CATALOGUE 2025

IKONEX

YESTERDAY, TODAY AND TOMORROW.

Coster Group's approach has always been rooted in the synergic integration of cutting-edge technologies and smart building management, so as to provide efficient, healthy and user-friendly environments, principles that have guided the company's innovation for over fifty years.

Today, Coster Group is embarking on a new chapter in its history, projecting itself with renewed impetus towards becoming the European leader in the sustainable building automation market. This ambition has taken shape with the creation of IKONEX, a new strategic brand, the result of Coster Group's desire to strengthen its presence and offer in the European context, with a specific focus on products based on the KNX standard protocol.

The decision to create a dedicated brand such as IKONEX reflects a precise strategy to segment its offer and communicate the specific value of KNX solutions for the European market more effectively. As an open standard for building automation, KNX is a key element for system interoperability and flexibility, values that are increasingly in demand in Europe's energy-efficient and sustainable building scenario.

WHY IKONEX.

Coster Group will be launching a new generation of cutting-edge products under the IKONEX brand, designed to integrate seamlessly with the company's existing ecosystem of solutions. These new KNX devices will be natively compatible with **WebGarage**, Coster Group's proprietary BEMS, extending its functions and offering customers an even more complete and integrated management platform. Similarly, IKONEX products will integrate seamlessly with field-level systems for the control of air-conditioning systems using Coster technology, enriching the existing offer and providing an even wider range of options for the realisation of efficient and customised building automation systems.

With the creation of IKONEX, Coster Group is building on its solid history, resolutely projecting itself into a future of growth and leadership in the European sustainable building automation market. IKONEX is the natural evolution of a company that has always innovated, anticipating market trends and focusing on its customers' needs, actively contributing to building a more efficient and planet-friendly future.

The creation of IKONEX is a key strategic step for the Coster Group in the pursuit of its vision: to be the driving force behind the transformation towards smart and sustainable European buildings. By means of IKONEX the company aims to:

- **Consolidate its presence in the European market:** offering a brand specifically dedicated to a widely used standard technology.

- **Expand its range of products and solutions:** introducing new KNX devices that meet specific market needs.

- **Improve the integration of its technologies:** guaranteeing a perfect interoperability between IKONEX products, WebGarage and the EHC 602 edge device.

- **Communicate its commitment to energy efficiency and sustainability in a more targeted manner:** positioning IKONEX as a benchmark brand for innovative and environmentally friendly solutions.

IKONEX, WHERE AND FOR WHOM.

IKONEX has been created to respond to the growing needs for energy efficiency, environmental comfort and smart management in all types of buildings, providing a unified and scalable solution that simplifies system design, installation and management. Full integration with WebGarage provides centralised control and a complete view of energy performance and environmental comfort, enabling targeted optimisation and significant reductions in operating costs

The Advantage of a Single IKONEX Solution for Every Building Type:

Hotels and Hospitality:
In the hotel and hospitality industry, IKONEX offers an integrated solution that elevates the guest experience and optimises operating efficiency. Through WebGarage, it is possible to centrally manage the environmental comfort of individual rooms (temperature, lighting, dimming), ensuring a personalised and pleasant stay.

Integration with Coster Group controllers and solutions also enables efficient monitoring and management of air conditioning and mechanical systems, reducing energy costs and simplifying maintenance. The flexibility of the KNX system allows functions to be adapted to the varying needs of accommodation facilities, from small boutique hotels to large tourist complexes, offering precise and scalable control.

Commercial and Service Buildings:
IKONEX is the ideal solution for the smart management of commercial buildings, offices, schools, hospitals and other service sector facilities. Integration with WebGarage provides centralised and detailed control of all environmental variables (temperature, humidity, air quality, natural and artificial lighting, shade management) helping to create comfortable and productive working or service environments.

The possibility of integrating the management of heating and cooling systems, ventilation systems and other mechanical systems through Coster Group controllers allows energy consumption to be optimised and the building's environmental impact to be reduced.

The flexibility of the KNX protocol and the power of WebGarage allow customised solutions to be implemented for access management, security and other specific systems of various types of commercial and service buildings.

In short, IKONEX, integrated with the power of WebGarage and Coster Group solutions, is the complete and versatile answer for the smart management of all types of buildings. Our combined solution simplifies complexity, optimises energy performance, improves environmental comfort and actively contributes to a more sustainable future.

Choosing IKONEX means using Coster Group's experience and innovation to transform today's buildings into tomorrow's icons of efficiency and comfort.

THE ADVANTAGES OF THE IKONEX SOLUTION.
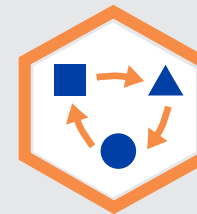
Open and Independent Standard:
KNX is an international standard (ISO/IEC 14543) independent of specific manufacturers. This ensures a wide choice of interoperable devices from different companies, avoiding 'lock-in' with a single supplier.

Interoperability and Integration:
KNX devices from different manufacturers can communicate and work together seamlessly, enabling the creation of integrated and customised systems to control lighting, heating, ventilation, security, multimedia and more.

Flexibility and Scalability:
KNX systems are highly flexible and scalable. Components and functions can be easily added or changed according to the specific needs of the building, both during the design phase and afterwards.

Reliability and Robustness:
KNX is a mature and reliable protocol, widely used worldwide. Its distributed architecture ensures that the system continues to function even if a single device fails.

Energy Efficiency:
KNX allows the precise and smart management of energy consumption, optimising lighting according to presence and daylight, adjusting heating and cooling according to actual need, and controlling solar shading to reduce heat load.

