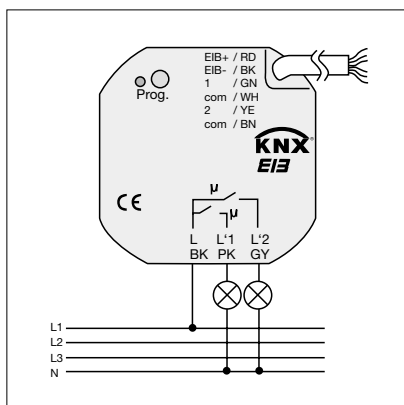
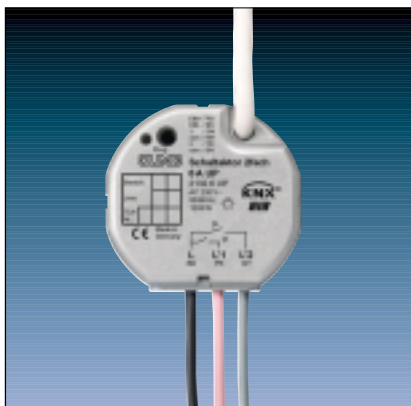
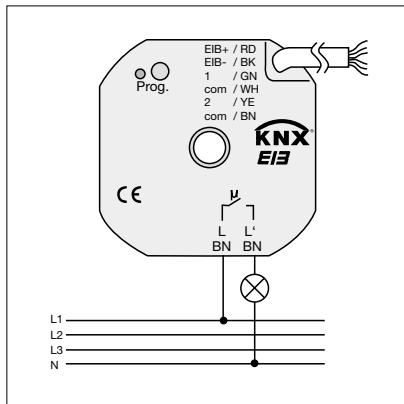
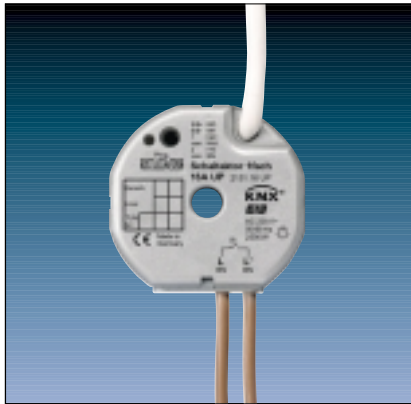


# Actuators

## Switching – Flush mounted

1



2

Ref.-No.

**KNX switch actuator, flush mounted**

**1-gang**

**2131.16 UP**

**2-gang**

**2132.6 UP**

ETS-product family:

Output

Product type:

1(2)-gang binary output

3

The switching actuator receives telegrams from sensors via the KNX and switches an electrical load with its relay-output.

The device is equipped with two extension inputs which – depending on parameterization – can act directly on the switching output (local control / only input 1, input 2 without function) or alternatively as binary inputs on the KNX. The connected potential-free switch or push-button contacts are sensed against a common reference potential at the switching actuator. As a binary input, the device can transmit telegrams for switching or dimming, for shutter/blind control or for value transmitter applications (dimming value transmitter, light-scene extension).

Connecting 230 V signals or other external voltages to the extension inputs is not permitted.

The switching actuator is supplied from the KNX and needs no additional external power supply.

## 4

## Technical data

**KNX supply****Cable type:** YY 6 x 6.0 mm; red: bus (+) / black: bus (-)**Voltage:** 21 – 32 V DC SELV**Power consumption:** typically 150 mW**Connection:** approx. 33 cm ready-made; connecting terminal (0.6 – 0.8 mm)**Input****Number:** 2 (depending on parameterization either as extension inputs for push-button local control of the actuator or as independent binary inputs acting on the bus)**Cable type:** YY 6 x 0.6 mm

green: extension input 1

white: reference potential (com)

yellow: extension input 2

brown: reference potential (com)

**Cable length:** approx. 33 cm ready-made, extendible to 5 m max.**Scanning voltage:** approx. – 19 V DC referred to “com”; continuous signal**Loop resistance:** max. 2 kOhm for safe “1” signal detection (rising edge)**Output, for 2131.16 UP****Number:** 1**Cable type:** 2 x H05 V-K 2.5 mm<sup>2</sup> with ferrules**Cable length:** approx. 20 cm ready-made**Switch type:** make-contact, potential-free (μ-contact) bistable**Switching voltage:** 230 V AC; 50/60 Hz**Max. switching current:** 16 A**Max inrush current:** 400 A, 20 ms**Switching capacity:** Incandescent lamps 2.500 W (at 100.000 switching operations)

HV halogen lamps 2.200 W (at 100.000 switching operations)

LV halogen lamps

inductive transformers 1.000 VA

electronic transformers 1.000 W

capacitive loads 230 V AC, 10 A switching current, max. 105 μF

**Output, for 2132.6 UP****Number:** 2 (with common phase connection “L”)**Cable type:** 3 x H05 V-K 2.5 mm<sup>2</sup> with ferrules**Cable length:** approx. 20 cm ready-made**Switch type:** make-contact, potential-free (μ-contact) bistable**Switching voltage:** 230 V AC; 50/60 Hz**Max. switching current:** 6 A for each output**Max inrush current:** 120 A, 20 ms**Switching capacity:** Incandescent lamps 1.200 W (at 25.000 switching operations)

HV halogen lamps 1.200 W (at 25.000 switching operations)

LV halogen lamps

inductive transformers 500 VA

electronic transformers 500 W

capacitive loads 230 V AC, 6 A switching current, max. 14 μF

**Protection:** IP 20**Safety class:** III**Mark of approval:** KNX**Ambient temperature:** –5°C ... +45°C**Storage/transport temperature:** –25°C ... +70°C (storage above +45°C results in shorter lifetime)**Mounting position:** any**Minimum spacings:** none**Fastening:** e.g. placing into deep flush-mounting box (Ø 60 mm x 60 mm)

