



F&F Filipowski sp. j.  
Konstantynowska 79/81, 95-200 Pabianice, POLAND  
phone/fax (+48 42) 215 23 83 / (+48 42) 227 09 71  
www.fif.com.pl; e-mail: biuro@fif.com.pl

## BIS-409

Bistable relay,  
sequential, 4-function



**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.



### Purpose

Electronic bistable pulse relay BIS-409 allows switching on or off the lighting or other device from several different points by parallel connected, momentary (bell) control switches.

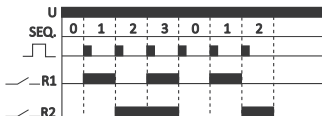
Relay has 2 switching sections and allows for switching of 2 lighting circuits (branches) or other receivers from several different points and in accordance with the preselected sequence

### Functioning

The relay power supply is indicated by a green LED U. Sequential relay has 2 separate outputs: R1 and R2. Contact status (closed/opened) is forced sequentially in accordance with a predetermined program. Contacts switching to another state after subsequent pulse from control button. R1 and R2 contact activation is indicated by the relevant R1 and R2 red LED. After a power failure, state of the contact is reset. When the power is back on, the relay starts from the sequence number 0.

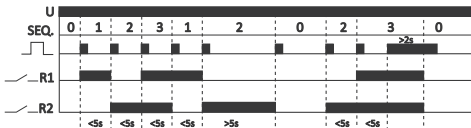
## Work functions

### A mode



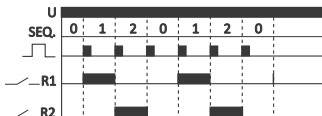
» Subsequent pressings of a button repeat the sequence 0-1-2-3.

### B mode



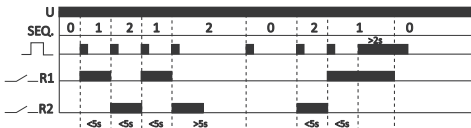
- » Pressing the button again in less than 5 seconds repeats sequences 1-2-3.
- » Pressing the button again after more than 5 seconds opens both contacts (sequence 0).
- » A long press of the button – in any sequence – opens both contacts (sequence 0).
- » After switching off both relays, pressing the button again restores the state from before switching off (state memory). This does not apply to relay power failure.

## C mode



» Subsequent pressings of a button repeat the sequence 0-1-2.

## D mode

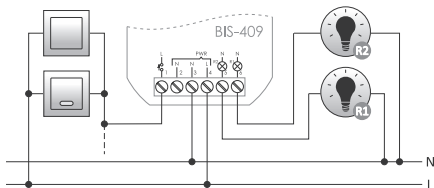


- » Pressing the button again in less than 5 seconds repeats sequences 1-2.
- » Pressing the button again after more than 5 seconds opens both contacts (sequence 0).
- » A long press of the button – in any sequence – opens both contacts (sequence 0).
- » After switching off both relays, pressing the button again restores the state from before switching off (state memory). This does not apply to relay power failure.

## Mounting

1. Disconnect the power supply.
2. Mount relay in the flush-mounted box.
3. Connect the power supply cables to PWR group: phase L-wire to terminal 4 and neutral N-wire to terminal 2 or 3.
4. Momentary switches connected in parallel connect to terminal 1 and phase L-wire.
5. Powered receiver of R1 section connect in series to terminal 6, and powered receiver of R2 section connect in series to terminal 5.
6. Set the required program (sequence) with the potentiometer.

## Wiring diagram



- 1 control input
- 3 N power supply
- 4 L power supply
- 5 output – R1 section
- 6 output – R2 section



BIS-409 is compatible with backlit buttons.

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

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### Technical data

power supply	165÷265 V AC
contact	2×NO
maximum load current (AC-1)	2×8 A
control pulse current	1 mA
total backlight current control buttons	5 mA
activation delay	0.1÷0.2 s
switch-off time (adjustable)	1÷15 min.
power indication	green LED
power consumption	
standby	0.15 W
on	0.6 W
terminal	2.5 mm <sup>2</sup> screw terminals
tightening torque	0.4 Nm
working temperature	-25÷50°C
dimensions	∅54 (size 48×43 mm), h= 20 mm
mounting	in flush mounted box ∅60
ingress protection	IP20

## Power table

				
tungsten	halogen	fluorescent	energy-saving	LED
1000 W	600 W	500 W	250 W	120 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](http://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](http://www.fif.com.pl) on the product page.

