## 《F\&F》

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## BIS-411B-LED

Bistable relay


Do not dispose of this device in the trash along with other waste! According to the Law on Waste, electro coming from households free of charge and can give any amount to up to that end point of collection, as well as to store the occasion of the purchase of new equipment (in accordance with the principle of old-for-new, regardless of brand). Electro thrown in the trash or abandoned in nature, pose a threat to the environment and human health.

## C

## Purpose

Electronic bistable pulse relay BIS-411B-LED allows switching on or off the lighting or other device from several different points by parallel connected, momentary (bell) control switches.
A push button on the housing enables direct control of the circuit without the need to trigger external buttons.

## Functioning

The receiver is switched on after a current pulse caused by pressing any momentary (bell) button connected to the relay. After the next pulse, the receiver will be switched off. The relay does not have a "memory" of the contact position, which means in the event of a power failure and its subsequent return, the relay contact will be set to "off". This prevents the controlled receivers from being switched on automatically without supervision after a prolonged power failure. The button on the housing performs exactly the same function as the external button connected to the terminals of the device.

The "LED" version of the relay is equipped with a contact
 designed to cooperate with receivers with high starting current, such as: LED fluorescent lamps, ESL fluorescent lamps, electronic transformers, discharge lamps, etc.

## Mounting

1.Disconnect the power supply.
2. Fix the relay on a rail in the control box.
3. Connect the power wires to terminals 1-3 according to the selected relay control option (control pulse L or N).
4. Momentary switches connected in parallel, connect to terminal 6 and to the wire to which terminal 3 is connected.
5. Connect the powered receiver in series to terminals 11-12.

The maximum total backlight current of all connected buttons must not exceed 5 mA .

BIS-411B-LED can work with backlit buttons.


## Example of connection

with control pulse L


## Example of connection with control pulse N

1-3 power supply of the relay $165 \div 265 \mathrm{~V} \mathrm{AC}$
6 control input
11-12 NO contact (active)

## Technical data

power supply
contact
maximum load current (AC-1)
control pulse current
activation delay
power supply indication
activation indication
mechanical life of the button
power consumption
stand-by
on
terminal
tightening torque
working temperature
dimensions
mounting
ingress protection
0.15 W
$165 \div 265 \mathrm{~V} \mathrm{AC}$
separated $1 \times$ NO
16 A ( $120 \mathrm{~A} / 20 \mathrm{~ms}$ )
5 mA
$0.1 \div 0.2 \mathrm{~s}$
green LED
red LED
$10^{6}$ cycles
0.6 W
$2.5 \mathrm{~mm}^{2}$ screw terminals
0.4 Nm
$-25 \div 50^{\circ} \mathrm{C}$
1 module ( 18 mm ) on TH-35 rail

IP20

## Power table

| tungsten halogen fluorescent energy-saving LED |  |
| :--- | :--- |
| 2000 W | 1250 W |
| the | 1000 W |

The above data are indicative and will heavily depend on the design of a specific receiver (that is especially important for LED bulbs, energy-saving lamps, electronic transformers and pulse power supply units), switching frequency and operating conditions.
For more information visit: www.fif.com.pl.

## Warranty

The F\&F products are covered by a warranty of the 24 months from the date of purchase. Effective only with proof of purchase. Contact your dealer or directly with us.

## CE declaration

F\&F Filipowski sp. j. declares that the device is in conformity with the essential requirements of The Low Voltage Directive (LVD) 2014/35/EU and the Electromagnetic Compatibility (EMC) Directive 2014/30/UE. The CE Declaration of Conformity, along with the references to the standards in relation to which conformity is declared, can be found at www.fif.com.pl on the product page.