## 4

**Note:**

- Never connect the mains voltage (230 V) or other external voltages to the extension inputs.  
Connecting an external voltage endangers the electrical safety of the entire KNX system (SELV / no electrical insulation). Persons may be put at risk and devices and installations may suffer irreparable damage.
- Make sure during the installation that there is always sufficient insulation between the mains voltage and the bus or the extensions.  
A minimum spacing of 4 mm must be ensured between the bus/extension wires and the mains wires.
- Non-used wires of the 6-wire connecting cable must be insulated with respect to one another and with respect to external voltages.
- To avoid EMC disturbances, the lines to the inputs should not be laid parallel to lines and cables carrying mains voltage.

**Output:**

- Output(s) parameterizable as n.o. contact (ON: contact closes / OFF: contact opens) or as n.c. contact (ON: contact opens / OFF: contact closes).
- Preferred state on return of bus voltage presettable.
- For the output additional feedback and additional function possible:  
Presettable additional functions: – logic-operation function with 3 logic parameters  
– disabling function with presettable disabling behaviour of the relays  
– priority-position function to fix the priority of arriving switching telegrams
- Feedback object invertible.
- Delay on return of bus voltage centrally presettable.
- Turn-on delay and/or turn-off delay or timer function separately presettable for each output.

## 5

**Description of software application**

Objects	2131.16 UP	2132.6 UP
Number of addresses:	26	26
Number of assignments:	27	27
Communication objects:	9	12

**Objects for the binary inputs (extension inputs), if acting on the bus:**

Object	Name	Function	Type	Flag
<b>Function: "Switching"</b> (for all 2 inputs <sup>2</sup> )				
2 – 3	Input 1 – Input 2	Switching object X.1 (X = 1 to 2)	1 Bit	C, W, T, (R) <sup>1</sup>
10 – 11	Input 1 – Input 2	Switching object X.2 (X = 1 to 2)	1 Bit	C, W, T, (R) <sup>1</sup>
<b>Function: "Dimming"</b> (for all 2 inputs <sup>2</sup> )				
2 – 3	Input 1 – Input 2	Switching	1 Bit	C, W, T, (R) <sup>1</sup>
10 – 11	Input 1 – Input 2	Dimming	4 Bit	C, T, (R) <sup>1</sup>
<b>Function: "Shutter/blind"</b> (for all 2 inputs <sup>2</sup> )				
2 – 3	Input 1 – Input 2	Short operation	1 Bit	C, T, (R) <sup>1</sup>
10 – 11	Input 1 – Input 2	Long operation	1 Bit	C, T, (R) <sup>1</sup>
<b>Function: "Value transmitter"</b> (Function: Dimming value transmitter for all 2 inputs <sup>2</sup> )				
2 – 3	Input 1 – Input 2	Value	1 Byte	C, T, (R) <sup>1</sup>
<b>Function: "Value transmitter"</b> (Function: Light-scene extension with/without storage function for all 2 inputs <sup>2</sup> )				
2 – 3	Input 1 – Input 2	Light-scene extension	1 Byte	C, T, (R) <sup>1</sup>
<b>Function: "Disable"</b> (for all 2 inputs <sup>3</sup> )				
2 – 3	Input 1 – Input 2	Disabling	1 Bit	C, W, (R) <sup>1</sup>

<sup>1</sup>: Objects marked (R) permit read-out of the object status (set R flag).

<sup>2</sup>: The "No function", "Switching", "Dimming", "Shutter/blind" and "Value transmitter" functions can be selected per input.

The names of the communication objects and the object table (dynamic object structure) will change accordingly.

<sup>3</sup>: A disable function is not available if the inputs are parameterized for "No function".

## 5 Description of software application

### Objects for the output of 2131.16 UP

Object	Name	Function	Type	Flag
0	Output 1	Switching	1 Bit	C, W, (R) <sup>1</sup>
<b>Function: "Additional function for the output = "Logic-operation object"</b>				
8	Output 1	Logic function	1 Bit	C, W, (R) <sup>1</sup>
<b>Function: "Additional function for the output = "Disabling object"</b>				
8	Output 1	Disabling	1 Bit	C, W, (R) <sup>1</sup>
<b>Function: "Additional function for the output = "Priority-position object"</b>				
8	Output 1	Priority operation	1 Bit	C, W, (R) <sup>1</sup>
<b>Function: "Acknowledge"</b>				
16	Output 1	Acknowledge	1 Bit	C, W, (R) <sup>1</sup>

### Objects for the output of 2132.6 UP

Object	Name	Function	Type	Flag
0 – 1	Output 1 – 2	Switching	1 Bit	C, W, (R) <sup>1</sup>
<b>Function: "Additional function for the output = "Logic-operation object"</b>				
8 – 9	Output 1 – 2	Logic function	1 Bit	C, W, (R) <sup>1</sup>
<b>Function: "Additional function for the output = "Disabling object"</b>				
8 – 9	Output 1 – 2	Disabling	1 Bit	C, W, (R) <sup>1</sup>
<b>Function: "Additional function for the output = "Priority-position object"</b>				
8 – 9	Output 1 – 2	Priority operation	1 Bit	C, W, (R) <sup>1</sup>
<b>Function: "Acknowledge"</b>				
16 – 17	Output 1 – 2	Acknowledge	1 Bit	C, W, (R) <sup>1</sup>

<sup>1</sup> : Objects marked (R) permit read-out of the object status (set R flag).