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SWITCH TO THE FUTURE

Step relays 10 A

Lighting control in corridors (for hotels, offices and hospitals)

Bedroom light control

Living room light control

26
SERIES

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تهران، کیلومتر۲۱ بزرگراه لشگری (جاده مخصوص کرج)
روبروی پالایشگاه نفت پارس، پلاک ۱۲

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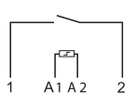
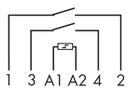
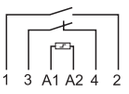
روبروی پالایشگاه نفت پارس، پلاک ۱۲

1 or 2 Pole electromechanical step relay with electrically separate coil and contact circuits

- Choice of 6 switching sequences
- Screw terminal connections
- AC coil
- Panel mount
- Cadmium free contact material

26.01/02/04/06/08/03
Screw terminal

	26.01	26.02, 04, 06, 08	26.03
			
	• Single phase switch 1 NO (SPST-NO) • According to EN 60601-1 2 x MOPP	• Double phase switch 2 NO (DPST-NO) • According to EN 60601-1 2 x MOOP	• 1 NO + 1 NC (SPST-NO + SPST-NC) • According to EN 60601-1 2 x MOOP
	 26.01	 26.02 26.04 26.06 26.08	 26.03
For outline drawing see page 6			
Contact specification			
Number of contacts	1 NO (SPST-NO)	2 NO (DPST-NO)	1NO+1NC (SPST-NO+SPST-NC)
Rated current/Maximum peak current A	10/20	10/20	10/20
Rated voltage/ Maximum switching voltage V AC	250/400	250/400	250/400
Rated load AC1 VA	2500	2500	2500
Rated load AC15 (230 V AC) VA	500	500	500
Nominal lamp rating:			
230 V incandescent/halogen W	800	800	800
fluorescent tubes with electronic ballast W	400	400	400
fluorescent tubes with electromagnetic ballast W	360	360	360
CFL W	200	200	200
230 V LED W	200	200	200
LV halogen or LED with electronic ballast W	200	200	200
LV halogen or LED with electromagnetic ballast W	400	400	400
Minimum switching load mW (V/mA)	1000 (10/10)	1000 (10/10)	1000 (10/10)
Standard contact material	AgNi	AgNi	AgNi
Coil specification			
Nominal voltage (UN) V AC (50 Hz)	12 - 24 - 48 - 110 - 230	12 - 24 - 48 - 110 - 230	12 - 24 - 48 - 110 - 230
V DC	—	—	—
Rated power AC/DC VA (50 Hz)/W	4.5/—	4.5/—	4.5/—
Operating range AC (50 Hz)	(0.8…1.1)U_N	(0.8…1.1)U_N	(0.8…1.1)U_N
DC	—	—	—
Technical data			
Mechanical life AC/DC cycles	$300 \cdot 10^3$	$300 \cdot 10^3$	$300 \cdot 10^3$
Electrical life at rated load in AC1 cycles	$100 \cdot 10^3$	$100 \cdot 10^3$	$100 \cdot 10^3$
Minimum/Maximum impulse duration	0.1 s/1 h (according to EN 60669)	0.1 s/1 h (according to EN 60669)	0.1 s/1 h (according to EN 60669)
Insulation between coil and contacts (1.2/50 µs) kV	4	4	4
Ambient temperature range °C	–40…+40	–40…+40	–40…+40
Protection category	IP 20	IP 20	IP 20
Approvals (according to type)	CE UK CA EAC		

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26 SERIES
Step relays 10 A

Ordering information

Example: 26 series screw terminal, panel mount relay, double phase switch 2 NO (DPST-NO) 10 A contacts, coil rated 12 V AC.

2 6	.	0	2	.	8	.	0 1 2	.	0	.	0	.	0
Series		Type	No. of poles		Coil version		Coil voltage						

Series

Type
0 = Screw terminal

No. of poles
1 = Single phase switch 1 NO (SPST-NO)
2 = Double phase switch 2 NO (DPST-NO)
3 = Double phase switch 1 NO + 1 NC (SPST-NO + SPST-NC)
4 = 4 sequences double phase switch 2 NO (DPST-NO)
6 = 3 sequences double phase switch 2 NO (DPST-NO)
8 = 4 sequences double phase switch 2 NO (DPST-NO)

Coil version
8 = AC (50 Hz)

Coil voltage
See coil specifications

Technical data

Insulation					
Dielectric strength					
between supply and contacts	V AC	4000			
between open contacts	V AC	2000			
between adjacent contacts	V AC	2000			
Other data		**26.01, 26.03, 26.08**		**26.02, 26.04, 26.06**	
Power lost to the environment					
with rated current and coil de-energised	W	0.9		1.8	
Screw torque	Nm	0.8		0.8	
Max. wire size		solid cable	stranded cable	solid cable	stranded cable
	mm^2	1 x 4 / 2 x 2.5	1 x 2.5 / 2 x 2.5	1 x 4 / 2 x 2.5	1 x 2.5 / 2 x 2.5
	AWG	1 x 12 / 2 x 14	1 x 14 / 2 x 14	1 x 12 / 2 x 14	1 x 14 / 2 x 14

Coil specifications

AC version data

Nominal voltage U_N	Coil code	Operating range U_{min}	Operating range U_{max}	Resistance R	Consumption I at U_N (50 Hz)
V		V	V	Ω	mA
12	**8**.012	9.6	13.2	17	370
24	**8**.024	19.2	26.4	70	180
48	**8**.048	38.4	52.8	290	90
110	**8**.110	88	121	1500	40
230	**8**.230	184	253	6250	20

Type	Number of steps	Sequence 1	2	3	4
26.01	2				
26.02	2				
26.03	2				
26.04	4				
26.06	3				
26.08	4				

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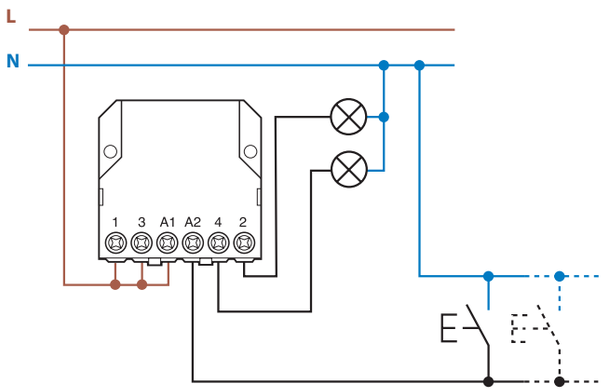
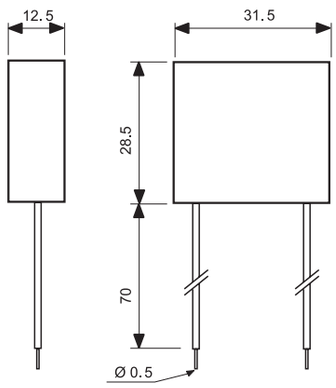
Wiring diagrams

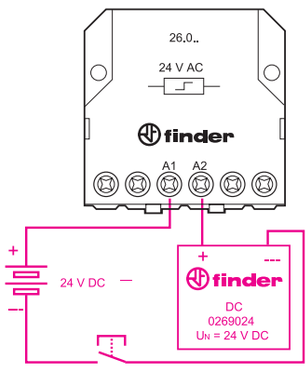


Accessories

for 12 and 24 V DC control applications

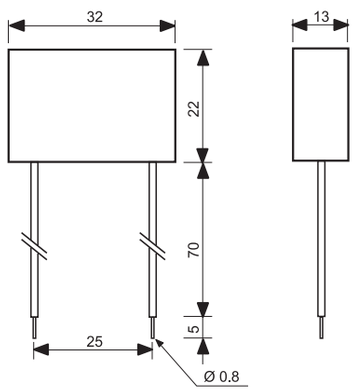


Type: 026.9.012
Nominal voltage: 12 V DC
Max temperature: +40 °C
Operating range: (0.9…1.1)U_N
Type: 026.9.024
Nominal voltage: 24 V DC
Max temperature: +40 °C
Operating range: (0.9…1.1)U_N

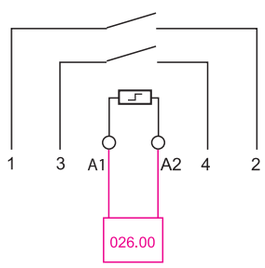


Example of wiring for 24 V DC control application.

Module for use with illuminated push buttons (230 V AC applications)



Type 026.00
Sealed construction, 7.5 cm insulated flexible wire termination.



Example of wiring diagram of type 026.00
This module is necessary when using between 1 and a maximum of 15 illuminated push buttons in the coil circuit (Each 1 mA max, 230 V AC).
It must be connected in parallel to the coil of the relay (see diagram).

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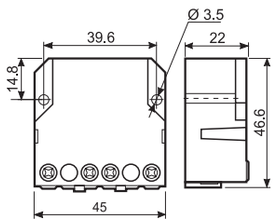
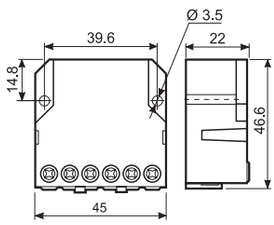
26 SERIES
Step relays 10 A

Outline drawings

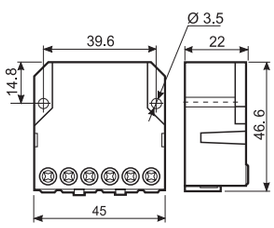
Type 26.01
Screw terminal



Types 26.02 / 04 / 06 / 08
Screw terminal



Type 26.03
Screw terminal



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Please see general technical information

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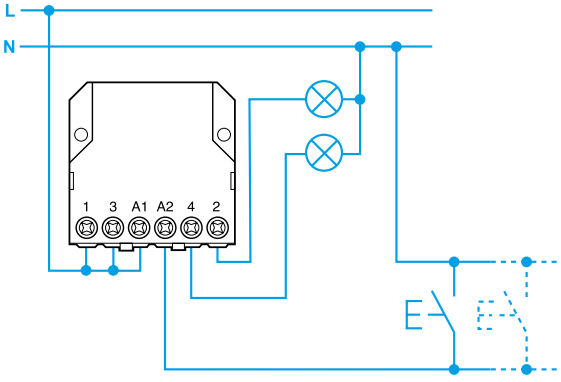
- (I) **RELÈ AD IMPULSI 10 A**
- (GB) **STEP RELAY 10 A**
- (F) **TELERUPTEUR 10 A**
- (D) **STROMSTOSS-SCHALTER 10 A**
- (NL) **IMPULSRELAIS 10 A**
- (E) **RELE DE IMPULSOS 10 A**
- (P) **RELÉ DE IMPULSO 10 A**
- (H) **LÉPTETŐ (IMPULZUS) RELÉ 10 A**
- (CZ) **SPÍNAČ IMPULSN OVLÁDANÝ KOMPAKTNÍ, 10 A**
- (RO) **RELEE PAS CU PAS ELECTROMECANICE 10 A**

	U_N (12 - 24 - 48 - 110 - 230)VAC (50 Hz) U_{min} 0.8 U_N (50 Hz) U_{max} 1.1 U_N (50 Hz)
	1 NO (SPST-NO) **26.01** 2 NO (DPST-NO) 1 NO (SPST-NO) + 1NC (SPST-NC) **26.03**
	AC1 2500 VA AC15 (230 V AC) 500 VA
	(230 V AC) 800 W (230 V AC) 360 W CFL - LED 200 W
	(–40…+40)°C
IP20	

(I) Tipo	N° di impulsi	Sequenze			
(GB) Type	Number of steps	Sequences			
(F) Types	Nb. opérations	Sequences			
(D) Typ	Schaltvarianten	Schaltfolge			
(NL) Type	Schakelposities	Schakelprogramma			
(E) Tipos	N° impulsos	Secuencias			
(P) Tipo	N° de impulsos	Seqüências			
(H) Típus	Kapcs. lépések száma	Kapcsolási sorrend			
(CZ) Typ	Počet krok	Postup krok			
(RO) Tipul	Numărul paşilor	Secvenţele			

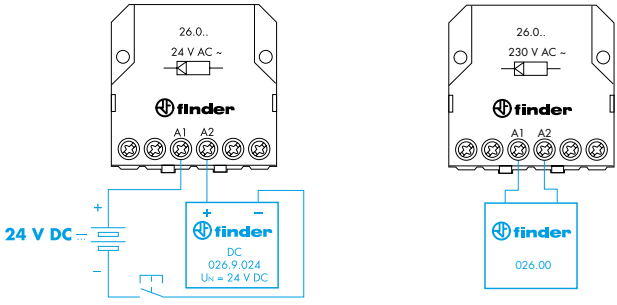
		1	2	3	4
26.01	2				
26.02	2				
26.03	2				
26.04	4				
26.06	3				
26.08	4				



(I) **ATTENZIONE**: in caso di tensione nominale 12V DC o 24V DC è necessario il montaggio del modulo 026.9.012 o 026.9.024. Dimensioni Adattatore (31.5x28.5x12.5) mm.
(GB) **WARNING**: for a control voltage of 12 V DC or 24 V DC, use the appropriate AC relay with the appropriate DC adaptor 026.9.012 or 026.9.024. Adatptor dimension (31.5x28.5x12.5) mm.
(F) **ATTENTION**: en cas de tension nominale 12V DC ou 24V DC il est nécessaire de monter le module 026.9.012 ou 026.9.024. Dimensions Adaptateur (31.5x28.5x12.5) mm.
(D) **ACHTUNG**: Zum Betrieb an 12 V DC ist der Adapter 026.9.012 und zum Betrieb an 24 V DC der Adapter 026.9.024 einzusetzen. Adapterabmessung (31,5x28,5x12,5) mm.
(NL) **WAARSCHUWING**: Bij nominale spanning 12V DC of 24V DC is montage van de adapter 026.9.012 of 026.9.024 vereist. Adapterafmetingen (31,5x28,5x12,5) mm.
(E) **ADVERTENCIA**: para tensiones nominales 12 V DC o 24 V DC es necesario utilizar el módulo 026.9.012 o 026.9.024. Dimensiones del modulo (31.5x28.5x12.5) mm.
(P) **ATENÇÃO**: no caso de tensão nominal 12 V DC ou 24 V DC é necessário utilizar o módulo 026.9.012 ou 026.9.024. Dimensões do adaptador (31.5 x 28.5 x 12.5) mm.
(H) **FIGYELEM**: A 12 V AC tekercsfeszültségű relé 12 V DC feszültséggel történő működtetéséhez a 026.9.012, a 24 V AC tekercsű relé 24 V DC feszültséggel történő működtetéséhez a 026.9.024 számú adapter szükséges. Az adapter méretei: (31,5x28,5x12,5) mm.
(CZ) **POZOR**: Adaptér 026.9.012 pro ovládání spínače na 12 V AC nap tím 12 V DC.
Adaptér 026.9.024 pro ovládání spínače na 24 V AC nap tím 24 V DC (31.5 x 28.5 x 12.5) mm.
(RO) **ATENȚIE**: pentru tensiuni de comandă continue (C.C.) de 12 V DC sau 24 V DC utilizați un releu de tensiune alternativă AC (C.A.) corespunzător împreună cu un adaptor destinat comenzii în DC (C.C.): de tipul 026.9.012 sau 026.9.024. Dimensiunile adaptorului sunt: 31.5x28.5x12.5 mm.

