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**BISTABLE RELAY**  
 sequential  
 4-function

**BIS-419**  
 230V

**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. More information how to make a complaint can be found on the website: [www.fif.com.pl/reklamacja](http://www.fif.com.pl/reklamacja)



Do not dispose of this device to a garbage bin with other unsorted waste! In accordance with the Waste Electrical and Electronic Equipment Act any household electro-waste can be turned in free of charge and in any quantity to a collection point established for this purpose, as well as to the store in the event of purchasing new equipment (as per the old for new rule, regardless of brand). Electro-waste thrown in the garbage bin or abandoned in the bosom of nature pose a threat to the environment and human health.

**Purpose**

Electronic bistable pulse relay switch that turns on or off lights or other equipment from several different points with the parallel connected momentary (bell) control switches.

BIS-419 relay has two switching sections and allows for switching of two lightning circuits or others receivers from several different points and in accordance with the preselected sequence.

**Operation**

The relay power supply is indicated by a green LED U. Sequential relay has two separate outputs: R1 and R2. Contact status (closed/open) is forced sequentially in accordance with a predetermined program. Contacts switch 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, contact state is reset. When the power is back on, the relay starts from the sequence number 0.

**Installation**

1. Disconnect the power supply.
2. Mount relay on the rail in the connection box.
3. Connect the power supply cables to terminals 1-3 according to the selected mode of relay control (control pulse L or N).
4. Connect parallel connected momentary switches to the terminal 6 and to the cable, to which the terminal 3 is connected.
5. Powered receiver of section R1 connect in series to terminals 11-12. Powered receiver of section R2 connect in series to terminals 8-9.
6. Set the desired program (sequence) with a knob at the front casing of the relay.

**Note!**

BIS-419 230 V can be used with backlit buttons.



**Specifications**

power supply	100±265V AC
contact	separated 2x(1xNO/NC)
AC-1 load current	2x16A
control N pulse current	<5mA
delay of response	0.1±0.2s
power indicator	green LED
activation indicator	2x red LED
power consumption	
standby	0.15W
on	0.9W
operating temperature	-25÷50°C
terminal	screw terminals 2.5mm <sup>2</sup>
tightening torque	0.4Nm
dimensions	1 module (18mm)
mounting	on TH-35 rail
ingress protection	IP20

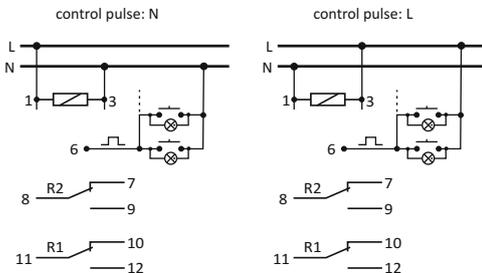
**Table of power**

incandescent	halogen	fluorescent	energy-saving	LED
2000W	1250W	1000W	500W	250W

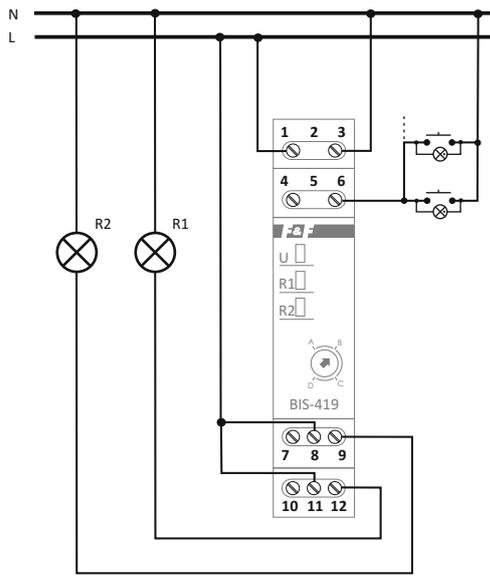
These data are indicative and will heavily depend on the design of a specific receiver (that is especially important for LED bulbs, energy-saving lamps, electronic transformers and pulse power supply units), switching frequency and operating conditions.

For more information visit: [fif.com.pl](http://www.fif.com.pl)

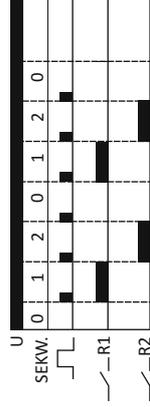
**Wiring diagram**



Example of relay installation with two lightning sections in „zero” (N) control system.



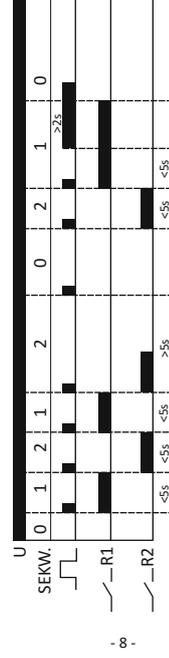
Function C



- 7 -

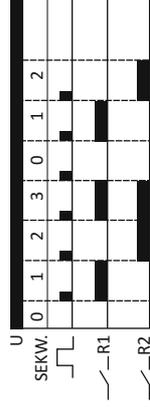
Pressing the button subsequently repeats sequences 0-3.

Function D



- \* Pressing the button subsequently in less than 5 seconds repeats sequences of 1-3.
- \* Subsequent pressing of the button after more than 5 seconds disconnects both contacts (sequence 0).
- \* Long press - in any sequence - disconnects both contacts (sequence 0).
- \* Pressing the button after both relays were turned off restores the last state (memory of state). Does not apply in the case of a relay power failure.

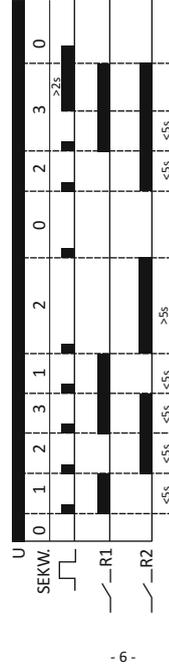
Function A



- 5 -

Pressing the button subsequently repeats sequences 0-3.

Function B



- 6 -

- \* Pressing the button subsequently in less than 5 seconds repeats sequences of 1-3.
- \* Subsequent pressing of the button after more than 5 seconds disconnects both contacts (sequence 0).
- \* Long press - in any sequence - disconnects both contacts (sequence 0).
- \* Pressing the button after both relays were turned off restores the last state (memory of state). Does not apply in the case of a relay power failure.