Comfort and Well-being:
KNX allows comfortable and personalised environments to be created, adapting lighting, temperature and air to user preferences, improving the quality of life and productivity.

Reduction of Operating Costs:
By optimising energy consumption and centralising management, KNX helps to significantly reduce building operating costs in the long term.

Increase in Property Value:
The integration of a KNX-based automation system increases the value and attractiveness of buildings, making them more modern, efficient and desirable.

Wide Range of Products and Applications:
The large number of manufacturers using the KNX standard guarantees a wide range of devices and solutions to meet any application requirement in building automation.

Flexible Installation and Configuration:
KNX supports various communication media (twisted pair, radio frequency, IP) offering flexibility in installation and system configuration.
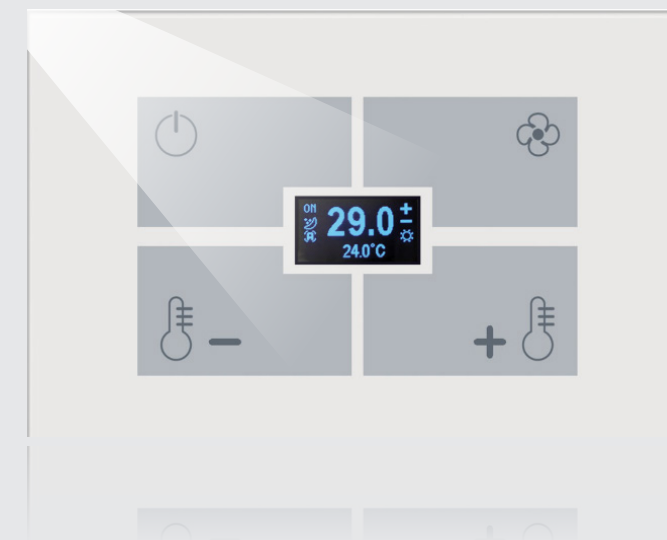
OUR PRODUCTS.

ROOM THERMOSTAT
TIC 001/B - TIC 001/W

Room interface with temperature and relative humidity detection with 4 capacitive keys, equipped with a central OLED display with blue characters and two RGB LEDs. The device includes a thermostat with integrated PI controller for controlling heating and cooling devices, valves and 2- and 4-pipe fan coils.

TIC 001/B = Black
TIC 001/W = White

Through the KNX functions, it is possible to exploit logics allowing control via the temperature of the heating and cooling devices in the room for both 2- and 4-pipe systems, while through humidity measurement and calculation of the dew point, the creation of condensation inside the controlled environment is prevented

Technical features:

- Size: 120x80 mm, with a thickness of just 8 mm.
- Plastic housing, IP20 installed protection and OLED display with blue backlight.
- Connection to bus line via KNX terminal and programming button and LED at rear
- Flush wall mounting on round, rectangular or square box; power supply via KNX bus (29 V DC SELV) and current consumption from bus < 10 mA

MULTIFUNCTIONAL ACTUATOR.
ESK 004

Description:
This 4-channel multifunctional actuator, designed for DIN-rail installation, enables independent switching of loads via relays. The outputs can be activated either by bus or manually using the front buttons, with a green LED indicating the status of each channel. Fitted with bistable relays with 16 A contacts, directly accessible via screw terminals (up to 2.5 mm²), the actuator guarantees reliable current management, supporting up to 320 A for 2 ms.

Its versatility is expressed through various functions that can be configured via the ETS software: switching, status notification, blocking, override, timer, delays, scenarios, shutter and blind management, and valve control. It also has 4 freely configurable I/O lines for reading dry contacts and driving LEDs, with the possibility of connecting up to 4 NTC temperature sensors.

Thanks to these features, the ESK 004 is particularly suitable for systems with distributed architecture.

Features
- Relay contact rated voltage: 230 V AC, 50/60 Hz
- Relay contact rated current: 16 A
- Power supply: via KNX bus, 29 V DC SELV
- Bus current consumption: max. 17 mA
- LED output: 3.3 V, 1 mA
- Dry contact input: 3.3V
- Operating temperature: -5 to +45 °C (indoor use)
- Connection to KNX bus: 2-pole pull-out terminal d=0.8 mm
- Electrical connections: screw terminal, max. cable cross-section 2.5 mm2 (AWG10)
- Protection rating: IP20
- Dimensions: 8 DIN modules

KNX functions
- 4 relay outputs for controlling lights/general loads with timer,override, blocking, delay functions
- 4 channels for PWM valve control with anti-lock function
- 4/2 channels for controlling roller shutters / blinds / awnings
- Actuators for 2- or 4-pipe fan coils, 1 to 3 speeds. The number depends on the configuration
- 4 freely configurable inputs (dry contact) or outputs (LED); 4 lines can be configured as inputs for NTC temperature sensors
- Logical and general functions

MULTIFUNCTIONAL ACTUATOR.
ESK 008

Description:
The ESK 008 is an 8-channel actuator for DIN-rail installation, specifically designed for the independent switching of loads via relay contacts. The outputs can be controlled either by bus or locally using the buttons on the front panel, with indication of the status of each channel provided by a green LED. The actuator uses bistable relays with 16 A contacts, directly connected to screw terminals (max. cable cross-section 2.5 mm²), capable of withstanding inrush currents of up to 320 A for a maximum duration of 2 ms. Functions that can be implemented via ETS software include switching, status notification, blocking control, override, timer, delays, scenario management, and control of roller shutters, blinds and valves. The device also incorporates 8 freely configurable input/output lines for interfacing dry contacts and driving LEDs, with the possibility of connecting up to 4 NTC temperature sensors. The ease of configuration and versatility make it particularly suitable for use in distributed design systems..

