

Electronic Relays and Actuators Multi and Single Function



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13 SERIES Quiet electronic step relays 10 - 16 A



13 SERIES

13.81 - Quiet electronic step relay - Rail mount - 1 Pole	13.81	13.91
 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 	 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
13.81/91 Screw terminals		
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
CFLW	600	300
230 V LED W	600	300
LV halogen or LED with electronic ballast W	600	300
LV halogen or LED with	4500	
electromagnetic ballast W	1500	500
Minimum switching load mW (V/mA) Standard contact material	1000 (10/10) AgSnO ₂	1000 (10/10) AgSnO ₂
	Agsil0 ₂	Agsil0 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)	(0.81.1)U _N	(0.81.1)U _N
DC		_
Technical data		
Electrical life at rated load in AC1 cycles	100 · 10 ³	100 · 10 ³
· · · ·	continuous	continuous
Maximum impulse duration	1	1000
Maximum impulse duration Dielectric strength between: open contacts V AC	1000	1000
· · ·	1000	
Dielectric strength between: open contacts V AC	1000 — —10+60	-10+50
Dielectric strength between: open contacts V AC supply - contacts V AC	_	—



13.01 - Electronic step/monostable relay	13.01	13.61.0.024.0000	13.61.8.230.0000
 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 1224 V AC/DC and 110240 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 	 1 CO (SPDT) Step or monostable relay 35 mm rail (EN 60715) mount 35 mm wide 	 I CO (SPDT) Reset feature, for centralized off command Set feature, for centralized on command Multifunction: step relay timing step relay (30s20min) monostable relay 	 I NO (SPST-NO) Reset feature, for centralized off command Multifunction: step relay timing step relay (30s20min) monostable relay light on 35 mm rail (EN 60715) mount
13.01/61 Screw terminals		- light on • 35 mm rail (EN 60715) mount • 17.5 mm wide	• 17.5 mm wide
For outline drawing see page 16			
Contact specification	1 CO (SPDT)		1 NO (CDST NO)
Contact configuration Rated current/Maximum peak current A	16/30 (120 A - 5 ms)	1 CO (SPDT)	1 NO (SPST-NO)
Rated current/Maximum peak current A Rated voltage/	10/30 (120 A - 3 IIIS)	16/30 (120 A - 5 ms)	16/30 (120 A - 5 ms)
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	750	750	1000
electromagnetic ballast W	750	750	1000
CFL W 230 V LED W	400	400	600
LV halogen or LED with	400	400	600
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)	110125 230240		110240
V DC/AC (50/60 Hz)	12 24	1224	—
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)	90130 184253	—	90264
V DC/AC (50 Hz)	10.813.2 20.633.6	10.226.4	—
Technical data	100 103	100 103	100.103
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	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 ERE	

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13 SERIES Electronic call & reset relays and mon	finder			
13.11 - Call & Reset Relay - Rail mount - 1 Pole	13.11	13.12	13.31	
13.12 - Call & Reset Relay - Rail mount - 2 Pole 13.31 - Electromechanical monostable relay	0 0 g	Ġ Ġ		
Switch box mount - 1 Pole • Call relay with reset command suitable for residential and commercial applications: public			Status con C (Saturation C (Sa	
 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)	 1 CO (SPDT) Call relay with reset command 35 mm rail (EN 60715) mount 	 1 CO (SPDT) + 1 NO (SPST-NO) Call relay with reset command 35 mm rail (EN 60715) mount 	 1 NO (SPST-NO) Interposing monostable reference For mounting within 	lay
13.11/12/31 Screw terminals	• 17.5 mm wide	• 17.5 mm wide	residential switch boxes	
* During impulse only. For outline drawing see page 16				
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 voltageV ACRated load AC1VA		250/400	250/400 3000	
Rated load AC15 (230 V AC) VA		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	
CFLW		150	200	
230 V LED W	300	150	200	
LV halogen or LED with	200	150	200	
electronic ballast W LV halogen or LED with	300	150	200	
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	AgSnO₂	
Supply specification				K
Nominal voltage (U _N) V AC (50/60 Hz)		12 - 24	12 - 230	
Rated power AC/DC V A (50 Hz)/W		12 - 24 3/2.5*	24	
Rated power AC/DC V A (50 Hz)/W Operating range AC (50 Hz)		3/2.5* (0.81.1)U _N	(0.81.1)U _N	
		(0.81.1)U _N	(0.81.1)U _N	
Technical data		(0.01.1)ON	(0.0)O _N	
Electrical life at rated load in AC1 cycles	100 · 10 ³	100 · 10 ³	70 · 10 ³	
Maximum impulse duration	10 s (100 ms minimum)	10 s (100 ms minimum)	continuous	
	1000	1000	1000	
supply - contacts V AC	2000	2000	2000	
Dielectric strength between: open contacts V AC supply - contacts V AC Ambient temperature range °C Protection category	-10+60	-10+60	-10+60	
2	IP 20	IP 20	IP 20	
Protection category Approvals (according to type)	IF 20	CE ERE	20	

