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**BIS-414**  
Bistable relay,  
sequential, 1-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.



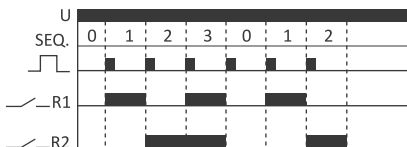
## Purpose

The electronic bistable pulse relay BIS-414 allows lighting or other appliances to be switched on or off from several different points by means of parallel connected momentary (bell) control switches. The relay has 2 switching sections and allows to switch on or off in sequence 2 lighting circuits or other appliances from several different points.

## Functioning

Power supply to the relay is indicated by the lighting of the green LED [U]. The sequential relay has 2 separate outputs R1 and R2. The state of the contacts (closed/open) is enforced sequentially according to the preset programme. Switching of the contacts to the next state takes place after another impulse of the control button. Activation of contacts R1 and R2 is signalled by lighting of corresponding red LEDs R1 and R2. After the power supply voltage decay, the contact status is reset. After the power supply voltage is restored, the relay starts from sequence no. 0.

Sequence	Contact position
0	Sections R1 and R2 open
1	Only section R1 closed
2	Only section R2 closed
3	Sections R1 and R2 closed



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

## Mounting

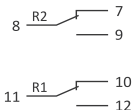
1. Disconnect the power supply.
2. Fix the relay on a rail in the control box.
3. Connect the supply wires to terminals 1-3 according to the selected relay control option (control pulse L or N).
4. Connect momentary switches connected in parallel to terminal 6 and the wire to which terminal 3 is connected.
5. Connect the powered receiver of section R1 in series to terminals 11-12 and the receiver of section R2 in series to terminals 8-9..



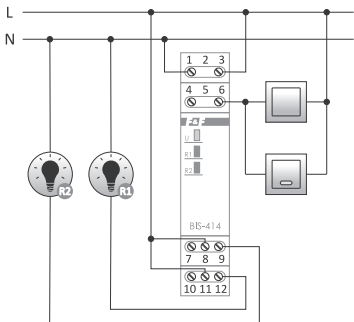
BIS-414 is compatible with backlit buttons.

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## Contact configuration

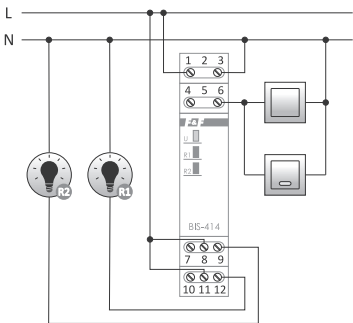


## Wiring diagram



Example of connection  
with control pulse L

- 1-3 relay power supply 165÷265 V AC
- 6 control input
- 7 output 2 – NC contact (passive)
- 8 input 2 – COM contact power supply
- 9 output 2 – NO contact (active)
- 10 output 1 – NC contact (passive)
- 11 input 1 – COM contact power supply
- 12 output 1 – NO contact (active)



Example of connection  
with control pulse N

- 1-3 relay power supply 165÷265 V AC
- 6 control input
- 7 output 2 – NC contact (passive)
- 8 input 2 – COM contact power supply
- 9 output 2 – NO contact (active)
- 10 output 1 – NC contact (passive)
- 11 input 1 – COM contact power supply
- 12 output 1 – NO contact (active)








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

### Technical data

power supply	165÷265 V AC
contact	separated 2×NO/NC
maximum load current (AC-1)	2×16 A
control pulse current	<1 mA
total backlight current control buttons	5 mA
activation delay	0.1÷0.2 s
adjustment time	1÷12 min.
power indication	green LED
power activation	2× red LED
power consumption	
standby	0.15 W
on	0.7 W
terminal	2.5 mm <sup>2</sup> screw terminals
tightening torque	0.4 Nm
working temperature	-25÷50°C
dimensions	1 module (18 mm)
mounting	on TH-35 rail
ingress protection	IP20

## Power table

Table for loads supplied with 230 V AC:

				
tungsten	halogen	fluorescent	energy-saving	LED
2000 W	1250 W	1000 W	500 W	250 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 L.P. 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.