Features
- Relay contact rated voltage: 230 V AC, 50/60 Hz
- Relay contact rated current: 16 A
- Power supply: via KNX bus, 29 V DC SELV
- Bus current consumption: max. 17 mA
- LED output: 3.3 V, 1 mA
- Dry contact input: 3.3V
- Operating temperature: -5 to +45 °C (indoor use)
- Connection to KNX bus: 2-pole pull-out terminal d=0.8 mm
- Electrical connections: screw terminal, max. cable cross-section 2.5 mm2 (AWG10)
- Protection rating: IP20
- Dimensions: 8 DIN modules

KNX functions
- 8 relay outputs for controlling lights/general loads with timer,override, blocking, delay functions
- 8 channels for PWM valve control with anti-lock function
- 4 channels for controlling roller shutters / blinds / awnings
- Actuators for 2- or 4-pipe fan coils, 1 to 3 speeds. The number depends on the configuration
- 8 freely configurable inputs (dry contact) or outputs (LED); 4 lines can be configured as inputs for NTC temperature sensors
- Logical and general functions

MULTIFUNCTIONAL ACTUATOR.
ESK 016

Description:

The ESK 016 is an 16-channel actuator for DIN-rail installation, specifically designed for the independent switching of loads via relay contacts. The outputs can be controlled either by bus or locally using the buttons on the front panel, with indication of the status of each channel provided by a green LED. The actuator uses bistable relays with 16 A contacts, directly connected to screw terminals (max. cable cross-section 2.5 mm²), capable of withstanding inrush currents of up to 320 A for a maximum duration of 2 ms. Functions that can be implemented via ETS software include switching, status notification, blocking control, override, timer, delays, scenario management, and control of roller shutters, blinds and valves. The device also incorporates 16 freely configurable input/output lines for interfacing dry contacts and driving LEDs, with the possibility of connecting up to 4 NTC temperature sensors. The ease of configuration and versatility make it particularly suitable for use in distributed design systems.

Features

- Relay contact rated voltage: 230 V AC, 50/60 Hz
- Relay contact rated current: 16 A
- Power supply: via KNX bus, 29 V DC SELV
- Bus current consumption: max. 17 mA
- LED output: 3.3 V, 1 mA
- Dry contact input: 3.3V
- Operating temperature: -5 to +45 °C (indoor use)
- Connection to KNX bus: 2-pole pull-out terminal d=0.8 mm
- Electrical connections: screw terminal, max. cable cross-section 2.5 mm2 (AWG10)
- Protection rating: IP20
- Dimensions: 8 DIN modules

KNX functions

- 16 relay outputs for controlling lights/general loads with timer,override, blocking, delay functions
- 16 channels for PWM valve control with anti-lock function
- 8 channels for controlling roller shutters / blinds / awnings
- Actuators for 2- or 4-pipe fan coils, 1 to 3 speeds. The number depends on the configuration
- 16 freely configurable inputs (dry contact) or outputs (LED); 4 lines can be configured as inputs for NTC temperature sensors
- Logical and general functions

MULTIFUNCTIONAL ACTUATOR.
ESK 024
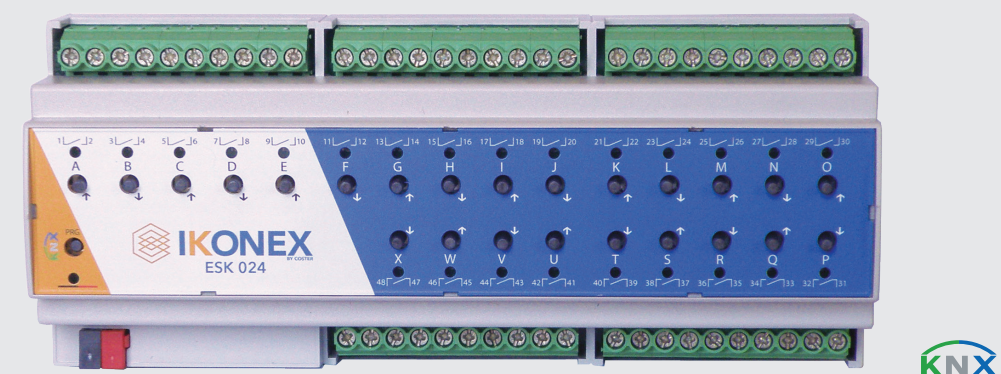
Descriptions:

The ESK 024 is an 8-channel actuator for DIN-rail installation, offering 24 channels for the independent switching of loads via normally open contacts. The front buttons allow direct control of the switching output, with a green LED indicating the status of each channel. Includes 16 A bistable relays with direct terminal contacts (up to 5 mm²), without phase sharing. These relays support inrush currents of up to 320 A (for 2 ms), making them ideal for inductive loads such as fluorescent or neon lamps.

The device includes advanced features such as status notification, blocking command, override, timer, delays and scenarios. It also handles the opening/closing of roller shutters, the regulation of blinds, the control of valves with PWM algorithm and the control of Fancoil devices (2 or 4 pipe). Each channel has 16 configurable inputs with logical functions (OR, AND, XOR, GATE). Outputs can be individually parametrised via ETS.

Due to its versatility, the ESK 024 is particularly suitable for distributed systems, allowing all the actuations of an entire home or service building to be implemented with a single module. The countless possible combinations of functions allow each individual output to be optimised.

