switching function
- Stairs light function and delay functions
- Channel status feedback
- Roller shutters and venetian blinds control
- Block function
- General functions
- Scenarios

#### **TECNHICAL DATA**

- Rated voltage: 230 V CA ±10%
- Rated current of contacts: 16A
- Network frequency: 50-60 Hz ±10%
- Degree of protection: IP 20
- Dimensions: 12 DIN modules
- Operating Temperature: -5°C +45 °C (internal use)

## Multifunction Actuator 12 channels BX-MFB12

#### DESCRIPTION

BX-MFB12 is a 12-channel multifunction actuator (lights/roller shutters) to be mounted on a DIN rail for independent switching of loads via the relay contacts.

The 230 V switching output can be controlled by the front buttons. A green LED indicates the status of the channel. It is equipped with 16A bistable relays with contacts connected directly on the terminals, without phase sharing. The screw terminals can accommodate cable sections up to 5 mm2. The relays used withstand a starting current (Inrush Current) up to 320A in the first 2ms, therefore they are particularly suitable in the piloting of inductive loads typical of fluorescent or neon lamps.

#### **KNX FUNCTIONS**

- Switching function
- Stairs light function
- Scenarios
- Logic functions: 16 generic logic operators are available to be assigned to the desired channels
- Channel status feedback
- Roller shutters and venetian blinds control
- Block function
- General functions

#### DIMENSIONS





#### DIMENSIONS





#### **TECNHICAL DATA**

- Rated voltage: 230 V CA ±10%
- Rated current of contacts: 16A
- Network frequency: 50-60 Hz ±10%
- Degree of protection: IP 20
- Dimensions: 8 DIN modules
- Operating Temperature: -5°C +45 °C (internal use)

142 Front view		6 0 4 0 4 0
Front view	142	
	Front view	

## Multifunction Actuator 8 channels BX-MFB08



#### DESCRIPTION

BX-MFB08 is an 8-channel multifunction actuator (lights/roller shutters) to be mounted on a DIN rail for independent switching of loads via the relay contacts.

The 230 V switching output can be controlled by the front buttons. A green LED indicates the status of the channel. It is equipped with 16A bistable relays with contacts connected directly on the terminals, without phase sharing. The screw terminals can accommodate cable sections up to 5 mm2.

The relays used withstand a starting current (Inrush Current) up to 320A in the first 2ms, therefore they are particularly suitable in the piloting of inductive loads typical of fluorescent or neon lamps.

#### **KNX FUNCTIONS**

- Switching function
- Stairs light function
- Scenarios
- Logic functions: 16 generic logic operators are available to be assigned to the desired channels
- Channel status feedback
- Roller shutters and venetian blinds control
- Block function
- General functions

#### **TECNHICAL DATA**

- Rated voltage: 230 V CA ±10%
- Rated current of contacts: 16A
- Network frequency: 50-60 Hz ±10%
- Degree of protection: IP 20
- Dimensions: 8 DIN modules
- Operating Temperature: -5°C +45 °C (internal use)

## Multifunction Actuator 4 channels BX-MFB04

#### DESCRIPTION

BX-MFB04 is a 4-channel multifunction actuator (lights/roller shutters) to be mounted on a DIN rail for independent switching of loads via the relay contacts.

The 230 V switching output can be controlled by the front buttons. A green LED indicates the status of the channel. It is equipped with 16A bistable relays with contacts connected directly on the terminals, without phase sharing. The screw terminals can accommodate cable sections up to 5 mm2. The relays used withstand a starting current (Inrush Current) up to 320A in the first 2ms, therefore they are particularly suitable in the piloting of inductive loads typical of fluorescent or neon lamps.

#### **KNX FUNCTIONS**

- Switching function
- Stairs light function
- Scenarios
- Logic functions: 16 generic logic operators are available to be assigned to the desired channels
- Channel status feedback
- Roller shutters and venetian blinds control
- Block function
- General functions

#### DIMENSIONS





#### DIMENSIONS





#### **TECNHICAL DATA**

- Rated voltage: 230 V CA ±10%
- Rated current of contacts: 16A
- Network frequency: 50-60 Hz ±10%
- Degree of protection: IP 20
- Dimensions: 4 DIN modules
- Operating Temperature: -5°C +45 °C (internal use)



## **THEO 10** Touch panel 10,1" **BX-T10**



#### DESCRIPTION

THEO line is designed to integrate all the necessary function to control the house.

THEO Touch Panels allow to control any KNX system in a simple and intuitive way. The use of a multifinger capacitive glass allows to drag and slide the controls to make it even easier and intuitive to use the device. IPS Display offers an HD quality video definition with a very wide vertical and horizontal viewing angle.

The integrated webserver allows remote control of the KNX system directly from Smartphone or Tablet, thanks to the Blumotix KRIM App available in IOS and Android versions. KRIM is free and downloadable from iTunes or Google Play.