(I) **IMPORTANTE PER L'INSTALLAZIONE**
In caso di utilizzo con pulsanti luminosi (fino a 15 pulsanti luminosi da max 1 mA 230 V AC) è necessario il montaggio del modulo tipo 026.00. Dimensioni condensatore (32x22x13) mm.
(GB) **IMPORTANT**
Where the relay is to be used with illuminated push-buttons (Maximum of 15, each 1 mA max. at 230 V AC), the special module (part number: 026.00) must be fitted. Module dimensions (32x22x13) mm.
(F) **IMPORTANT POUR L'INSTALLATION**
En cas d'utilisation de poussoirs lumineux (jusqu'à 15 boutons poussoirs lumineux max de 1 mA 230 V AC) il est nécessaire de monter un module type 026.00. Dimensions du module (32x22x13) mm.
(D) **ANMERKUNG bei Betrieb mit Leuchttastern**:
Bei Betrieb mit max. 15 Leuchttaster (1 mA/230 V AC) ist der Kondensator 026.00 erforderlich. Kondensator-Abmessungen (32x22x13) mm.
(NL) **OPMERKING**
Bij aansturing met maximaal 15 verlichte drukknoppen (1 mA/230 V AC) is de moduul 026.00 vereist. Condensatorafmetingen (32x22x13) mm.
(E) **IMPORTANTE PARA LA INSTALACION**
En caso de utilizar pulsadores luminosos (hasta 15 pulsadores luminosos de máximo 1mA 230 V AC) es necesario el montaje del módulo tipo 026.00. Dimensiones del condensator (32x22x13) mm.
(P) **IMPORTANTE PARA A INSTALAÇÃO**
Em caso de aplicação com botões pulsadores luminosos (até 15 pulsadores com máx 1 mA 230 V AC) é necessário acoplar ao relé o módulo tipo 026.00. Dimensões do condensador (32x22x13) mm.
(H) **TUDNIVALÓK világító (glimm) nyomógombokkal történő üzemeltetéshez**.
Legfeljebb 15 világító (glimm) nyomógomb (1 mA/230 V) működtetéséhez egy 026.00 típusú kondenzátor szükséges. A kondenzátor méretei (32x22x13) mm.
(CZ) **Příklad připojení kondenzátoru, typu 026.00**.
Kondenzátor 1,5 µF/230 V je zapotřebí pro ovládání pomocí až 15 pro-světlených tlačítek (max. 1 mA / 230 V), připojuje se paralelně k cívce impulsně ovládaného spínače (31.5 x 28.5 x 12.5) mm.
(RO) **IMPORTANT**
Când comanda releului se realizează de la butoane de impuls iluminate (în număr de maxim 15, având fiecare maxim 1mA la 230 V C.A.) trebuie utilizat şi modulul special 026.00 care are dimensiunile: 32x22x13 mm.

12 V DC	026.9.012
24 V DC	026.9.024



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- (CZ) **SPÍNAČ IMPULSN OVLÁDANÝ KOMPAKTNÍ, 10 A**
- (RO) **RELEE PAS CU PAS ELECTROMECANICE 10 A**

	U_N 110 V AC (50/60 Hz)	U_N 230 V AC (50/60 Hz)
	U_{min} - U_{max} 0.8-1.1 U_N (50 Hz) 0.85-1.1 U_N (60 Hz)	
	1 NO (SPST-NO) (27.01) 2 NO (DPST-NO) (27.05 / 27.06)	
	10 A 110 V AC	10 A 230 V AC
	AC1 1100 VA AC15 250 VA	AC1 2300 VA AC15 500 VA
	– 180 W CFL 100 W	1000 W 360 W CFL - LED (230 V) 200 W
	(–40…+40)°C	
	4 (1mA)	
	IP20	

(I) Tipo	N° di impulsi	Sequenze
(GB) Type	Number of steps	Sequences
(F) Types	Nb. opérations	Sequences
(D) Typ	Schaltvarianten	Schaltfolge
(NL) Type	Schakelposities	Schakelprogramma
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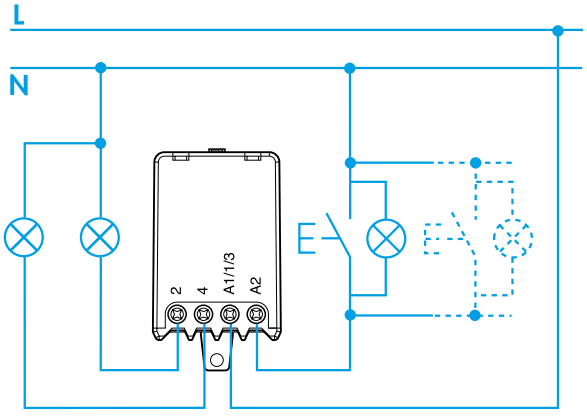
(P) Tipo	N° de impulsos	Seqüências
(H) Típus	Kapcs. lépések száma	Kapcsolási sorrend
(CZ) Typ	Počet krok	Postup krok
(RO) Tipul	Numărul paşilor	Secvenţele

		1	2	3	4
27.01	2				
27.05	4				
27.06	3				



(I) IMPORTANTE PER L'INSTALLAZIONE
In caso di utilizzo con pulsanti luminosi (fino a 24 pulsanti luminosi da max 1 mA 230 V AC) è necessario il montaggio del modulo tipo 027.00.

(GB) IMPORTANT
Where the relay is to be used with illuminated push-buttons (Maximum of 24, each 1 mA max. at 230 V AC), the special module (part number: 027.00) must be fitted.

(F) IMPORTANT POUR L'INSTALLATION
En cas d'utilisation de poussoirs lumineux (jusqu'à 24 boutons poussoirs lumineux max de 1 mA 230 V AC) il est nécessaire de monter un module type 027.00.

(D) ANMERKUNG bei Betrieb mit Leuchttastern:
Bei Betrieb mit max. 24 Leuchttastern (1 mA / 230 V) ist das Modul 027.00 erforderlich.

(NL) OPMERKING
Bij aansturing met maximaal 24 verlichte drukknoppen (1 mA / 230 V) is de moduul 027.00 vereist.

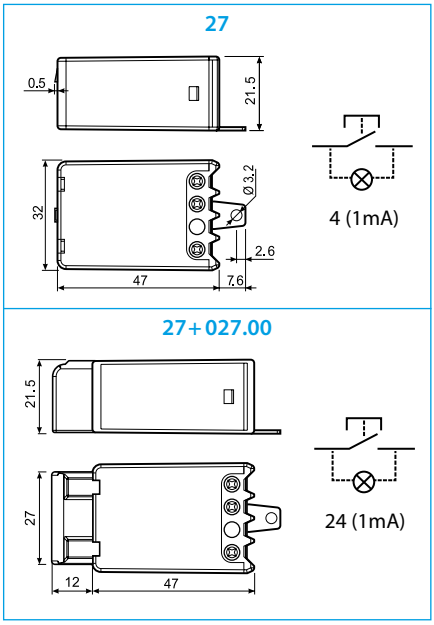
(E) IMPORTANTE PARA LA INSTALACION
En caso de utilizar pulsadores luminosos (hasta 24 pulsadores luminosos de máximo 1 mA 230 V AC) es necesario el montaje del módulo tipo 027.00.

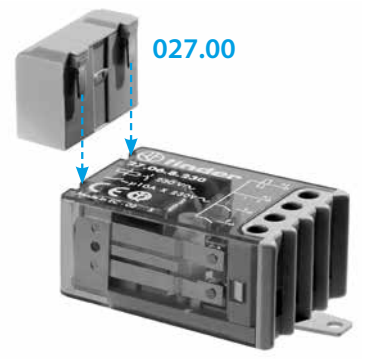
(P) IMPORTANTE PARA A INSTALAÇÃO
Em caso de aplicação com botões pulsadores luminosos (até 24 pulsadores com máx 1 mA 230 V AC) é necessário acoplar ao relé o módulo tipo 027.00.

(H) TUDNIVALÓK világító (glimm) nyomógombokkal történő üzemeltetéshez.
Legfeljebb 24 világító (glimm) nyomógomb (1 mA / 230 V) működtetéséhez egy 027.00 típusú kondenzátor szükséges.

(CZ) POZOR pro ovládání prosvtlenými tlačítky.
Modul 027.00 je zapotebí pro ovládání pomocí až 24 prosvtlenými tlačítky (max.1 mA / 230 V).
Modul se umís uje pímo na spínači.

(RO) IMPORTANT
Când comanda releului se realizează de la butoane de impuls iluminate (în număr de maxim 24, având fiecare maxim 1mA la 230V C.A.) trebuie utilizat şi modulul special 027.00.





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Step relays 10 A

- Lighting control in corridors (for hotels, offices and hospitals)
- Bedroom light control
- Living room light control

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تهران، کیلومتر۲۱ بزرگراه لشگری (جاده مخصوص کرج)
روبروی پالایشگاه نفت پارس، پلاک ۱۲

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1 or 2 Pole electromechanical step relay, for electrically common coil and contact circuits

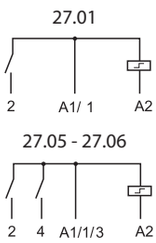
27.0x - Connect up to 24 illuminated push buttons with the addition of module 027.00

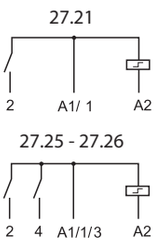
27.2x - Connect up to 15 illuminated push buttons (without additional module) - incorporates coil power limiter to permit continuous coil energisation

- Choice of 3 switching sequences
- Screw terminal connections
- AC coil
- Panel mount
- Cadmium free contact material
- Italian Patent

	27.0x	27.2x EVO
		
	• Single or 2 double phase switch 1 NO (SPST-NO) or 2 NO (DPST-NO)	• Single or 2 double phase switch 1 NO (SPST-NO) or 2 NO (DPST-NO) with coil power limiter

27.0x / 2x
Screw terminal





For outline drawing see page 5

Contact specification				
Number of contacts		1 or 2		1 or 2
Rated current/Maximum peak current	A	10/20		10/20
Rated voltage/ Maximum switching voltage	V AC	110/—	230/—	230/—
Rated load AC1	VA	1100	2300	2300
Rated load AC15	VA	250	500	500
Nominal lamp rating:				
230 V incandescent/halogen	W	—	1000	1000
fluorescent tubes with electronic ballast	W	200	400	400
fluorescent tubes with electromagnetic ballast	W	180	360	360
CFL	W	100	200	200
230 V LED	W	—	200	200
LV halogen or LED with electronic ballast	W	100	200	200
LV halogen or LED with electromagnetic ballast	W	200	400	400
Minimum switching current	mW (V/mA)	10		10
Standard contact material		AgNi		AgNi
Coil specification				
Nominal voltage (U_N)	V AC (50/60 Hz)	110	230	230
	V DC	—		—
Pickup/continuous power	VA (50 Hz)	4/4		25/1
Operating range	AC 50 Hz/AC 60 Hz	$(0.8…1.1)U_N$ / $(0.85…1.1)U_N$		$(0.8…1.1)U_N$ / $(0.85…1.1)U_N$
	DC	—		—
Technical data				
Mechanical life AC/DC	cycles	$300 \cdot 10^3$		$300 \cdot 10^3$
Electrical life at rated load in AC1	cycles	$100 \cdot 10^3$		$100 \cdot 10^3$
Max no. of illuminated push-button	(≤ 1 mA)	4 (24 with module 027.00)		15
Minimum/Maximum impulse duration		0.1 s/1 h (according to EN 60669)		0.1 s/continuous
Ambient temperature range	°C	–40…+40		–40…+40
Protection category		IP 20		IP 20
Approvals (according to type)		CE EAC		

27 SERIES
Step relays 10 A

Ordering information

Example: 27 series screw terminal, panel mount step relay, single phase switch 1 NO (SPST-NO) 10 A contact, coil rated 230 V AC.

