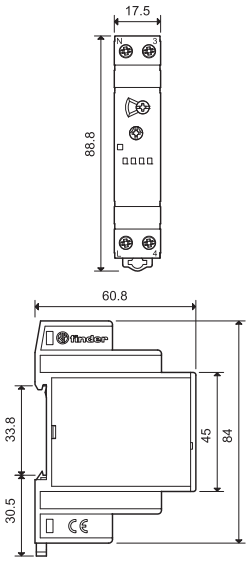
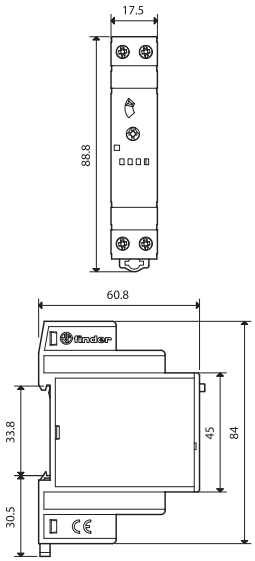
Features

Range of electronic staircase timers

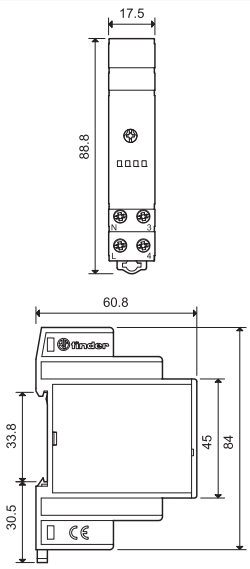
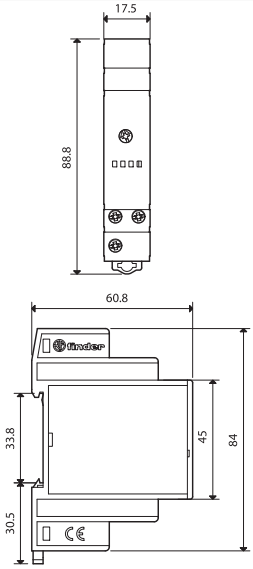
- 17.5 mm wide
- Time setting from 30 seconds to 20 minutes
- "Zero crossing" load switching
- "Switch-off early warning" - model 14.01
- Suitable for 3 or 4 wire systems, with automatic recognition (14.01 and 14.71) or via "pushbutton configuration" (14.81)
- LED status indicators (14.01 and 14.71)
- Cadmium free contact material
- Can be used with illuminated push - buttons
- "Blade + cross" - both flat blade and cross head screw drivers can be used to adjust the function selector, the timing trimmer, and to disengage the 35 mm rail mounting clip
- European Patent

	14.01	14.71
		
	• Multi-function • 1 NO (SPST-NO) • 35 mm rail (EN 60715) mount	• Mono-function • 1 NO (SPST-NO) • 35 mm rail (EN 60715) mount
		
Contact specification		
Contact configuration	1 NO (SPST-NO)	1 NO (SPST-NO)
Rated current/Maximum peak current A	16/30 (120 A - 5 ms)	16/30 (120 A - 5 ms)
Rated voltage/Maximum switching voltage V AC	230/—	230/—
Rated load AC1 VA	3,700	3,700
Rated load AC15 (230 V AC) VA	750	750
Nominal lamp rating:incandescent (230 V) W	3,000	3,000
compensated fluorescent (230 V) W	1,000	1,000
uncompensated fluorescent (230 V) W	1,000	1,000
halogen (230 V) W	3,000	3,000
Minimum switching load mW (V/mA)	1,000 (10/10)	1,000 (10/10)
Standard contact material	$AgSnO_2$	$AgSnO_2$
Supply specification		
Nominal voltage (U_N) V AC (50/60 Hz)	230	230
V DC	—	—
Rated power VA (50 Hz)/W	3/1.2	3/1.2
Operating range AC (50 Hz)	$(0.8...1.1)U_N$	$(0.8...1.1)U_N$
DC	—	—
Technical data		
Electrical life at rated load in AC1 cycles	$100 \cdot 10^3$	$100 \cdot 10^3$
Delay setting min	0.5...20	0.5...20
Max no. of illuminated push-button (≤ 1 mA)	30	30
Maximum impulse duration	continuous	continuous
Ambient temperature range °C	–10...+60	–10...+60
Protection category	IP 20	IP 20
Approvals (according to type)	CE	

