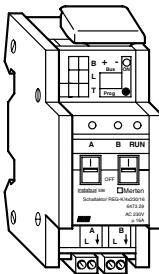


Switch actuator REG-K/2x230/16 with manual mode

Colour **Article no.**
light grey 647329

Table of Contents

1. Function	1
2. Installation	1
3. Technical Data	2
4. Settings in the EIB Tool Software (ETS)	2
5. Application overview	2

1. Function

The INSTABUS switch actuator REG-K/2x230/16 with manual mode is an intelligent relay with bus capability. The device has two independent switched relay outputs and enables the switching of luminaires and other loads.

In the default setting, the make contact is closed immediately after an ON telegram and opened immediately after an OFF telegram. OFF delays, staircase timer function (time switch), feedback of the relay state, behaviour after bus voltage failure and bus voltage recovery can be defined in the programming.

2. Installation

The INSTABUS switch actuator REG-K/2x230/16 with manual mode is a DIN rail mounted device and is mounted on a DIN rail EN 50022-35. A data rail is not required. The bus connection is carried out via the bus connecting terminal supplied with the device. The cable cover is then placed over the bus connecting terminal to guarantee the safety clearance of the bus cable to the 230 V cables. A maximum of 4 core pairs can be connected to the bus connecting terminal.

The cables to the loads and the mains voltage (1 or 2 outer conductors) are connected via four screw terminals. All the devices that are mounted next to the switch actuator must at least be equipped with basic insulation. It is indicated via a yellow LED per channel whether the switch output of the channel was opened or closed from the bus: If the program has been loaded correctly, the green operating LED lights up first. The switch output (switched outer conductor) can also be switched manually without bus voltage using the manual switch. In manual mode, the yellow LEDs (controlled via the bus) and the relay state should not match.

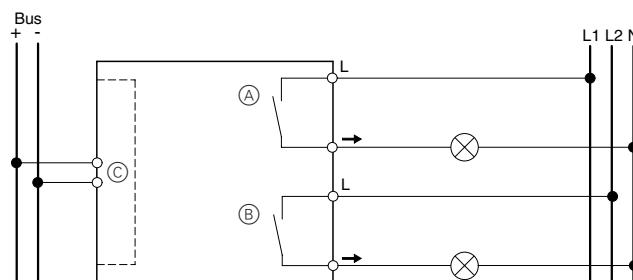
3. Technical Data

Power supply from the bus:	DC 24 V / approx. 5 mA
Insulation voltage:	4 kV between bus and AC 230 V
Switch contacts:	2 x make contacts
Nominal voltage:	AC 230 V, 50 to 60 Hz (1 or 2 outer conductors)
Nominal current:	16 A at $\cos \varphi = 1$ 10 A inductive load at $\cos \varphi = 0.6$
Nominal capacity:	Incandescent lamps AC 230 V, max. 3000 W AC 230 V: Halogen lamps: AC 230 V, max. 2000 W Fluorescent lamps: AC 230 V, max. 1500 VA, with parallel compensation AC 230 V, max. 900 W, uncompensated
Capacitive load:	AC 230 V, 16 A, max. 140 μ F
Minimum loads ≥ 12 V AC/DC:	≥ 500 mA
Fuse:	The switch contact must be protected by a series-connected circuit-breaker
Switching frequency:	max. 10 per minute at nominal load
Service life:	AC 230 V, 16 A at $\cos \varphi = 1$ 50,000 switching cycles Halogen lamps 2000 W 25,000 switching cycles Fluorescent lamps with parallel comp. 1500 VA 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
Operating elements:	Programming button Manual switch per channel for manual operation of the relay
Display elements:	Red LED for checking the bus voltage and for entering the phys. address Green LED to indicate that the application is running Yellow LED per channel to display the switching state

Connections:

Bus	via two 1 mm pins for bus connecting terminal
Outer conductor:	four screw terminals for max. 2.5 mm ²
EC guideline:	corresponds to low voltage guideline 73/23/EEC; corresponds to EMC guideline 89/336/EEC
Dimensions:	90x36x65 mm (HxWxD)
Device width:	2 modules = 36 mm

Connection example



Ⓐ Channel A

Ⓑ Channel B

Ⓒ Bus coupler

4. Settings in the EIB Tool Software (ETS)

Selection in the product database

Manufacturer:	Merten
Product family:	4.2 Switch actuator, 2-gang
Product type:	4.2.02 DIN rail mounted REG-K
Program name:	Switch/Init. 4327
Media type:	Twisted Pair
Product name:	Switch actuator REG-K/2x230/16 with manual mode
Order number:	647329

5. Application overview

The following application is available:

Application	Vers.	Function
Switch/Init. 4327	1	Switching
		with OFF delay
		with staircase lighting function with/without manual OFF
		Behaviour on bus voltage failure
		Behaviour on bus voltage recovery
		Status response of the relay state