13 SERIES



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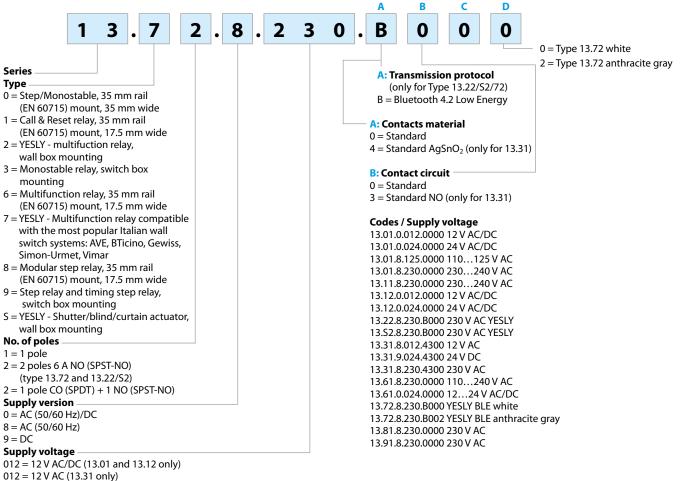
Multi and Single function electronic relays with Bluetooth		13.22	13.72	13.S2		
13.22 - Electronic multifunction relay		YESLY	YESLY	YESLY		
2 Pole		/LJL/		/LJL/		
- Round wall box (ie: Ø 60 mm) mountin		Ofinder		Ofinder		
 21 available functions (step relays, tim staircase timer) for lighting and fan me 		13.22.8.230.8000 Un 220V~ 	12 Stindor Stador	13.52.8.230.8000 U≈ 230V~ ∽ 6A230V~ ♦		
control	0101					
13.72 - Electronic multifunction relay		P2 P1 CH2CH1 L N		P2 PI CH2CHILN		
2 Pole		LEFFEFE				
 Wall mounting, compatible with most popular Italian residential switch boxe 						
AVE, BTicino, Gewiss, Simon-Urmet, Vi	mar					
 21 available functions: step relays, tim (1s - 24h), electric shutter, blind or cur 		Offering a variety of ON/OFF	Offering a variety of ON/OFF	• Suitable for electric shutters,		
control	lanı	functions associated with lighting and fan motor control	functions associated with lighting, electric shutters,	blind or curtain controlTransmission protocol		
13.S2 - Electronic roller shutter actuat	or	Transmission protocol	blinds or curtains	Bluetooth 4.2 Low Energy		
- Round wall box (ie: Ø 60 mm) mountin		Bluetooth 4.2 Low Energy	Transmission protocol	Safe connection with 128-bit		
- For electric shutter, blind or curtain co		Safe connection with 128-bit	Bluetooth 4.2 Low Energy	encryption		
 2 contacts NO 6 A - 230 V AC independ programmable channels 	ent and	encryption	Safe connection with 128-bit	App programming with iOS		
 2 inputs for wired pushbuttons (one in 	put per	App programming with iOS or	encryption	Android Smartphone: Finder		
channel)		Android Smartphone: Finder TOOLBOX	• App programming with iOS or Android Smartphone: Finder	TOOLBOXCan be managed through		
 Transmission range: approximately 10 space and without obstacles 	m in free	Can be managed through	TOOLBOX	standard pushbuttons, BEYO		
space and without obstacles		standard pushbuttons, BEYON	Can be managed through	and Type 013.B9 wireless		
