

Features

13.01 - Quiet operating electronic step/monostable relay
1 Pole output contact

13.12 - Call & Reset Relay 2 Pole output contact

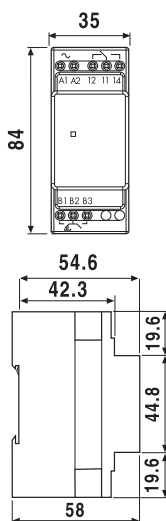
- Selectable Step or Monostable operation (type 13.01)
- Call relay with reset command suitable for residential and commercial applications: public bathroom, hospital, hotel (type 13.12).
- Control input can be continuously applied
- Longer mechanical and electrical life, and much quieter than electromechanical step relays
- Suitable for SELV applications according to IEC 364, (type 13.01)
- Type 13.01 available also for supply 12 and 24 V AC/DC
- Type 13.12 available at 12 V AC/DC and 24 V AC only
- 35 mm rail (EN 60715) mount
- Cadmium free contact material (type 13.01)

* For version 24 V $U_{max} = 33.6$ V
** During impulse only.

13.01



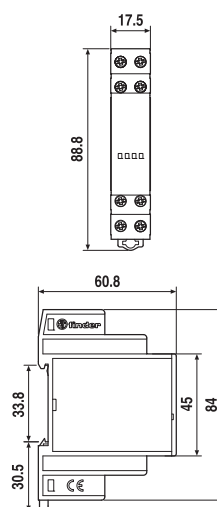
- Step or monostable relay
- 35 mm rail (EN 60715) mount



NEW 13.12



- Call relay with reset command
- 1 CO (SPDT) + 1 NO (SPST-NO)
- 35 mm rail (EN 60715) mount
- 17.5 mm wide



Contact specification

Contact configuration	1 CO (SPDT)	1 CO (SPDT) + 1 NO (SPST-NO)
Rated current/Maximum peak current	A 16/30 (120 A - 5 ms)	8/15
Rated voltage/Maximum switching voltage V AC	250/400	250/400
Rated load AC1	VA 4,000	2,000
Rated load AC15 (230 V AC)	VA 750	400
Nominal lamp rating: incandescent (230 V)	W 2,000	800
compensated fluorescent (230 V)	W 750	250
uncompensated fluorescent (230 V)	W 1,000	400
halogen (230 V)	W 2,000	800
Minimum switching load	mW (V/mA) 1,000 (10/10)	300 (5/5)
Standard contact material	AgSnO ₂	AgCdO

Supply specification

Nominal voltage (U _N)	V AC (50/60 Hz)	12 - 24 * - 110...125 - 230...240	12 - 24
	V DC	12 - 24 *	12
Rated power AC/DC	V AC (50 Hz)/W	2.5/2.5	3/2.5 **
Operating range	AC (50 Hz)	(0.8...1.1)U _N	(0.8...1.1)U _N
	DC	(0.9...1.1)U _N	(0.8...1.1)U _N

Technical data

Electrical life at rated load in AC1	cycles	100 · 10 ³	100 · 10 ³
Maximum impulse duration		continuous	continuous
Dielectric strength between:	open contacts	V AC 1,000	1,000
	supply - contacts	V AC 4,000	2,000
Ambient temperature range	°C	-10...+60	-10...+60
Protection category		IP 20	IP 20

Approvals (according to type)



Features

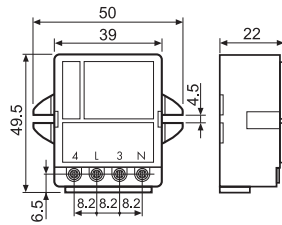
Quiet operation - electronic step relays 1 Pole output contact

- Use with 3 or 4 wire connection, with automatic recognition by the relay
- Control input can be continuously applied
- Longer mechanical and electrical life, and much quieter than electromechanical step relays
- Can be mounted behind blanking plates, as widely used in residential wiring systems such as; BTicino, Matix, Living e Magic, Gewiss GW24, Vimar Idea ... (Type 13.91)
- Box clamp terminals (type 13.81 and 13.91)
- "Zero crossing" load switching (type 13.81 and 13.91)
- 35 mm rail (EN 60715) or flange mount
- Cadmium free contact material

13.71



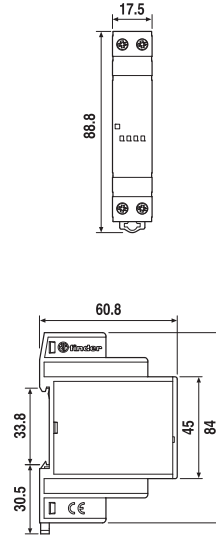
- 1 NO (SPST-NO)
- Panel mount
- Screw terminals