Features

Range of electronic staircase timers

- 17.5 mm wide
- Time setting from 30 seconds to 20 minutes
- "Zero crossing" load switching
- Types 14.81 and 14.91: wiring compatible with mechanical versions and with old type (low emission) illuminated pushbuttons
- Suitable for 3 or 4 wire systems, with automatic recognition (14.01 and 14.71) or via "pushbutton configuration" (14.81)
- Cadmium free contact material
- Can be used with illuminated push - buttons
- "Blade + cross" - both flat blade and cross head screw drivers can be used to adjust the function selector, the timing trimmer, and to disengage the 35 mm rail mounting clip

	14.81	14.91
		
	• Mono-function • 1 NO (SPST-NO) • 35 mm rail (EN 60715) mount • All terminals on same side	• Mono-function • 1 NO (SPST-NO) • 35 mm rail (EN 60715) mount • 3 terminals, on same side
		
Contact specification		
Contact configuration	1 NO (SPST-NO)	1 NO (SPST-NO)
Rated current/Maximum peak current A	16/30 (120 A - 5 ms)	16/30 (120 A - 5 ms)
Rated voltage/Maximum switching voltage V AC	230/—	230/—
Rated load AC1 VA	3,700	3,700
Rated load AC15 (230 V AC) VA	750	750
Nominal lamp rating:incandescent (230 V) W	3,000	3,000
compensated fluorescent (230 V) W	1,000	1,000
uncompensated fluorescent (230 V) W	1,000	1,000
halogen (230 V) W	3,000	3,000
Minimum switching load mW (V/mA)	1,000 (10/10)	1,000 (10/10)
Standard contact material	$AgSnO_2$	$AgSnO_2$
Supply specification		
Nominal voltage (U_N) V AC (50/60 Hz)	230	230
V DC	—	—
Rated power VA (50 Hz)/W	3/1.2	3/1.2
Operating range AC (50 Hz)	(0.8...1.1)U_N	(0.8...1.1)U_N
DC	—	—
Technical data		
Electrical life at rated load in AC1 cycles	$100 \cdot 10^3$	$100 \cdot 10^3$
Delay setting min	0.5...20	0.5...20
Max no. of illuminated push-button (≤ 1 mA)	25	25
Maximum impulse duration	continuous	continuous
Ambient temperature range °C	–10...+60	–10...+60
Protection category	IP 20	IP 20
Approvals (according to type)	CE EAC NF	CE EAC

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Ordering information

Example: 14 series multi-function relay, single phase switch 1 NO (SPDT-NO) 16 A contact, supply rated at 230 V AC.

1 4	.	0	1	.	8	.	2 3 0	.	0	0	0	0

Series

Type
0 = 35 mm rail (EN 60715) mount, multi-function
7 = 35 mm rail (EN 60715) mount, mono-function
8 = 35 mm rail (EN 60715) mount mono-function, all terminals on same side
9 = 35 mm rail (EN 60715) mount, mono-function, 3 terminals

No. of poles
1 = Single phase switch, 16 A

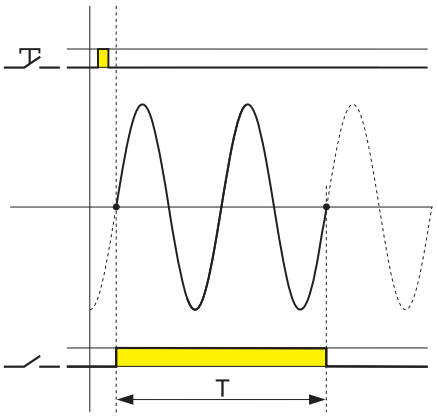
Supply voltage
230 = 230 V

Supply version
8 = AC (50/60 Hz)

Technical data

Insulation				
Dielectric strength between open contacts		V AC	1,000	
Other data				
Power lost to the environment				
	without contact current	W	1.2	
	with rated current	W	2	
Maximum cable length for push-button connection		m	200	
Screw torque		Nm	0.8	
Max. wire size			solid cable	stranded cable
		mm^2	1x6 / 2x4	1x4 / 2x2.5
		AWG	1x10 / 2x12	1x12 / 2x14

Zero crossing switching



1. Lower inrush current protects and increases lamp life
2. Lower inrush current reduces the possibility of contact welding
3. The current at switch-off is also lower, reducing stress and wear on the contacts