2 7	.	0		1	.	8	.	2 3 0	.	0	.	0	.	0	.	0

Series

Type
0 = Clamp terminal
2 = Clamp terminal, with coil power limiter

No. of poles
1 = Single phase switch 1 NO (SPST-NO)
5 = 4 sequences double phase switch 2 NO (DPST-NO)
6 = 3 sequences double phase switch 2 NO (DPST-NO)

Coil version
8 = AC (50/60 Hz)

Coil voltage
See coil specifications

Technical data

Other data		27.01, 27.21		27.05, 27.06, 27.25, 27.26	
Power lost to the environment with rated current and coil de-energised	W	0.9		1.8	
Screw torque	Nm	0.8		0.8	
Max. wire size		solid cable	stranded cable	solid cable	stranded cable
	mm^2	2 x 2.5	1 x 4 / 2 x 2.5	2 x 2.5	1 x 4 / 2 x 2.5
	AWG	2 x 14	1 x 12 / 2 x 14	2 x 14	1 x 12 / 2 x 14

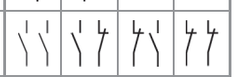
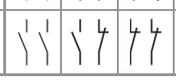
Coil specifications

Types 27.01, 27.05, 27.06

Nominal voltage	Coil code	Operating range (50 Hz)		Resistance	Consumption I at U_N
U_N		U_{min}	U_{max}	R	(50 Hz)
V		V	V	Ω	mA
110	**8**.110	88	121	1400	42.0
230	**8**.230	184	253	6500	17.5

Types 27.21, 27.25, 27.26

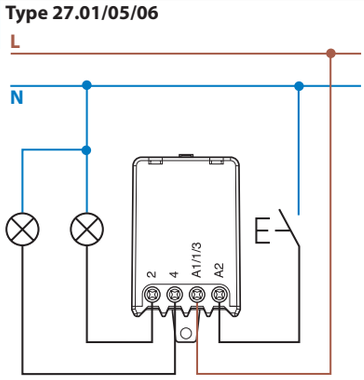
Nominal voltage	Coil code	Operating range (50 Hz)		Resistance	Consumption	
					pick up	continuous
U_N		U_{min}	U_{max}	R	I at U_N (50 Hz)	I at U_N (50 Hz)
V		V	V	Ω	mA	mA
230	**8**.230	184	253	1250	100	4

Type	Number of steps	Sequence			
		1	2	3	4
27.01/21	2				
27.05/25	4				
27.06/26	3				

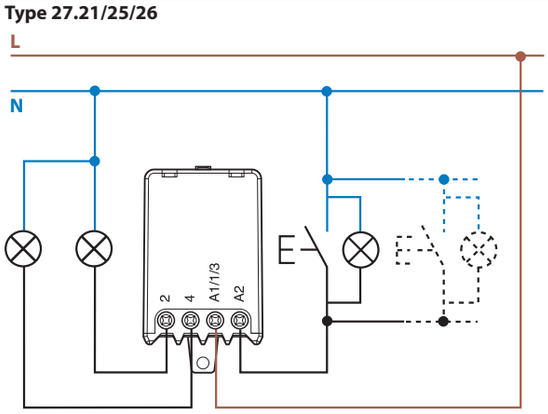
K

Wiring diagram

Type 27.01/05/06

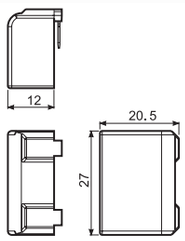


Type 27.21/25/26

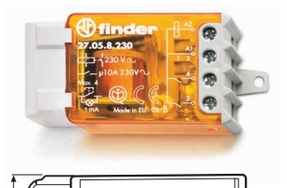


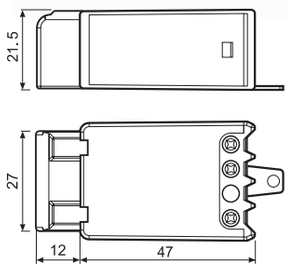
Accessories for types 27.01, 27.05, 27.06

Module for illuminated push-button (230 V AC applications)



Type 027.00
This module is necessary if using up to a maximum of 24 illuminated push-buttons (1 mA max, 230 V AC) in the switching input circuit.
It must be plugged directly into the relay.

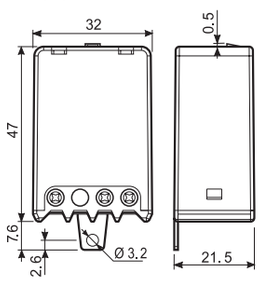




Type 27.0x + 027.00

Outline drawing

Types 27.0x / 2x
Screw terminal



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SWITCH TO THE FUTURE

Modular step relays 16 A

- Automation for blinds, grilles and shutters
- Living room light control
- Bedroom light control
- Lighting control in corridors (for hotels, offices and hospitals)

20
SERIES

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20 SERIES
Modular step relays 16 A

finder

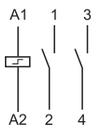
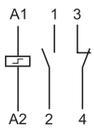
1 or 2 Pole 16 A Step relays for direct 35 mm rail (EN 60715) mounting

- 17.4 mm wide
- Test button with mechanical indicators
- Choice of 7 switching sequences
- AC coils and DC coils
- Identification label
- According to EN 60601-1
  2 x MOPP
- Possible to connect illuminated push buttons with the additional part 026.00
- 35 mm rail (EN 60715) mount
- Cadmium free contact material

20.21/22/24/26/27/28/23
Screw terminal

For UL ratings see:
"General technical information" page V

For outline drawing see page 5

	20.21	20.22, 24, 26, 27, 28	20.23
			
	• Single phase switch 1 NO (SPST-NO) • 35 mm rail (EN 60715) mount	• Double phase switch • 35 mm rail (EN 60715) mount	• Double phase switch 1NO+1NC (SPST-NO+SPST-NC) • 35 mm rail (EN 60715) mount
			
Contact specification			
Contact configuration	1 NO (SPST-NO)	2 NO (DPST-NO)	1NO+1NC (SPST-NO+SPST-NC)
Rated current/Maximum peak current A	16/30	16/30	16/30
Rated voltage/ Maximum switching voltage V AC	250/400	250/400	250/400
Rated load AC1 VA	4000	4000	4000
Rated load AC15 (230 V AC) VA	750	750	750
Nominal lamp rating:			
230 V incandescent/halogen W	2000	2000	2000
fluorescent tubes with electronic ballast W	1000	1000	1000
fluorescent tubes with electromagnetic ballast W	750	750	750
CFL W	400	400	400
230 V LED W	400	400	400
LV halogen or LED with electronic ballast W	400	400	400
LV halogen or LED with electromagnetic ballast W	800	800	800
Minimum switching load mW (V/mA)	1000 (10/10)	1000 (10/10)	1000 (10/10)
Standard contact material	$AgSnO_2$	$AgSnO_2$	$AgSnO_2$
Coil specification			
Nominal voltage (U_N) V AC (50/60 Hz)	8 - 12 - 24 - 48 - 110 - 120 - 230 - 240		
V DC	12 - 24 - 48 - 110	12 - 24 - 48 - 110	12 - 24 - 48 - 110
Rated power AC/DC VA (50 Hz)/W	6.5/5	6.5/5	6.5/5
Operating range AC	(0.85…1.1)U_N (50 Hz)/(0.9…1.1)U_N (60 Hz)		
DC	(0.9…1.1)U_N	(0.9…1.1)U_N	(0.9…1.1)U_N
Technical data			
Mechanical life AC/DC cycles	$300 \cdot 10^3$	$300 \cdot 10^3$	$300 \cdot 10^3$
Electrical life at rated load in AC1 cycles	$100 \cdot 10^3$	$100 \cdot 10^3$	$100 \cdot 10^3$
Minimum/Maximum impulse duration	0.1 s/1 h (according to EN 60669)	0.1 s/1 h (according to EN 60669)	0.1 s/1 h (according to EN 60669)
Insulation between coil and contacts (1.2/50 µs) kV	4	4	4
Ambient temperature range °C	–40…+40	–40…+40	–40…+40
Protection category	IP 20	IP 20	IP 20
Approvals (according to type)	CE UKCA EAC RINA cULus		

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روبروی پالایشگاه نفت پارس، پلاک ۱۲

20 SERIES
Modular step relays 16 A

Ordering information

Example: 20 series relay, 35 mm rail (EN 60715) mount, double phase switch, 2 NO 16 A contacts, coil rated at 12 V DC, $AgSnO_2$ contacts.

2 0	.	2	2	.	9	.	0 1 2	.	4	0	0	0

Series

Type
2 = 35 mm rail (EN 60715) mount

No. of poles
1 = Single phase switch 1 NO (SPST-NO)
2 = Double phase switch 2 NO (DPST-NO)
3 = Double phase switch 1 NC+ 1 NO (SPST-NO+SPST-NC)
4 = 4 sequence double phase switch 2 NO (DPST-NO)
6 = 3 sequence double phase switch 2 NO (DPST-NO)
7 = 3 sequence double phase switch 2 NO (DPST-NO)
8 = 4 sequence double phase switch 2 NO (DPST-NO)

Coil version
8 = AC (50/60 Hz)
9 = DC

Coil voltage
See coil specifications

Contact material
0 = AgNi
4 = $AgSnO_2$

Technical data

Insulation					
Dielectric strength					
between supply and contacts	V AC	4000			
between open contacts	V AC	2000			
between adjacent contacts	V AC	2000			
Other data					
Power lost to the environment					
with rated current and coil deenergised	W	1.3 (20.21, 20.23, 20.28)		2.6 (20.22, 20.24, 20.26, 20.27)	
Screw torque	Nm	0.8		0.8	
Max. wire size		**Coil terminals**		**Contact terminals**	
		solid cable	stranded cable	solid cable	stranded cable
	mm^2	1 x 4 / 2 x 2.5	1 x 2.5 / 2 x 2.5	1 x 6 / 2 x 4	1 x 4 / 2 x 2.5
	AWG	1 x 12 / 2 x 14	1 x 14 / 2 x 14	1 x 10 / 2 x 12	1 x 12 / 2 x 14

If the coil is operated for a prolonged period of time, adequate ventilation of the relays must be provided - suggested gap of 9 mm between adjacent relays.

Coil specifications

DC version data

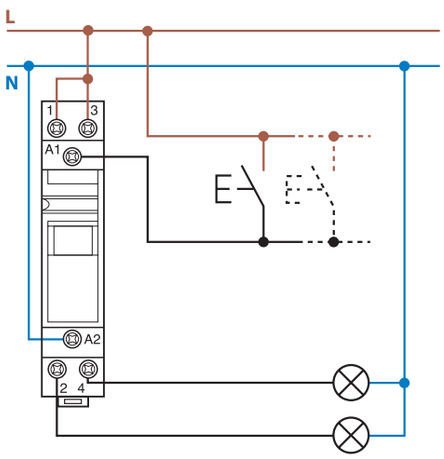
Nominal voltage U_N	Coil code	Operating range U_{min}	Operating range U_{max}	Resistance R	Consumption I at U_N
V		V	V	Ω	mA
12	**9**.012	10.8	13.2	27	440
24	**9**.024	21.6	26.4	105	230
48	**9**.048	43.2	52.8	440	110
110	**9**.110	99	121	2330	47

AC version data

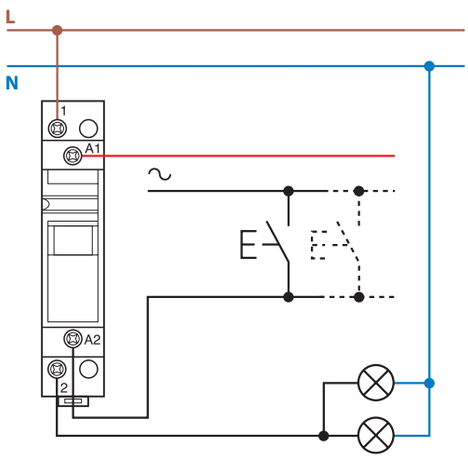
Nominal voltage U_N	Coil code	Operating range U_{min}	Operating range U_{max}	Resistance R	Consumption I at U_N (50 Hz)
V		V	V	Ω	mA
8	**8**.008	6.8	8.8	4	800
12	**8**.012	10.2	13.2	7.5	550
24	**8**.024	20.4	26.4	27	275
48	**8**.048	40.8	52.8	106	150
110	**8**.110	93.5	121	590	64
120	**8**.120	102	132	680	54
230	**8**.230	192	253	2500	28
240	**8**.240	204	264	2700	27.5

Type	Number of steps	Sequence 1	2	3	4
20.21	2				
20.22	2				
20.23	2				
20.24	4				
20.26	3				
20.27	3				
20.28	4				

Wiring diagrams



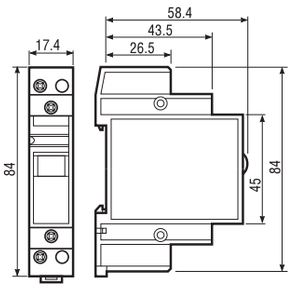
Example: 230 V AC supply voltage.



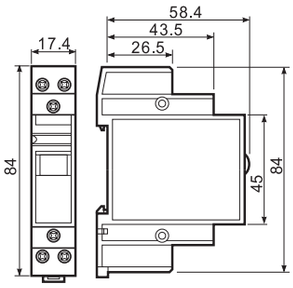
Example: 24 V AC supply voltage.

Outline drawings

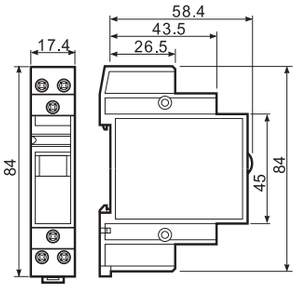
Type 20.21
Screw terminal



Types 20.22/24/26/27/28
Screw terminal

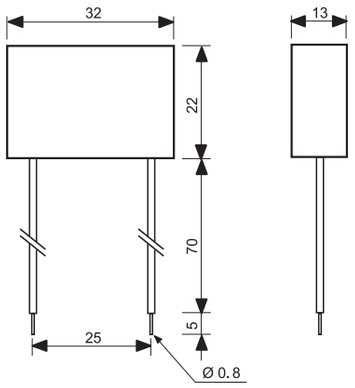


Type 20.23
Screw terminal

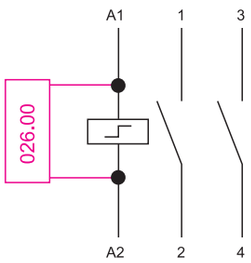


Accessories

Module for use with illuminated push-buttons



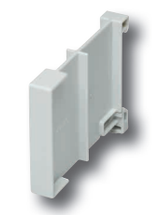
Type 026.00
Sealed construction, 7.5 cm insulated flexible wire termination.