Features

- Rated voltage: 230 V AC, 50/60 Hz
- Power supply: via KNX bus, 29 V DC SELV
- Current consumption from bus: 12 mA
- Contact rated current: 16 A
- Operating temperature: -5 to +45 °C (indoor use)
- Connection to KNX bus: 2-pole plug-in terminal d=0.8 mm
- Electrical connections: screw terminal, max. cable cross-section 2.5 mm2 (AWG10)
- Protection rating: IP20
- Dimensions: 8 DIN modules

KNX functions

- 24 outputs for light/general load control with timer/override/blocking/delay functions
- 24 channels for PWM valve control with valve anti-lock function
- 12 channels for controlling roller shutters / blinds / awnings
- Six 2-pipe fan coil actuators /Four 4-pipe fan coil actuators
- 16 inputs for each channel freely configurable (OR, AND, XOR and GATE between channels).
- General functions

POWER SUPPLY UNIT
ALM 640

Description:

The KNX ALM 640 bus power supply delivers a current of 640 mA with high efficiency and compact design. It is protected against overloads, short circuits and output overvoltages. Diagnostic LEDs provide clear indications of normal operating status, overload or overvoltage conditions and RESET status.

Features

- Input voltage: 200 ÷ 240 V AC, 50/60 Hz
- Input current: 0.5 A at 230 V AC
- Protection: resettable 2A delayed fuse
- Operating temperature: -5 to +45 °C (indoor use)
- Connection to KNX bus: 2-pole plug-in terminal d=0.8 mm
- Electrical connections: screw terminal, max. cable cross-section 2.5 mm2
- Protection rating: IP20
- Dimensions: 8 DIN modules

MULTIFUNCTIONAL ACTUATOR.
EUK 004

Description:

EUK 004 is a DIN-rail mounted 4-channel multifunctional actuator with analogue voltage outputs. Its independently configurable and usable outputs provide voltage controls for HVAC systems (heating, cooling, ventilation) and lighting applications. In addition to the KNX bus, the device requires an auxiliary DC power supply to generate the output voltage for the 4 channels, which are controlled according to the configuration and commands received via the KNX bus. The front panel includes 4 buttons and 4 LEDs for testing and diagnostics, together with the KNX physical address programming button and the programming mode status LED. Screw terminals fit cables up to 5 mm². Using the KNX bus, the actuator receives output actuation commands via various communication objects and supports advanced functions such as status notification, blocking command, override, timer, delays and scenarios. The analogue output curve can be customised using special parameters.

Features

- 12/24V DC auxiliary power supply
- Selectable output ranges: 0-1, 0-5, 0-10, 1-10 V DC
- Output current: max. 20 mA per channel
- Operating temperature: -5 to +45 °C (indoor use)
- Operating humidity: max. 93% (non-condensing)
- Protection rating: IP20
- Dimensions: 8 DIN modules

KNX functions

- 4 configurable channels with different voltage ranges
- Timer, flashing, dimming, scenario, blocking, override function
- Analogue function with customisable adjustment curve from 2 to 15 points
- General commands
- Settable ramp times

PUSH-BUTTON INTERFACE
PBK 400
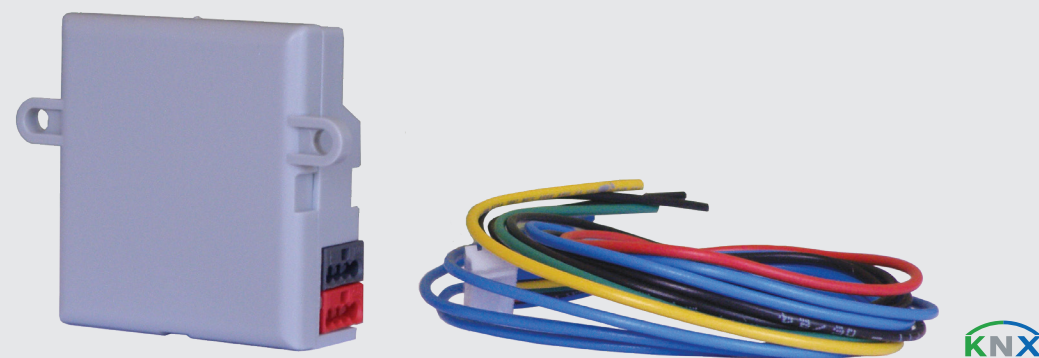
Description:
PBK 004 is a 4-channel push-button and output management interface. Equipped with a 15 cm cable with 4 twisted pairs for direct connection to the push-buttons, these interfaces offer output management totally independent of the inputs, allowing extremely flexible configuration.

Features
- Power supply: via KNX bus, 29 V DC SELV
- Power consumption: <0,25 W
- Connection to KNX bus: 2-pole plug-in terminal d=0.8 mm
- Operating temperature: -5 to +45 °C (indoor use)
- Maximum cable length: 10 m
- Protection rating: IP20
- Dimensions: 8 DIN modules
- Outputs:
  - On-off status
  - Alarm status 1
  - Alarm status 2
  - LED control with two 1-bit communication objects
  - Fixed ignition and variable frequency flashing

KNX functions
- Switching on utilities
- Opening and closing roller shutters / blinds
- Scenarios
- Adjusting a light source
- Cyclical sending of values
- Sending override and blocking values
- Multi-action commands
- Dimmer setting
- Long-pressure control