Note
Using the type 14.91, the lamps are switched on directly by the pushbutton

Accessories

020.01

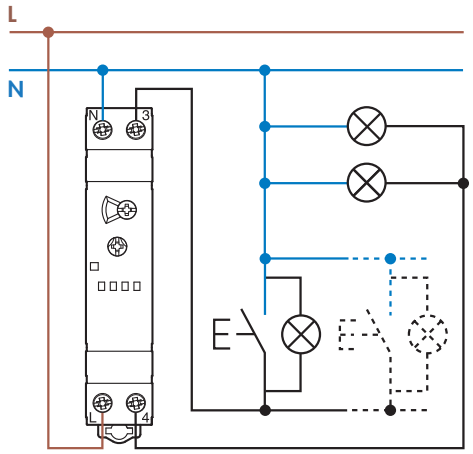
Adaptor for panel mounting, 17.5 mm wide	020.01

060.72

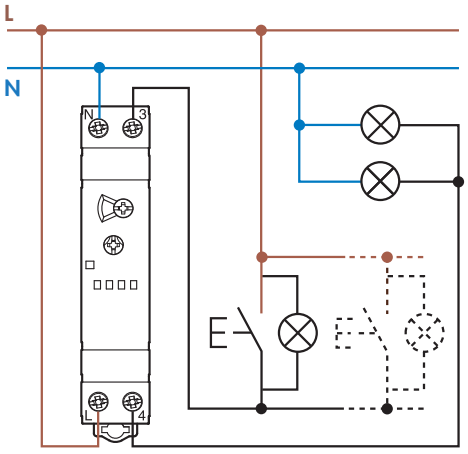
Sheet of marker tags, plastic, 72 tags, 6x12 mm	060.72

Wiring diagrams

Type 14.01
14.71
Red LED indication:
Continuous = relay ON
Blinking = relay OFF

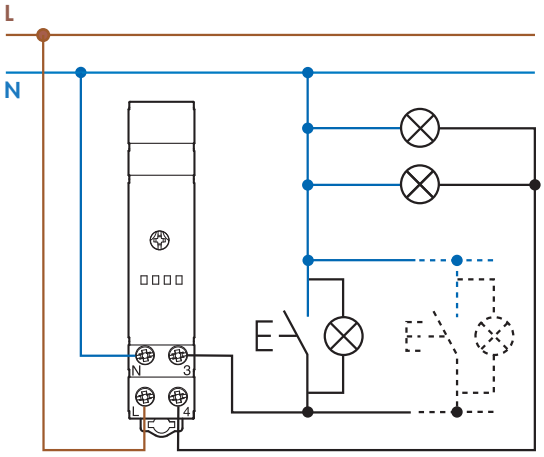


3 wire connection

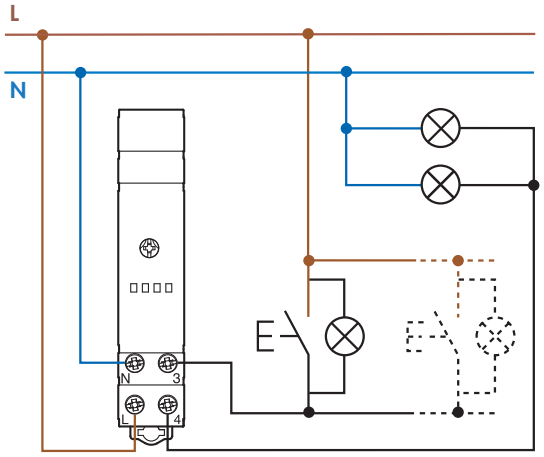


4 wire connection

Type 14.81 (pushbutton configuration procedure, as per the Installation manual)

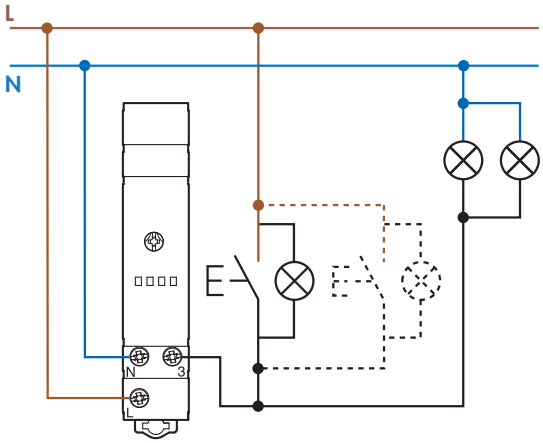


3 wire connection



4 wire connection

Type 14.91 (the push-buttons must be rated for the load current)