Example of wiring diagram of type 026.00
This module is necessary when using between 1 and a maximum of 15 illuminated push buttons in the coil circuit (Each 1.5 mA max, 230 V AC). It must be connected in parallel to the coil of the relay.

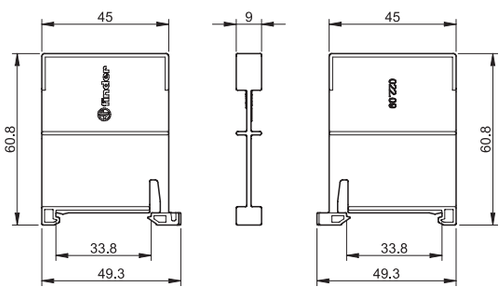
020.01

Adaptor for panel mounting, 17.5 mm wide	020.01



022.09

Separator for rail mounting, plastic, 9 mm wide	022.09



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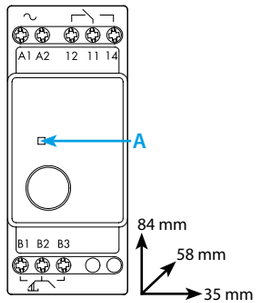
SWITCH TO THE FUTURE

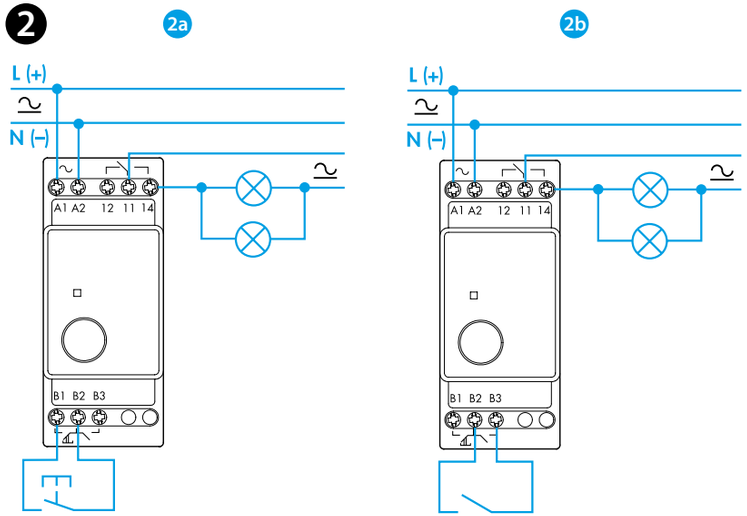
13.01

	13.01.0.0xx.0000 U_N 12 V AC (50/60 Hz) / DC U_{min} 10.8 V U_{max} 13.2 V U_N 24 V AC (50/60 Hz) / DC U_{min} 20.6 V U_{max} 33.6 V **13.01.8.xxx.0000** U_N 125 V AC (50/60 Hz) U_{min} 90 V U_{max} 130 V U_N 230 V AC (50/60 Hz) U_{min} 184 V U_{max} 253 V
	$P_{(AC/DC)}$ 2.5 VA (50 Hz) / 2.5 W
	1 CO (SPDT) 16 A 250 V AC μ
	AC1 4000 VA AC15 (230 V AC) 750 VA
	(230 V AC) 2000 W (230 V AC) 750 W CFL-LED (230 V) 400 W
	(–10...+60)°C
	IP20

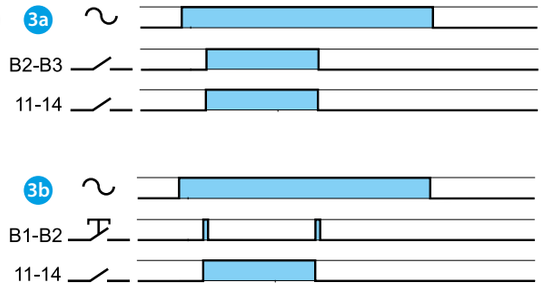
1



2



3



ENGLISH

13.01
QUIET OPERATING ELECTRONIC STEP OR MONOSTABLE RELAY

1 FRONT VIEW
A = LED (relay ON)

2 WIRING DIAGRAM
2a Bistable step wiring diagram
2b Monostable wiring diagram

ATTENTION
Separate and insulated circuits (control, contacts, power)

3 FUNCTIONS
3a **Monostable**
On closure of a switch between terminals (B2-B3) the output contact will close, and remain so, until the switch opens.
3b **Step relay (bistable)**
After every impulse (B1-B2), the output contact changes state - alternately switching from open to closed and vice versa.

OTHER DATA
Selectable Step or Monostable operation.
Suitable for SELV applications (according to IEC 364).
35 mm rail (EN 60715) mount.

Utility Model - IB1301001 - 05/21 - Finder S.p.A. con unico socio - 10040 ALMESE (TO) - ITALY

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FAMCO
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SWITCH TO THE FUTURE

Electronic Relays and Actuators: Multi and Single Function

- Call and reset switches for bathrooms
- Bathroom lighting control
- Bedroom light control
- Living room light control
- Office lighting control
- Remote climate control

13
SERIES

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تهران، کیلومتر۲۱ بزرگراه لشگری (جاده مخصوص کرج)
روبروی پالایشگاه نفت پارس، پلاک ۱۲

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تهران، کیلومتر۲۱ بزرگراه لشگری (جاده مخصوص کرج)
روبروی پالایشگاه نفت پارس، پلاک ۱۲

13.81 - Quiet electronic step relay - Rail mount - 1 Pole

13.91 - Quiet electronic step relay and timing step relay Switch box mount - 1 Pole

- Fixed time (10 minutes) timing function selectable (13.91)
- 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
- "Zero crossing" load switching
- Can be mounted behind blanking plates, as widely used in residential wiring systems such as; BTicino: Axolute, Matix, Living and Magic, Gewiss: GW24, Vimar: Plana and Idea … (13.91)
- 35 mm rail (EN 60715) mount (13.81)
- Cadmium free contact material

13.81/91
Screw terminals

For outline drawing see page 19, 20

	13.81	13.91
		
	• 1 NO (SPST-NO) • 35 mm rail (EN 60715) mount • 17.5 mm wide	• 1 NO (SPST-NO) • Step relay and timing step relay (10 minutes) • For mounting within residential switch boxes
Contact specification		
Contact configuration	1 NO (SPST-NO)	1 NO (SPST-NO)
Rated current/Maximum peak current A	16/30 (120 - 5 ms)	10/20 (80 - 5 ms)
Rated voltage/ Maximum switching voltage V AC	230/—	230/—
Rated load AC1 VA	3700	2300
Rated load AC15 (230 V AC) VA	750	450
Nominal lamp rating:		
230 V incandescent/halogen W	3000	1000
fluorescent tubes with electronic ballast W	1500	500
fluorescent tubes with electromagnetic ballast W	1000	350
CFL W	600	300
230 V LED W	600	300
LV halogen or LED with electronic ballast W	600	300
LV halogen or LED with electromagnetic ballast W	1500	500
Minimum switching load mW (V/mA)	1000 (10/10)	1000 (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 V A (50 Hz)/W	3/1.2	2/1
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	$100 \cdot 10^3$	$100 \cdot 10^3$
Maximum impulse duration	continuous	continuous
Dielectric strength between: open contacts V AC	1000	1000
supply - contacts V AC	—	—
Ambient temperature range °C	–10…+60	–10…+50
Protection category	IP 20	IP 20
Approvals (according to type)	CE UKCA EAC	CE UKCA EAC

13 SERIES
Electronic step/monostable relays 16 A

finder

13.01 - Electronic step/monostable relay Rail mount - 1 Pole

13.61 - Multifunction step/monostable relay with reset command - Rail mount 1 Pole

- Selectable Step or Monostable operation (13.01)
- Multifunction (Step, Timing step, Monostable, Light ON) (13.61)
- Reset feature, for centralized off command (13.61)
- Set feature, for centralized on command (13.61.0.024)
- Control input can be continuously applied
- Longer mechanical and electrical life, and much quieter than electromechanical step relays
- 12…24 V AC/DC and 110…240 V AC supply versions (13.61)
- Suitable for SELV applications and available also for supply 12 and 24 V AC/DC (13.01)
- "Zero-crossing" load switching (13.61)
- 35 mm rail (EN 60715) mount
- Cadmium free contact material

13.01/61
Screw terminals

For outline drawing see page 19

	13.01	13.61.0.024.0000	13.61.8.230.0000
			
	• 1 CO (SPDT) • Step or monostable relay • According to EN 60601-1 2 x MOOP • 35 mm rail (EN 60715) mount • 35 mm wide	• 1 CO (SPDT) • Reset feature, for centralized off command • Set feature, for centralized on command • Multifunction: - step relay - timing step relay (30s…20min) - monostable relay - light on • 35 mm rail (EN 60715) mount • 17.5 mm wide	• 1 NO (SPST-NO) • Reset feature, for centralized off command • Multifunction: - step relay - timing step relay (30s…20min) - monostable relay - light on • 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)	16/30 (120 A - 5 ms)	16/30 (120 A - 5 ms)
Rated voltage/ Maximum switching voltage		V AC	250/400	250/400	250/400
Rated load AC1		VA	4000	4000	4000
Rated load AC15 (230 V AC)		VA	750	750	750
Nominal lamp rating:					
	230 V incandescent/halogen	W	2000	2000	3000
	fluorescent tubes with electronic ballast	W	1000	1000	1500
	fluorescent tubes with electromagnetic ballast	W	750	750	1000
	CFL	W	400	400	600
	230 V LED	W	400	400	600
	LV halogen or LED with electronic ballast	W	400	400	600
	LV halogen or LED with electromagnetic ballast	W	800	800	1500
Minimum switching load		mW (V/mA)	1000 (10/10)	1000 (10/10)	1000 (10/10)
Standard contact material			$AgSnO_2$	$AgSnO_2$	$AgSnO_2$
Supply specification					
Nominal voltage (U_N)	V AC (50/60 Hz)		110…125 / 230…240	—	110…240
	V DC/AC (50/60 Hz)		12 / 24	12…24	—
Rated power AC/DC		V A (50/60 Hz)/W	2.5/2.5	1/0.5	3.2/1
Operating range	V AC (50 Hz)		90…130 / 184…253	—	90…264
	V DC/AC (50 Hz)		10.8…13.2 / 20.6…33.6	10.2…26.4	—
Technical data					
Electrical life at rated load in AC1		cycles	$100 \cdot 10^3$	$100 \cdot 10^3$	$100 \cdot 10^3$
Maximum impulse duration			continuous	continuous	continuous
Dielectric strength between:	open contacts	V AC	1000	1000	1000
	supply - contacts	V AC	4000	2000	2000
Ambient temperature range		°C	–10…+60	–10…+60	–10…+60
Protection category			IP 20	IP 20	IP 20
Approvals (according to type)			CE UK CA EAC		

XII-2022, www.findernet.com

13.11 - Call & Reset Relay - Rail mount - 1 Pole

13.12 - Call & Reset Relay - Rail mount - 2 Pole

13.31 - Electromechanical monostable relay Switch box mount - 1 Pole

- Call relay with reset command suitable for residential and commercial applications: public bathroom, hospital, hotel (type 13.11/13.12)
- Can be mounted behind blanking plates, as widely used in residential wiring systems such as; BTicino: Axolute, Matix, Living e Magic, Gewiss: GW24, Vimar: Plana e Idea … (13.31)
- 35 mm rail (EN 60715) or flange mount (13.11 and 13.12)
- Cadmium free contact material (13.31)

13.11/12/31
Screw terminals

	13.11	13.12	13.31
			
	• 1 CO (SPDT) • Call relay with reset command • 35 mm rail (EN 60715) mount • 17.5 mm wide	• 1 CO (SPDT) + 1 NO (SPST-NO) • Call relay with reset command • 35 mm rail (EN 60715) mount • 17.5 mm wide	• 1 NO (SPST-NO) • Interposing monostable relay • For mounting within residential switch boxes

* During impulse only.
For outline drawing see page 19

Contact specification				
Contact configuration		1 CO (SPDT)	1 CO (SPDT) + 1 NO (SPST-NO)	1 NO (SPST-NO)
Rated current/Maximum peak current	A	12/30	8/15	12/20 (80 A - 5 ms)
Rated voltage/ Maximum switching voltage	V AC	250/400	250/400	250/400
Rated load AC1	VA	3000	2000	3000
Rated load AC15 (230 V AC)	VA	750	400	450
Nominal lamp rating:				
230 V incandescent/halogen	W	1200	800	800
fluorescent tubes with electronic ballast	W	500	300	400
fluorescent tubes with electromagnetic ballast	W	400	250	300
CFL	W	300	150	200
230 V LED	W	300	150	200
LV halogen or LED with electronic ballast	W	300	150	200
LV halogen or LED with electromagnetic ballast	W	500	300	400
Minimum switching load	mW (V/mA)	500 (5/5)	300 (5/5)	1000 (10/10)
Standard contact material		AgCdO	AgCdO	$AgSnO_2$
Supply specification				
Nominal voltage (U_N)	V AC (50/60 Hz)	230…240	12 - 24	12 - 230
	V DC	—	12 - 24	24
Rated power AC/DC	V A (50 Hz)/W	1.7/0.7*	3/2.5*	1/0.4
Operating range	AC (50 Hz)	$(0.8…1.1)U_N$	$(0.8…1.1)U_N$	$(0.8…1.1)U_N$
	DC	—	$(0.8…1.1)U_N$	$(0.8…1.1)U_N$
Technical data				
Electrical life at rated load in AC1	cycles	$100 \cdot 10^3$	$100 \cdot 10^3$	$70 \cdot 10^3$
Maximum impulse duration		10 s (100 ms minimum)	10 s (100 ms minimum)	continuous
Dielectric strength between: open contacts	V AC	1000	1000	1000
supply - contacts	V AC	2000	2000	2000
Ambient temperature range	°C	–10…+60	–10…+60	–10…+60
Protection category		IP 20	IP 20	IP 20
Approvals (according to type)		CE UK CA EAC		

