Satel
MADE TO PROTECT

Data sheet

KNX-**SA24**

Universal switch actuator

www.**satel**.eu

KNX-SA24 - universal switch actuator

KNX-SA24 module is an universal switch actuator, which makes it possible to control electrical devices (lighting, ventilation). The telegrams received from various KNX devices (e.g. sensors) are converted, via the module, into concrete actions, such as switching on/off light or fan.

The KNX SA24 module has 8 relay outputs. Each of them corresponds to one logical channel.

Features

- communication with KNX bus via integrated bus connector
- feedback on the state of module and individual channels
- reaction of each channel can be defined in case of KNX bus voltage loss and recovery
- reaction of each channel can be defined in case of mains voltage recovery
- time functions (flashing, on/off delay, staircase light function with advance warning option and operating time change)
- logic functions (AND, NAND, OR, NOR, XOR, XNOR)
- threshold value function
- safety functions
- state forcing functions
- scenes for each of the channels can be called up by using 1- and 8-bit commands
- manual control of each channel state by using buttons situated on enclosure
- status LEDs for each channel
- capability of switching between resistive, inductive and capacitive loads
- module configuration using ETS software
- suitable for mounting on DIN rail (35 mm)

Specifications

Power supply

Supply voltage	230 V AC
Maximum power consumption	5 W
KNX bus voltage	20…30 V DC
Current consumption from KNX bus	< 10 mA

Number of relay outputs

2 independent circuits with 4 relays per circuit	8

Relays

Rated load (capacity):

AC1	16 A / 250 V AC
AC15	3 A / 120 V 1.5 A / 240 V (B300)
AC3	750 W (single-phase motor)
DC1	16 A / 24 V DC
DC13	0.22 A / 120 V 0.1 A / 250 V (R300)

Minimum switching current	10 mA
Maximum inrush current	168 A 20 ms; 800 A 200 µs
Rated current	16 A
Maximum breaking capacity in AC1 category	4 000 VA

Maximum operating frequency:

at rated load in AC1 category	600 cycles/hour
no load	3 600 cycles/hour

Electrical life (number of cycles):

resistive AC1, 600 cycles/hour	> 10^5 16 A / 250 V AC
resistive DC1, 600 cycles/hour	> 10^5 16 A / 24 V DC
AC3, I = 3.5 A	> 2.5 x 10^5
at incandescent lamp load, 1000 W	> 0.9 x 10^5

Connections

Maximum wire cross-section ..... 2.5 mm^2

Maximum tightening torque ..... 0.5 Nm

KNX parameters

Maximum time of reaction to telegram ..... < 20 ms

Maximum number of communication objects 69/133

Maximum number of group addresses 256

Maximum number of associations 256

Mechanical parameters

Operating temperature range ..... 0 °C...+45 °C

Storage/transport temperature range ..... -25 °C...+70 °C

IP code IP20

Number of units on DIN rail 4

Enclosure dimensions ..... 70 x 92 x 60 mm

Weight ..... 240 g

Maximum output loads

Resistive load ..... 3680 W

Capacitive load ..... 16 A, max. 200 µF

Maximum output loads for lighting

Incandescent lamps ..... 1000 W

HV 230V halogen lamps ..... 3680 W

LV halogen lamps:

- inductive transformer ..... 2000 VA
- electronic transformer ..... 2500 W

Fluorescent lamps:

- non compensated ..... 3680 W
- parallel compensated ..... 2500 W, 200 µF
- series compensated ..... 3680 W, 200 µF

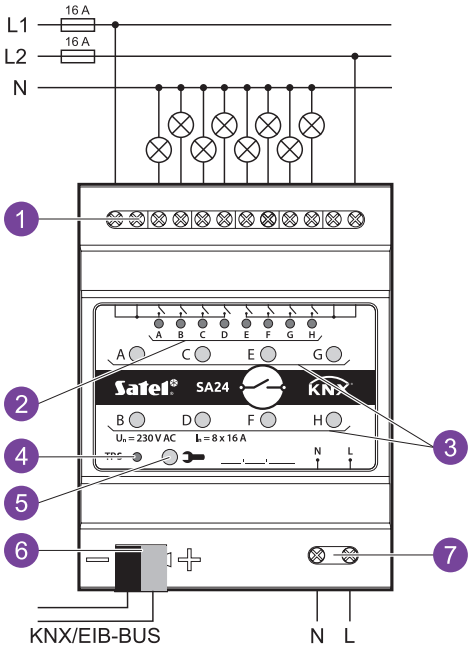
Compact fluorescent lamp (CFL):

- non compensated ..... 3680 W
- parallel compensated ..... 2500 W, 200 µF

High-pressure mercury lamps:

- non compensated ..... 3680 W
- parallel compensated ..... 3680 W, 200 µF

Device appearance and connection diagram



1. Load circuit terminals for connecting loads (2 terminals per channel).
2. Green LEDs indicating the channel state. One channel state LED is assigned to each channel:
   - » ON – channel enabled,
   - » OFF – channel disabled.
3. Buttons to manually change the channel state. One ON/OFF button is assigned to each channel.
4. Red LED – is ON when physical address is being set using the ETS program. Setting the address may be activated remotely from the ETS program or manually, using the button on the enclosure.
5. Programming button (used when setting the physical address).
6. Terminal to connect KNX bus.
7. Mains supply terminals.