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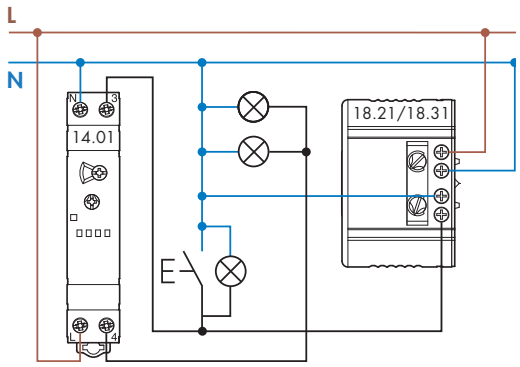
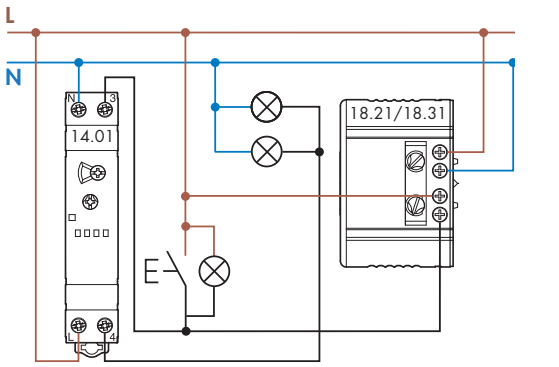
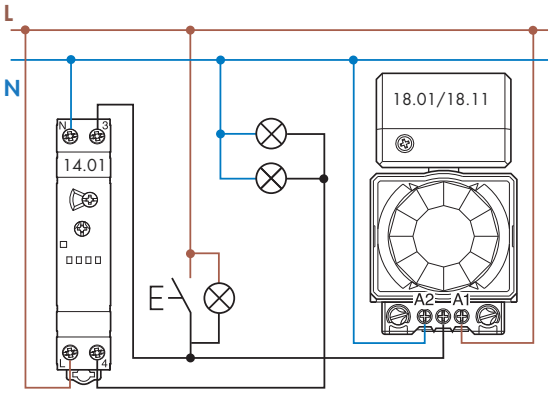
Wiring diagrams - 14.01 triggered by PIR movement detector (18 series)

3 wire connection (with 18.21.8.230.0300 or 18.31.8.230.0300 only)



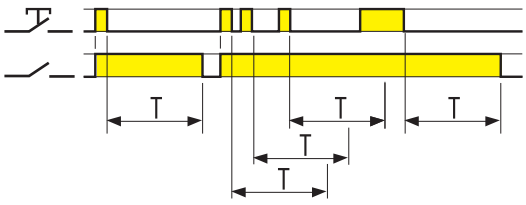
4 wire connection (with 18.01.8.230.0000, 18.11.8.230.0000, 18.21.8.230.0300 or 18.31.8.230.0300)



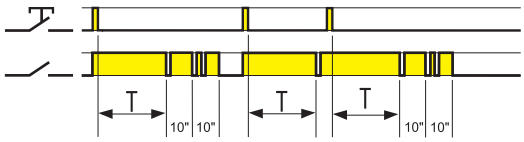


Functions

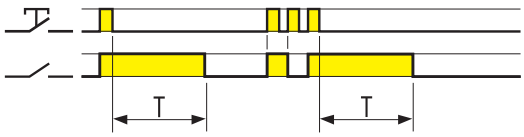
Type 14.01 Functions selectable with front rotary selector



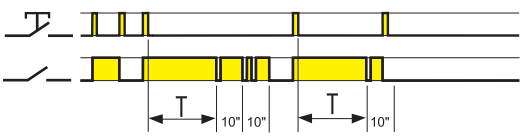
(BE) Staircase relay
On initial impulse the output contact closes and timing starts for the pre-set duration; subsequent impulses during the timing period will extend the timing period by the full pre-set value.
On expiry of the time delay, the output contact opens.



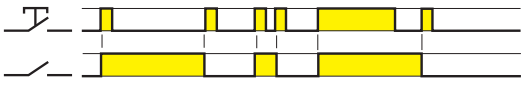
(BP) Staircase relay with early warning
On initial impulse the output contact closes and the timing starts for the pre-set duration.
After the timing period, the output contact blinks off once; 10secs later the contact blinks off twice, and after a further 10secs the contact opens.
During the pre-set and 20 second warning time, it is possible, by a further impulse, to extend the time by the full pre-set value.