FLUSH-MOUNTED KNX SENSOR
RAK 001
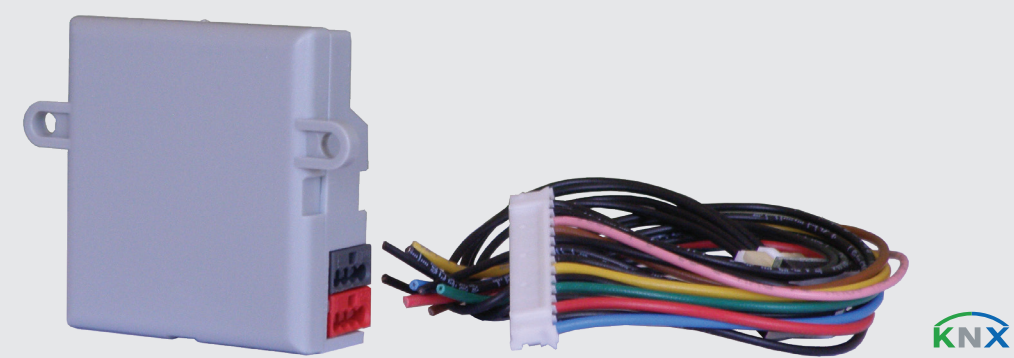
Description:
RAK 001 is a flush-mounted KNX sensor that detects temperature, humidity and CO2, including an interface capable of handling up to 6 channels configurable as inputs or outputs. It has a thermostat section without local controls, which can be managed via remote supervision. The parameters allow alarm logics based on humidity and dew temperature thresholds. In addition to CO2 , the device provides data on volatile organic compounds (VOCs) and indoor air quality index (IAQ).

Features
- Contact closing opening switch
- Short/long pressure switch
- Dimmer setting
- Scenarios
- Sequential sending
- Override sending
- Cyclical sending status
- Cyclical command request
- Temperature, humidity and CO2readout
- Logical functions

SWITCHING ACTUATOR
RAK 002
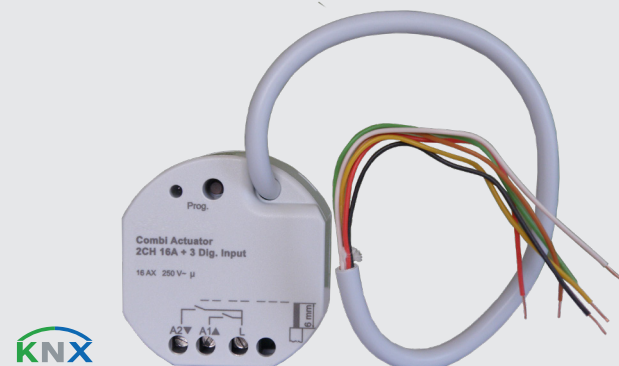
Description:
RAK 002 is a 2-channel switching actuator that can also be configured as a 1-channel Venetian blind actuator. It is equipped with two binary inputs for switch box mounting, to which dry contacts can be connected. These inputs can be locked independently or perform different functions. An additional binary input allows the connection of, for example, a remote temperature sensor (NTC).

Features
- Output via KNX telegrams or controllable external control inputs
- Three external control inputs on dry contact connection or condensate/leakage sensors
- NTC temperature sensor connectable to input 3
- Sensor type R25°C 33 KΩ - B25/100 4300K
- Power supply via KNX, no additional supply voltage required

Features Internal control inputs
- Switching control function
- Brightness adjustment (incl. colour temperature adjustment) control function
- Venetian blind control function
- Transducer (1 byte, 2 bytes, 3 bytes and 6 bytes, including default values for RGBW and colour temperature) control function
- Scenario activation control function
- 2-channel control function
- External control of a controller function
- Blocking functions
- Adjustable suppression time

Switch functions
- NC contact and NO contact function
- Feed-back function
- Connection and override function
- Central switching functions with collective feed-back
- Timer functions: activation/deactivation delay, staircase light switch with pre-warning function
- Scenario function
- Hour counter

Venetian mode properties
- Suitable for AC motors 110 to 230 V
- Operating modes 'Venetian blind with slats', 'Roller shutter/awning', 'Ventilation door/skylight'
- Direct drive awning position
- Direct adjustment of slat position possible
- Feed back motion status, awning position and slat position
- Forced position for higher level control
- Safety function: 3 independent wind alarms, rain alarm, frost alarm
- Sun protection function with automatic heating/cooling
- Blocking function (blocking protection)
- Scenario function

GATEWAY
GDK 001

Description:
The GDK 001 gateway is a completely redesigned device that connects a KNX line with a DALI line. Operating as 'master' on the DALI line, the GDK 001 provides a standard output of 16-18 V DC (terminals D+ and D-) with current limitation to 250 mA. It allows the control and regulation of up to 64 DALI devices, which can be managed individually or grouped in up to 16 groups. In addition, it supports the management of 16 scenarios. Error messages relating to individual reactors and lamps can be transmitted via KNX using dedicated communication objects. Individual DALI devices can be controlled even if they belong to different groups, and a single DALI device can be part of several groups. The device can be configured via ETS and with a special application that can be downloaded from the KNX websites.

Features
- Supply voltage: 100 ÷ 240 V AC, 50/60 Hz
- Outputs: DALI D+, D-, 16 to 18 V DC, 250 mA max, short-circuit-proof
- Interfaces: KNX, DALI
- Single master control device type, Category I
- Compatible with DT6 LED lamp drivers
- Operating temperature: -5 to +45 °C (indoor use)
- Connection to KNX bus: 2-pole plug-in terminal d=0.8 mm
- Electrical connections: power supply and DALI screw terminal, 1.5 to 2.5 mm2
- Protection rating: IP 20
- Dimensions: 4 DIN modules

INTERFACE DEVICE
IPK 001

Description:

IPK 001 is an interface device between a KNX line and an IP network. It is the ideal KNX Secure interface for programming the system via ETS, using an active network connection on the PC (EIBnet/IP Tunneling standard), and supports the new KNX Secure technology. The IP address of the interface can be set manually with ETS or acquired automatically if a DHCP service is active on the network.
IPK 001 is equipped with an RJ45 connector for IP connection, a standard KNX connector for connection to the bus line and a third connector for the auxiliary power supply (12 to 24 V DC).