XII-2022, www.findernet.com

13 SERIES
YESLY Electronic Relays and Actuators

Multi and Single function electronic relays with Bluetooth

13.22 - Electronic multifunction relay 2 Pole
- Round wall box (ie: Ø 60 mm) mounting
- 21 available functions (step relays, timer, staircase timer) for lighting and fan motor control

13.72 - Electronic multifunction relay 2 Pole
- Wall mounting, compatible with most popular Italian residential switch boxes: AVE, BTicino, Gewiss, Simon-Urmet, Vimar
- 21 available functions: step relays, timing (1s - 24h), electric shutter, blind or curtain control

13.S2 - Electronic roller shutter actuator
- Round wall box (ie: Ø 60 mm) mounting
- For electric shutter, blind or curtain control

- 2 contacts NO 6 A - 230 V AC independent and programmable channels
- 2 inputs for wired pushbuttons (one input per channel)
- Transmission range: approximately 10 m in free space and without obstacles

13.22/S2/72
Screw terminals

NOTE: with 110…125 V AC supply, the Ratings (AC1, AC15 and lamp loads) must be reduced by 50 % (e.g. 100 W instead of 200 W)

For outline drawing see page 20

NEW **13.22**

YESLY

- Offering a variety of ON/OFF functions associated with lighting and fan motor control
- Transmission protocol Bluetooth Low Energy (BLE)
- Safe connection with 128-bit encryption
- App programming with iOS or Android Smartphone: Finder YOU
- Can be managed through standard pushbuttons, BEYON and Type 013.B9 wireless buttons

NEW **13.72**

YESLY

- Offering a variety of ON/OFF functions associated with lighting, electric shutters, blinds or curtains
- Transmission protocol Bluetooth Low Energy (BLE)
- Safe connection with 128-bit encryption
- App programming with iOS or Android Smartphone: Finder YOU
- Can be managed through standard pushbuttons, BEYON and Type 013.B9 wireless buttons

NEW **13.S2**

YESLY

- Suitable for electric shutters, blind or curtain control
- Transmission protocol Bluetooth Low Energy (BLE)
- Safe connection with 128-bit encryption
- App programming with iOS or Android Smartphone: Finder YOU
- Can be managed through standard pushbuttons, BEYON and Type 013.B9 wireless buttons

Contact specification				
Contact configuration		2 NO (DPST-NO)	2 NO (DPST-NO)	2 NO (DPST-NO)
Rated current/Maximum peak current	A	6/40	6/40	6/40
Rated voltage/ Maximum switching voltage	V AC	230/—	230/—	230/—
Rated load AC1	VA	1380	1380	1380
Rated load AC15 (230 V AC)	VA	300	300	300
Single phase motor rating (230 V AC)	W	200	200	200
Nominal lamp rating 230V:				
incandescent/halogen	W	200	200	—
fluorescent tubes with electronic ballast	W	200	200	—
fluorescent tubes with electromagnetic ballast	W	200	200	—
CFL	W	200	200	—
LED 230 V	W	200	200	—
LV halogen or LED with electronic ballast	W	200	200	—
LV halogen or LED with electromagnetic ballast	W	200	200	—
Supply specification				
Nominal voltage (U_N)	V AC (50/60 Hz)	110…230	110…230	110…230
	V DC	—	—	—
Rated power AC/DC	VA (50 Hz)/W	2 / 0.5	2 / 0.5	2 / 0.5
Operating range	AC (50 Hz)	$(0.8…1.1)U_N$	$(0.8…1.1)U_N$	$(0.8…1.1)U_N$
	DC	—	—	—
Technical data				
Electrical life at rated load in AC1	cycles	$60 \cdot 10^3$	$60 \cdot 10^3$	$60 \cdot 10^3$
Maximum impulse duration		continuous	continuous	continuous
Dielectric strength between: open contacts	V AC	1000	1000	1000
Ambient temperature range	°C	–10…+50	–10…+50	–10…+50
Protection category		IP 20	IP 20	IP 20
Approvals (according to type)		CE UK CA	CE UK CA	CE UK CA

XII-2022, www.findernet.com

Bluetooth single channel multifunction relay

Type 13.21.8.230.B000
- BLE communication protocol
- Round wall box (ie: Ø 60 mm) mounting
- 12 available functions
- Up to 8 scenarios
- Pushbutton Phase or Neutral connection

Radio frequency remote actuator for BLISS2

Type 13.21.8.230.S000
- 868 MHz long-range radio frequency transmission
- Multi-zone heating/cooling function
- Hygrostat function combined with the Bliss2 thermostat
- Compatible with the BLISS2 smart thermostat

13.21
Screw terminals

NEW **13.21.8.230.B000**

YESLY

- 1 CO (SPDT) 16 A 250 V AC
- Bluetooth Low Energy (BLE) transmission protocol
- 128-bit encrypted connection
- Programmable via app Finder YOU compatible with iOS and Android operating systems
- It can be connected to wired buttons or to BEYON and 013B9 wireless buttons
- Recess mounting

NEW **13.21.8.230.S000**

BLISS2

- 1 CO (SPDT) 16 A 250 V AC
- Compatible with Bliss2 smart thermostat
- Heating/cooling systems - direct or solenoid control
- It can be used in dehumidification or forced ventilation systems

For outline drawing see page 20

Contact specification			
Contact configuration		1 CO (SPDT)	1 CO (SPDT)
Rated current	A	16	16
Rated voltage/ Maximum switching voltage	V AC	250	250
Rated load AC1	VA	3600	3600
Rated load AC15 (230 V AC)	VA	600	600
Single phase motor rating (230 V AC)	W	500	500
Nominal lamp rating 230V:			
incandescent/halogen	W	1000	—
fluorescent tubes with electronic ballast	W	500	—
fluorescent tubes with electromagnetic ballast	W	350	—
CFL	W	300	—
LED 230 V	W	200	—
LV halogen or LED with electronic ballast	W	200	—
LV halogen or LED with electromagnetic ballast	W	500	—
Supply specification			
Nominal voltage (U_N)	V AC (50/60 Hz)	110…230	110…230
	V DC	—	—
Rated power AC/DC	V A (50 Hz)/W	2.8 / 0.8	2.8 / 0.8
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	$50 \cdot 10^3$	$50 \cdot 10^3$
Maximum impulse duration		continuous	—
Dielectric strength between: open contacts	V AC	1000	1000
Ambient temperature range	°C	–10…+50	–10…+50
Protection category		IP 20	IP 20
Approvals (according to type)		CE UK CA	CE UK CA

XII-2022, www.findernet.com

Ordering information

Example: Multifunction relay with YESLY Bluetooth, 2 contacts 6 A NO (SPST-NO), 110…230 V AC supply.

1	3	.	7	2	.	8	.	2	3	0	.	B	0	0	0
												A	B	C	D

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
2 = Wall box mounting
3 = Monostable relay, switch box mounting
6 = Multifunction relay, 35 mm rail (EN 60715) mount, 17.5 mm wide
7 = YESLY - Multifunction relay compatible with the most popular Italian wall switch systems: AVE, BTicino, Gewiss, Simon-Urmet, Vimar
8 = Modular step relay, 35 mm rail (EN 60715) mount, 17.5 mm wide
9 = Step relay and timing step relay, switch box mounting
S = YESLY - Shutter/blind/curtain actuator, wall box mounting
No. of poles
1 = 1 pole
2 = 2 poles 6 A NO (SPST-NO) (type 13.72 and 13.22/S2)
2 = 1 pole CO (SPDT) + 1 NO (SPST-NO)
Supply version
0 = AC (50/60 Hz)/DC
8 = AC (50/60 Hz)
9 = DC
Supply voltage
012 = 12 V AC/DC (13.01 and 13.12 only)
012 = 12 V AC (13.31 only)
024 = 24 V AC/DC (13.01 and 13.12 only)
024 = 24 V DC (13.31 only)
024 = 12…24 V AC/DC (13.61 only)
125 = (110…125)V AC (13.01 only)
230 = (230…240)V AC (13.01 and 13.11)
230 = 110…240 V AC (13.61 only)
230 = 230 V AC (13.31, 13.81 and 13.91)
230 = 110…230 V AC (13.21, 13.22, 13.72, 13.S2)

A: Transmission protocol
(only for Type 13.21/22/S2/72)
B = Bluetooth Low Energy (BLE)
S = 868 MHz, compatible with Bliss2

A: Contacts material
0 = Standard
4 = Standard $AgSnO_2$ (only for 13.31)

B: Contact circuit
0 = Standard
3 = Standard NO (only for 13.31)

C
0 = Type 13.72 white
2 = Type 13.72 anthracite gray

Codes / Supply voltage
13.01.0.012.0000 12 V AC/DC
13.01.0.024.0000 24 V AC/DC
13.01.8.125.0000 110…125 V AC
13.01.8.230.0000 230…240 V AC
13.11.8.230.0000 230…240 V AC
13.12.0.012.0000 12 V AC/DC
13.12.0.024.0000 24 V AC/DC
13.21.8.230.B000 110…230 V AC Yesly
13.21.8.230.S000 110…230 V AC Bliss2
13.22.8.230.B000 110…230 V AC YESLY
13.S2.8.230.B000 110…230 V AC YESLY
13.31.8.012.4300 12 V AC
13.31.9.024.4300 24 V DC
13.31.8.230.4300 230 V AC
13.61.8.230.0000 110…240 V AC
13.61.0.024.0000 12…24 V AC/DC
13.72.8.230.B000 110…230 V AC YESLY BLE white
13.72.8.230.B002 110…230 V AC YESLY BLE anthracite gray
13.81.8.230.0000 230 V AC
13.91.8.230.0000 230 V AC

Technical data

Insulation		**13.01.8**	**13.01.0**	**13.11 - 13.12**	**13.31 - 13.61**	**13.81 - 13.91**
Dielectric strength						
between control circuit and supply	V AC	4000	—	—	—	—
between control circuit and contacts	V AC	4000	4000	—	—	—
between R-S-A2 and contacts	V AC	—	—	2000	—	—
between supply and contacts	V AC	4000	4000	—	2000	—
between open contacts	V AC	1000	1000	1000	1000	1000

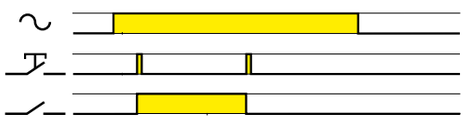
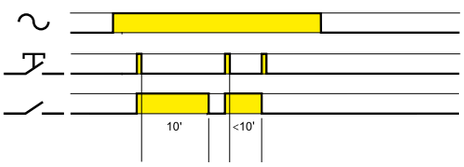
Other data		**13.01**	**13.11 - 13.12**	**13.31**	**13.61**	**13.81**	**13.91**	**13.21**	**13.22 13.S2 13.72**
Power lost to the environment									
without contact current	W	2.2	—	0.4	1	1.2	0.7	0.4	0.5
with rated current	W	3.5	1.5	1.6	1.8	2	1.8	2.2	1.5
Max cable length for pushbutton connection	m	100	100	—	200	200	100	100	100
Max. no. of illuminated pushbutton	(≤1mA)	—	—	—	10*	15	12	—	5

Terminals		**13.01**		**13.11 - 13.12 - 13.31 - 13.61 - 13.72 - 13.81 - 13.91**		**13.21 - 13.22 - 13.S2**	
Max. wire size		solid cable	stranded cable	solid cable	stranded cable	solid cable	stranded cable
	mm^2	1 x 6 / 2 x 4	1 x 6 / 2 x 2.5	1 x 6 / 2 x 4	1 x 4 / 2 x 2.5	1 x 2.5 / 2 x 1.5	1 x 2.5 / 2 x 1
	AWG	1 x 10 / 2 x 12	1 x 10 / 2 x 14	1 x 10 / 2 x 12	1 x 12 / 2 x 14	1 x 14 / 2 x 16	1 x 14 / 2 x 16
Screw torque	Nm	0.8		0.8		0.5	

* For 8.230 version.

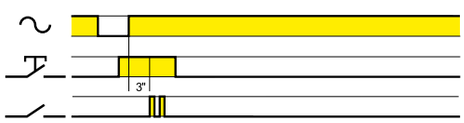
XII-2022, www.findernet.com

Functions for types 13.01, 13.11, 13.12, 13.81, 13.91

Type	Functions	
13.01		**Monostable.** On closure of a switch between terminals (B2-B3) the output contact will close, and remain so, until the switch opens.
		**Step relay (bistable).** After every impulse (B1-B2), the output contact changes state - alternately switching from open to closed and vice versa.
13.11 13.12		**Call and Reset relay.** On momentary closure of the Set switch (S), the output contact closes. Only a momentary closure of the Reset switch (R) will open the output contact.
13.81		**(RI) Step relay.** After every impulse, the output contact changes state - alternately switching from open to closed and vice versa.
13.91		**(RI) Step relay.** After every impulse, the output contact changes state - alternately switching from open to closed and vice versa.
		**(IT) Timing step relay.** On initial impulse the output contact closes and timing starts for the pre-set duration (fixed 10 min); 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.

