finder®
SWITCH TO THE FUTURE

THE ELECTRICIANS' GUIDE

Wiring schemes for residential and commercial applications

ABOUT US

ISO 9001
ISO 14001
ISO 45001

Finder was founded in Italy in 1954. Since then it it has been designing and manufacturing a wide range of electromechanical and electronic components for both the residential and industrial sectors. Today, thanks to its global vision, Finder now distributes its products around the world through a network of 29 company-owned subsidiaries and more than 80 trade partnerships.

Finder is an international family made up of more than 1300 individuals, all united by the same values and passion for our products.

14 500

Different products to satisfy a myriad of applications. From products at the heart of automation to the control of machines, power, time, temperature, liquid level, light and much more.

OUR PRODUCTS CARRY MORE CERTIFICATIONS THAN ANY OTHER RELAY MANUFACTURER

FINDER IS AN ITALIAN BRAND WITH A WORLDWIDE PRESENCE

- 4 PRODUCTION PLANTS IN EUROPE
- 29 SUBSIDIARIES
- 80+ OFFICIAL DISTRIBUTORS

finder
SWITCH TO THE FUTURE

Today, there is a practical and viable alternative to the traditional way of controlling domestic and commercial lighting.

Economy and flexibility

Achieving the control of lighting where there is more than one control switch, particularly where they are located some distance from one another, has always been complicated and costly. A second control switch requires 3 additional wires, whilst every intermediate switching location requires no less than 4 wires.
In such cases, utilising an impulse (or step) relay has many advantages;
- designing the system is simpler
- it is more easily expanded
- installation costs are noticeably reduced.

Simplicity

Using 2-wire pushbuttons to control the coil of a centrally located impulse relay, which in turn controls the lights, greatly simplifies the wiring normally associated with one-way, two-way and intermediate switches. The 2-wire coil "command circuit" is easily extended to as many lighting control locations as needed, and can use smaller and neater conductors (typically 0.5 mm^2 - as permitted by National regulations), since they need only to carry the load of the relay coil (typically 20…600 mA). The power circuit to the lights should of course be of sufficient capacity, but instead of following the usual route of a traditional system to all the switches, it needs to run only to the impulse relay and then to the lights.

Safety

Where necessary, and particularly for safety reasons, a transformer can be used to power the command circuit at a voltage lower than the supply voltage - impulse relay coils being available in several AC or DC voltages.
No other component offers this enhanced safety through separating the command from the power circuit, nor the savings derived from added versatility and simplification of the system.

Versatility

In addition to the technical advantages already described, a number of versatile mounting modes for the relay are possible; ranging from a normal junction box, screw fixing, and 35 mm rail (EN 60715) mounting systems.

Conforming to International Standards

In Europe, the Low Voltage European Directive 2014/35/EU and successive amendments state that, as well as using recognised technicians to carryout the installation, the materials and components used in the system should adhere to International and National standards. It is particularly important that this can be verified with Declarations of Conformity citing the appropriate standards, and certification documents from the appropriate National certification organisation.

FINDER impulse relays are designed and constructed in compliance with EN/IEC standards, depending on type, have been officially certified by the appropriate standards authorities with respect to performance and quality, being subject to both Type Testing and ongoing periodic QC testing.

APPROPRIATE STANDARDS

EN 61810-1: Electromechanical Elementary Relays – Part 1: General and safety requirements

EN 60669-1: Switches for household and similar fixed electrical installations. General requirements

64 - 8: Electrical Systems.

Noise level

FINDER is engaged in continual research into the reduction of the acoustic noise generated by the mechanical action of operating the contacts.

Improved with respect to earlier versions of impulse relay, the current 20, 26 Series and 27 Series create no more noise than a normal switch (about 20 dB), whilst the SILENT IMPULSE RELAY “13.81” and “13.91” generates no noise noticeable above the general background noise where it is installed.

The Switching Function fundamentally defines the particular sequence in which the step relay contacts open and close, and the number of "steps" before this sequence repeats itself. The digit in the fourth position of the Finder part number denotes the Switching Function.

Relay type	Number of Steps	Switching Sequence			
		1	2	3	4
xx.x1	2				
xx.x2	2				
xx.x3	2				
xx.x4	4				
xx.x5	4				
xx.x6	3				
xx.x8	4				

Switching function code

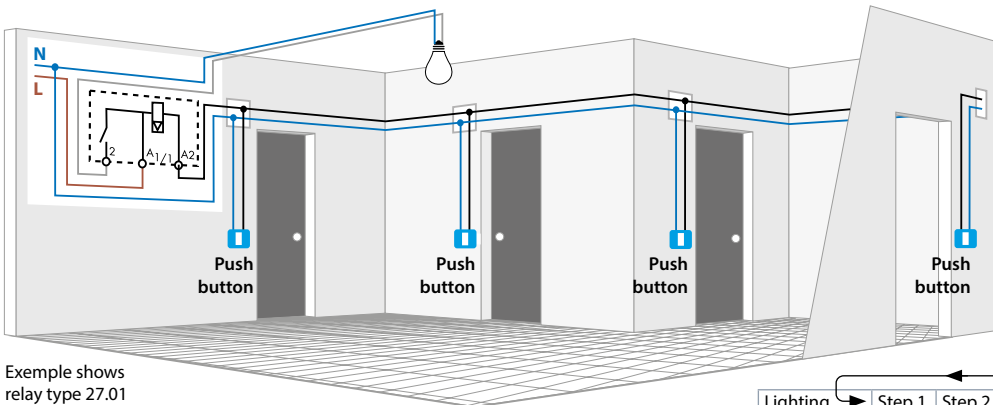
The 1 pole 2 step switching function xx.x1 will allow the On/Off control of a single lighting zone.
The 2 pole types allow the independent control of 2 lighting zones. The specific lighting sequence will depend on the specific Switching Function code chosen.

Note:

- Not all Finder Step relays are available with all the possible alternative Switching functions.
- The Switching function code generally has the same meaning for all Finder step relays, although there are a few minor anomalies – so in practice refer carefully to the data sheet for the specific relay.

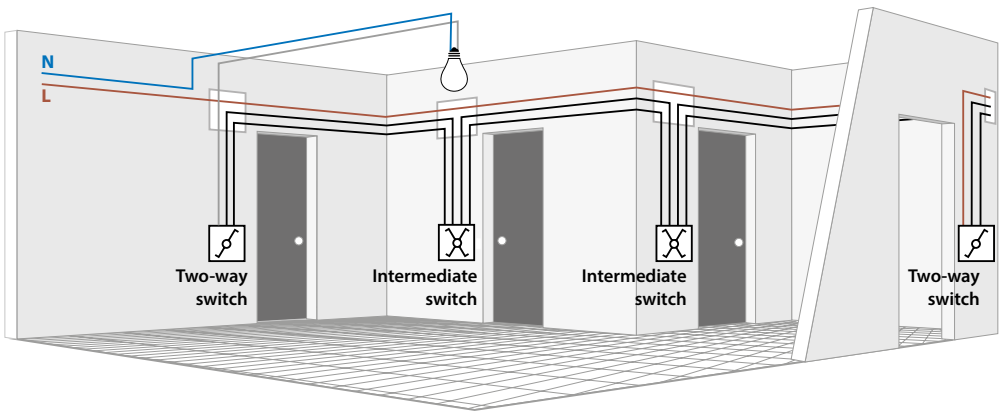
For example:
The Switching Function code "6" (2 pole, 3-step sequence) can be implemented with relay types 20.26 – 26.06 – 27.06, but the latter has coil and contact circuits that are common to each other.

Relay System Wiring – Single Zone On/Off control - Using single relay (Function code "1") and simple wiring - Possible relay types, 20.21 - 26.01 - 27.01 - 27.21 - 13.81 - 13.91

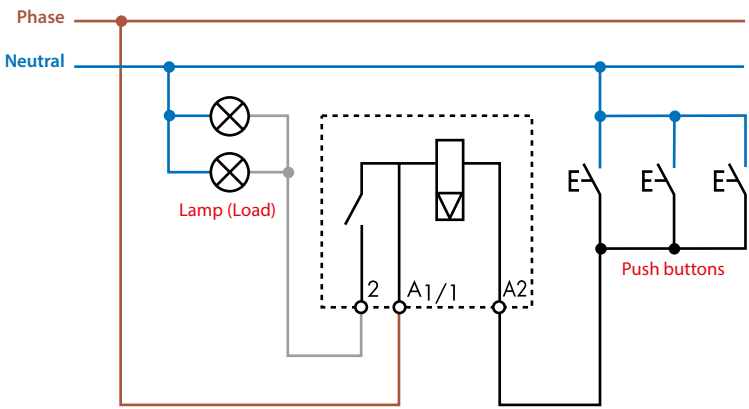


Comparing both systems, even for the simplest uses, the relay system offers advantages.
Only two wires are required for the "command circuit", and they can be of a smaller cross section (0.5 mm). Whereas, in a traditional system the conductors have to be sized to take the load current and are far more numerous. From an economic viewpoint, not only are there savings in material costs, but also less time is taken by the electrician to install the relay system. This system is also much easier to modify or extend.

Traditional System Wiring – Single Zone On/Off control - Using multi-pole switches and multiple wiring

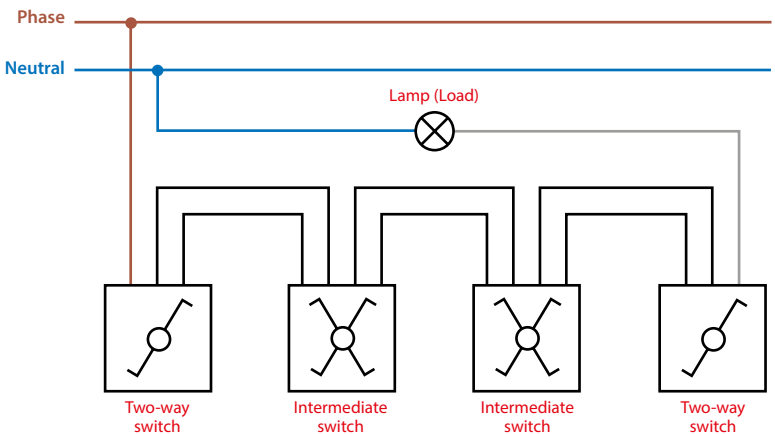


Wiring Schematic - Relay system
Single Zone On/Off control - Function code “1” (1 pole 2 step sequence) relay

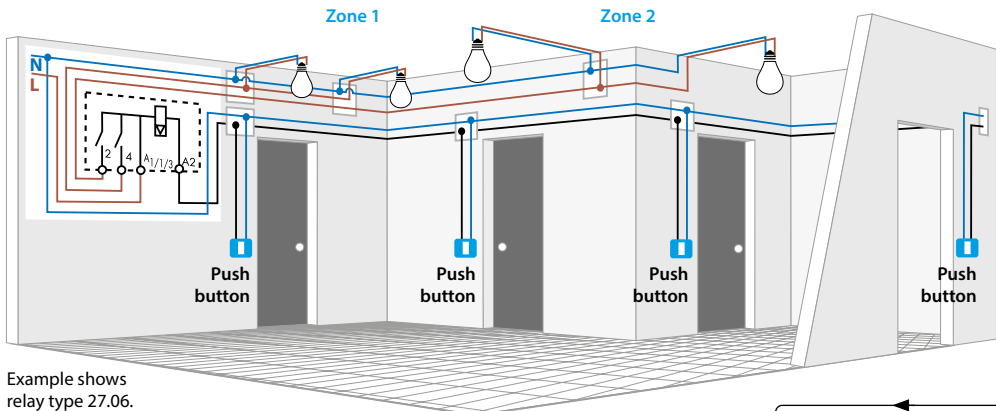


Example shows relay type 27.01.

Wiring Schematic - Traditional system - Single Zone On/Off switching - Multi-pole switches and wiring



Relay System Wiring – 2 Lighting Zones, 3 sequence On/Off control - Using single relay (Function code "6") and simple wiring
Possible relay types, 20.26 - 26.06 - 27.06 - 27.26



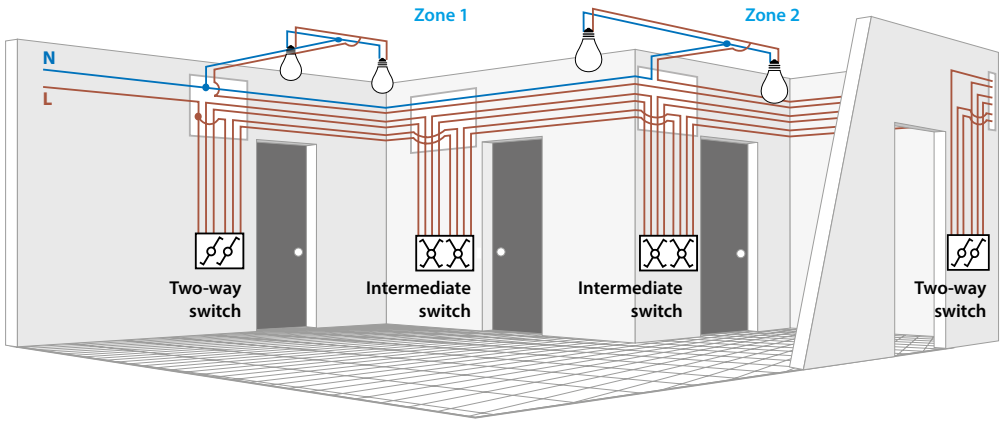
Example shows relay type 27.06.

Lighting	Step 1	Step 2	Step 3
Zone 1	OFF	OFF	ON
Zone 2	OFF	ON	ON

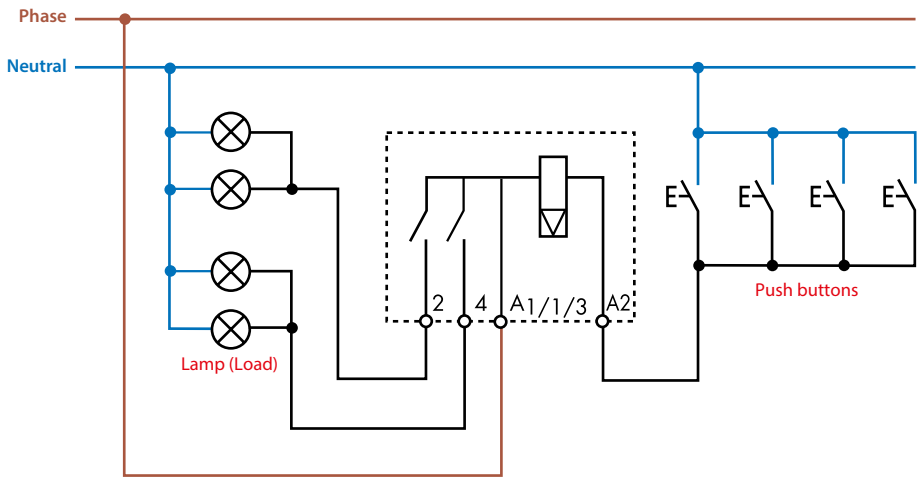
For more complex functions such as the one above, the relay system is self evidently simpler and more economical to install. Savings of typically 40% can be achieved.
The function of this particular application is to offer 3-step sequence control over two circuits, or lighting "zones", using a single impulse relay with 2 independent contacts.