13.22/S2/72		and Type 013.B9 wireless	standard pushbuttons, BEYON	buttons		
Screw terminals		buttons	and Type 013.B9 wireless			
			buttons			
For outline drawing see page 17						
Contact specification						
Contact configuration		2 NO (DPST-NO)	2 NO (DPST-NO)	2 NO (DPST-NO)		
Rated current/Maximum peak current	А	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/ha		200	200	—		
fluorescent tube electronic		200	200	_		
fluorescent tube		200	200			
electromagnetic		200	200	_		
	CFL W	200	200	—		
LEC	230 V W	200	200	—		
LV halogen or LE						
electronic		200	200	_		
LV halogen or LE		200	200	_		
DIACTION ADATIC	Sanast W	200	200	_		
electromagnetic Supply specification						
Supply specification	50/60 Hz)	230	230	230		
Supply specification	50/60 Hz) V DC	230	230	230		
Supply specification Nominal voltage (U _N) V AC (State)	V DC	230 — 2 / 0.5	230 — 2 / 0.5	230 — 2/0.5		
Supply specification Nominal voltage (U _N) Rated power AC/DC		_	_	 2 / 0.5		
Supply specification Nominal voltage (U _N) Rated power AC/DC VA (V DC 50 Hz)/W	 2/0.5	 2/0.5			
Supply specification Nominal voltage (U _N) Rated power AC/DC VA (V DC 50 Hz)/W C (50 Hz)	 2/0.5	 2/0.5	 2/0.5		
Supply specification Nominal voltage (U _N) Rated power AC/DC VA (Operating range A	V DC 50 Hz)/W C (50 Hz)	 2/0.5	 2/0.5	 2/0.5		
Supply specification Nominal voltage (U _N) Rated power AC/DC VAC (S Operating range A Technical data Electrical life at rated load in AC1	V DC 50 Hz)/W C (50 Hz) DC			2 / 0.5 (0.81.1)U _N 		
Supply specification Nominal voltage (U _N) Rated power AC/DC VA (Operating range A Technical data Electrical life at rated load in AC1 Maximum impulse duration	V DC 50 Hz)/W C (50 Hz) DC cycles					
Supply specification Nominal voltage (U _N) Rated power AC/DC VAC (2) Operating range A Technical data	V DC 50 Hz)/W C (50 Hz) DC cycles					
Supply specification V AC (2) Nominal voltage (U _N) V AC (2) Rated power AC/DC V A (2) Operating range A Technical data A Electrical life at rated load in AC1 Maximum impulse duration Dielectric strength between: open contact A	V DC 50 Hz)/W C (50 Hz) DC cycles acts V AC					