Operating mode setup for type 13.91

RI → IT



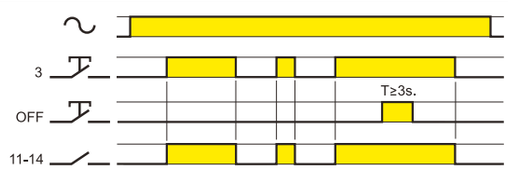
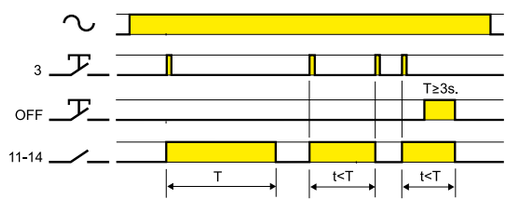
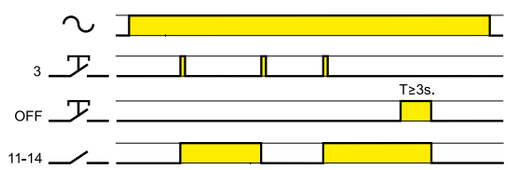
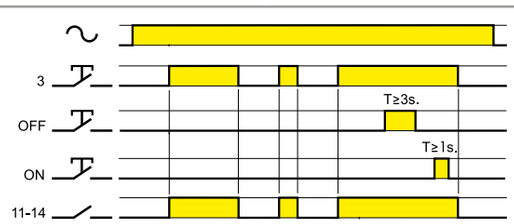
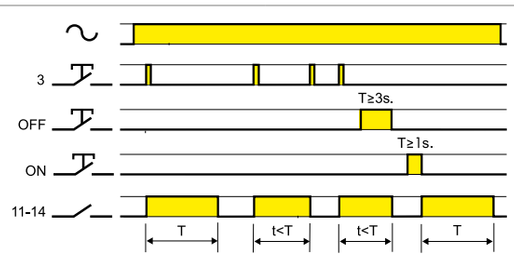
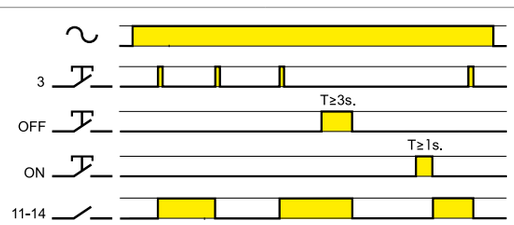
IT → RI

a) Remove the supply voltage
b) Press the control button
c) Apply the supply to the relay, keeping the button closed. After 3 second, the light will flash twice to indicate the selection of the "IT" function, or flash once for "RI" function.

K

XII-2022, www.findernet.com

Functions for type 13.61

Type	Functions	
13.61.8.230		**(RM) Monostable.** On closure of a switch between terminal 3 and Line (or Neutral, in case of 3-wire connection) the output contact will close, and remain so, until the switch opens.
		**(IT) Timing step relay.** On initial impulse the output contact closes and timing starts for the pre-set duration T; 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. Switch-off delay time: 30s…20min.
		**(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.
13.61.0.024		**(RM) Monostable.** On closure of a switch between terminal 3 and Line (or Neutral, in case of 3-wire connection) the output contact will close, and remain so, until the switch opens.
		**(IT) Timing step relay.** On initial impulse the output contact closes and timing starts for the pre-set duration T; 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. Switch-off delay time: 30s…20min.
		**(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.

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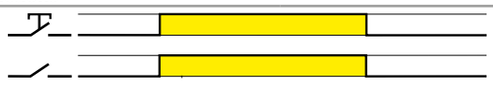
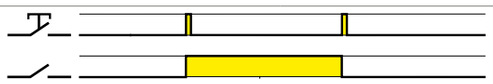
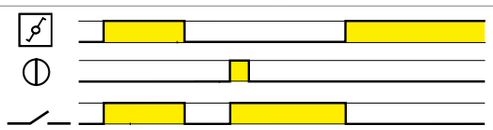
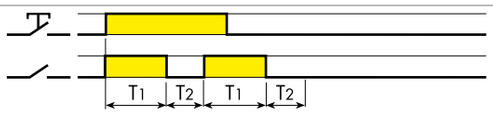
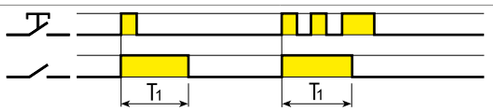
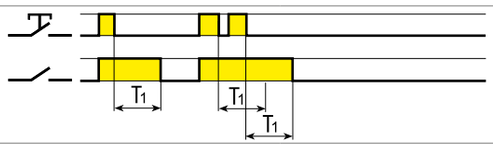
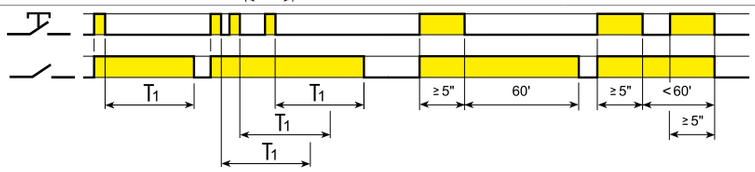
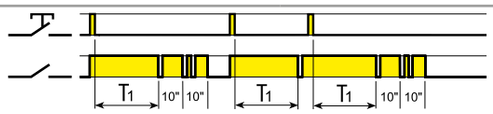
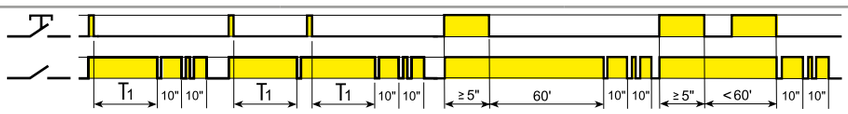
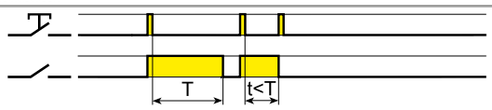
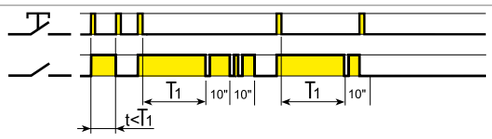
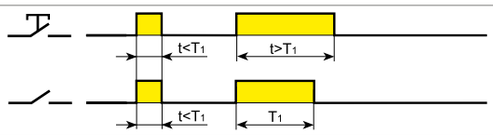
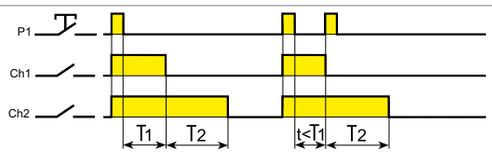
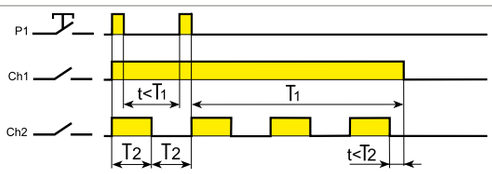
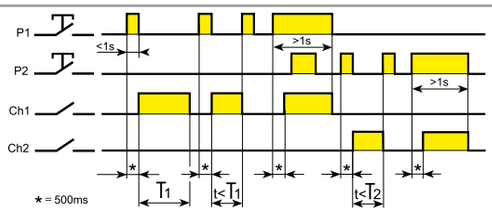
Functions for type 13.22, 13.72 and 13.21.8.230.B000

Relay settings

Multifunction electronic relays can be configured with the Finder YOU app, available for iOS or Android systems.
This product is ready-to-use preset with the factory setting (RI) Step relay on both channels.

Type	Functions	
13.21-B000 13.22 13.72		**(RM) Monostable relay.** On closure of the switch the output will close, and remain so, until the switch opens.
		**(RI) Step relay (pushbutton control).** After every impulse, the output contact changes state - alternately switching from open to closed and vice versa.
		**(RIa) Step relay - lighting switch control (Type 13.22 and 13.21.8.230.B000 only).** Each time a lighting switch is activated, the output contact changes state. The output state can also be changed using YESLY wireless pushbutton, a smartphone, or voice assistants. Ideal for converting a traditional lighting system using one, two, or four way switches, into a Smart system. (See page 17).
		**(LE) Asymmetric flasher (starting pulse on) with control signal.** Power is permanently applied to the relay. Closing Signal Switch (S) causes the output contacts to transfer immediately and cycle between ON (T1) and OFF (T2), until opened.
		**(DE) Interval with control signal on.** Power is permanently applied to the relay. On momentary or maintained closure of Signal Switch (S), the output contacts transfer, and remain so for the duration of the preset delay, after which they reset.
		**(BE) Staircase timer.** 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.
		**(ME) Staircase timer + Staircase maintenance.** In addition to the Staircase timer function (BE), 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 minute timing can be interrupted by a further impulse of ≥ 5 seconds, when the output contact then opens.
		**(BP) Staircase timer with switch off 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; 10 seconds later the contact blinks off twice, and after a further 10 seconds 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.
		**(MP) Staircase timer with switch off early warning + staircase maintenance.** In addition to the Staircase timer function (BP), an impulse of ≥ 5 seconds will close the output contact for 60 minutes, after which time the output contact blinks off once; 10 seconds later the contact blinks off twice, and after a further 10 seconds the contact will open. Ideal for maintenance or cleaning activities. The 60 minute timing can be interrupted by a further impulse of ≥ 5 seconds, when the output contact then opens.

Functions for type 13.22, 13.72, 13.21.8.230.B000 and 13.S2

Type	Functions	
13.21-B000 13.22 13.72		**(IT) Timing step relay.** On initial impulse the output contact closes and timing starts. 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 switch off early warning.** On initial impulse the output contact closes and timing starts. After the timing period, the output contact blinks off once; 10 seconds later the contact blinks off twice, and after a further 10 seconds 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.
		**(FZ) Timing monostable.** The output will be closed when the switch is closed, except where the switch is closed for greater than the preset time T1 - in which case the output contact opens.
13.22 13.72		**(VB) Bathroom light + fan.** Channels Ch1 and Ch2 both close when the P1 command is pressed. At the expiry of T1 Ch1 opens and after a further delay of T2, Ch2 opens. Ch1 can be prematurely opened by another press of P1.
		**(CP) Ringbell + light.** A press to P1 closes Ch1 for the pre-set time T1. While Ch1 is closed Ch2 executes a blinking function, at a rate set by T2. Subsequent presses to P1 extends the Ch1 closed time by re-triggering T1.
13.S2 13.72		**(TP) Roller shutter.** A short press (<1 second) to P1 ("up" pushbutton) initiates a 500ms delay before Ch1 closes for time T1. Pressing P1 again within time period T1 will immediately open Ch1 contact. If P1 is closed for more than 1 second the Ch1 contact will open immediately P1 opens. The same operation applies to P2 and Ch2 contact, used to control the "down" function.

Sequences

P1 (SET): press to advance through the sequence

P2 (RESET): press to return to Step 1

Type	Functions	Sequences			
		1	2	3	4
13.22 13.72	02				
	03				
	04				
	05				
	06				
	07				
	08				

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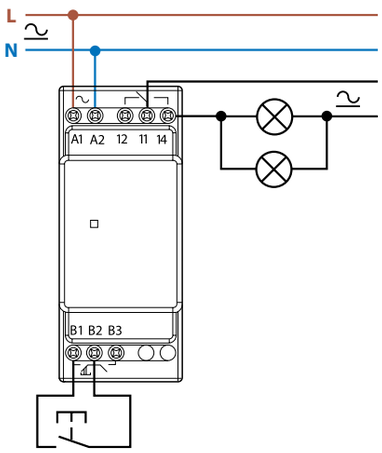
Wiring diagrams (13.01, 13.11, 13.12 and 13.31)

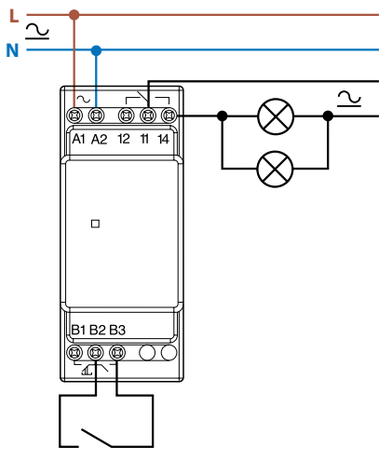
Type 13.01
Step wiring diagram

Red LED indication:
Continuous = relay ON

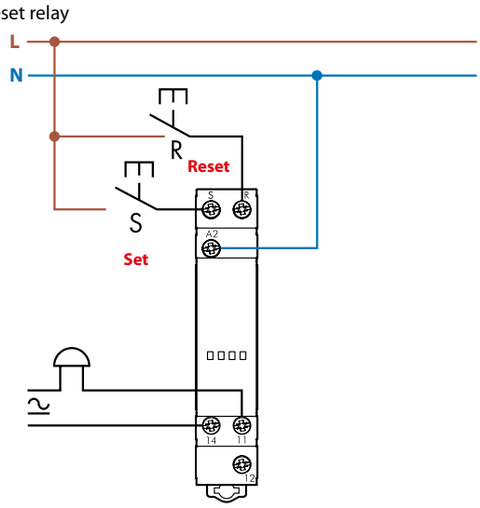


Type 13.01
Monostable wiring diagram

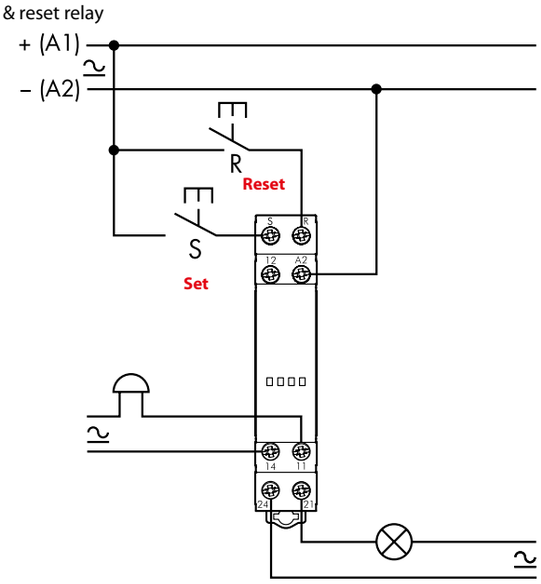
Red LED indication:
Continuous = relay ON