Successive operation of any of the push buttons sequences the lighting through all three permutations.

Traditional System Wiring – 2 Lighting Zones - Using mullti-pole switches and complex wiring

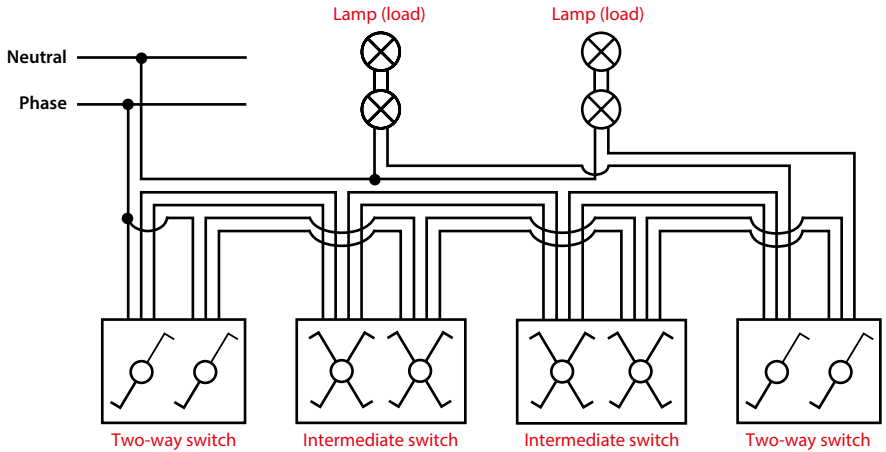


Wiring Schematic - Relay system - 2 Zone On/Off switching - Function code "6" (2 pole 3 step sequence) relay



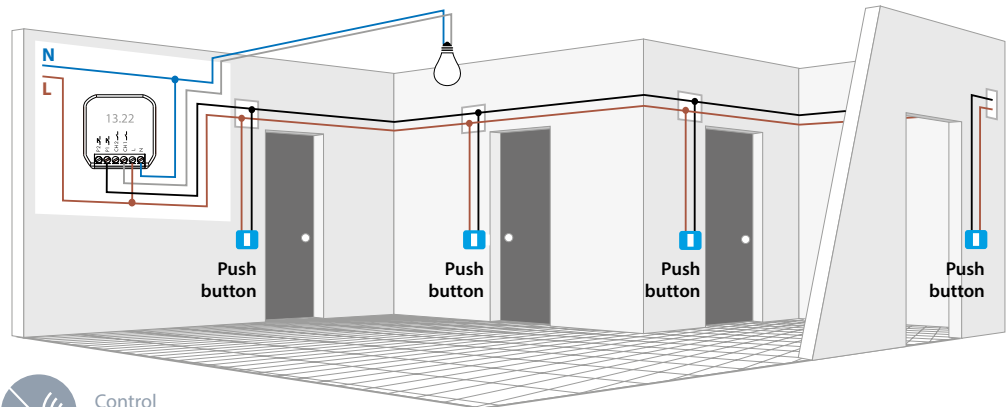
Example shows relay type 27.06.

Wiring Schematic - Traditional system - 2 Zone On/Off switching - Multi-pole switches and complex wiring



Conversion of a step relay pushbutton controlled lighting system to a Smart system

YESLY - R1 function Step relay (pushbutton control)



Control remotely

Control by voice

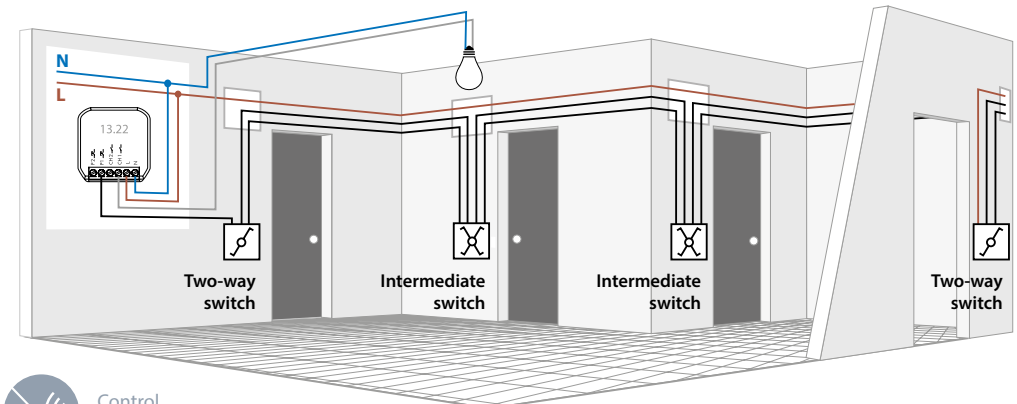
Control by Smartphone

An existing electromechanical step relay system with pushbutton control can be easily converted into a Smart system through the use of the Type 13.22 multifunction relay.

Using the RI - Step relay (pushbutton control) function, a step relay system can now be controlled via a smartphone or voice assistants and will be integrated into the YESLY comfort living system.

Conversion of a two way and intermediate switch lighting system to a Smart system

YESLY - Rla function Step relay (switch control)



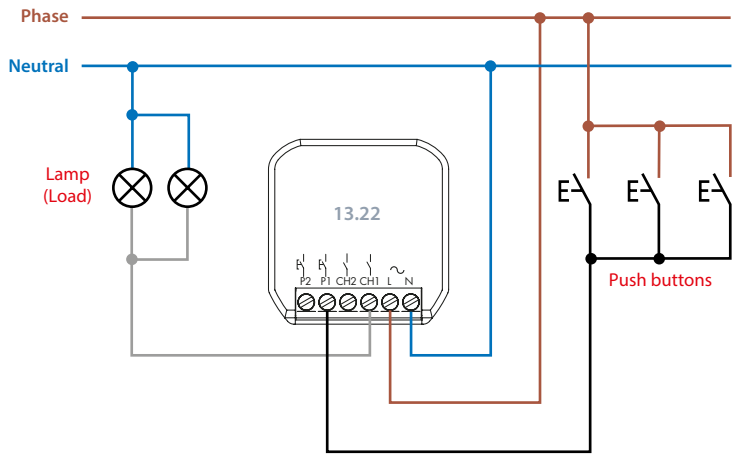
Control remotely

Control by voice

Control by Smartphone

With the special "Rla step relay (switch control)" function a traditional system using two-way and intermediate switches can be easily converted to a Smart system and integrated into the YESLY living comfort system without modification to the wiring. The lights can now be controlled with the existing switches, via wireless buttons, or through your smartphone - thanks to the App.

YESLY - R1 function Step relay (pushbutton control)

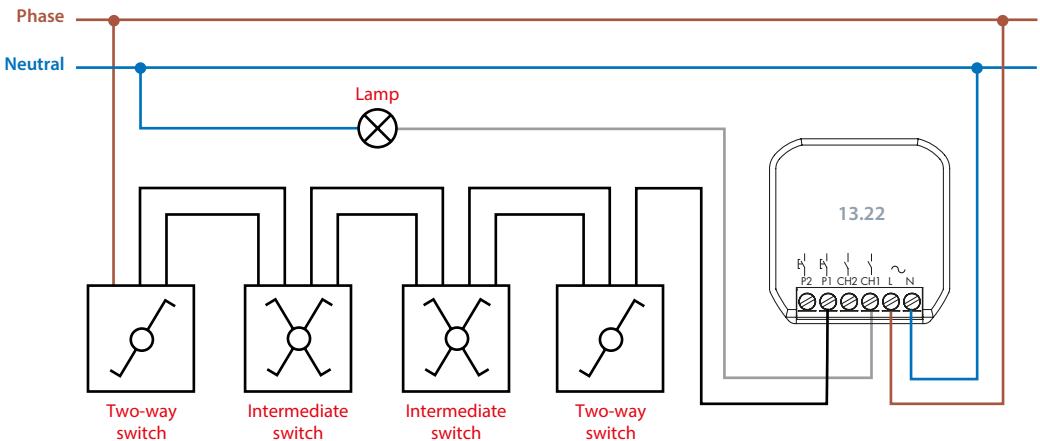


Control remotely

Control by voice

Control by Smartphone

YESLY - Rla function Step relay (switch control)

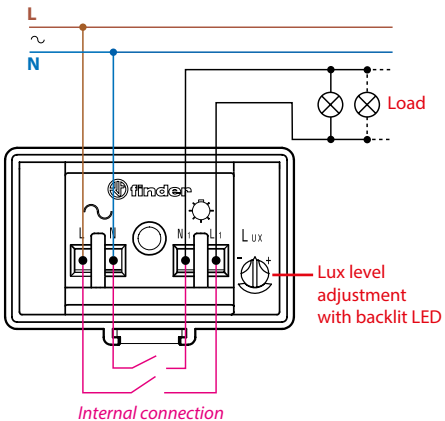


Control remotely

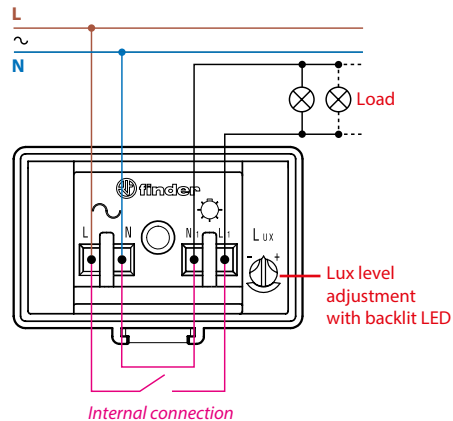
Control by voice

Control by Smartphone

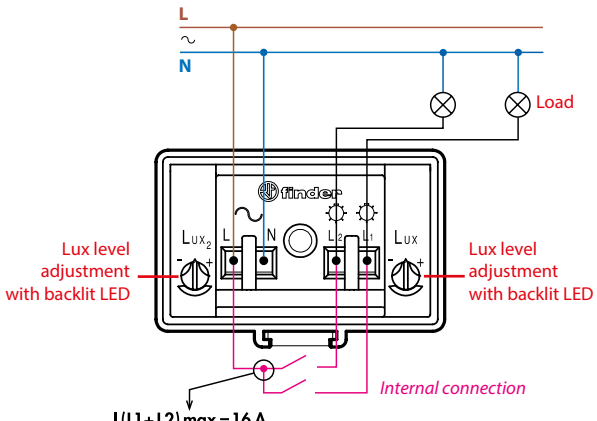
Type 10.32
Double output - 2 NO 16A
for Live and Neutral switching
- 2 NO, 16 A 230 V AC
- Supply voltage: AC
- For pole or wall mounting



Type 10.41
Single output - 1 NO 16A for Live switching
-1 NO, 16 A 230 V AC
- Supply voltage: AC
- For pole or wall mounting

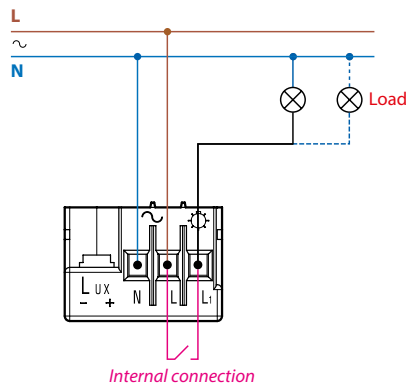


Type 10.42
Two independent outputs
- 2 NO, 16 A 230 V AC
- Supply voltage: AC
- For pole or wall mounting

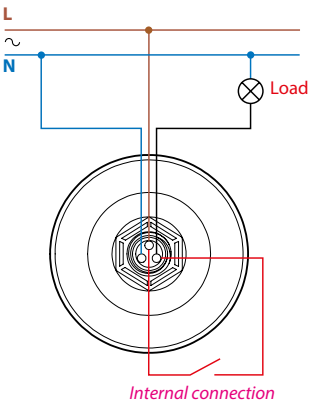


Type 10.51
Single output - 1 NO 12A
- 1 NO, 12 A 230 V AC
- Supply voltage: AC
- For pole or wall mounting

Italian Patent "light feedback compensation" innovative principle

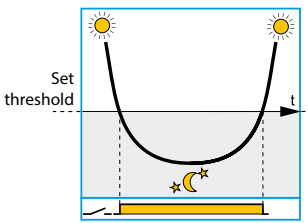


Type 10.61
Fixed sensivity 10 lux (± 20%)
- 1 NO, 16 A 230 V AC
- Supply voltage: AC
- Mounting on street light body



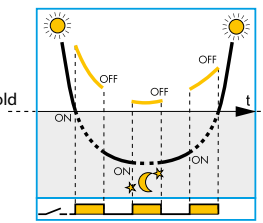
Advantage of the "light feedback compensation" principle

Light dependent relay where the lighting being controlled does not influence the light level seen by the light sensor



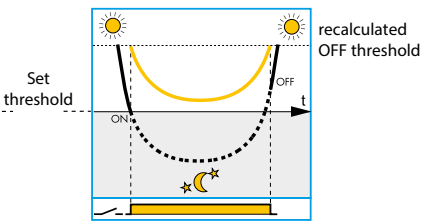
Correct functioning - provided the sensor can be shielded from the effects of the controlled lighting switching On and Off

Traditional light dependent relay where the lighting being controlled influences the light level seen by the light sensor



Incorrect functioning where the lamps cycle between On and Off, because their effect is being detected by the light sensor

Type 10.32, 10.41 and 10.51 light dependent relay with "light feedback compensation"



The innovative principle of "light feedback compensation" avoids the annoying and damaging effects of the lamps repeatedly "hunting" between On and Off, due to poor installation

Ambient light level as measured by the light dependent relay's integral light sensor.
Ambient light + controlled light level as measured by the light dependent relay's integral light sensor.