#### **KNX FUNCTIONS**

- Light control
- Window control
- Air conditioning
- Load control
- Control of cameras
- Enabling timers and programmable thermostats
- Scenarios

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#### **TECHNICAL DATA**

- Display: 10,1" IPS 16:9 1280x800pixel
- iMx6 Dual Lite 1GHz CPU
- DDR2 1GB RAM
- Slot micro USB OTG
- Integrated BCU KNX
- Degree of protection: IP20 (EN60529)
- Dimensions: 282 x 168 x 12 mm
- Input power supply: 100-240 Vac 50/60hz
- Output power Supply: 12 Vdc/1.25A
- Power absorption: 15W
- Operating Temperature: -5°C +45 °C (internal use)

## **THEO 7** Touch panel 7" **BX-T7**



#### DESCRIPTION

THEO line is designed to integrate all the necessary functions to control the house. THEO Touch Panels allow to control any KNX system in a simple and intuitive way. The use of a multifinger capacitive glass allows to drag and slide the controls to make it even easier and intuitive to use the device. The IPS Display offers an HD quality video definition with a very wide vertical and horizontal viewing angle.

The integrated webserver allows remote control of the KNX system directly from Smartphone or Tablet, thanks to the Blumotix KRIM App available in IOS and Android versions.

KRIM is free and downloadable from iTunes or Google Play.

## Flush-mounting Box **BX-KW07**



Flush-mounting Box for Theo 10 e 7





#### **KNX FUNCTIONS**

- Light control
- Window control
- Air conditioning
- Load control
- Control of cameras
- Enabling timers and programmable thermostats
- Scenarios

#### **TECHNICAL DATA**

- Display: 7,0" IPS 16:9 1024×600 pixel
- iMx6 Dual Lite 1GHz CPU
- DDR2 1GB RAM
- Slot micro USB OTG
- Integrated BCU KNX
- Degree of protection: IP20 (EN60529)
- Dimensions: 282 x 168 x 12 mm
- Power Supply: DC [12-24]V
- Absorption: 10W
- Operating Temperature: -5°C +45 °C (internal use)

## **KAIROS 24** 4,3" Touch panel with miniserver **BX-K24MS**



#### DESCRIPTION

The resistive Touch Panels of the Kairos line by Blumotix allow to easily and intuitively view and modify the status of each KNX device installed in the system, so as to have complete control of the home.

The appearance of the individual Touch Panels is fully customizable thanks to the possibility to change the graphical characteristics of the user interface by inserting maps, floor plans, images and icons to describe your home in the most intuitive way.

KAIROS 24 is complete with Miniserver KNX that can support remote connection with your smartphone. Thanks to the free KRIM application available for iOS and Android mobile devices, you can control your home remotely. Navigation can be entirely programmed using the free software Sentiero, both for the graphic features and for the organization of the commands.



## **KAIROS 27** 7" Touch panel with miniserver BX-K27MS



#### DESCRIPTION

The resistive Touch Panels of Kairos Line by Blumotix allow to easily and intuitively view and modify the status of each KNX device installed in the system, so as to have complete control of the home. The appearance of the individual Touch Panels is fully customizable thanks to the possibility to change the graphical characteristics of the user interface by inserting maps, floor plans, images and icons to describe your home in the most intuitive way.

KAIROS 27 is complete with Miniserver KNX that can support remote connection with your smartphone. Thanks to the free KRIM application available for iOS and Android mobile devices, you can control your home remotely. Navigation can be entirely programmed using the free software Sentiero, both for the graphic features and for the organization of the commands.

#### **KNX FUNCTIONS**

- Light control
- Window control
- Air conditioning
- Load control
- Enabling timers and programmable thermostats
- Scenarios

#### **TECHNICAL DATA**

- Computer ARM9 454MHz
- DDR2 RAM 128MB
- 4.3inch TFT color display
- Screen resolution 480 x 272 pixels
- LED backlight
- Micro SD slot
- BCU KNX
- Power supply: DC [12-24]V
- Power absorption: 2W
- Rectangular flush-mounting box (504)
- Operating Temperature: -5°C +45 °C (internal use)

#### **KNX FUNCTIONS**

- Light control
- Window control
- Air conditioning
- Load control
- Enabling timers and programmable thermostats
- Scenarios





#### **TECHNICAL DATA**

- Computer ARM9 454MHz
- DDR2 RAM 128MB
- 7inch TFT color display
- Resolution 800 x 480 pixels
- LED backlight
- Micro SD slot
- Integrated BCU KNX
- Network card: 100mb (RJ45)
- Power supply: DC [12-24]V
- Absorption: 2 W
- Rectangular flush-mounting box (504)
- Operating Temperature: -5°C +45 °C (internal use)

## Miniserver BX-MS02



#### DESCRIPTION

BX-MS02 is the modern solid-state memory server that allows to view and control functions in a KNX system via remote devices connected to the TCP/IP network.

Installation device on DIN bar 35mm. The interaction takes place through KRIM and Doory Apps that can be downloaded and installed on the terminal. Dedicated versions are available for iOS, Android and Windows 7. Blumotix KNX Miniserver BX-MSO2 is equipped with Sentiero programming software that can be installed to create graphical displays for control screens.

#### **TECHNICAL DATA**

#### **APP DI CONTROLLO REMOTO**

- SDRAM 128MB
- SD slot
- BCU KNX
- Ethernet port 100mb (RJ45)
- V DC input [12-24]V
- Consumption 8W
- Case DIN 35mm
- Degree of protection: IP20
- Dimensions: 4 DIN modules
- Operating Temperature: -5°C +45 °C (internal use)

#### DIMENSIONS











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