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According to the KNX standard, elements of the system are connected into one "intercommunicating" network, which enables building an integrated structure of all the systems. Individual system components are connected by only one main bus.

#### KNX-DIM21 Two-channel dimming actuator for 230 V AC lighting



- 2 independent channels up to 300 W per channel
- can handle all types of loads (resistive, inductive, capacitive)
- automatic recognition of the type of load
- ability to detect low power loads of approx. 1 W
- adjustment of control characteristics to the type of load
- implemented functions: central, enable/disable, dimming, scene, time, value forcing
- detection of light source loss/failure, output overload, channel overheat, channel fault, loss of channel power supply

## KNX-SA24 Switch actuator





- KNX-SA24: 8 channels, 2 independent circuits with 4 relays per circuit
- KNX-SA41: 4 channels, 4 independent circuits with 1 relay per circuit
- switching: voltage up to 230 V, current up to 16 A (resistive load, surge current up to 168 A 20 ms, 800 A 200 µs)
- operation in NO or NC mode

**ΚΝΧ** 

#### SATEL KNX are modules designed for use in smart systems

They meet the highest requirements for modern building management applications. The solutions are based on KNX technology – the world's open standard for many types of systems. The devices can be used in all types of buildings, including residential, office, industrial and commercial ones.



## **KNX** integrates various systems:



safety

and security





heating

and air-conditioning



ventilation





# **KEY BENEFITS**

# perfect matching of the system's functionality

- to the users' expectations
- high degree of flexibility for system expansion and modification
- effective and convenient ETS program:
- » it allows programming and commissioning of all KNX devices as well as designing and making changes when the system is in use
- » it is not manufacturer-specific the system integrator enables devices from different manufacturers to be used in one system
- energy saving
- can be integrated with the alarm system



energy

management











roller shutter. blind and awning control

multimedia

lighting



- double overheat protection
- defining reaction to KNX bus failure/recovery (ON, OFF, last value)
- defining reaction to mains recovery (ON, OFF, last value)
- advanced mains voltage analysis
- front panel with module status indicators and control buttons

# KNX-SA41 Switch actuator



- implemented functions: central, logic, scenes, time, safety, threshold values, state forcing
- defining reaction to KNX bus loss / recovery (ON, OFF, last value)
- defining reaction to mains recovery (ON, OFF, last value)
- front panel with module status indicators and control buttons

Two-channel roller shutter

actuator

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- 2 independent channels
- KNX-BSA12L: 24 V DC roller shutter motor control
- KNX-BSA12H: 230 V AC roller shutter motor control
- switching up to 6 A current
- handling different types of window coverings (roller shutter, roller blind, awning, window drive)
- automatic recognition of end positions (auto-calibrating)

- detection of current position of blind/shade, shutter slats etc.
- detection of shutter absence/failure

KNX-BSA12H

- implemented functions: central, scene, position forcing, weather alarms
- defining reaction to KNX bus loss/recovery (ON, OFF, last value)
- defining reaction to mains recovery (ON, OFF, last value)
- front panel with module status indicators and control buttons



#### KNX-BIN24 Binary input module

- input voltage range 0-30 V AC DC
- 8 physical channels (binary inputs)
- 8 virtual channels
- 4 logic channels
- 4 timer channels
- selecting polarity of some channels as NO/NC
- possibility of defining some channels as monostable or bistable

- 20 configurable function blocks
- implemented functions: switch, edge, dimmer, shutters, sequence, counter, scenes
- definable time of short-press/long-press activation of channel input
- front panel with module status indicators and control buttons



#### KNX-PS640 Power supply unit

- power supply 230 V ACoutput voltage 28-30 V DC
- output current 640 mA
- overload / short-circuit resistance
- front panel with module status and overload indicators

### KNX-USB Interface KNX-USB



- possibility of communication between
  - » for programming and configuration of KNX devices in ETS program
- option of saving events generated on KNX bus to non-volatile interface memory (up to 350 K events)
  - » possibility of exporting recorded telegram traffic into XML file (for ETS) or CSV file
- LEDs indicating the device state

# **INTEGRATION WITH THE ALARM SYSTEM**

Integration of systems based on **INTEGRA** and **INTEGRA Plus** control panels with a wide range of KNX devices extends capabilities of the two systems. For everyday control of both systems, you can use touch keypads that are part of the alarm system, which translates into cost optimization. The **INTEGRA CONTROL** mobile application can be used for remote control of the alarm system and some of the KNX system functions.



#### **KEY BENEFITS**

- extension of both systems' capabilities the synergy effect
- reduction of total installation costs
- solution that meets the expectations of demanding customers who are looking for something more than just the standard functionality of alarm system or KNX system.



#### INT-KNX-2

The **INT-KNX-2** module enables actuators to be controlled using the control panel. It also offers the possibility of information feedback from the KNX system to the control panel. **INT-KNX-2** is provided with a KNX socket through which it is connected directly to the KNX bus. The module settings are configured from the **DLOADX** program.

#### INT-TSI

Keypad equipped with a large 7" capacitive screen. It has a fully customizable, intuitive graphical interface that can be freely personalized. It provides convenient and easy handling of even very complex scenarios (MACRO functions) which facilitate control of the alarm system and components of building automation. In addition, INT-TSI offers a capability of viewing images from IP cameras, a wide range of widgets with various functions, including the weather widget and photo frame option.





#### INT-TSH2/INT-TSG2

These devices offer the functionality of traditional keypads but, unlike them, they have a capacitive touch screen. The graphical interface makes operation of the system intuitive and user-friendly. Both devices support the MACRO function and have a photo frame option.

**INTEGRA CONTROL** 

The INTEGRA CONTROL application makes the intelligent alarm system very user-friendly as well as safe.



The application offers full functionality of the alarm system control keypad. It allows arming / disarming, viewing events, alarms, or checking the system state. It makes the control

of checking the system state. It makes the control of heating, lighting, air conditioning, watering and other elements of building automation simple and intuitive. In addition, thanks to the MACRO commands available in the application, you can run scenarios containing entire sequences of actions. The application allows you to indicate the types of events about which the user will be informed by PUSH notifications.



\* modules SATEL KNX: KNX-DIM21, KNX-SA24, KNX-SA41, KNX-BSA12L, KNX-BSA12H, KNX-BIN24, KNX-PS640.



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 The manufacturer reserves the right to change the specification and technical data of devices.
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