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SERIES

Ordering information

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



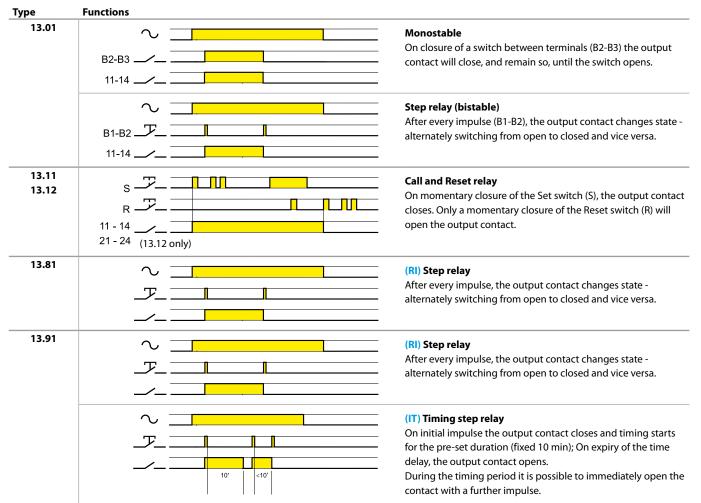
Technical data

13.01.8	13.01.0	13.11 - 13.12	13.3	31 - 13	8.61	13.81 - 13	3.91			
AC 4000	_	_	-			_				
AC 4000	4000	—	_			_				
AC —	—	2000	—		_					
AC 4000	4000	—	200	0		_				
AC 1000	1000	1000	100	0		1000				
1	3.01	13.11 - 13.12	13.3	31	13.61	13.81	13.9	1	13.22 13.52 13.72	K
W	2.2	—	0.4		1	1.2	0.7		0.5	
W	3.5	1.5	1.6		1.8	2	1.8		1.5	
m	00	100	-		200	200	100		100	
A)	_	—	-		10*	15	12		5	
1:	13.01		13.11 - 13.12 - 13.31 - 13.61 - 13.72 - 13.81 - 13.91		13.22 - 13	3.S2				
solid cable	stranded cable	solid cable	d cable stranded cable		solid cabl	e	stran	ded cable		
m 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	2 x 1.5		2 x 1		
VG 1 x 10 / 2 x 12	1 x 10 / 2 x 14	1 x 10 / 2 x 12		1 x 12	/ 2 x 14	2 x 16		2 x 1	6	
lm 0.8		0.8								
ייי ייי ח	AC 4000 AC 4000 AC	AC 4000 AC 4000 4000 AC AC 4000 4000 AC 1000 1000 M	AC 4000 — — AC 4000 4000 — AC 2000 AC 4000 AC 4000 4000 — AC 1000 1000 1000 AC 1000 1000 1000 AC 1000 1000 M 2.2 W 3.5 1.5 m 100 100 100 mAD 100 mAD 1.5 mAD 1.5 mAD mAD 1.3.11 - 13.12 mAD 1.3.12 - 13.81 mAD 1.3.11 - 13.12 1.3.72 - 13.81 mAD 1.3.11 - 13.12 1.3.72 - 13.81 mAD 1x6/2x4 1x6/2x2.5 1x6/2x4 1x10/2x12	AC 4000 — — — — AC 4000 4000 — — — AC 4000 4000 — 200 — AC 4000 4000 — 200 — AC 4000 1000 1000 1000 1000 AC 1000 1000 1000 1000 1000 1000 M 2.2 — — 0.4 100 — — 0.4 W 3.5 1.5 1.6 1.6 — — — — — — m 100 — — 100 — …	AC 4000 AC 4000 4000	AC 4000 — — — — AC 4000 4000 — — — AC 4000 4000 — 2000 — AC 4000 4000 — 200 — AC 4000 1000 1000 100 100 AC 1000 1000 100 100 100 100 AC 1000 1000 1000 100 100 100 100 100 W 3.5 1.5 1.6 1.8 1.8 m 1.0 100 — 200 mAD — — .0.4 1.8 M 1.5 1.6 1.8 M MB MB	AC 4000 — …	AC 4000 AC 4000 4000 AC 2000 AC 4000 4000 20U AC 4000 1000 1000 1000 AC 1000 1000 1000 1000 1000 100 <td>AC 4000 AC 4000 4000 1000 <td>AC 4000 AC 4000 4000 1000 1000 - 1.3.61 13.91 13.172 13.52 13.52 13.72 13.72 13.72 13.72 13.72 1.5 100 100 100 </td></td>	AC 4000 AC 4000 4000 1000 <td>AC 4000 AC 4000 4000 1000 1000 - 1.3.61 13.91 13.172 13.52 13.52 13.72 13.72 13.72 13.72 13.72 1.5 100 100 100 </td>	AC 4000 AC 4000 4000 1000 1000 - 1.3.61 13.91 13.172 13.52 13.52 13.72 13.72 13.72 13.72 13.72 1.5 100 100 100

* For 8.230 version.