Notes

1. It is good practice to try to achieve a correct installation where the light emitted from the lamp(s) does not influence the light level seen by the sensor, although the "light feedback compensation" principle will help when this is not fully achievable. In this case it should be appreciated that the "light feedback compensation" principle may delay slightly the time of Switch Off - beyond the ideal.
2. The compensation principle is not effective where the combined effect of the ambient light and the controlled lighting exceeds 120 lux.
3. The 10.32 and 10.41 types are compatible with gas discharge lamps that attain full output within 10 minutes, since the electronic circuit monitors lamps' light output over a 10 minutes period to achieve a true assessment of its contribution to the overall lighting level.

Brilliant ideas light up at dusk

Solutions for managing external lighting

finder
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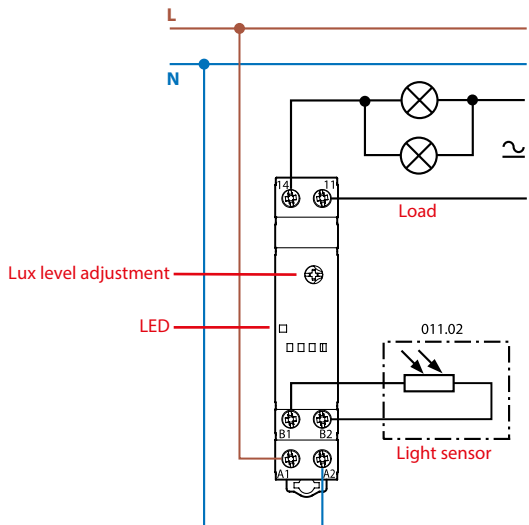
Type 11.31.8.230.0000
Supply voltage: 230 V AC

Type 11.31.0.024.0000
Supply voltage: 12…24 V AC/DC

- 1 NO, 16 A 250 V AC
- 35 mm rail (EN 60715) mount

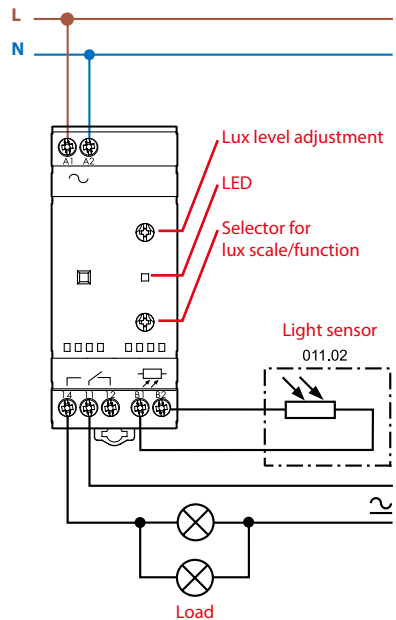


Accessories

Light sensor Type 011.02
Protection category: IP 54

Flush-mounted light sensor
Type 011.03
Protection category: IP 66/67

Type 11.41
"zero hysteresis", 4 position selector
- 1 CO, 16 A 250 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount

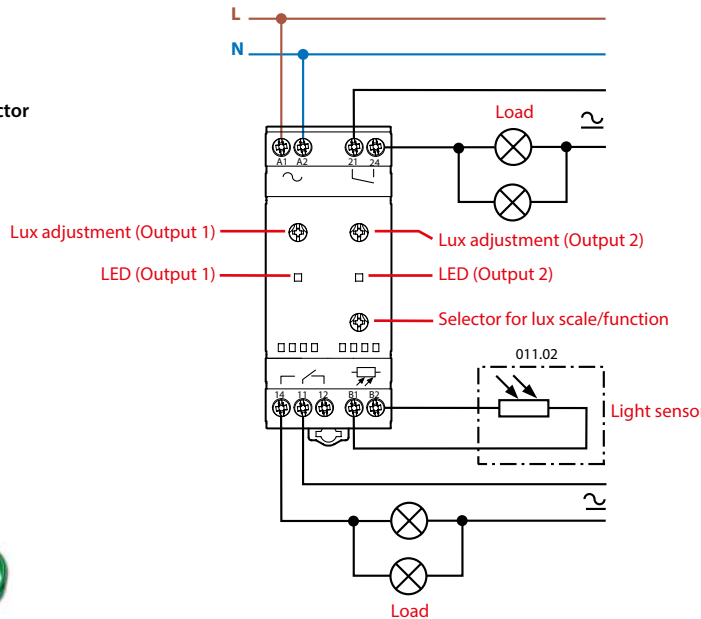


Accessories

Light sensor Type 011.02
Protection category: IP 54

Flush-mounted light sensor
Type 011.03
Protection category: IP 66/67

Type 11.42
2 independent outputs, 4 position selector
- 1 CO + 1 NO, 12 A 250 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount

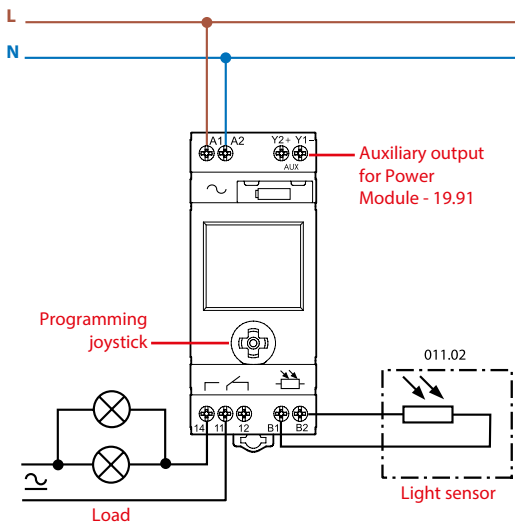


Accessories

Light sensor Type 011.02
Protection category: IP 54

Flush-mounted light sensor
Type 011.03
Protection category: IP 66/67

Type 11.91
Light dependent relay + time switch
Auxiliary output (light only dependent)
to power optional 19.91 power module
- 1 CO (16 A 250 V AC) + 1 aux output
- Supply voltage: 230 AC
- 35 mm rail (EN 60715) mount



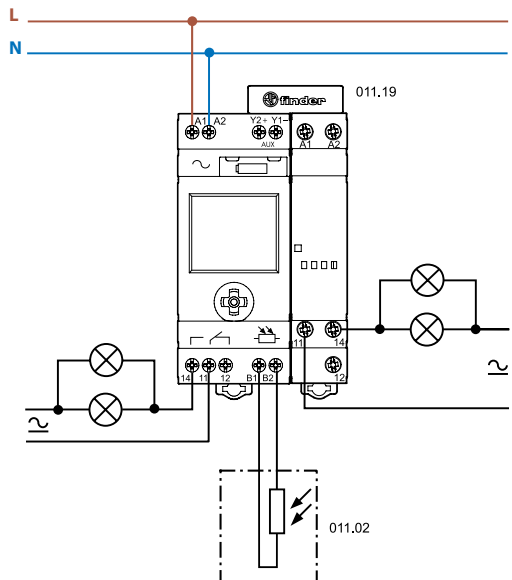
Accessories

Light sensor Type 011.02
Protection category: IP 54

Flush-mounted light sensor
Type 011.03
Protection category: IP 66/67

Type 19.91.9.012.4000
Power module 16 A
- 1 CO 16/30 A 250 V AC
- Supply voltage: DC
- 35 mm rail (EN 60715) mount

A solid state output at terminals Y1-Y2 is provided (rated 12 V DC, 80 mA 1 W max.): this can be used with the power module **19.91.9.012.4000** connected by the dedicated **011.19** connector.

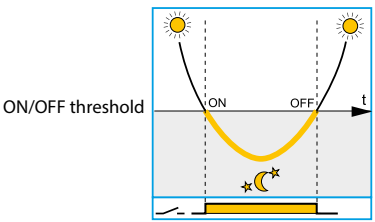


Accessories

2-pole connector Type 011.19
For direct connection of 11.91 auxiliary output (Y1-Y2) to 19.91 supply (A1-A2)

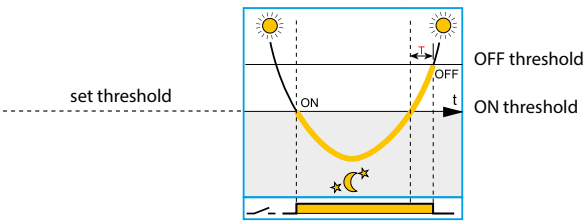
Advantage of the "Zero hysteresis" patented circuit: ensures reliable switching without wasting energy

Type 11.41 "ZERO HYSTERESIS" light dependent relays



Switch OFF level = Switch ON level. Patented "zero hyseresis" circuitry ensures reliable switching without wasting energy

Traditional light dependent relays



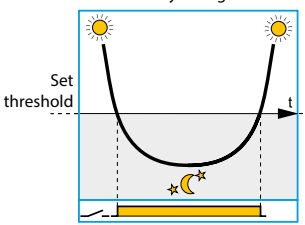
"Traditional" light dependent relays incorporate switching hysteresis to prevent malfunctioning or tripping. This results in an unnecessary delay in switching off, and a resulting waste of energy (over period T)

Brightness of the natural light

The NO of the light dependent relay is closed (light is switched on)

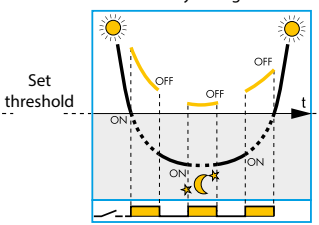
Advantage of the "light feedback compensation" principle (Italian Patent) avoids the effect of the lamps repeatedly "hunting" between On and Off, due to poor installation

Light dependent relay where the lighting being controlled does not influence the light level seen by the light sensor



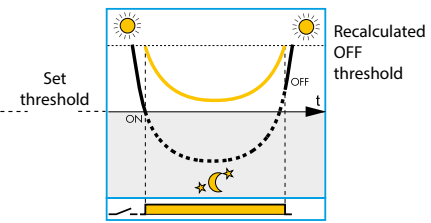
Correct functioning - provided the light sensor can be shielded from the effects of the controlled lighting switching On and Off

Traditional light dependent relay where the lighting being controlled influences the light level seen by the light sensor



Incorrect functioning where the lamps cycle between On and Off, because their effect is being detected by the light sensor

Type 11.41 and 11.91 light dependent relay with "light feedback compensation"



The innovative principle of "light feedback compensation" avoids the annoying and damaging effects of the lamps repeatedly "hunting" between On and Off, due to poor installation

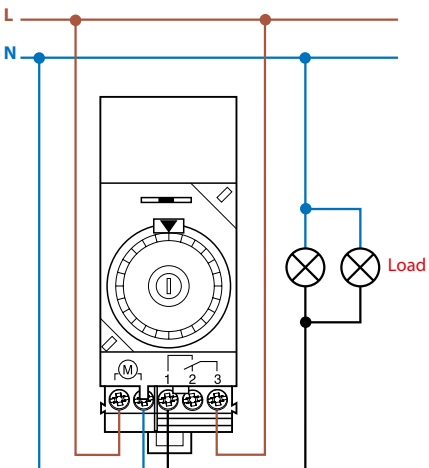
Ambient light level as measured by the light dependent relay's light sensor

Ambient light + controlled light level as measured by the light dependent relay's light sensor

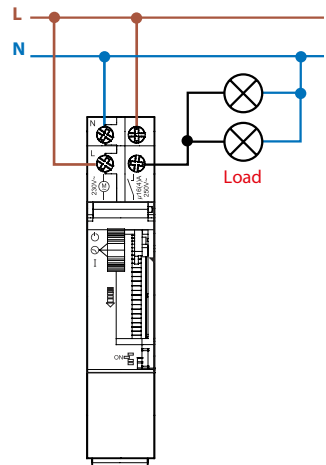
Notes

1. It is good practice to try to achieve a correct installation where the light emitted from the lamp(s) does not influence the light level seen by the light sensor, although the "light feedback compensation" principle will help when this is not fully achievable. In this case it should be appreciated that the "light feedback compensation" principle may delay slightly the time of Switch Off - beyond the ideal.
2. The compensation principle is not effective where the combined effect of the ambient light and the controlled lighting exceeds a maximum value (200 lux for the 11.91, 160/2000 lux for standard/high range of the 11.41).
3. The 11.41 and 11.91 types are compatible with gas discharge lamps that attain full output within 10 minutes, since the electronic circuit monitors lamps' light output over a 10 minute period to achieve a true assessment of its contribution to the overall lighting level.

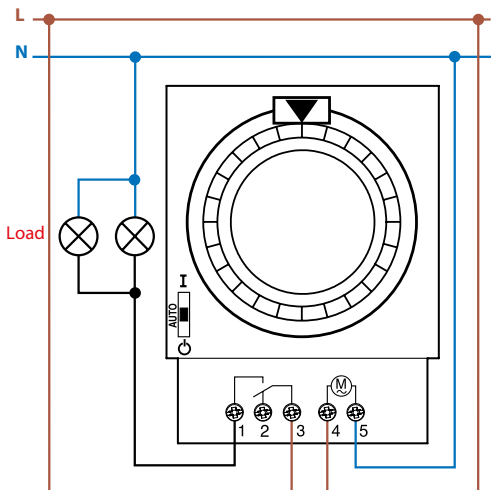
Type 12.01
Mechanical daily time switch
- 1 CO, 16 A 250 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount



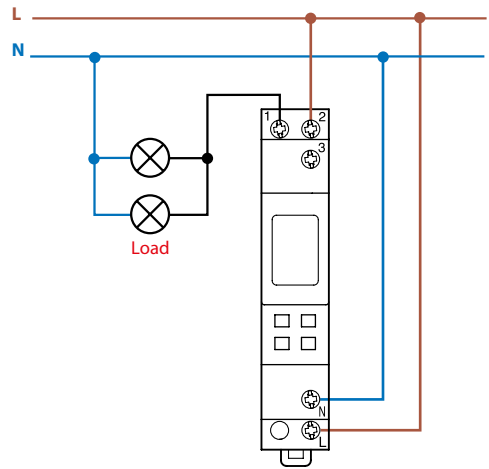
Type 12.11
Mechanical daily time switch
- 1 NO, 16 A 250 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount



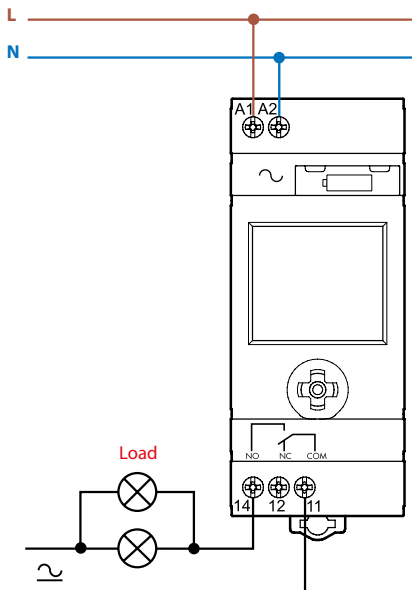
Type 12.31
Mechanical daily or weekly time switch
72x72 mm
- 1 CO, 16 A 250 V AC
- Supply voltage: AC
- Front panel mounting