NEW 13.81



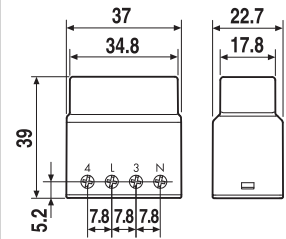
- 1 NO (SPST-NO)
- 35 mm rail (EN 60715) mount
- 17.5 mm wide



NEW 13.91



- 1 NO (SPST-NO)
- For mounting within residential switch boxes



Contact specification		13.71	13.81	13.91
Contact configuration		1 NO (SPST-NO)	1 NO (SPST-NO)	1 NO (SPST-NO)
Rated current/Maximum peak current	A	10/20 (120 A - 5 ms)	16/30 (120 A - 5 ms)	10/20 (80 A - 5 ms)
Rated voltage/Maximum switching voltage	V AC	230/—	230/—	230/—
Rated load AC1	VA	2,300	3,700	2,300
Rated load AC15 (230 V AC)	VA	450	750	450
Nominal lamp rating: incandescent (230 V)	W	1,000	3,000	800
compensated fluorescent (230 V)	W	350	1,000	300
uncompensated fluorescent (230 V)	W	500	1,000	400
halogen (230 V)	W	1,000	3,000	800
Minimum switching load	mW (V/mA)	1,000 (10/10)	1,000 (10/10)	1,000 (10/10)
Standard contact material		AgSnO ₂	AgSnO ₂	AgSnO ₂
Supply specification				
Nominal voltage (U _N)	V AC (50/60 Hz)	230	230	230
	V DC	—	—	—
Rated power	V AC (50 Hz)/W	1.5/1.2	3/1.2	2/1
Operating range	AC (50 Hz)	(0.85...1.15)U _N	(0.8...1.1)U _N	(0.8...1.1)U _N
	DC	—	—	—
Technical data				
Electrical life at rated load in AC1	cycles	100 · 10 ³	100 · 10 ³	100 · 10 ³
Maximum impulse duration		continuous	continuous	continuous
Dielectric strength between:	open contacts V AC	1,000	1,000	1,000
	supply - contacts V AC	—	—	—
Ambient temperature range	°C	-10...+60	-10...+60	-10...+50
Protection category		IP 20	IP 20	IP 20
Approvals (according to type)		CE PG Y NF	CE PG Y NF	CE

Ordering information

Example: 13 series, electronic step/monostable relay, 35 mm rail (EN 60715) mount, 1 CO (SPDT) 16 A contact, 230 V AC supply.

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

Series

Type

- 0 = Step/Monostable, 35 mm rail (EN 60715) mount, 35 mm wide
- 1 = Call & Reset relay, 35 mm rail (EN 60715) mount, 17.5 mm wide
- 7 = Step relay, panel mount
- 8 = Modular step relay, 35 mm rail (EN 60715) mount, 17.5 mm wide
- 9 = Step relay, built-in box mounting

No. of poles

- 1 = 1 pole
- 2 = 1 pole CO (SPDT) + 1 NO (SPST-NO)

Supply voltage

- 012 = 12 V AC/DC (13.01 and 13.12 only)
- 024 = 24 V AC/DC (13.01 only)
- 024 = 24 V AC (13.12 only)
- 125 = (110...125)V AC (13.01 only)
- 230 = (230...240)V AC (13.01 only)
- 230 = 230 V AC (13.71, 13.81 and 13.91)

Supply version

- 0 = AC (50/60 Hz)/DC
(for 13.01.0.012, 13.01.0.024 and 13.12.0.012 only)
- 8 = AC (50/60 Hz)

Technical data

Insulation	13.01.8	13.01.0	13.12		13.71 - 13.81 - 13.91		
Dielectric strength							
between control circuit and supply V AC	4,000	—	—		—		
between control circuit and contacts V AC	4,000	4,000	—		—		
between R-SA2 and contacts V AC	—	—	2,000		—		
between supply and contacts V AC	4,000	4,000	—		—		
between open contacts V AC	1,000	1,000	1,000		1,000		
Other data	13.01		13.12	13.71	13.81	13.91	
Power lost to the environment							
without contact current W	2.2		—	0.5	1.2	0.7	
without rated current W	3.5		1.5	2.9	2	1.8	
Max cable length for push-button connection m	100		100	100	200	100	
Max. no. of illuminated push-button (≤ 1mA)	—		—	15	15	12	
Terminals	13.01		13.71		13.12 - 13.81 - 13.91		
Max. wire size	solid cable	stranded cable	solid cable	stranded cable	solid cable	stranded cable	
	mm ²	1x6 / 2x4	1x6 / 2x2.5	1x2.5 / 2x2.5	1x2.5 / 2x2.5	1x6 / 2x4	1x4 / 2x2.5
	AWG	1x10 / 2x12	1x10 / 2x14	1x12 / 2x14	1x14 / 2x14	1x10 / 2x12	1x12 / 2x14
Screw torque	Nm		0.8		0.8		