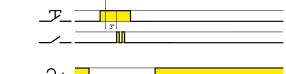


Functions for types 13.01, 13.11, 13.12, 13.81, 13.91



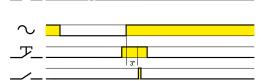
Operating mode setup for type 13.91

 $\text{RI} \rightarrow \text{IT}$



 $\text{IT} \rightarrow \text{RI}$

8



a) Remove the supply voltage

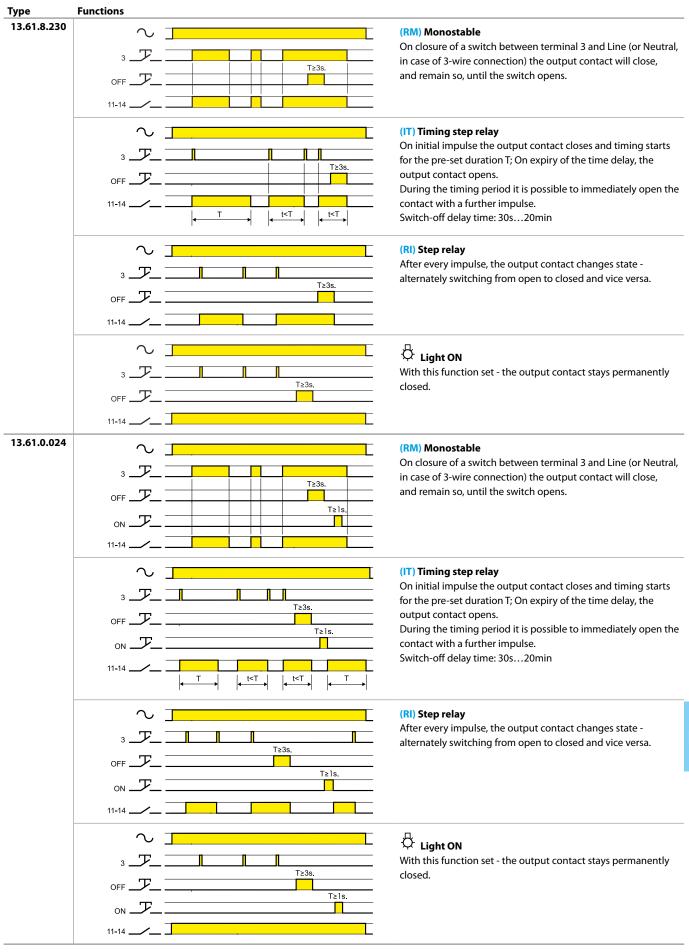
b) Press the control button

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.



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Functions for type 13.61



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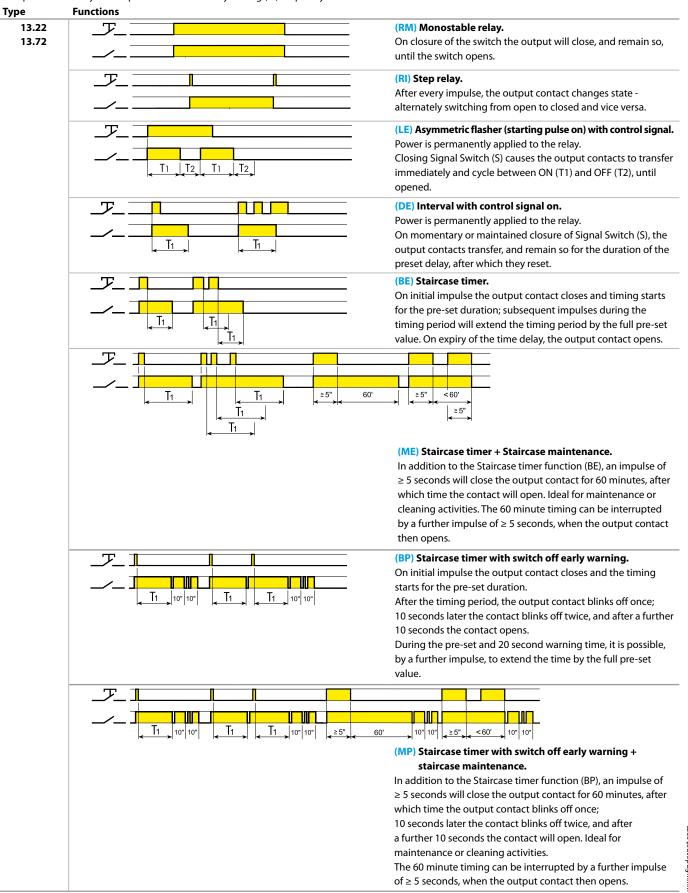
Functions for type 13.22, 13.52, 13.72