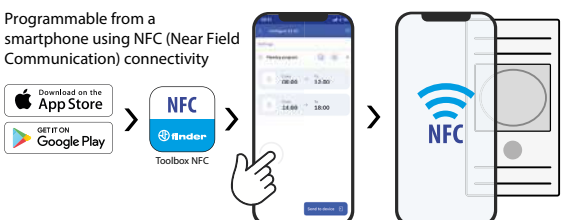
Type 12.71
Electronic digital weekly time switch
- 1 CO, 16 A 250 V AC
- Supply voltage: AC or AC/DC
- 35 mm rail (EN 60715) mount



Type 12.51
Digital (analogue-style) time switch, daily/weekly programming
- 1 CO, 16 A 250 V AC
- Supply voltage: 230 AC
- 35 mm rail (EN 60715) mount

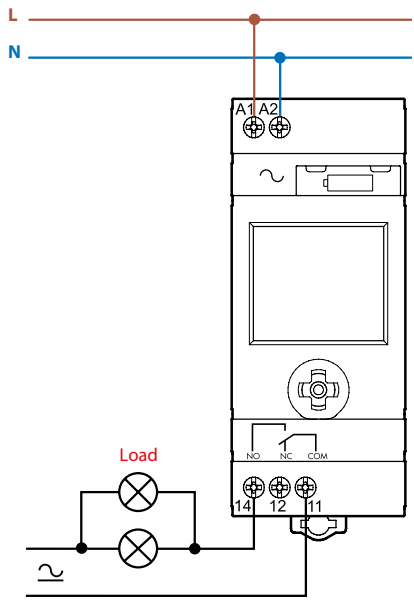


Programmable from a smartphone using NFC (Near Field Communication) connectivity

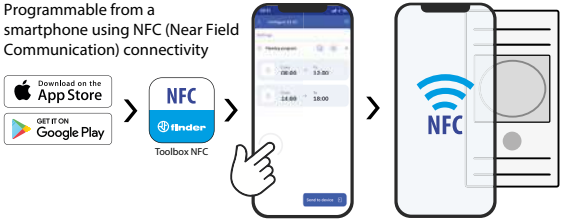


Leave it to your smartphone and programming your time switch is done!

Type 12.81 - Digital Astro-switch
Astro program: calculation of sunrise and sunset times through date, time and location coordinates
Location coordinates easily settable for most European countries through post codes
- 1 CO, 16 A 250 V AC
- Supply voltage: 230 V AC
- 35 mm rail (EN 60715) mount



Programmable from a smartphone using NFC (Near Field Communication) connectivity



Leave it to your smartphone and programming your time switch is done!

1 CO 16 A

Type 12.61.8.230.0000
Supply voltage: 110…230 V AC/DC

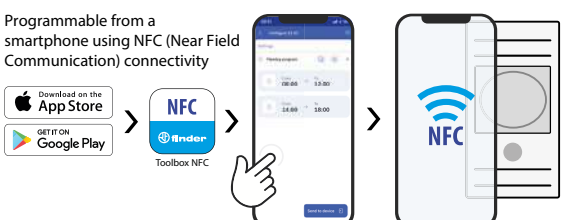
Type 12.61.0.024.0000
Supply voltage: 12…24 V AC/DC

2 CO 16 A

Type 12.62.8.230.0000
Supply voltage: 110…230 V AC/DC

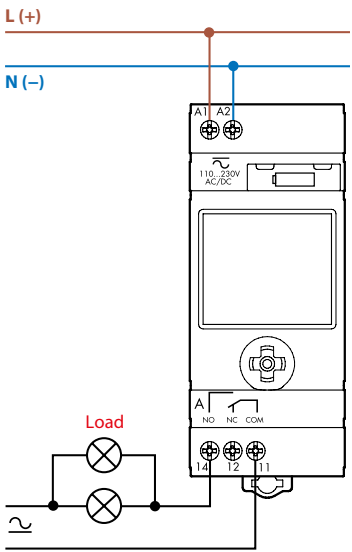
Digital weekly time switch
35 mm rail (EN 60715) mount

Programmable from a smartphone using NFC (Near Field Communication) connectivity



Leave it to your smartphone and programming your time switch is done!

Wiring for Single Pole Type 12.61 (and Type 12.A1)



1 CO 16 A

Type 12.A1.8.230.0000
Supply voltage: 110…230 V AC/DC

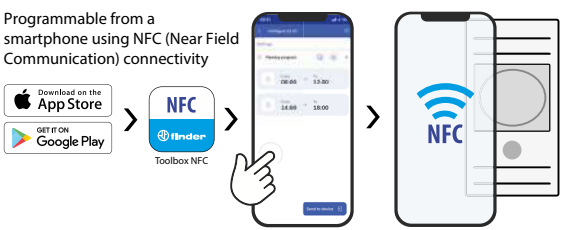
2 CO 16 A

Type 12.A2.8.230.0000
Supply voltage: 110…230 V AC/DC

Type 12.A2.0.024.0000
Supply voltage: 12…24 V AC/DC

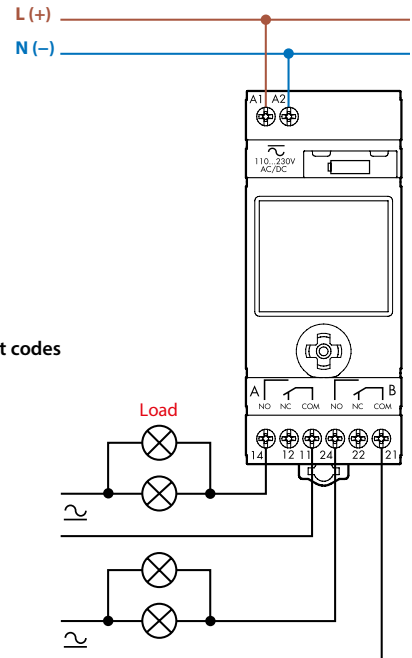
Weekly Astro time switch
Astro program: calculation of sunrise and sunset times through date, time and location coordinates
Location coordinates easily set for most European countries through post codes

Programmable from a smartphone using NFC (Near Field Communication) connectivity



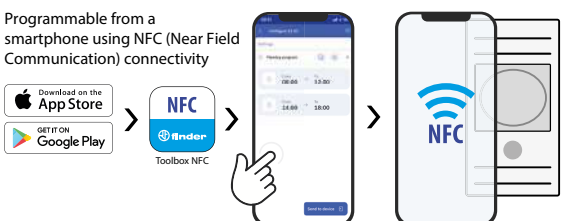
Leave it to your smartphone and programming your time switch is done!

Wiring for Double Pole Type 12.A2 (and Type 12.62)



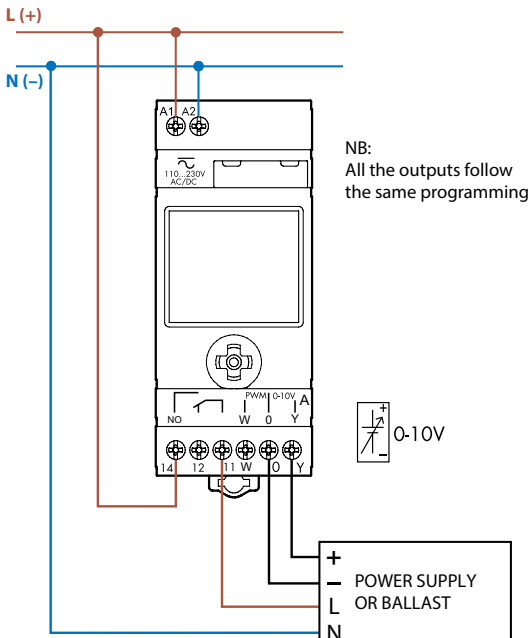
Type 12.A4
Astro time switch
- Suitable for applications where a variable light level is required
- Compatible with power supply/ballasts with 0-10 V, PWM inputs
- 1 analogue output: 0-10 V or PWM
- Supply voltage: 110…230 V AC/DC
- 35 mm rail (EN 60715) mount

Programmable from a smartphone using NFC (Near Field Communication) connectivity

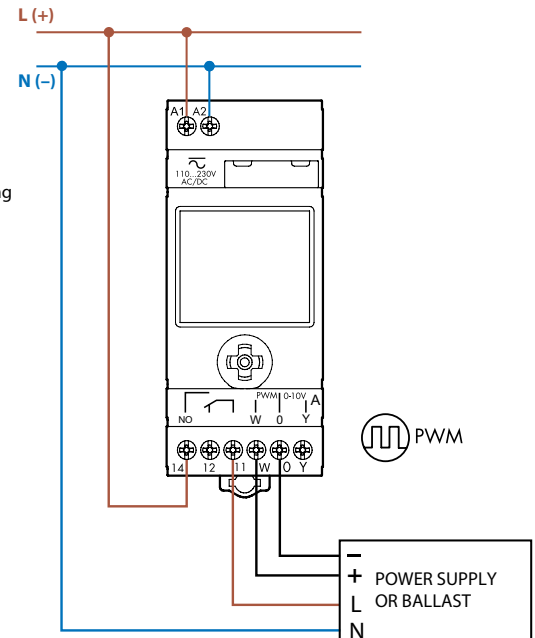


Leave it to your smartphone and programming your time switch is done!

12.A4 - Wiring diagram 0-10V

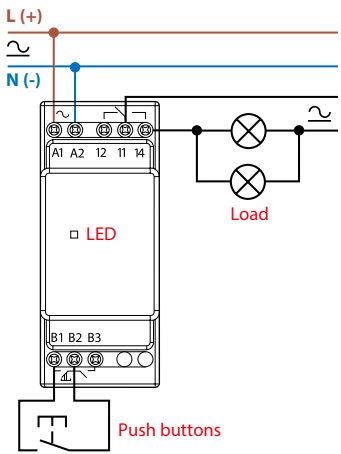


12.A4 - Wiring diagram PWM

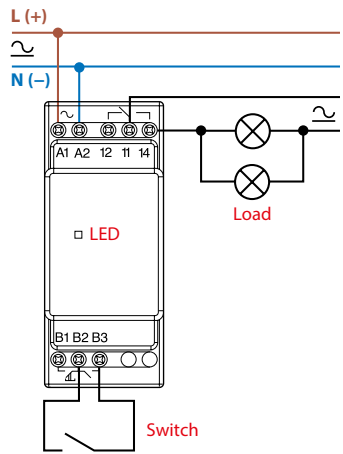


Type 13.01
Electronic step/monostable relay
- 1 CO, 16 A 250 V AC
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount

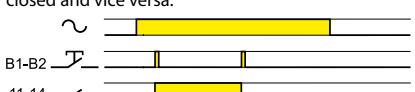
Step wiring diagram



Monostable wiring diagram

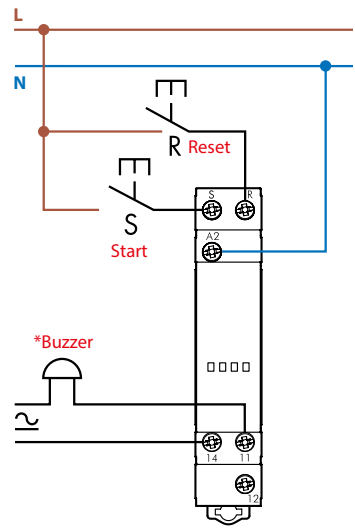


Step relay (bistable)
After every impulse (B1-B2), the output contact changes state - alternately switching from open to closed and vice versa.



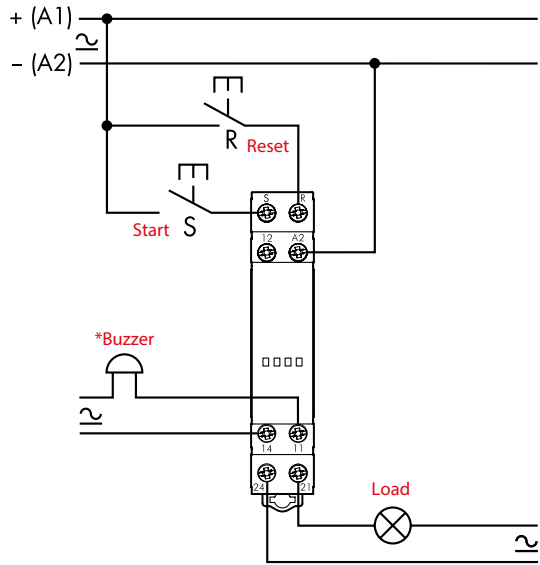
Monostable
On closure of a switch between terminals (B2-B3) the output contact will close, and remain so, until the switch opens.

Type 13.11
Call & Reset Relay - 1 Pole
- 1 CO, 12 A 250 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount



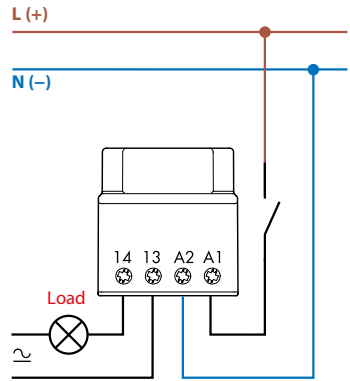
* If using a buzzer that is not continuously rated limit the energization period with an additional timer.

Type 13.12
Call & Reset Relay - 2 Pole
- 1 CO + 1 NO, 8 A 250 V AC
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount



* If using a buzzer that is not continuously rated limit the energization period with an additional timer.