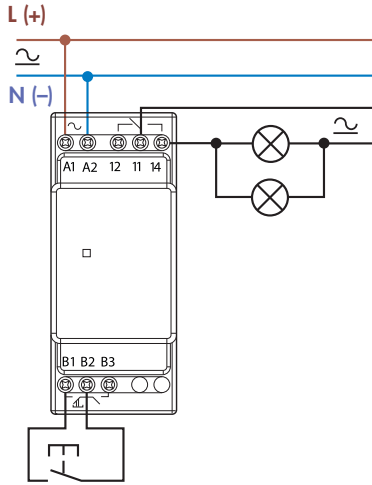
Type	Number of steps	Sequence	
		1	2
13.01	2		
13.71 13.81 13.91	2		

Wiring diagrams (13.01, 13.12 and 13.71)

Type 13.01

Step wiring diagram

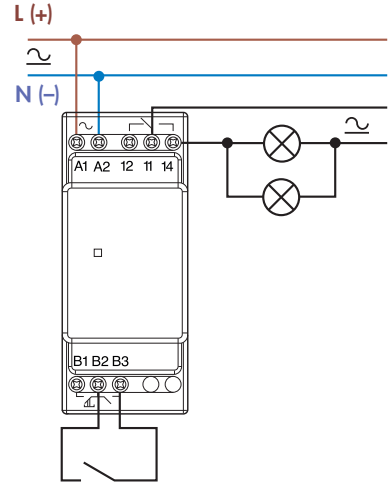
Red LED indication:
Continuous = relay ON



Type 13.01

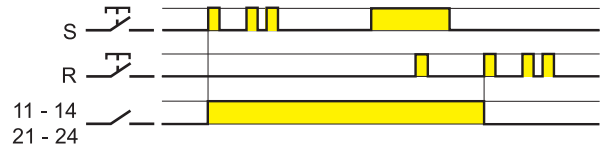
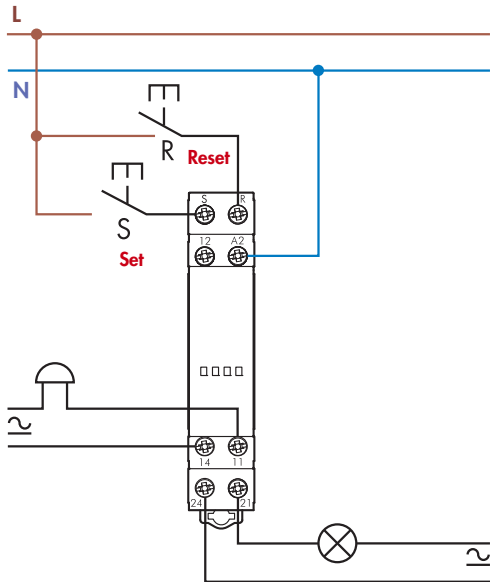
Monostable wiring diagram