Relay settings

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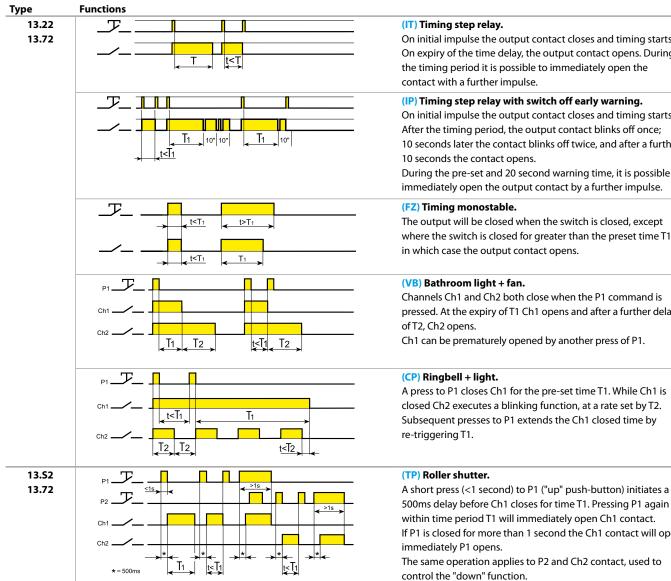
Multifunction electronic relays can be configured with the Finder TOOLBOX App, available for iOS or Android systems. This product is ready-to-use preset with the factory setting (RI) Step relay on both channels.





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Functions for type 13.22, 13.S2, 13.72



Sequences

P1 (SET): press to advance through the sequence

P2 (RESET): press to return to Step 1

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

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

During the pre-set and 20 second warning time, it is possible to immediately open the output contact by a further impulse.

The output will be closed when the switch is closed, except where the switch is closed for greater than the preset time T1 -

Channels Ch1 and Ch2 both close when the P1 command is pressed. At the expiry of T1 Ch1 opens and after a further delay

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

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

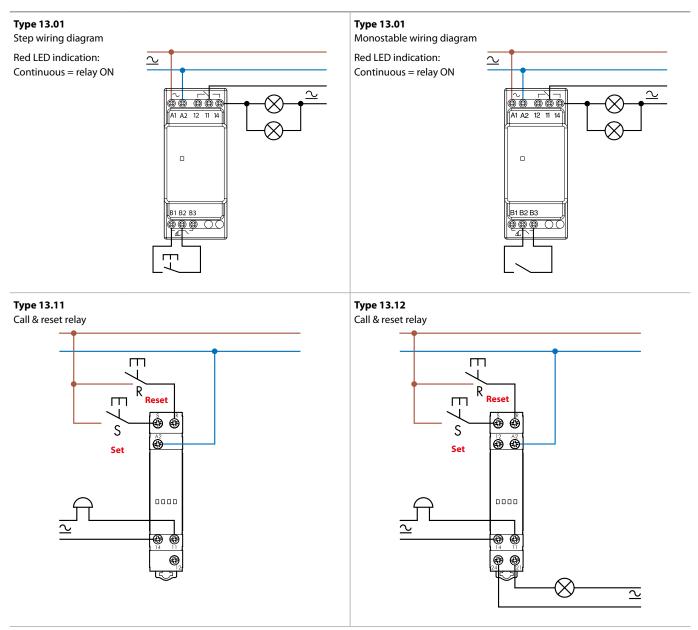
The same operation applies to P2 and Ch2 contact, used to

Turne	Functions	ences			
Туре	Functions	1	2	3	4
13.22 13.72	02	44	ĻĻ		
	03				
	04		44		μI
	05	$\frac{1}{1}$		γÌ	77
	06	$\frac{1}{1}$		łł	
	07	$\frac{1}{11}$			
	08	$\frac{1}{1}$	γI	$\frac{1}{1}$	

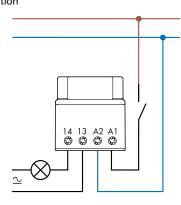
SERIES



Wiring diagrams (13.01, 13.11, 13.12 and 13.31)