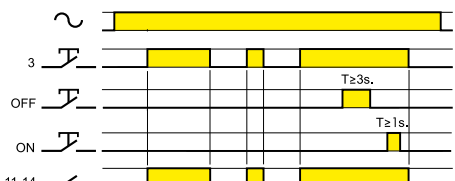
Type 13.31
Electromechanical monostable relay
- 1 NO, 12 A 250 V AC
- Supply voltage: AC or DC
- For mounting within residential switch boxes



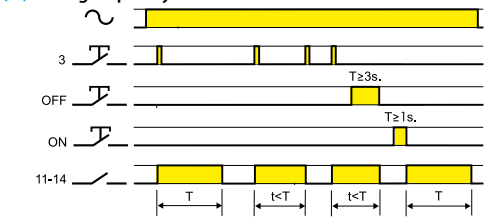
Type 13.61.0.024.0000
Multifunction step/monostable relay with reset command
Reset feature and Set feature, for centralized on command
- 1 CO, 16 A 250 V AC
- Supply voltage: 12…24 V AC/DC
- 35 mm rail (EN 60715) mount

Function set through front selector:

(RM) Monostabile

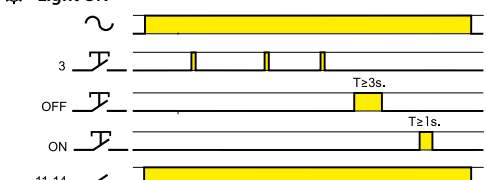


(IT) Timing step relay

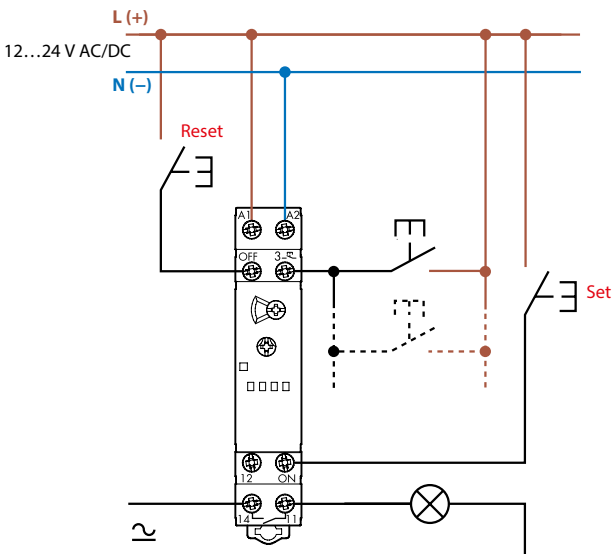


(RI) Step relay

Light ON



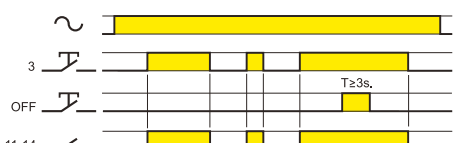
13.61.0.024.0000 - 4 wire connection



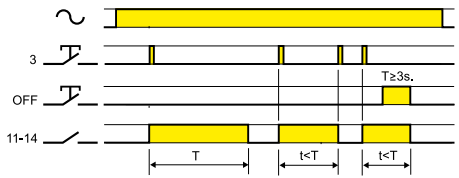
Type 13.61.8.230.000
Multifunction step/monostable relay with reset command
- 1 NO, 16 A 250 V AC
- Supply voltage: 110…240 V AC
- 35 mm rail (EN 60715) mount

Function set through front selector:

(RM) Monostable



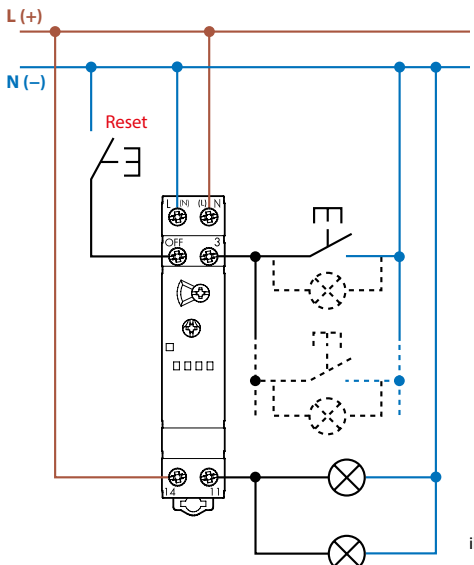
(IT) Timing step relay



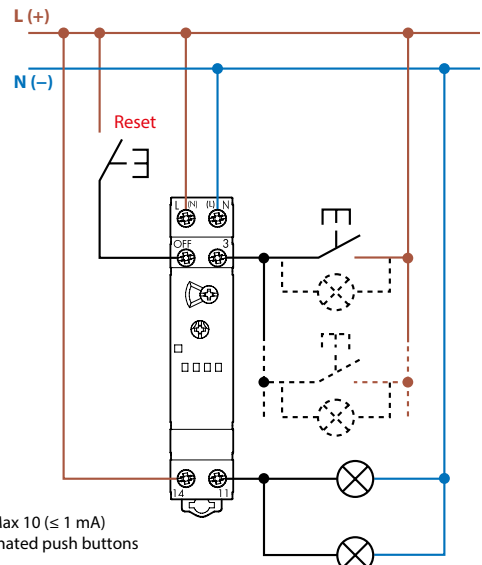
(RI) Step relay

Light ON

13.61.8.230.0000 - 3 wire connection

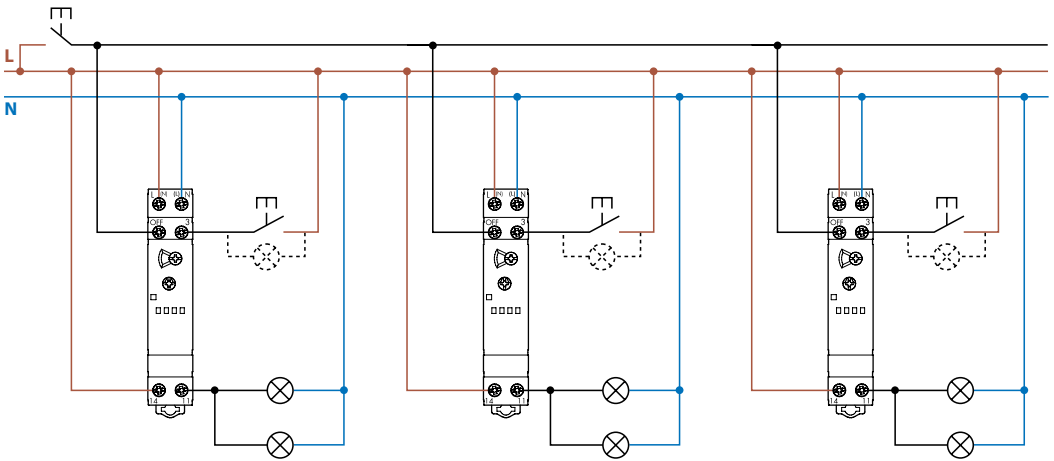


13.61.8.230.0000 - 4 wire connection



Max 10 (≤ 1 mA)
illuminated push buttons

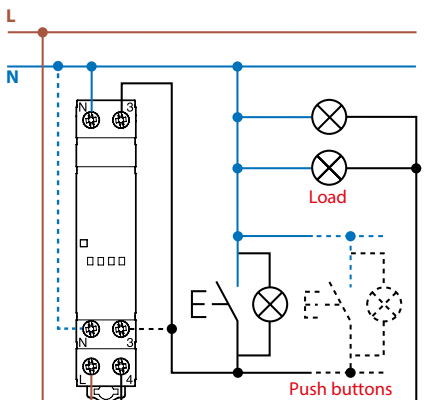
13.61.8.230.0000 - Examples of multiple 4 wire connection with centralized reset push button



Type 13.81 - Electronic step relay
- 1 NO, 16 A 230 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount

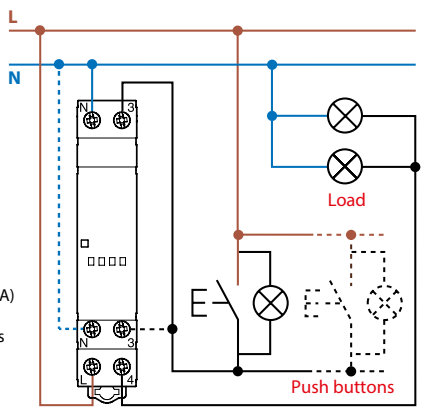
(RI) Step relay
After every impulse, the output contact changes state - alternately switching from open to closed and vice versa.

3 wire connection



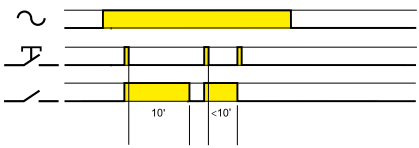
Max 15 (≤ 1 mA) illuminated push buttons

4 wire connection



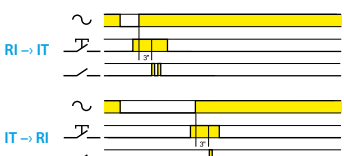
Type 13.91
Electronic step relay and timing step relay (10 minutes)
- 1 NO, 10 A 230 V AC
- Supply voltage: AC
- For mounting within residential switch boxes

(IT) Timing step relay



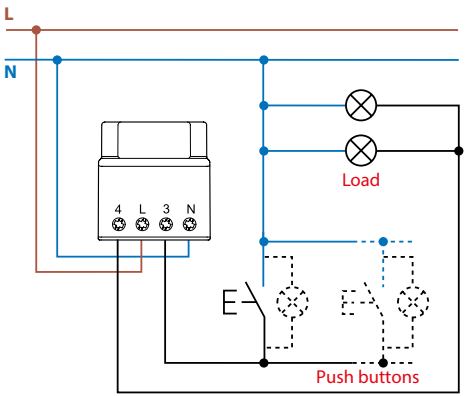
(RI) Step relay

Operating mode setup for type 13.91

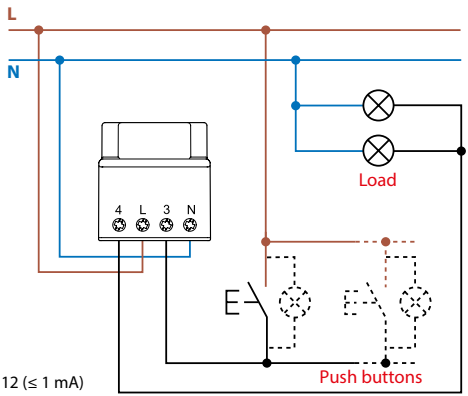


a) Remove the supply voltage
b) Press the control button
c) Apply the supply to the relay, keeping the button closed. After 3 second, the light will flash twice to indicate the selection of the "IT" function, or flash once for "RI" function.

13.91 - 3 wire connection



13.91 - 4 wire connection

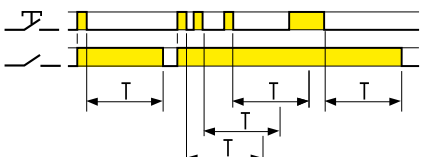


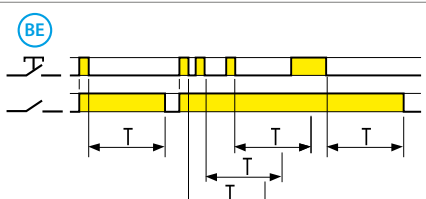
Max 12 (≤ 1 mA)
illuminated
push buttons

Type 14.01
Compatible with movement detectors 18 Series
- 1 NO, 16 A 230 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount

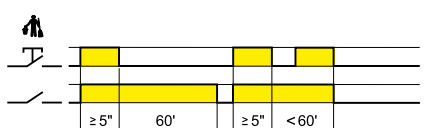
Function set through front selector:

(BE) Staircase timer



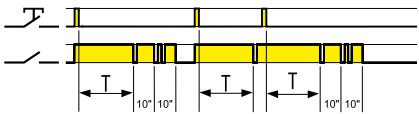


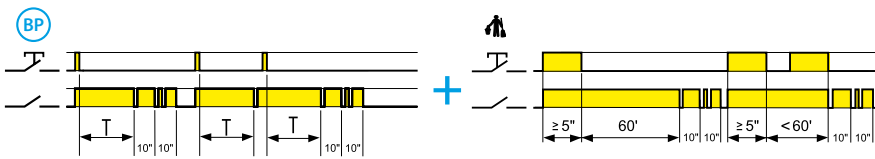
+



(ME) Staircase timer + Staircase maintenance

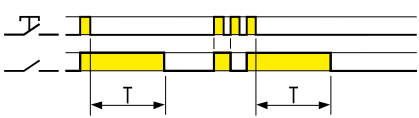
(BP) Staircase timer with early warning



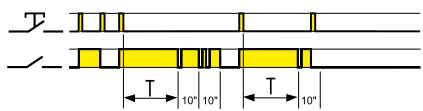


(MP) Staircase timer with early warning + Staircase maintenance

(IT) Timing step relay



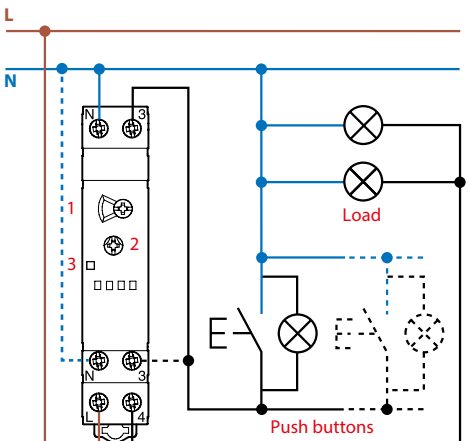
(IP) Timing step relay with early warning



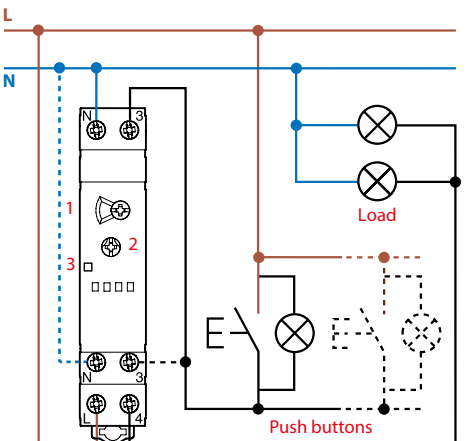
(RI) Step relay

Light ON

14.01 - 3 wire connection



14.01 - 4 wire connection



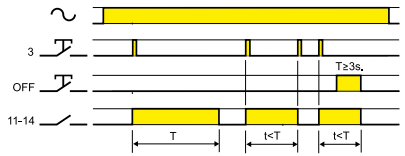
1 = Function selector
2 = Time delay adjustment potentiometer
3 = LED

Type 14.11
Reset for centralised switch off, 4 functions
Compatible with movement detectors 18 Series
- 1 NO, 16 A 230 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount

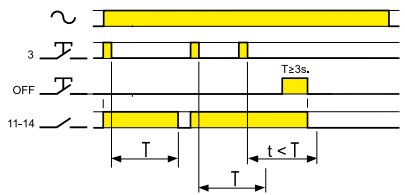
Funzioni selezionabili tramite selettore rotativo frontale:

(RI) Step relay

(IT) Timing step relay

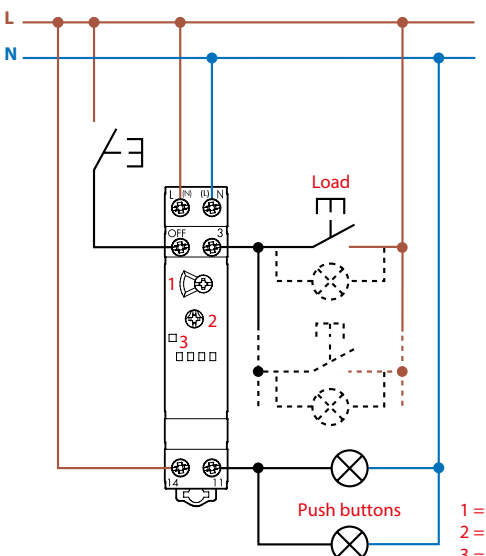


(BE) Staircase timer

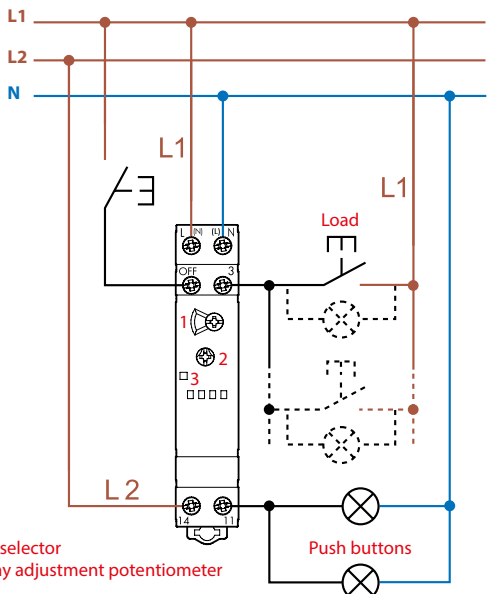


Light ON

14.11 - Staircase light connection and load with the same phase



14.11 - Staircase light connection and load with different phases. If the load is powered by a phase other than the one that powers staircase light 14.11, a 50% reduction in the nominal lamp load must be applied



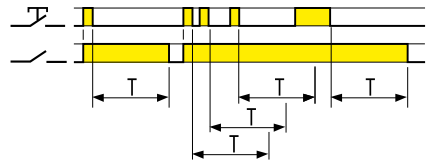
1 = Function selector
2 = Time delay adjustment potentiometer
3 = LED

Type 14.71
Compatible with movement detectors 18 Series
- 1 NO, 16 A 230 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount

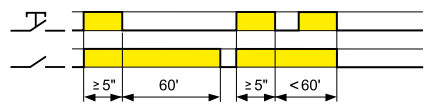
3-function front selector:

	Staircase timer + Staircase maintenance
	Light ON function
	Staircase relay function (compatible with 18 Series movement detectors)

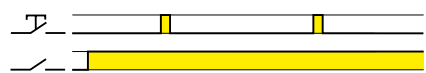
Staircase relay



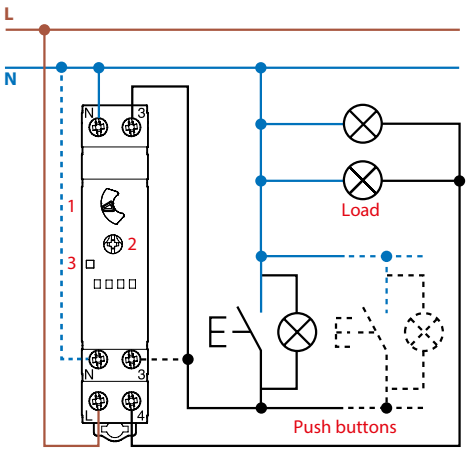
Staircase maintenance (combined with staircase relay function)



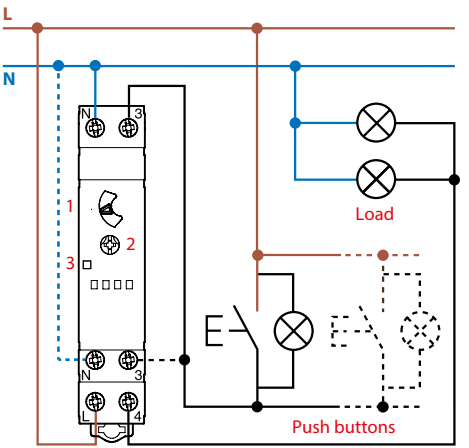
Light ON



14.71 - 3 wire connection



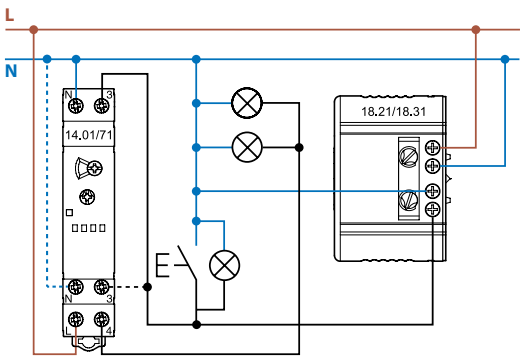
14.71 - 4 wire connection



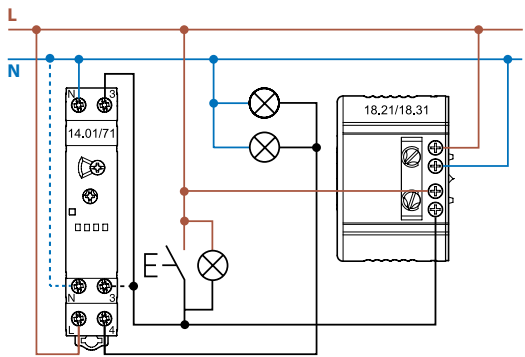
1 = Function selector
2 = Time delay adjustment potentiometer
3 = LED

Wiring diagrams - 14.01 or 14.71 without Staircase maintenance function, triggered by 18 Series PIR movement detector.

3 wire connection
(with 18.21.8.230.0300 or 18.31.8.230.0300 only)

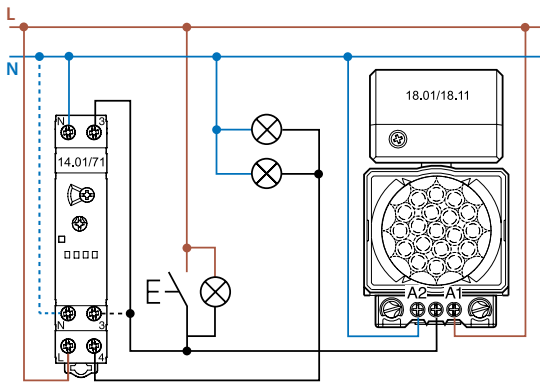


4 wire connection
(with 18.21.8.230.0300 or 18.31.8.230.0300 only)



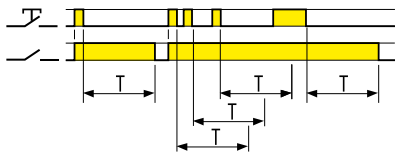
Wiring diagrams - 14.01 or 14.71 without Staircase maintenance function, triggered by 18 Series PIR movement detector.

4 wire connection
(with 18.01.8.230.0000 or 18.11.8.230.0000 only)

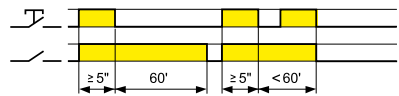


Type 14.81
- 1 NO, 16 A 230 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount

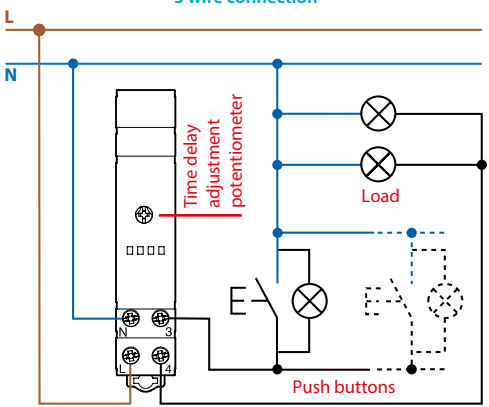
Staircase relay



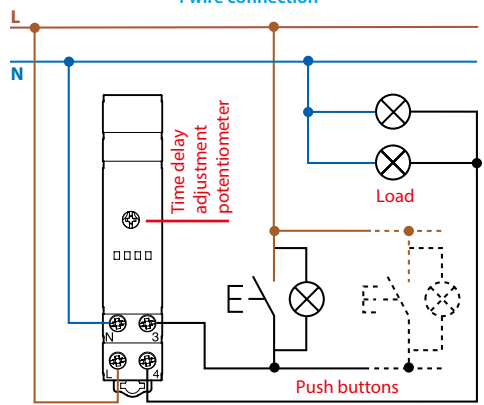
"Staircase maintenance" function



3 wire connection

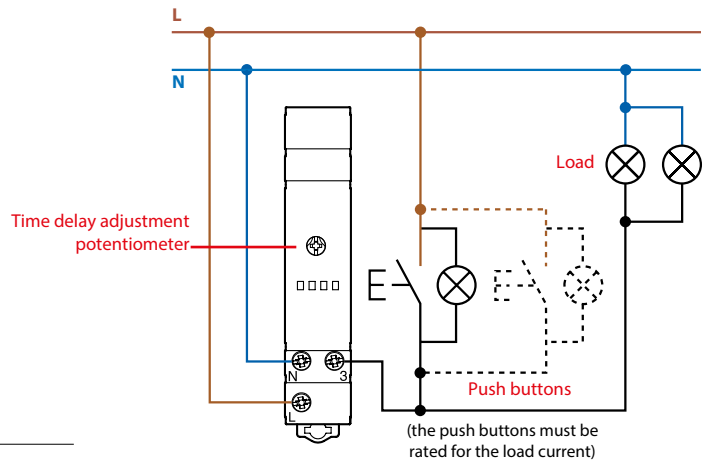


4 wire connection

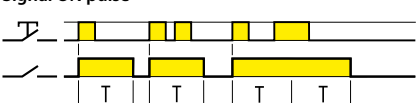


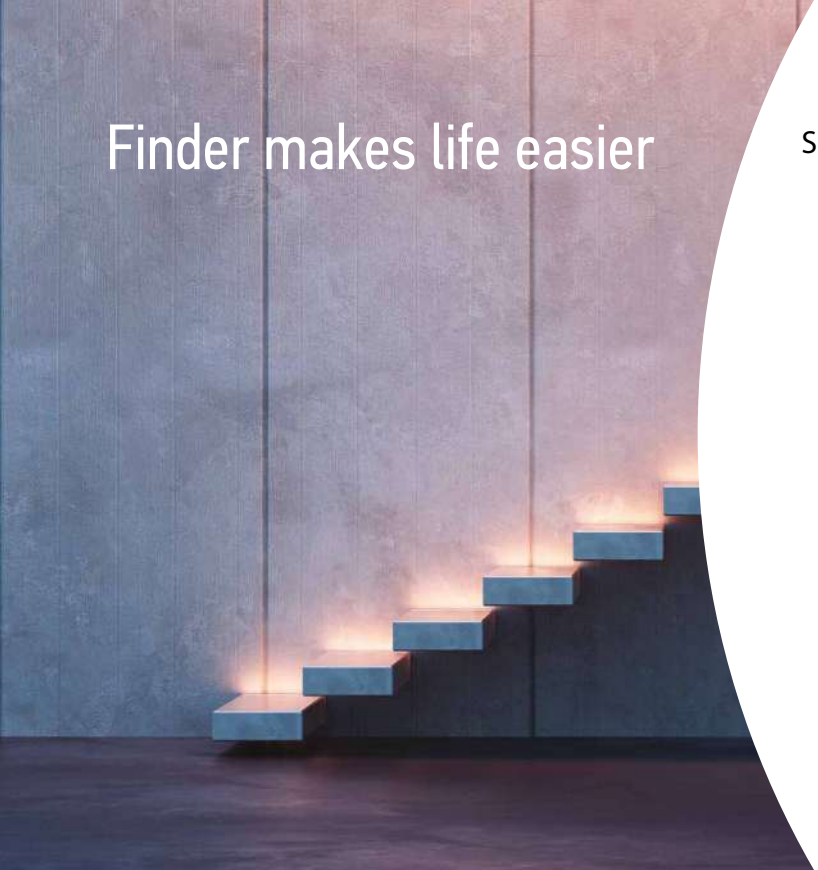
(push button configuration required as per the Installation manual)

Type 14.91
- 1 NO, 16 A 230 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount



Signal ON pulse





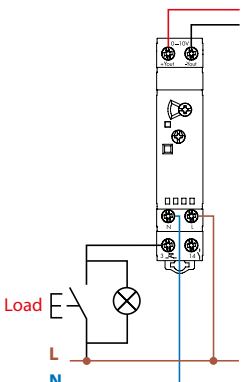
Finder makes life easier

Simple to install products for cleaver control of lighting in residential buildings

finder
SWITCH TO THE FUTURE

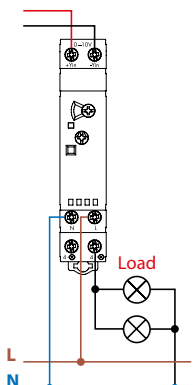
Type 15.10 - Master Dimmer

- 4 fuctions
- Up to 15 illuminated push buttons can be connected
- Supply voltage 110…230 V AC
- Can also control directly electronic transformers requiring at 0-10 V / 1-10 V input signal

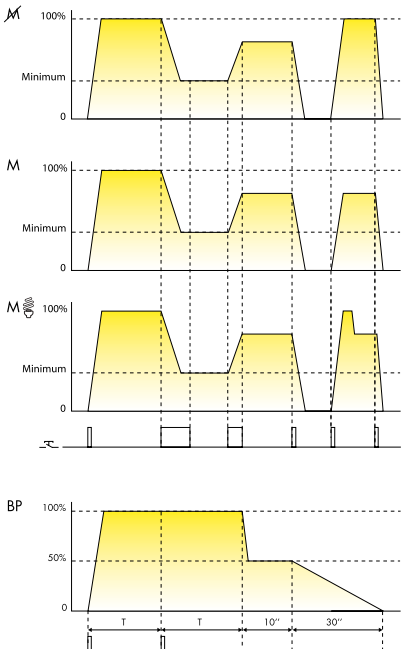


Type 15.11 - Slave Dimmer

- Slave Dimmers can be controlled by a Master Dimmer or by the 0-10 V output from a building management system (BMS), or by rotary 0-10 V regulators
- The maximum loads that can be switched are:
  - Halogen lamps: 400 W
  - Toroidal electromagnetic transformers for LV halogen: 400 W
  - Dimmable compact fluorescent uorescent (CFL): 100 W
  - Dimmable 230 V LED: 100 W
  - Dimmable electronic transformers for LV LED: 400 W
- Supply voltage 230 V AC



Type 15.10 Functions selectable with front rotary selector:



Operating mode without memory: at switch-off, the light level is not memorized.
Long control pulse: The light level is progressively raised or lowered in linear way. The lowest value depending on the "minimum dimming level" regulator setting (on 15.11).
Short control pulse: Alternately switches between On and Off (maximum light level and the off state).