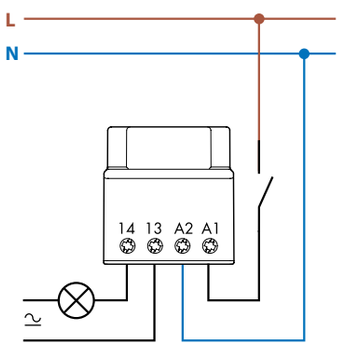
Type 13.11
Call & reset relay



Type 13.12
Call & reset relay



Type 13.31
Connection



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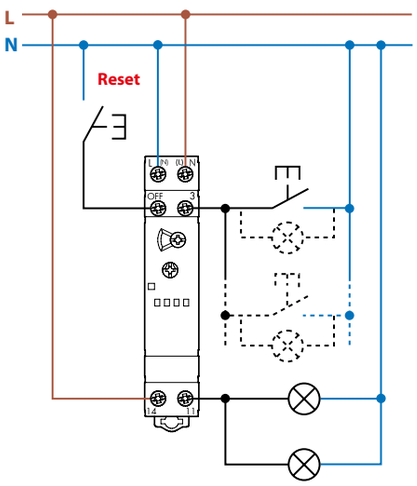
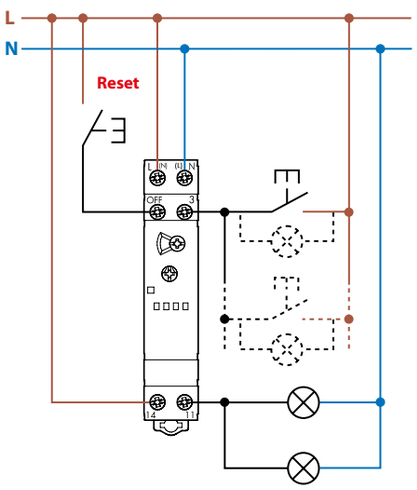
Wiring diagrams (13.61)

Type 13.61.8.230
3 wire connection
Red LED indication:
Continuous = relay ON
Blinking = relay OFF



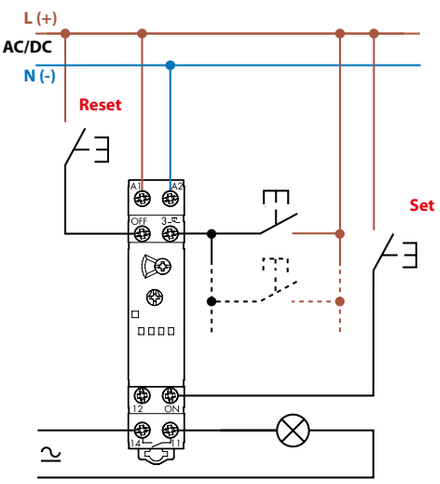
Maximum 10 (≤ 1 mA)
illuminated push buttons

Type 13.61.8.230
4 wire connection
Red LED indication:
Continuous = relay ON
Blinking = relay OFF

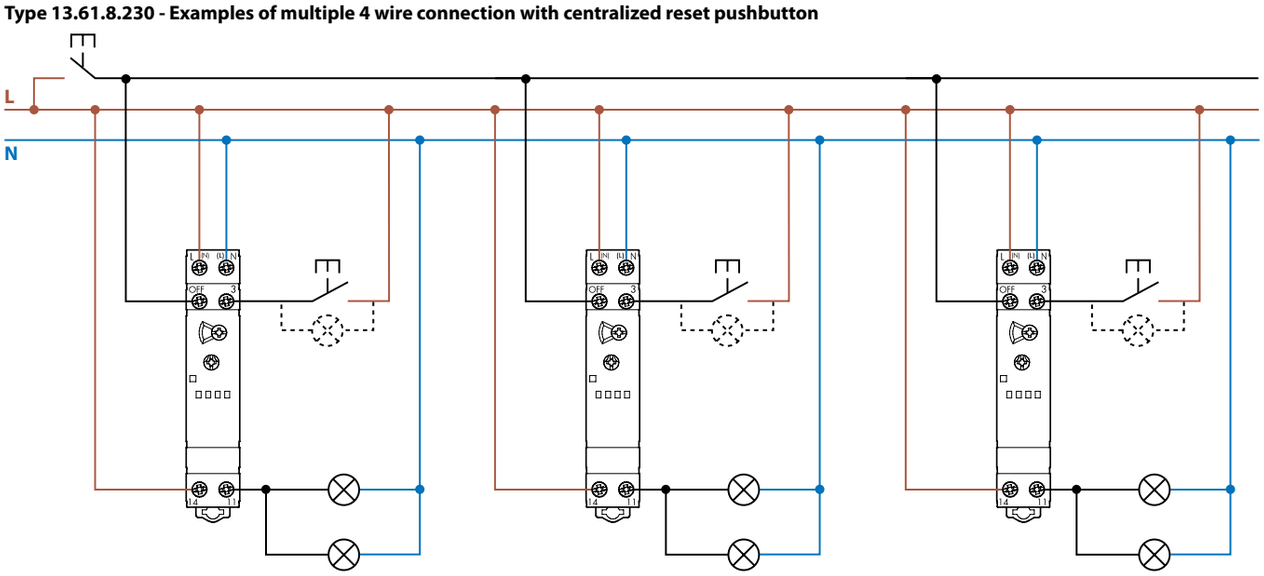


Maximum 10 (≤ 1 mA)
illuminated push buttons

Type 13.61.0.024
4 wire connection
Red LED indication:
Continuous = relay ON
Blinking = relay OFF



Type 13.61.8.230 - Examples of multiple 4 wire connection with centralized reset pushbutton



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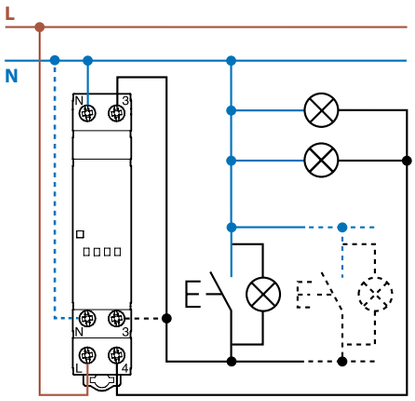
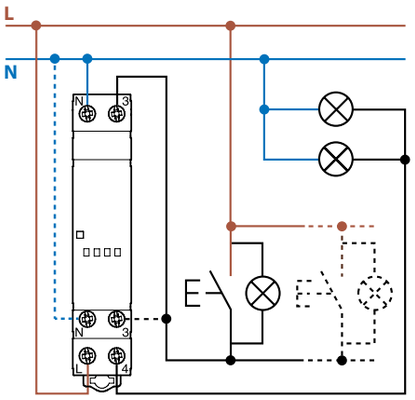
Wiring diagrams (13.81, 13.91 and 13.21.8.230.B000)

Type 13.81
3 wire connection
Red LED indication: a
Continuous = relay ON
Blinking = relay OFF



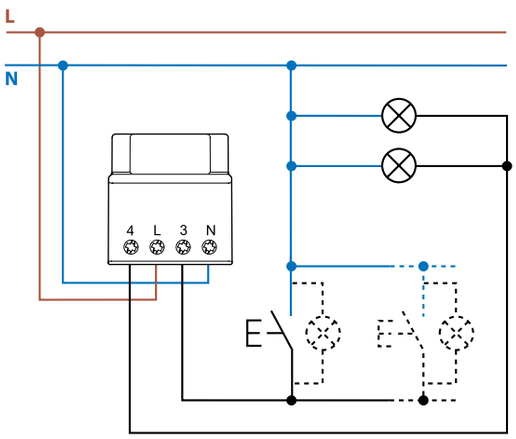
Maximum 15 (≤ 1 mA)
illuminated push buttons

Type 13.81
4 wire connection
Red LED indication:
Continuous = relay ON
Blinking = relay OFF



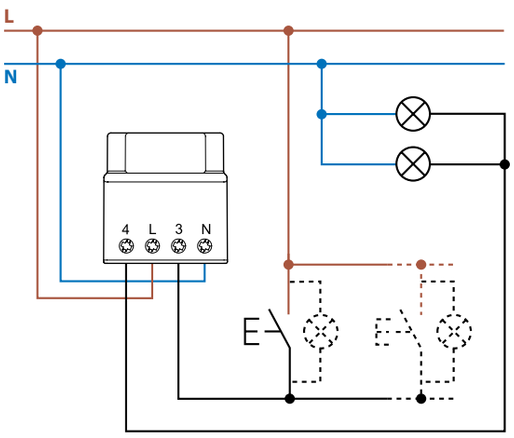
Maximum 15 (≤ 1 mA)
illuminated push buttons

Type 13.91
3 wire connection



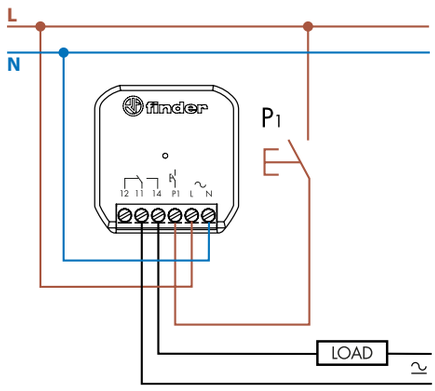
Maximum 12 (≤ 1 mA)
illuminated push buttons

Type 13.91
4 wire connection

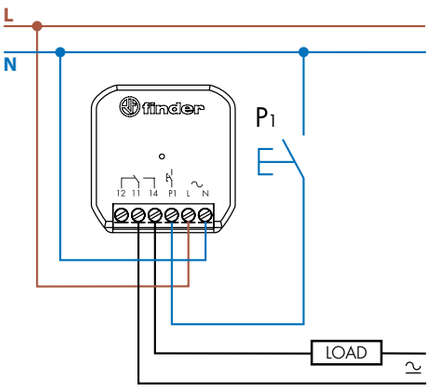


Maximum 12 (≤ 1 mA)
illuminated push buttons

Type 13.21.8.230.B000
Wiring with pushbutton to phase



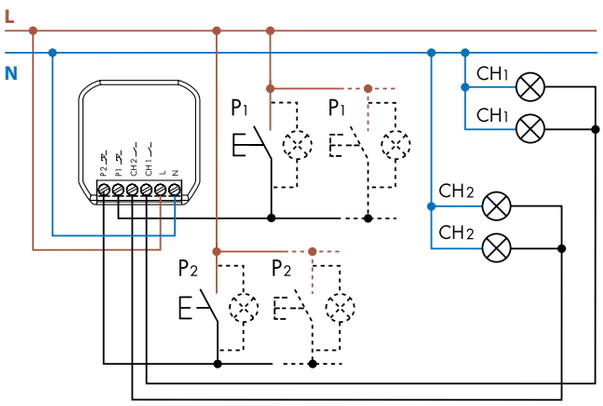
Type 13.21.8.230.B000
Wiring with pushbutton to neutral



Note: If the load is powered by a phase other than the one that powers the 13.21, a 50% reduction in the lamp capacity must be considered (set the "Different phase" function from the Finder YOU app).

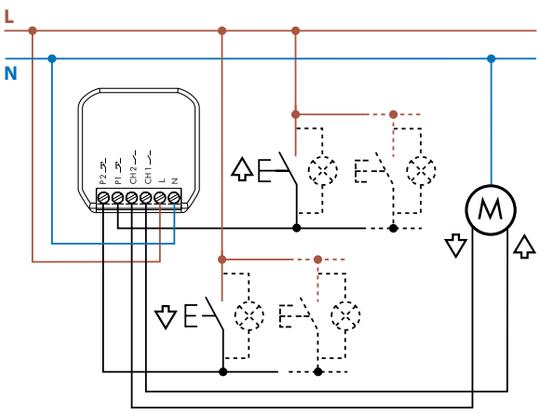
Wiring diagrams (13.21.8.230.S000, 13.22, 13.S2 and 13.72)

Type 13.22
4 wire connection



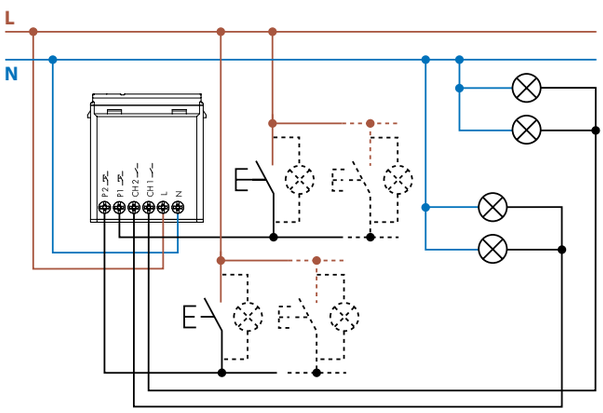
Maximum 5 (≤ 1 mA)
illuminated push buttons

Type 13.S2
4 wire connection



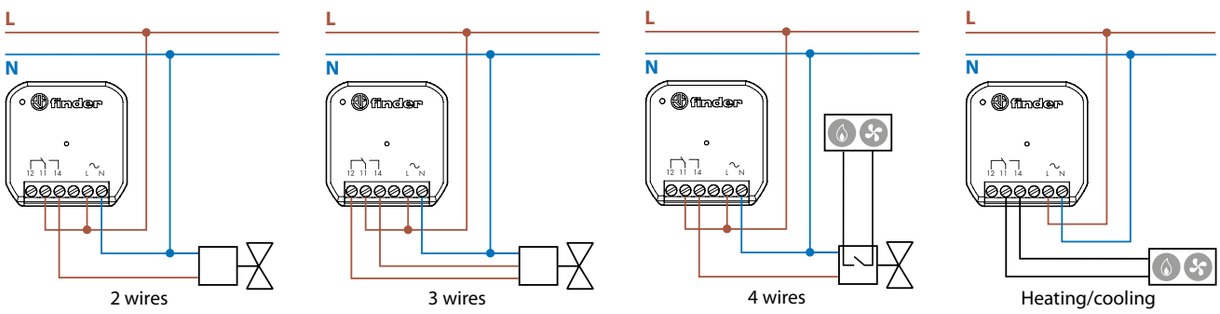
Maximum 5 (≤ 1 mA)
illuminated push buttons

Type 13.72
4 wire connection



Maximum 5 (≤ 1 mA)
illuminated push buttons

Type 13.21.8.230.S000
Solenoid valve with 2, 3 and 4 wires or direct connection

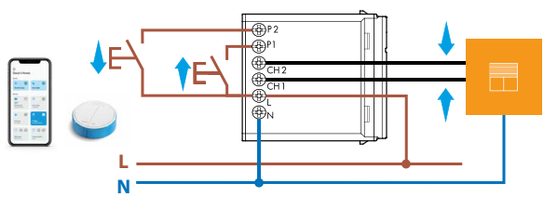


Example of connection with a 230 V AC solenoid valve, always refer to the technical characteristics of the solenoid valve.