Features

• Ethernet card: 10 Mb
• Supported protocols: ARP - ICMP - IGMP - UDP/IP
  - DHCP- EIBnet/IP in accordance with KNX: Core,
    Tunneling, Device Management.
• Operating temperature: -5 to +45 °C (indoor use

PRESENCE SENSORS
PDK 001 / PDK 002

Description:

The PDK 001/2 is a multifunctional KNX presence sensor, ideal for medium height indoor installations. Each sensor has an independent presence channel, which can be used as a constant light switch and constant light controller. There is also an independent on-board actuation channel and two digital inputs. The presence channels are autonomous and can be configured in automatic or semi-automatic mode as required. The device also supports a sensor mode without presence channels, for simpler applications. It includes a temperature sensor for measurement and thermostat functions, all available via bus. Five independent logic blocks are also included to create logical associations (AND, OR, XOR), with logic input conditions based on presence, brightness, motion and external conditions. The sensor can also be configured in master or slave mode.

Features

• Passive Infrared Sensor Technology
• Power supply: via KNX bus, 29 V DC SELV
• Installation height 2.5 m - 4 m
• Bus current consumption: 5 mA
• Brightness detection 1-1200 lux
• Inputs: 2 digital inputs
• Output: 1 analogue input
• Maximum air humidity % 90 RH
• Connection to KNX bus: 2-pole pull-out terminal
  d=0.8 mm
• Type of protection:
   - Flush mounting: IP 20
   - Surface mounting: IP 44
• Operating temperature: -5 to +45 °C (indoor use)
• Storage (-10°C...60°C)
• Dimensions 70 × 41.8 mm (∅ x H)

WEB GARAGE LICENSES

webgarage

Description:

Licence for BMS based on a number of points.

The purchase is a "one-off" and does not require periodic subscriptions. Provides maximum flexibility in the management of integrated points in terms of protocol and configuration of their properties (historicisation, visualisation, alarms, etc.)

CWS 100	License 100 controlled points (of which up to 20 points historicized)
CWS 200	License 200 controlled points (of which up to 40 points historicized)
CWS 500	License 500 controlled points (of which up to 100 points historicized)
CWS 01K	License 1000 controlled points (of which up to 200 points historicized
CWS 02K	License 2000 controlled points (of which up to 400 points historicized)
CWS 05K	Licence 5000 controlled points (of which up to 1000 points historicized)
CWS 10K	Licence 10000 controlled points (of which up to 2000 points historicized)
CWS 50K	Licence 50000 controlled points (of which up to 10000 points historicized)
CWS 1HK	Licence 100000 controlled points (of which up to 20000 points historicized)
CWC 100	Add-On License for Server Version. Increase by 100 points the number of historicized points of the basic license (Server Version only)
CWC 01K	Add-On License for Server Version. Increase by 1000 points the number of historicized points of the basic license (Server Version only)

Description:

Annual licence renewal for access to updates, weather application or connection via Edge2Cloud to the Coster Connect service

CWS 100_MAINT	Maintenance Licence 100 controlled points
CWS 200_MAINT	Maintenance Licence 200 controlled points
CWS 500_MAINT	Maintenance Licence 500 controlled points
CWS 01K_MAINT	Maintenance Licence 1000 controlled points
CWS 02K_MAINT	Maintenance Licence 2000 controlled points
CWS 05K_MAINT	Maintenance Licence 5000 controlled points
CWS 10K_MAINT	Maintenance Licence 10000 controlled points
CWS 50K_MAINT	Maintenance Licence 50000 controlled points
CWS 1HK_MAINT	Maintenance Licence 100000 controlled points

CONFIGURABLE CONTROLLER
EHC 602

Description:

EDGE DEVICE, SUPPORTS BACNET AND MODBUS PROTOCOLS

Communication management device for control and monitoring systems

It manages three types of system:
- Adjustment with YLC 880 / ZBC 862 + corresponding expanders
- Energy monitoring
- Hybrid or Mixed (control and monitoring)

It is equipped with a web interface that can be reached via an Ethernet port or Wi-Fi.
The EHC 602 allows the acquisition of Modbus, BACnet and M-bus devices, with the possibility of exploiting a flexible and cost-effective architecture with wireless devices such as CSW 868, BRG 868C and BRG 868.
Possibility of installing a webgarage licence on the device up to a maximum of 2000 points. It can work as stand-alone unit or in a network.
12V DC and 24V AC power supply.
6 module DIN enclosure.

EXPANSION MODULE
AIU 482

Description:
Expansion module with 8 universal inputs (digital, analogue and resistive sensors) able to communicate with YLC and ZBC controllers.
The expansion module is provided with RS485 port that makes communication possible with the main controller through Modbus/RTU protocol.
12V DC and 24V AC power supply.
4 module DIN enclosure.

EXPANSION MODULE
ASU 402

Description:
Expansion module with 4 analogue 0-10V DC outputs which can communicate with the YLC 880 controller and with ZBC 862.
The expansion module is provided with RS485 port that makes communication possible with the main controller through Modbus/RTU protocol.
12V DC and 24V AC power supply.
4 module DIN enclosure.