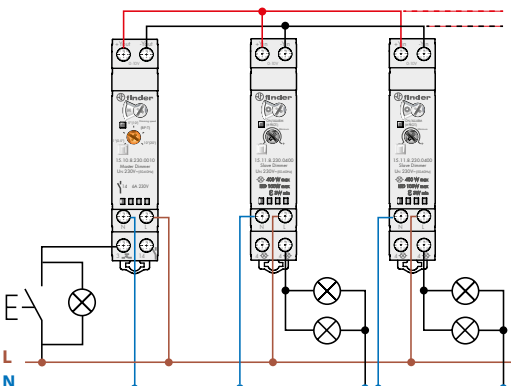
Operating mode with memory: the previous light level is memorized.
Long control pulse: The light level is progressively raised or lowered in linear way. The lowest value dependent on the "minimum dimming level" regulator setting (on 15.11).
Short control pulse: Alternately switches between On and Off. When switching On, the light level assumes the value set during the previous On state.

Operating mode with memory: the previous light level is memorized, specific for CFL Lamp.
Long control pulse: The light level is progressively raised or lowered in linear way. The lowest value dependent on the "minimum dimming level" regulator setting (on 15.11).
Short control pulse: Alternately switches between On and Off. When switching On, the light level reach the full value for a very short time (in order to guarantee the correct lamp turn-on), then immediately assumes the value set during the previous On state.

Staircase relay with early warning
On initial impulse the output closes and the timing starts for the pre-set duration. After the timing period (T), the output power is reduced to 50% for 10 seconds; then in the last 30 seconds it will be further reduced to the final shutdown.
During the pre-set and 40 seconds warning time, it is possible, by a further impulse, to extend the time by the full pre-set value.

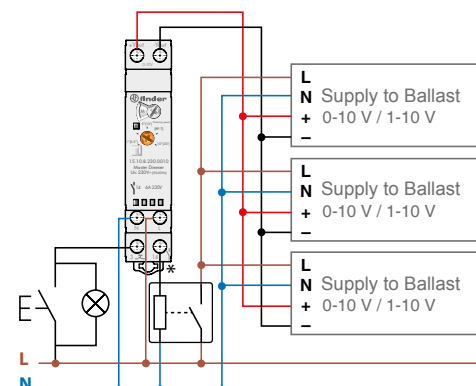
MASTER DIMMER TYPE 15.10 AND SLAVE DIMMER TYPE 15.11

It is recommended that the Master controls from one to a maximum of 32 Slave units.
The push buttons (including illuminated push buttons Max. 15) serve as the ON/OFF (momentary push), or when pressed for a longer time they adjust the brightness level.
Each Slave can drive a different load type.



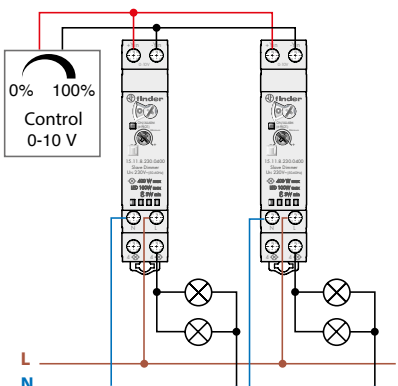
MASTER DIMMER + 0 - 10 V ELECTRONIC TRANSFORMER OR BALLAST

Using only the Master Dimmer it is possible to control electronic transformers or ballasts with a 0 - 10 V / 1 - 10 V input (observing correct polarity). For 1 - 10 V applications it is suggested to supply the Ballast Live from terminal 14. This will ensure that the supply to the Ballast is cut-off for a signal < 1 V.
Note: Check that the maximum Peak Current of the Ballast does not exceed the 30 A 230 V AC rating of terminal 14. Use a contactor or power relay to switch loads exceeding this value.

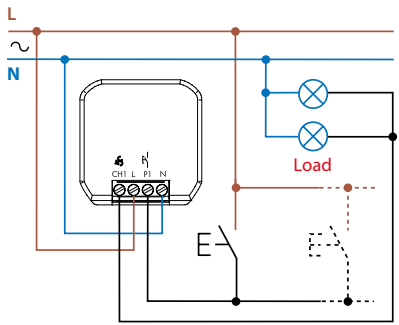


BMS 0 - 10 V OUTPUTS + SLAVE DIMMERS

In the case of Home Automation or Building Automation systems you can use just the Slave Dimmer Type 15.11 directly controlled by the 0 - 10 V output of the building management system (BMS), or by 0 - 10 V rotary regulators.

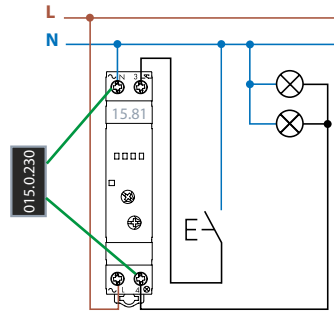


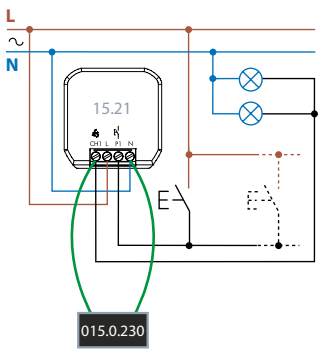
Type 15.21.8.230.0200
Universal electronic dimmer 230 V
Perfect for LED loads up to 200 W
- Maximum dimmable power: 200 W LED
- Supply voltage: AC
- Dimming operating mode Trailing edge or Leading edge
- Round wall box (ie: Ø 60mm) mounting

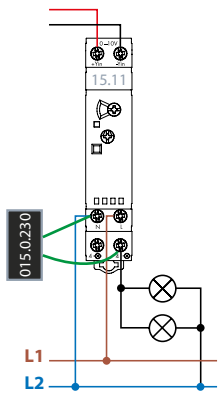


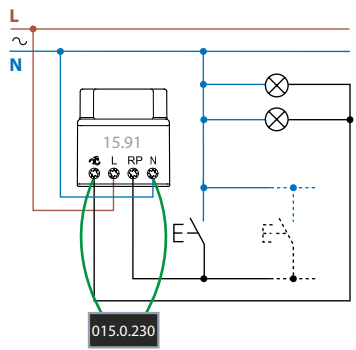
Type 015.0.230
Leakage current suppression module for 15 Series Dimmers

Install and connect the module between the Output and Neutral, in parallel with the lamps - according to the Dimmer Type









If the lighting load comprises low voltage halogen lamps fed through either electromagnetic or electronic transformers, then do not connect more than one transformer per 15.51 dimmer.

Type 15.51

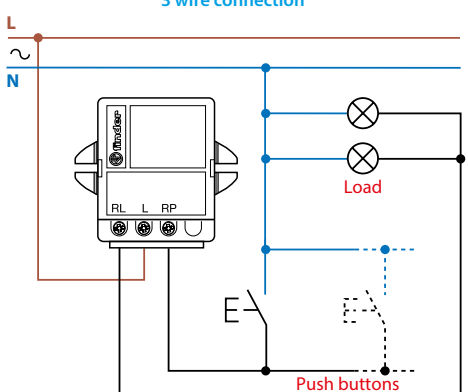
- Maximum lamp load 400 W 230 V AC
- Supply voltage: AC
- Panel mount

Operating mode setup

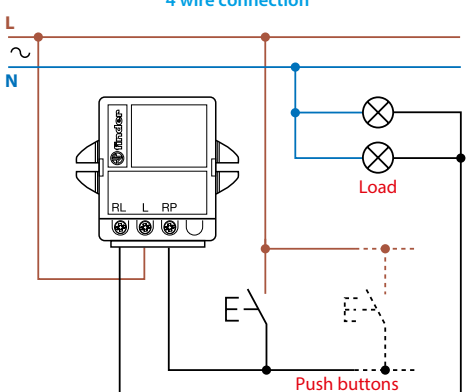
On 15.51 operating mode 1 or 3 (with memory) is preset, but it is possible to change it using the following sequence:

a) remove the supply voltage;
b) press the control button;
c) apply the supply to the relay, keeping the button closed for 3 second;
d) on button release, the light will flash twice to indicate the selection of operating mode 2 or 4, or flash once for operating mode 1 or 3. Repeating the above steps will alternately change between operating modes.

3 wire connection

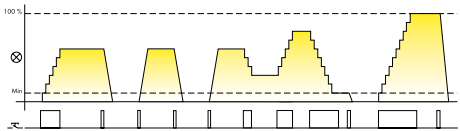


4 wire connection



Functions (Type 15.51.8.230.0400)

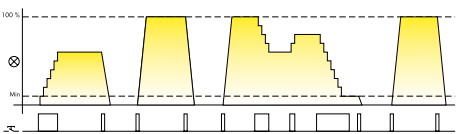
Operating mode 1 (with memory): the previous light level is memorized.



Long control pulse: The light level is progressively raised or lowered through a maximum of 10 incremental steps.

Short control pulse: Alternately switches between On and Off. When switching On, the light level assumes the value set during the previous On state.

Operating mode 2 (without memory): on switch off, the light level is not memorized.

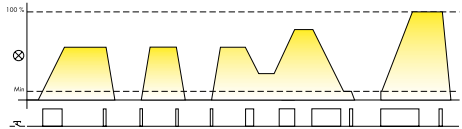


Long control pulse: The light level is progressively raised or lowered through a maximum of 10 incremental steps.

Short control pulse: Alternately switches On or Off between the maximum light level and the off state.

Functions (Type 15.51.8.230.0404)

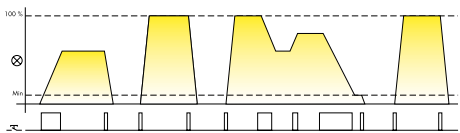
Operating mode 3 (with memory): the previous light level is memorized.



Long control pulse: The light level is progressively raised or lowered.

Short control pulse: Alternately switches between On and Off. When switching On, the light level assumes the value set during the previous On state.

Operating mode 4 (without memory): on switch off, the light level is not memorized.

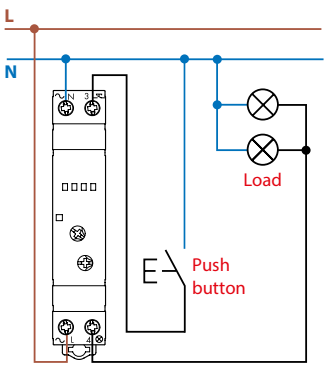


Long control pulse: The light level is progressively raised or lowered.

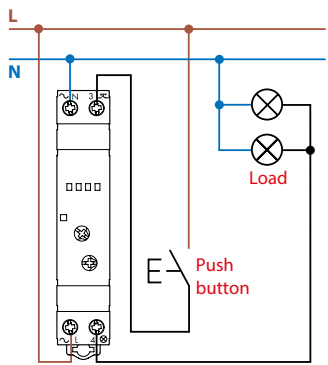
Short control pulse: Alternately switches On or Off between the maximum light level and the off state.

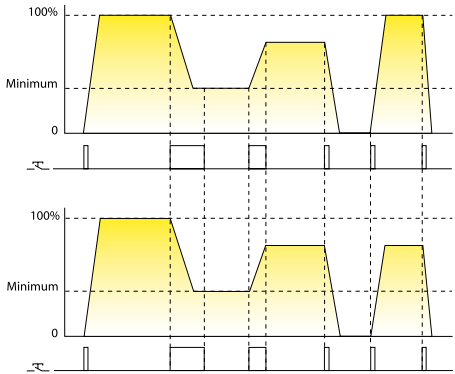
Type 15.81
- Maximum lamp load 500 W 230 V AC
- Compatible with energy saving (CFL or LED - 100W) dimmable lamps and most types of transformer/ballast drivers
- Supply voltage: 230 V AC
- 35 mm rail (EN 60715) mount

3 wire connection



4 wire connection





Operating mode without memory: at switch-off, the light level is not memorized.

Long control pulse: The light level is progressively raised or lowered in linear way. The lowest value depend on the "minimum dimming level" regulator setting.

Short control pulse: Alternately switches between On and Off between the maximum light level and the off state.

Operating mode with memory: the previous light level is memorized.

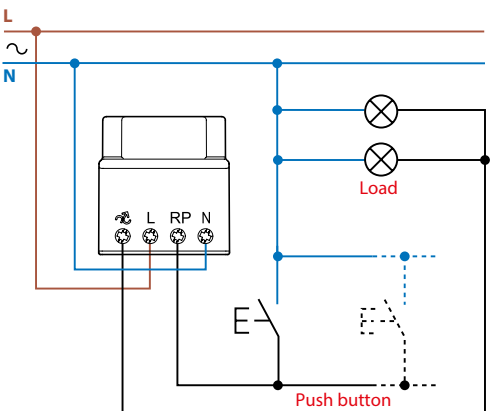
Long control pulse: The light level is progressively raised or lowered in linear way. The lowest value dependent on the "minimum dimming level" regulator setting.

Short control pulse: Alternately switches between On and Off. When switching On, the light level assumes the value set during the previous On state.

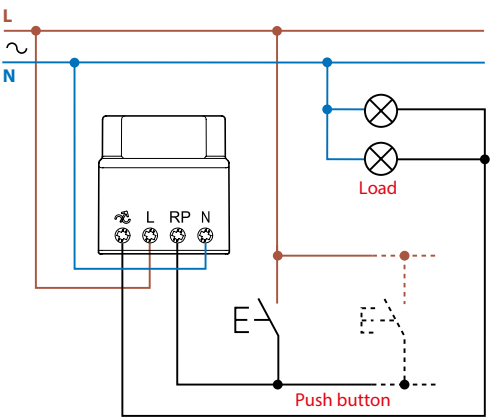
Type of load	Selector setting		Regulator setting
	With memory (M)	Without memory (M)	
• Incandescent lamps • 230 V halogen lamps • 12/24 V halogen lamps with electronic transformer/ballast			It is suggested to set the "minimum dimming level" at the lowest value, so that the complete dimming range is available. But if it is necessary to avoid too low a level of illumination, a higher value can be set. 
• Dimmable compact fluorescent lamps (CFL) • Dimmable LED lamps			It is suggested to initially set the "minimum dimming level" at an intermediate value and then if necessary, readjust for a level found to be compatible with the lamp being used. 
• 12/24 V halogen lamps with toroidal or E-core electromagnetic transformer			It is suggested to set the "minimum dimming level" at the lowest value, so that the complete dimming range is available. But if it is necessary to avoid too low a level of illumination, a higher value can be set. 