Examples of applications

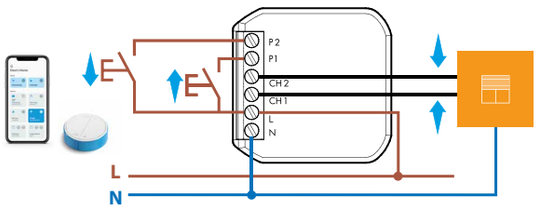
Function TP - Roller Blinds, Shutters and Curtains

Type 13.72



Ch1-P1: up
Ch2-P2: down

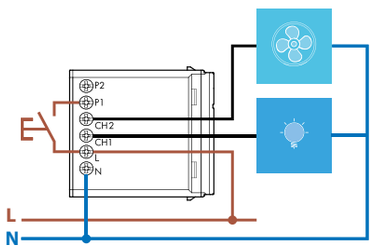
Type 13.S2



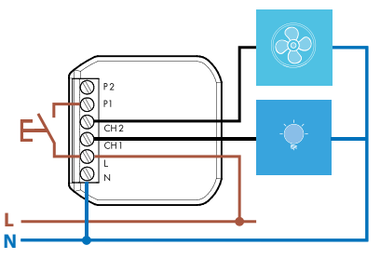
Ch1-P1: up
Ch2-P2: down

Function VB – Bathroom light + fan

Type 13.72

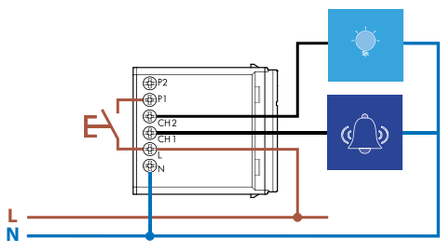


Type 13.22

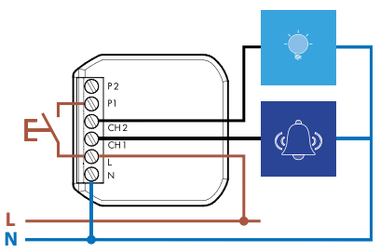


Function CP – Ringbell + Lights

Type 13.72

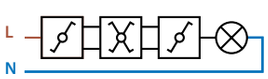


Type 13.22

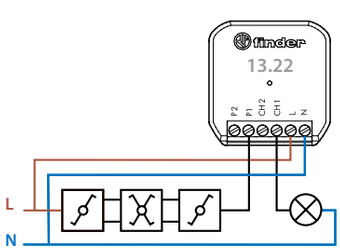


Type 13.22 - Special function RIa - Step relay (switch control).
Ideal for converting a traditional lighting system using one, two, or four way switches, into a Smart system.

The Smart system controls with just a momentary push to a wired, YESLY wireless or Smartphone pushbutton



Traditional installation

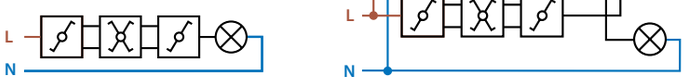


A Smart installation

Examples of applications

Type 13.21.8.230 - Special function RIa - Step relay (switch control).
Ideal for converting a traditional lighting system using one, two, or four way switches, into a Smart system.
Any existing system can be made Smart with minimum change or disruption

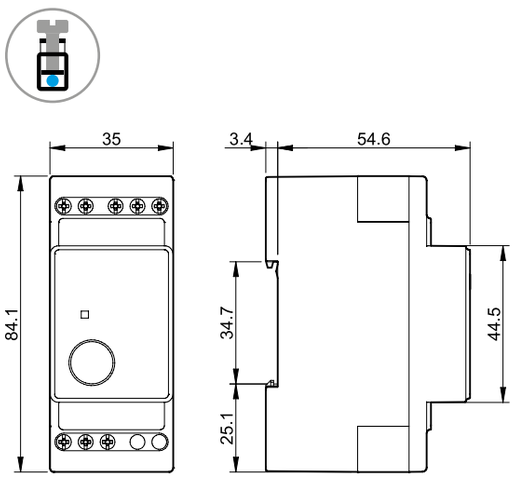
The smart system can be controlled by: wireless buttons, smartphone and gateway



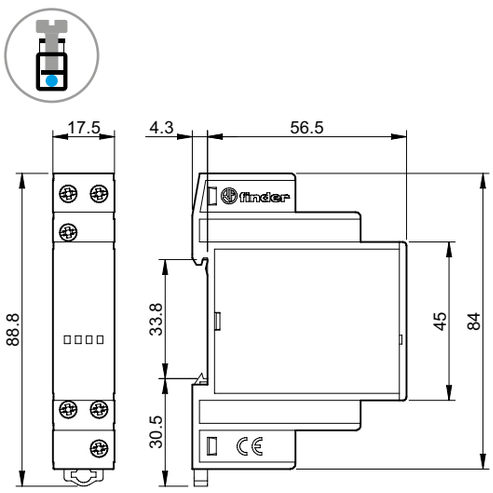
Traditional installation *A Smart installation*

Outline drawings

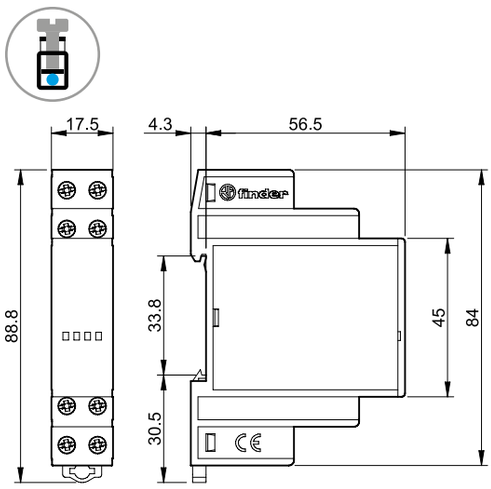
Type 13.01
Screw terminal



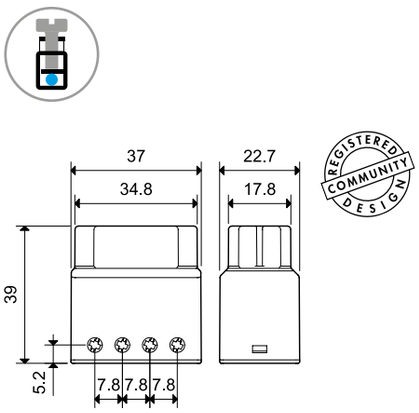
Type 13.11
Screw terminal



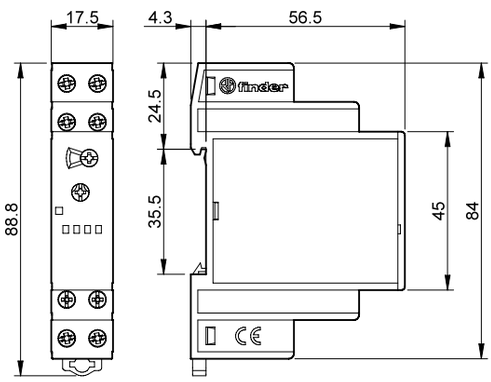
Type 13.12
Screw terminal



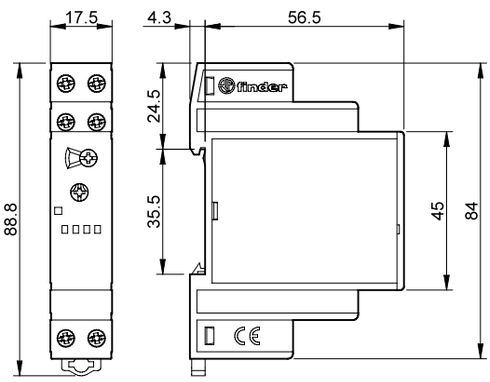
Types 13.31/13.91
Screw terminal



Type 13.61.0.024.0000
Screw terminal

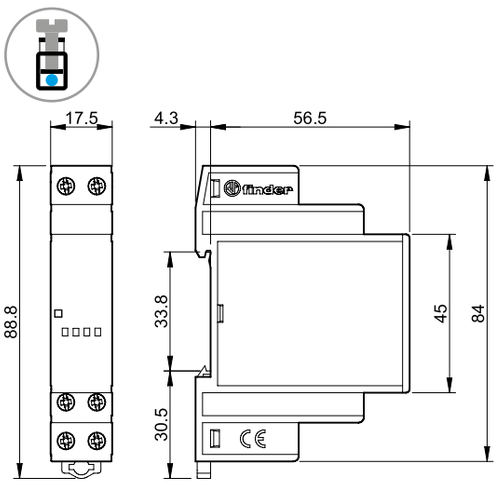


Type 13.61.8.230.0000
Screw terminal

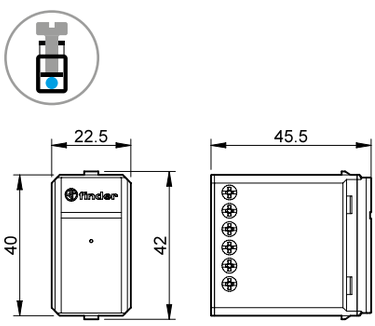


Outline drawings

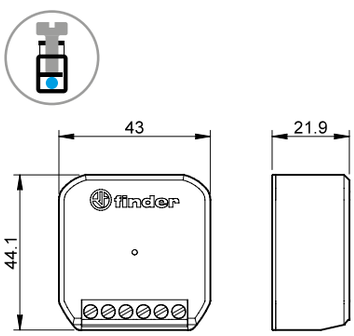
Type 13.81
Screw terminal



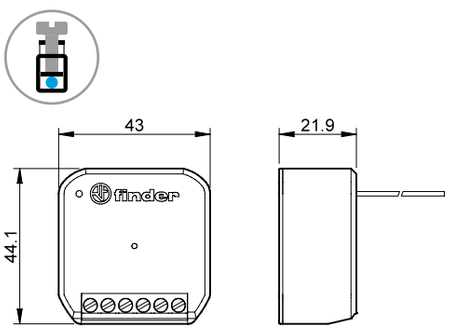
Type 13.72
Screw terminal



Type 13.21 / 13.22 / 13.S2
Screw terminal



Type 13.21.8.230.S000
Screw terminal



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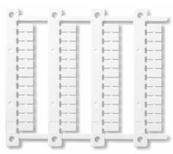
Accessories

011.01

Adaptor for panel mounting, for type 13.01, 35 mm wide	011.01

020.01

Adaptor for panel mounting, for type 13.11, 13.12, 13.61 and 13.81, 17.5 mm wide	020.01

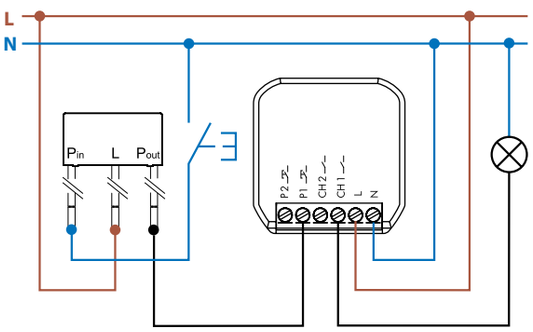


060.48

Sheet of marker tags (CEMBRE Thermal transfer printers) for relays types 13.11, 13.12, 13.61 and 13.81 (48 tags), 6 x 12 mm	060.48

013.00

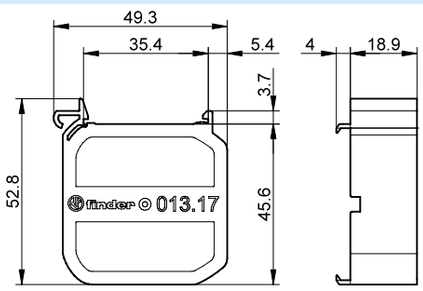
Pushbutton phase/neutral converter. Use this with a pre-existing neutral wired pushbutton when retro fitting a device designed only for phase connected pushbuttons. This avoids any radical change to the existing wiring.	013.00



Application example with type 13.22

013.17

Adapter for DIN rail, to install devices 13.22, 13.21, 13.S2 in the electrical panel.	013.17



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