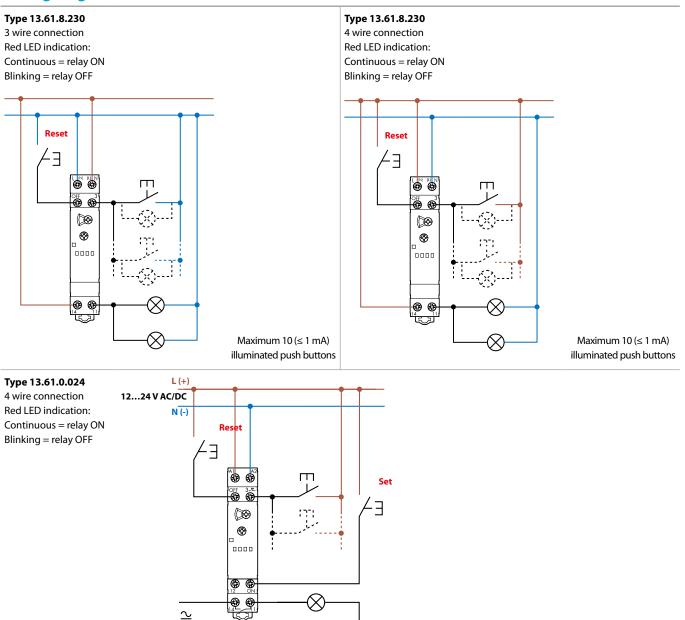


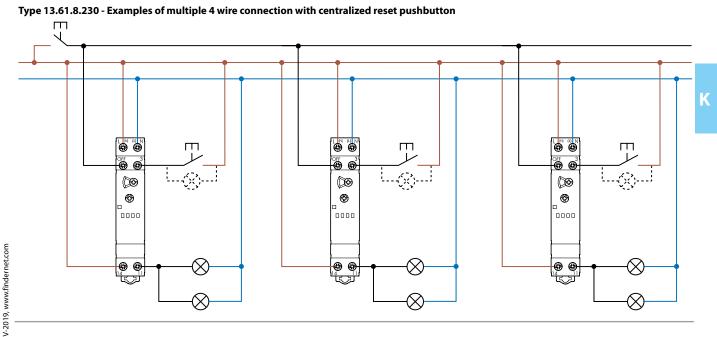
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Wiring diagrams (13.61)

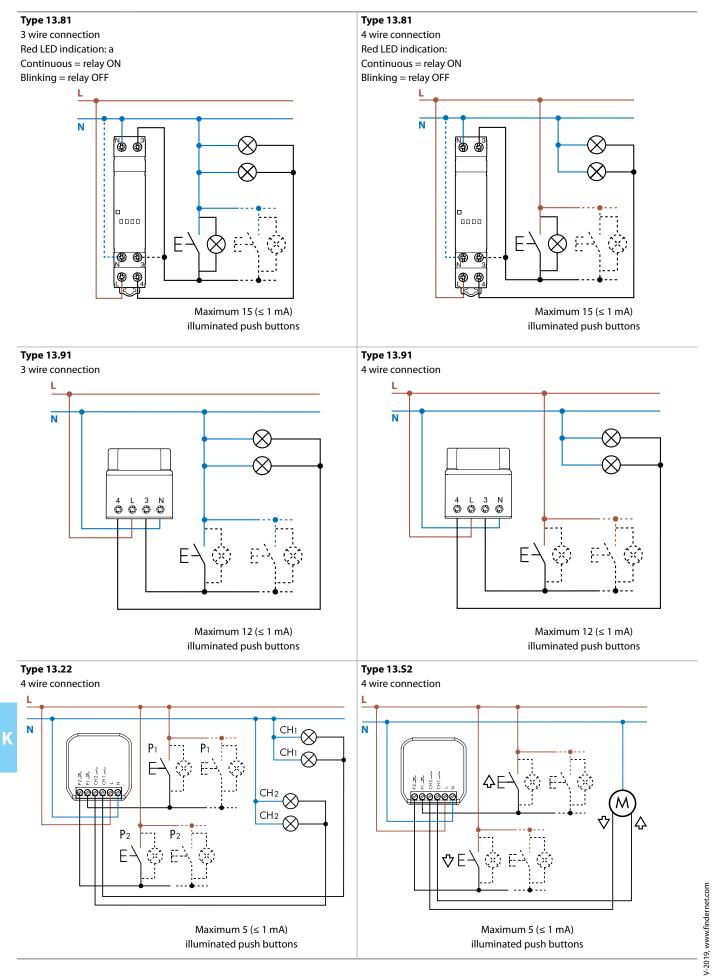




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Wiring diagrams (13.81, 13.91, 13.22 and 13.S2)

