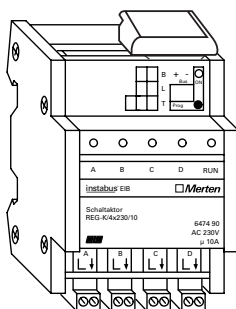


## Switch actuator REG-K/4x230/10



**Colour**  
light grey

**Article no.**  
647490

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## 1. Function

The INSTABUS switch actuator REG/4x230/10 is used to switch luminaires and other loads. The device has four independent channels available (A, B, C, D).

### Display elements:

A green LED indicates readiness for operation. It only lights up if the application program has been correctly loaded into the device.

Four yellow LEDs display the switching state per channel. The LED lights up if the channel has been switched. A red LED is used to monitor the bus voltage and to enter the physical address.

## 2. Installation

The INSTABUS switch actuator REG-K/4x230/10 is a DIN rail mounted device and is mounted on a DIN rail EN 50022-35. A data rail is not required.

### Electrical connection:

The device is connected and operated according to the connection example.

The bus connection is carried out via the bus connecting terminal supplied with the device. Then place the cable cover over the bus connecting terminal to guarantee the safety clearance of the bus cable to the 230 V cables (in accordance with DIN VDE 0110 part 1). A maximum of 4 core pairs can be connected to the bus connecting terminal.

The cables to the loads as well as the mains voltage (L1, L2 or L3) are connected via plug-in terminals with screw connection. The cables can be screwed onto the plug-in terminals before the device is installed and then inserted at a later date.



### Caution:

The insertion of the terminals may not take place under load!

The switch outputs have bistable relays.

The switch contact of the outputs can change to the enabled state due to strong vibrations during transportation. Voltage may be present at the outputs when the mains voltage is connected to the system! After commissioning, the outputs are moved to the required position by telegrams.

The switch contacts must be protected by a series-connected 10 A circuit-breaker. All devices that are mounted next to the switch actuator must at least be equipped with basic insulation.

### 3. Commissioning

After wiring the device, the assignment of the physical address and the parameterisation are carried out:

- Connect the serial interface to the bus
- Connect the bus voltage to the system
- Press the programming button in the device (red LED lights up)
- Download the physical address from ETS (red LED is extinguished)
- Load the prepared parameterisation into the device

### 4. Technical Data

External auxiliary supply:	none
Power supply from the bus:	DC 24 V/<10 mA
Insulation voltage:	4 kV (bus - AC 230 V)
Fuse:	Protect the switch contact with a series-connected 10 A circuit-breaker
Switch contact:	4 x make contacts, floating
Nominal voltage:	AC 230 V, 50 to 60 Hz (L1, L2 or L3)
Nominal current:	10 A, $\cos \varphi = 1$ 10 A, $\cos \varphi = 0.6$
Nominal capacity:	
Incandescent lamps:	AC 230 V, max. 2300 W
Halogen lamps:	AC 230 V, max. 2000 W
Fluorescent lamps:	AC 230 V, max. 900 W, uncompensated
Capacitive load:	AC 230 V, max. 140 mF
Minimum loads:	$\geq 12 \text{ V AC/DC}$ : $\geq 500 \text{ mA}$
Switching frequency:	max. 10 per minute at nominal load
Service life:	
AC 230 V, 10 A, $\cos \varphi = 1$ :	50,000 switching cycles
Halogen lamps, 2000 W:	25,000 switching cycles
Fluorescent lamps, 900 W:	20,000 switching cycles
Ambient temperature	
Operation:	-5 °C to +45 °C
Storage:	-25 °C to +55 °C
Transport:	-25 °C to +70 °C
Environment:	The device is designed for use at a height up to 2000 m above sea level
Max. humidity:	93%, no moisture condensation
Operating elements:	Programming button
Display elements:	
Programming check:	1 red LED
Readiness for operation:	1 green LED

Status of the channels: 4 yellow LEDs

Connections

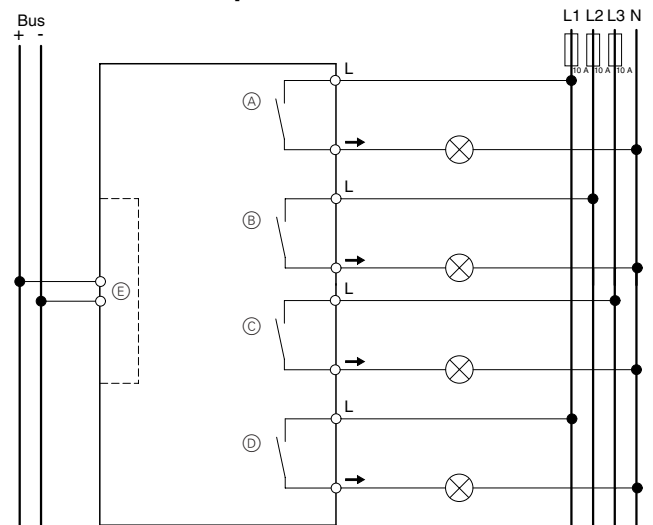
Bus: via two 1 mm pins for bus connecting terminal

Outer conductor: four 2-fold plug-in terminals with screw connection for max. 2.5 mm<sup>2</sup>

Complies with EC guidelines: low voltage guideline 73/23/EEC; EMC guideline 89/336/EEC

Device width: 4 modules = 72 mm

#### Connection example:



- (A) Channel A
- (B) Channel B
- (C) Channel C
- (D) Channel D
- (E) Bus coupler

## 5. Settings in the EIB Tool Software (ETS)

### Selection in the product database

Manufacturer: Merten  
 Product family: 4.4 Switch actuator, 4-gang  
 Product type: 4.4.01 DIN rail mounted REG-K  
 Program name: Switch Logic Prio. Disable Time  
 Stairc. Init. 4119/2.1  
 Product name: Switch actuator, 4-gang, REG-K/  
 4x230/10  
 Order number: 647490



#### Note:

To guarantee the full functionality of the applications under ETS2, the ETS2 software from version 1.2 onwards must be used with Service Release A or higher. If you have any queries, please contact the Merten InfoLine.

## 6. Application overview

The following application is available:

Application	Vers.	Function
Switch Logic Prio.Disable Time Stairc.Init. 4119/2.1	2.1	Group addresses: Number = 30/Associations = 30, dynamic
		Make/break contact
		Disable function
		Status response
		Priority control (2 bit) or logic operation
		Staircase lighting function
		ON delay
		OFF delay
		Behaviour on bus voltage failure
		Behaviour on bus voltage recovery