

The building automation at its best



### 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



management

heating and air-conditioning





ventilation





roller shutter, blind and awning control



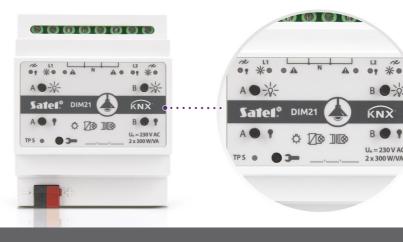


- perfect matching of the system's functionality to the users' expectations
- high degree of flexibility for system expansion and modification
- effective and convenient ETS program:
  - » it allows programming and commissioning of all KNX devices as well as designing and making changes when the system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

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.

SATEL

#### 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

- 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-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

## 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

### KNX-BSA12L

Two-channel roller shutter actuator



### KNX-BSA12H

Two-channel roller shutter actuator



- 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
- 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 AC
- output 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.





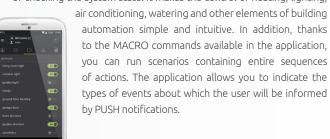
#### **INT-TSH/INT-TSG**

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 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 heating, lighting,







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



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