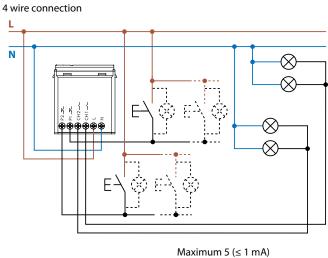




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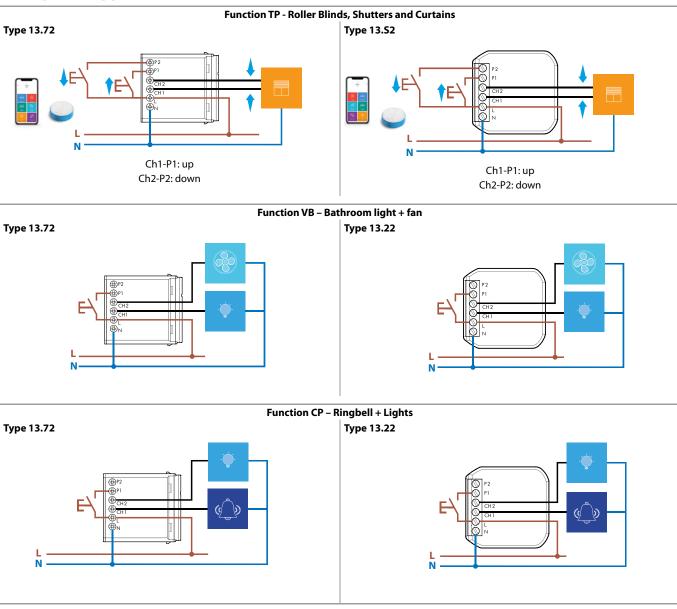
Wiring diagrams (13.72)

Type 13.72



illuminated push buttons

Examples of applications



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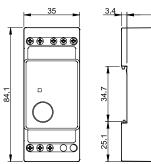
Outline drawings

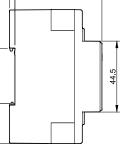
Type 13.01 Screw terminal

13

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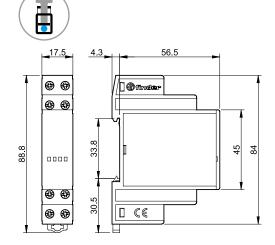




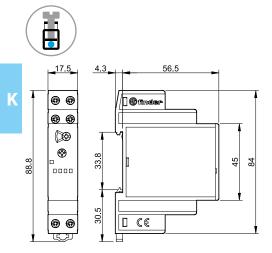


54.6

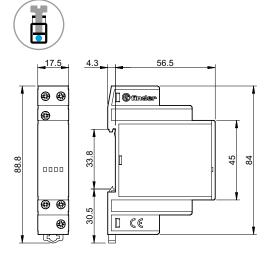
Type 13.12 Screw terminal





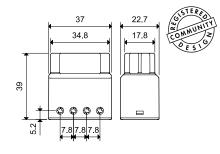


Type 13.11 Screw terminal

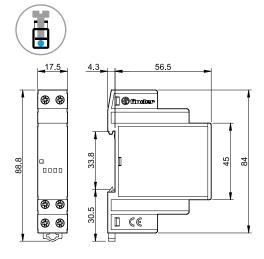


Types 13.31/13.91 Screw terminal





Type 13.81 Screw terminal



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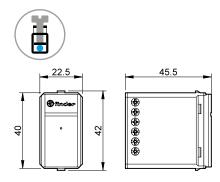
16

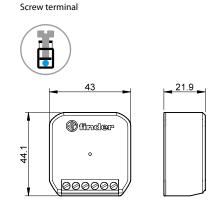


13 SERIES

Outline drawings

Type 13.72 Screw terminal





Type 13.22 / 13.S2

Accessories

060.48

	Adaptor for panel mounting, for type 13.01, 35 mm wide	011.01
<u></u>		
011.01		
	Adaptor for panel mounting, for type 13.11, 13.12, 13.61 and 13.81, 17.5 mm wide	020.01
020.01		
	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