Red LED indication:
Continuous = relay ON



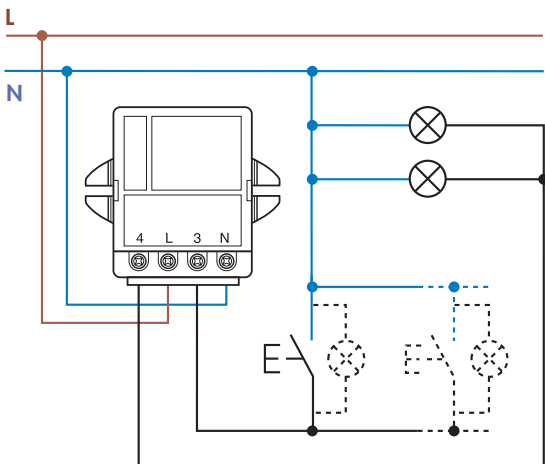
Type 13.12

Call & reset relay



Type 13.71

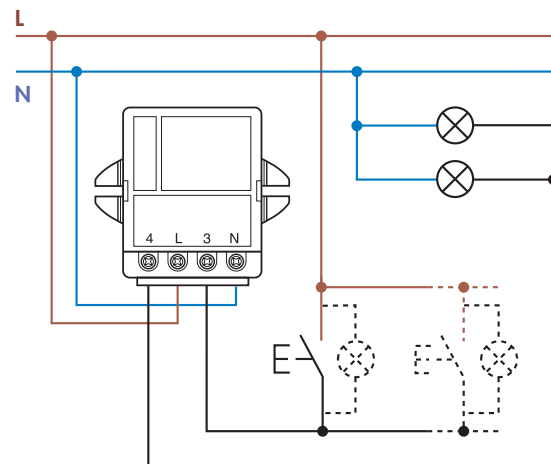
3 wire connection



Max 15 (\leq 1 mA)
illuminated push buttons

Type 13.71

4 wire connection

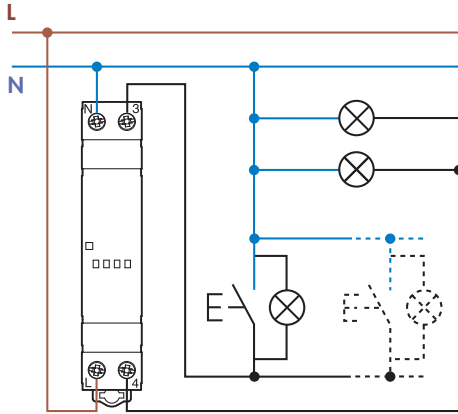


Max 15 (\leq 1 mA)
illuminated push buttons

Wiring diagrams (13.81 and 13.91)

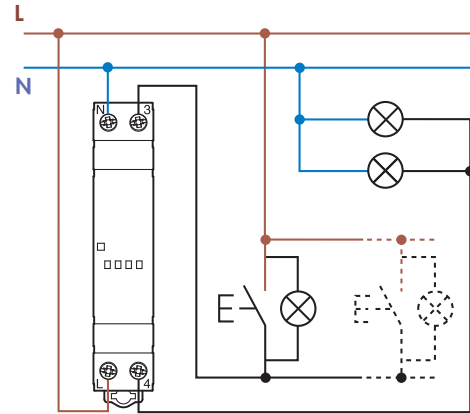
Type 13.81

3 wire connection
 Red LED indication:
 Continuous = relay ON
 Blinking = relay OFF



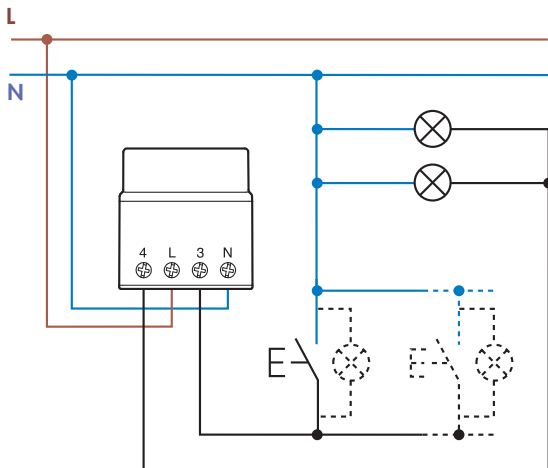
Type 13.81

4 wire connection
 Red LED indication:
 Continuous = relay ON
 Blinking = relay OFF



Type 13.91

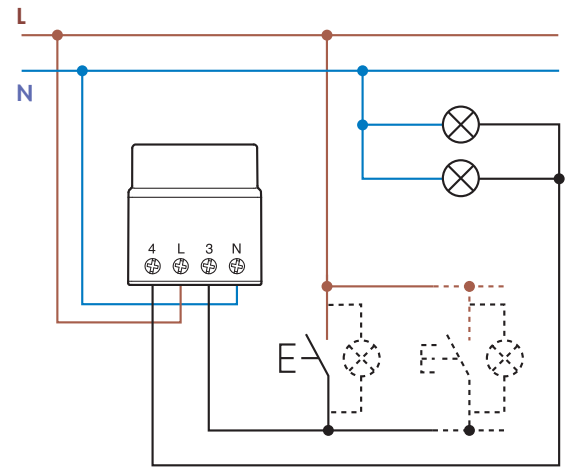
3 wire connection



Max 12 (≤ 1 mA)
 illuminated push buttons

Type 13.91

4 wire connection



Max 12 (≤ 1 mA)
 illuminated push buttons

Accessories



011.01

Adaptor for panel mounting, for type 13.01, 35 mm wide

011.01



020.01

Adaptor for panel mounting, for type 13.12 and 13.81, 17.5 mm wide

020.01



060.72

Sheet of marker tags for type 13.12 and 13.81, plastic, 72 tags, 6x12 mm

060.72