EXPANSION MODULE
ADO 442

Description:
Expansion module I/O able to communicate with the YLC 880 and ZBC 862 control units.
The expansion module is provided with RS485 port that makes communication possible with the main controller through Modbus/RTU protocol.
12V DC and 24V AC power supply.
4 module DIN enclosure.

INPUT/OUTPUT

sensors[1]	DI/AI	DO
2	4	4

Expander accessory
- ALM 1225 ultra-slim 25 W power supply on DIN rail. Suitable for installation on DIN mounting TS 35-/7 5. or 15.

  1 module DIN enclosure

CONFIGURABLE CONTROLLER
AIK 880

Description:

Multi configurable controller for heating, cooling, domestic hot water systems.

The controller allows optimisation of consumption by automatically adapting to climatic variations, implementing management algorithms aimed at maximum attainable performance. The expansion modules allow the number of inputs and outputs referred to the single controller to be increased. The controller also records the behaviour of the system, storing operating parameters and settings, allowing for the analysis and detection of any faults.

Programming is carried out using COSTER CAD software and can be imported into the control unit via SD card.

12V DC power supply.

8 module DIN enclosure.

INPUT/OUTPUT

sensor 1-wire[1]	UI (digital/ analogic)	DO	AO (0-10 V)
16	8	8	2

SENSORS

SAE 002	**Outside temperature sensor** Detects outside temperature for YLC control units only
SIH 002	**Immersion tempeture sensor** The 1W version can acquire and transmit temperature values. For YLC control units only..
SAF 002	**Cable-Type Temperature sensor** The 1W version can acquire and transmit temperature values. Only for YLC control unit
SCH 002	**Suface temperature sensor for pipe** Suitable for measuring the temperature of a fluid flowing in a pipe. The 1W version can acquire and transmit temperature values. For YLC control units only
SAB 002	**Wall mounted room sensor** These are NTC 10 KΩ type sensors for measuring room temperature (measuring range 0...40 °C). Some sensors are equipped with a local set point adjuster to change the desired room temperature.
SAB 002/SF	**Flush Mounted room sensor** Suitable for measuring the temperature of a fluid flowing in a pipe. The 1W version can acquire and transmit temperature values. For YLC control units only.

ROGOWSKY COILS
BRK 001

Description:
These openable Rogowski coils are the perfect accessory for the MFD 418 multimeters, offering flexibility and precision.

Features
- Rated current: 1600 A
- Minimum current (Imin): 32.5 A
- Maximum current (Imax): 1950 A
- Ring diameter: 100 mm
- Cable length: 2 m

These coils allow quick installation and accurate measurements, even in awkward spaces.

Accessory
- BRK 003 Extension for Rogowsky 3-metre coils

ELECTRICAL NETWORK ANALYSER
MFD 418

Description:
The MFD 418 multimeter is a state-of-the-art solution, ideal for energy monitoring.
It is predisposed for easy connection with openable Rogowski coils (sold separately), allowing current measurements up to 1600A.

Features:

- Maximum Current (Imax): 6300 A
- Rated Voltage (Vn): 230V AC
- Auxiliary power supply: 196…295V
- Format: 4 DIN35 modules
- Inputs: 1 current input
- Communication: RS485 Modbus

This control unit offers simple and reliable integration with IKONEX systems, ensuring accurate measurements and efficient communication.

KNX ARCHITECTURE.

To ensure the efficiency and stability of your KNX system, it is essential to consider and comply with the following operating limits:
the line is the crucial segment of the bus communication. Each KNX line is limited to a maximum of 64 devices. It also requires at least one dedicated power supply, the size of which varies depending on the devices connected. Lines per Area: A KNX Area can comprise a maximum of 15 lines, interconnected via line couplers (AL). In addition, a complete KNX system is limited to a maximum of 15 Areas, interconnected by Area Couplers (AA).
The maximum distance between a power supply and any bus device on the same line must not exceed 350 metres. A maximum of two power supplies per line is permitted, with a minimum distance of 200 metres between them.

max. 350 m.   max. 350 m.

ESK 016   ALM 640   GDK 001
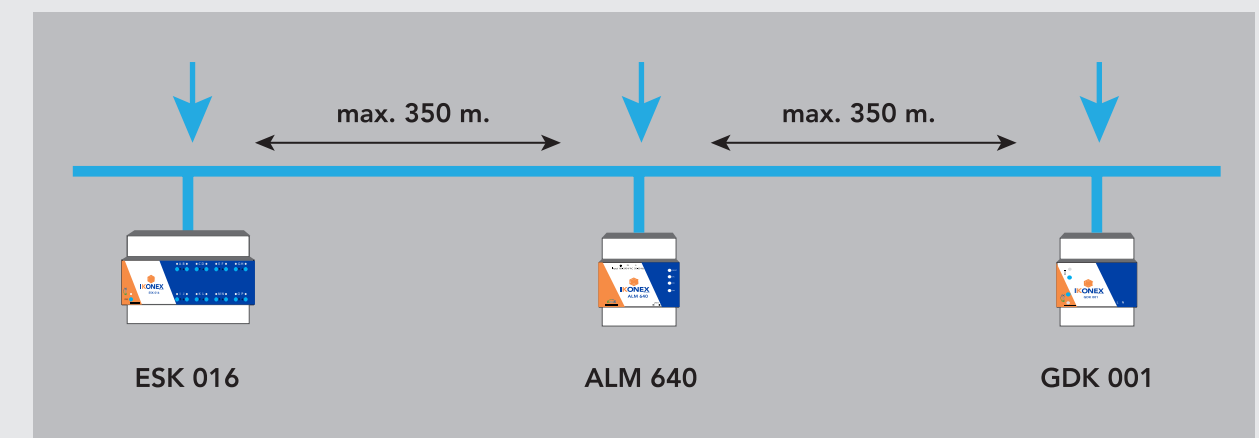
The maximum distance between two consecutive bus devices within a line is 700 metres, while the sum of all the cables in a single line must not exceed 1,000 metres. The certified bus cable (twisted pair) carries both the power supply and the data signal. Although the connection type (series, star, shaft, mixed) is extremely flexible, adherence to these installation limits is crucial for maximum system reliability in every application.
This section describes an optimised KNX architecture for the integrated control of thermo-hygrometric conditions and the management of blinds/shutters inside premises, typically rooms or offices.