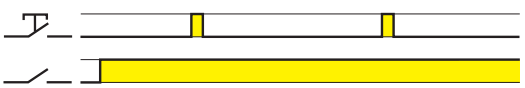
(IT) Timing step relay
On initial impulse the output contact closes and timing starts for the pre-set duration; On expiry of the time delay, the output contact opens.
During the timing period it is possible to immediately open the contact with a further impulse.



(IP) Timing step relay with early warning
On initial impulse the output contact closes and timing starts for the pre-set duration; After the timing period, the output contact blinks off once; 10 secs later the contact blinks off twice, and after a further 10 secs the contact opens.
During the pre-set and 20 second warning time, it is possible to immediately open the output contact by a further impulse.



(RI) Step relay
After every impulse, the output contact changes state - alternately switching from open to closed and vice versa.

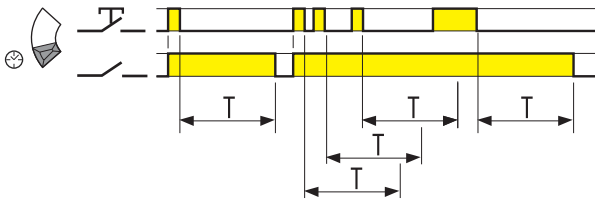


Light ON
With this function set - the output contact stays permanently closed.

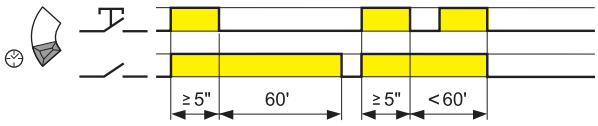
NOTE: The blinking within the Early Warning functions (BP and IP) could cause re-start problems for fluorescent lamps with electromagnetic chokes (both conventional and compact types); We consequently suggest not to use such lamps with these functions.

Functions

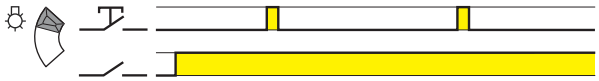
Type 14.71 Functions selectable with front selector



Staircase relay
On initial impulse the output contact closes and timing starts for the pre-set duration; subsequent impulses during the timing period will extend the timing period by the full pre-set value.
On expiry of the time delay, the output contact opens.

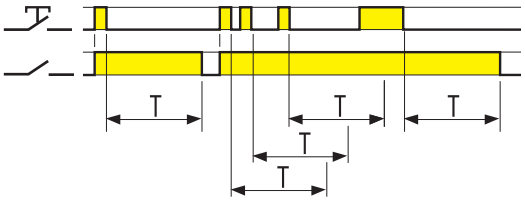


"Staircase maintenance" function
An impulse of ≥ 5 seconds will close the output contact for 60 minutes, after which time the contact will open. Ideal for maintenance or cleaning activities. The 60' timing can be interrupted by a further impulse of ≥ 5 seconds, the output contact opens.

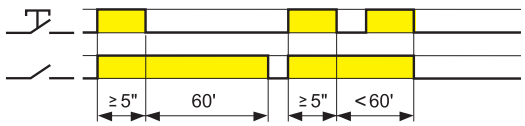


Light ON
With this function set - the output contact stays permanently closed.

Type 14.81

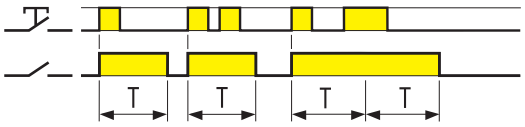


Staircase relay
On initial impulse the output contact closes and timing starts for the pre-set duration; subsequent impulses during the timing period will extend the timing period by the full pre-set value.
On expiry of the time delay, the output contact opens.



"Staircase maintenance" function
An impulse of ≥ 5 seconds will close the output contact for 60 minutes, after which time the contact will open. Ideal for maintenance or cleaning activities. The 60' timing can be interrupted by a further impulse of ≥ 5 seconds, which will re-establish the staircase timer function; so on expiry of the staircase time delay, the output contact opens.

Type 14.91



Signal ON pulse
On initial impulse the output contact closes, and remain so for the duration of the preset delay. On expiry of the time delay, the output contact opens.

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