SYSTEM ARCHITECTURE

Line devices

In each line, the following KNX-certified devices are installed and can be used:

- **Room variables detection:** integrates temperature, humidity, CO2 and VOC sensors

- **Actuators for HVAC functions and for the management of lights or blinds and shutters**: these can manage fan-coil speed, valve opening/closing, light switching and the control of solar shading.

- **Push-buttons and Switches or presence sensors**: physical push-buttons that send KNX commands for moving screens, managing light switching or scenarios.

The IP interface (IPK 001) is powered by the KNX bus and has KNXnet/IP as its communication standard (with tunnelling and routing rules), it allows communication between various KNX lines by acting as an IP area coupler with an IP backbone. This interface enables easier programming, diagnostics and monitoring of the KNX system or even remotely via ETS software on a PC or server.
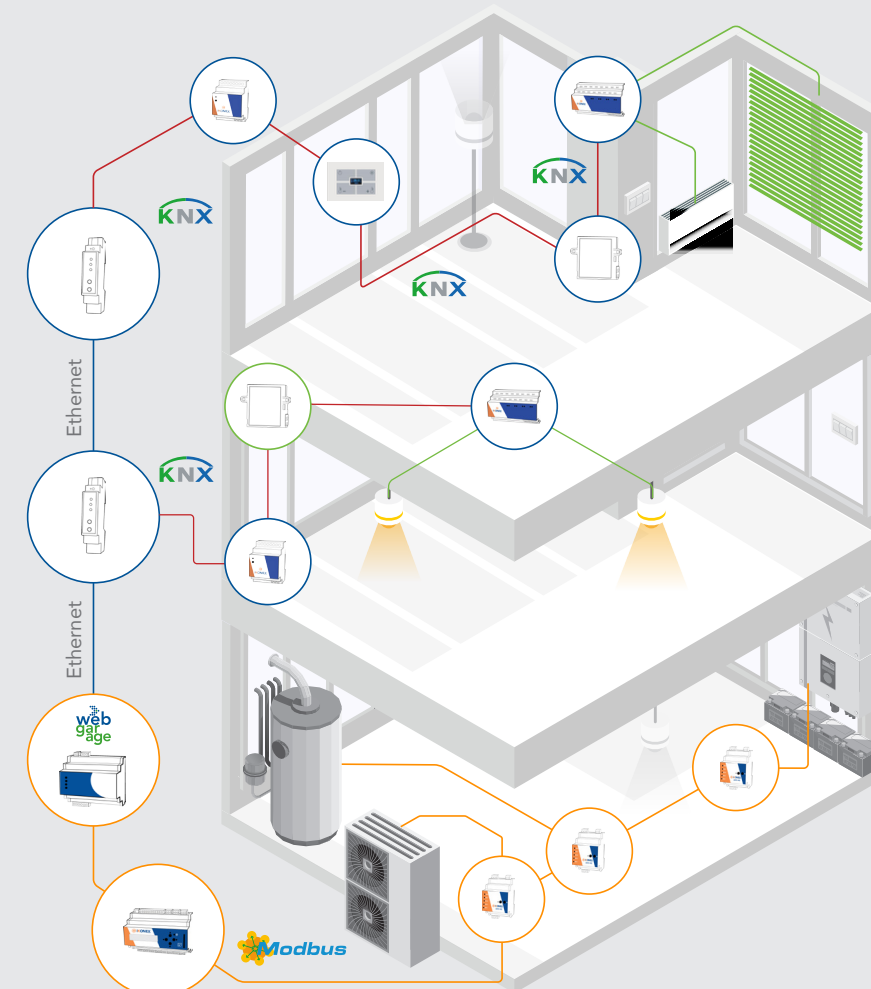
By adopting an IP communication structure, all existing KNX lines can be easily connected to a centralised IP backbone. This allows KNX devices to be integrated directly into the BEMS (Building Energy Management System) WebGarage, which, being embeddable in a panel device, offers an extremely flexible and scalable solution.

In addition, in the WebGarage platform, it is possible to directly and fully integrate devices dedicated to the control and management of the thermo-hydraulic system, especially those related to the air conditioning unit. This integration capability is not just a link, but a critical function that enables a constant two-way flow of data between the sensors and actuators 'in the field' and the centralised control system. The primary objective of this real-time information exchange is to optimise the energy performance of the entire system, leading to significant and quantifiable energy savings through more precise, responsive and intelligent consumption management.

Note: The specific choice of devices will depend on the detailed functional requirements of the project and the manufacturer's preferences. For detailed configuration and commissioning, the KNX-certified Engineering Tool Software (ETS) is always required.

IKONEX

BY COSTER