Type 15.91
- Power max.: 100 W 230 V AC
- Supply voltage: 230 V AC
- Suitable for residential wall box mounting

3 wire connection



4 wire connection



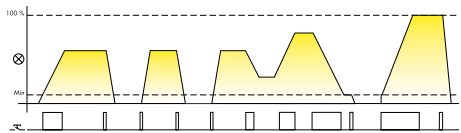
Operating mode setup

On 15.91 operating mode 4 (without memory) is preset, but it is possible to change it using the following sequence:

a) remove the supply voltage;
b) press the control button;
c) apply the supply to the relay, keeping the button closed for 3 second;
d) on button release, the light will flash twice to indicate the selection of operating mode 3, or flash once for operating mode 4. Repeating the above steps will alternately change between operating modes.

Functions (type 15.91.8.230.0000)

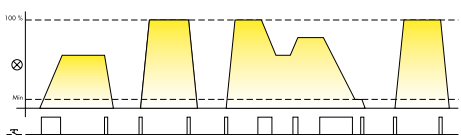
Operating mode 3 (with memory): the previous light level is memorized.



Long control pulse: The light level is progressively raised or lowered.

Short control pulse: Alternately switches between On and Off. When switching On, the light level assumes the value set during the previous On state.

Operating mode 4 (without memory): on switch off, the light level is not memorized.



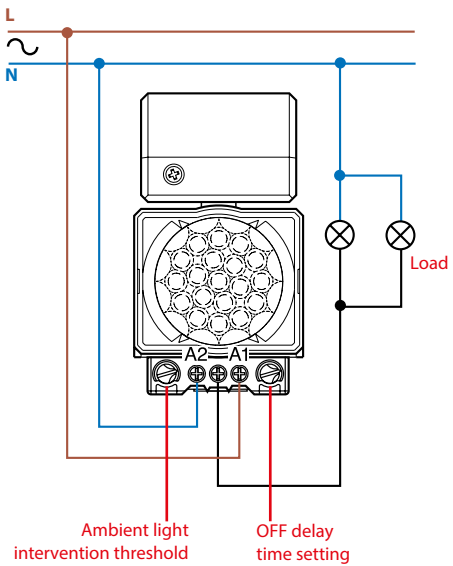
Long control pulse: The light level is progressively raised or lowered.

Short control pulse: Alternately switches On or Off between the maximum light level and the off state.

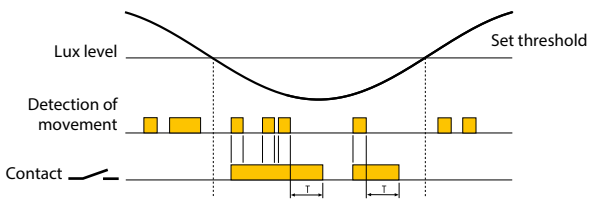
Type 18.01
Internal installations
Protection category IP 40

Type 18.11
External installations
Protection category IP 54

- 1 NO, 10 A 230 V AC
- Supply voltage: 120…230 V AC
- For wall mounting

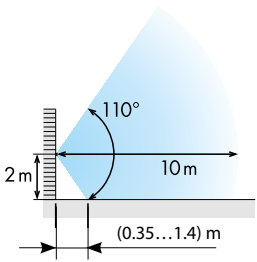


The output relay will remain On for the pre-set time, following the last detection of movement.

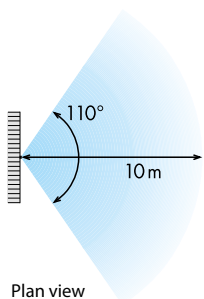


Sensing area

18.01, 18.11 - Wall mounting

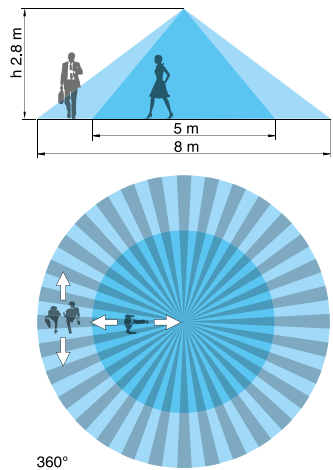


Side view



Plan view

18.01, 18.11 - Ceiling mounting

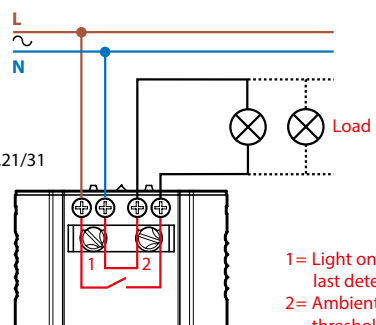


Type 18.21 Output connected to supply voltage
Type 18.21.x.xxx.0300 Output with potential free contact
Surface mounting

Type 18.31 Output connected to supply voltage
Type 18.31.x.xxx.0300 Output with potential free contact
Recessed mounting
Type 18.31.x.xxx.0031 Recommended for applications with high ceilings (up to 6 meters)
Light ON time after last detection (30 s…35 min)

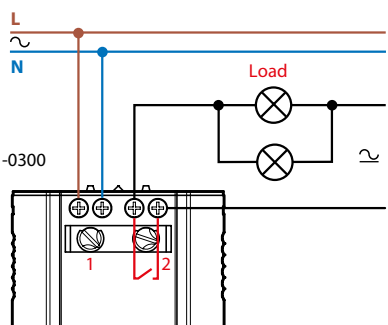
Internal installation
Protection category IP 40
- 1 NO, 10 A 230 V AC
- Supply voltage: 120…230 V AC (18.21,18.31)
  24 V AC/DC (18.21/31-0300)

Type 18.21/31



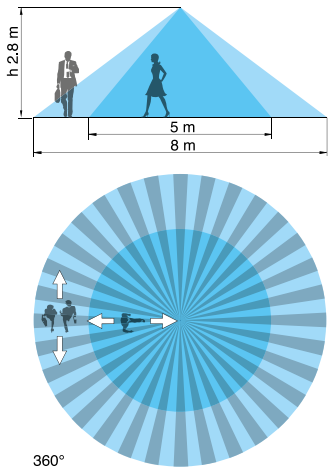
1= Light on time following last detection
2= Ambient lightintervention threshold

Type 18.21/31-0300

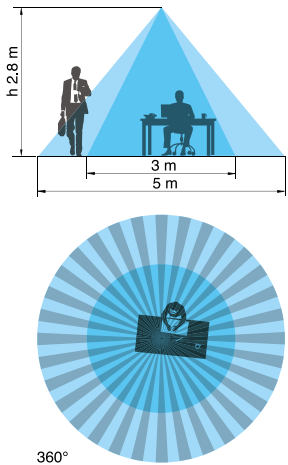


Sensing area

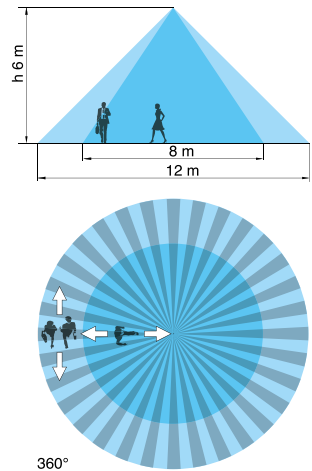
18.21, 18.31
Ceiling mounting



18.31…0031
Internal ceiling installation, surface mounting

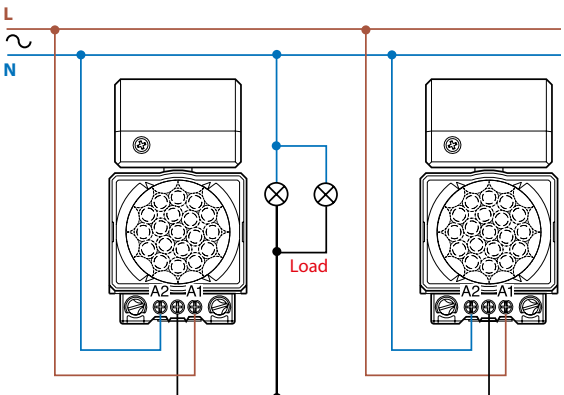


18.31…0031
High ceiling installations

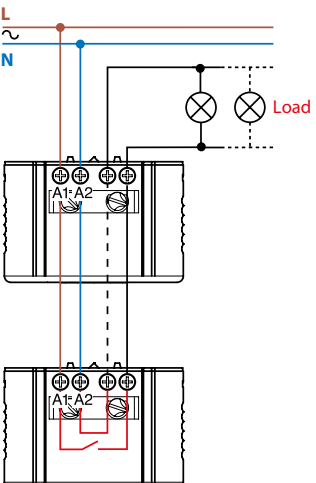


Movement and presence detector

Wiring diagram - Parallel connection Type 18.01/11

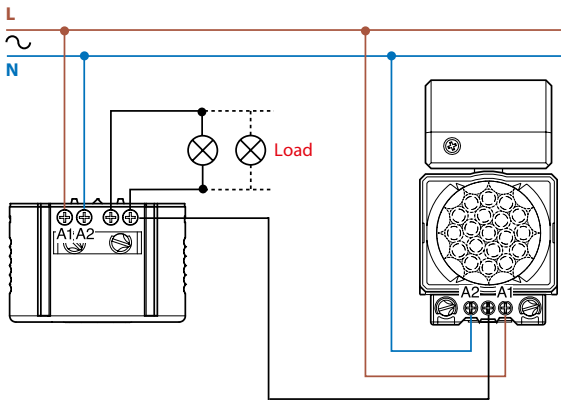


Wiring diagram
Parallel connection Type 18.21/31



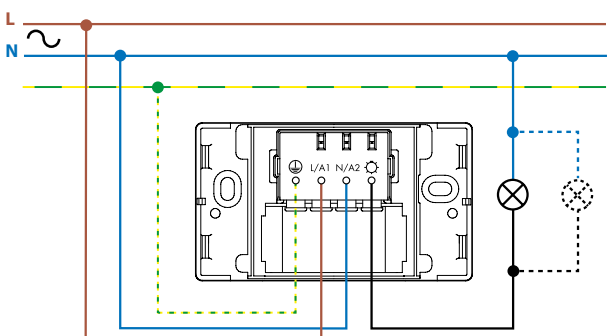
Note: conform to the polarity indicated for Phase and Neutral

Wiring diagram - Parallel connection Type 18.01/11 and Type 18.21/31

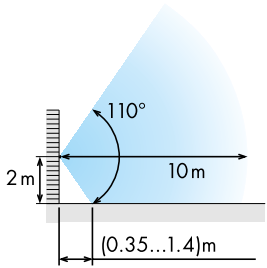


Note: conform to the polarity indicated for Phase and Neutral

Type 18.A1
External installations
Protection category IP 55
- 1 NO, 10 A 230 V AC
- Supply voltage: 110…230 V AC
- Wall mounting



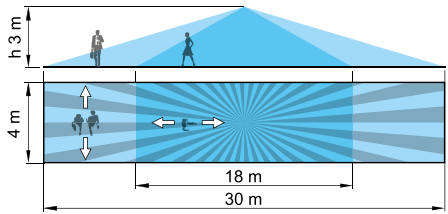
Wall mounting



180° horizontal rotation.
30° vertical rotation.

Suspended ceiling mounting and recess mounting version

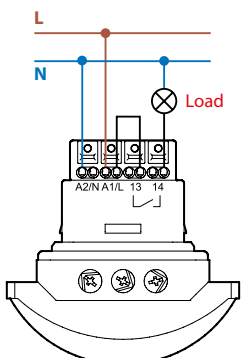
Surface version



Type 18.41
Specifically for corridors up to 30 meters in length
Applications: hotel and office corridors, transit areas

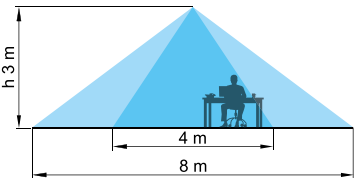
Internal ceiling installation
Protection category IP 40

- 1 NO, 10 A 230 V AC
- Supply voltage: 110…230 V AC



Suspended ceiling mounting and recess mounting version

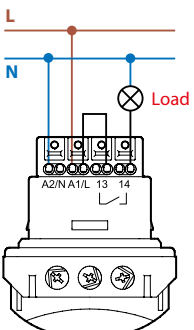
Surface version

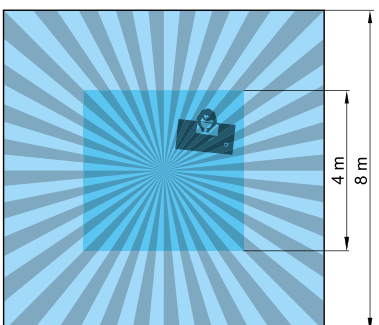


Type 18.51
Standard version
Volt-free output contac
Two sensing areas: "presence" suitable for zones of low activity, and "movement" suitable for transit areas or zones of high activity

Internal installation
Protection category IP 40

- 1 NO, 10 A 230 V AC
- Supply voltage: 110…230 V AC





Suspended ceiling mounting and recess mounting version

Surface version

Type 18.51.8.230.B300
PIR movement and presence detectors with Bluetooth

Internal installation
Protection category IP 40

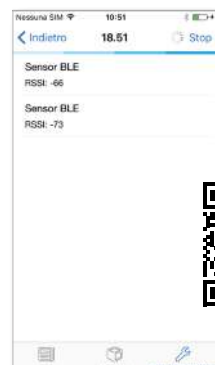
- 1 NO, 10 A 230 V AC
- Supply voltage: 110…230 V AC

Through the use of Bluetooth LE (Low Energy) technology programming the detector's operating characteristics can be easily and conveniently done using an Android or iOS smartphone.
After installing the 18.51, simply download the free **app** from Google and Apple's official stores and set all the required parameters.

PLUS
finder
Finder Toolbox

GET IT ON Google Play

Download on the App Store



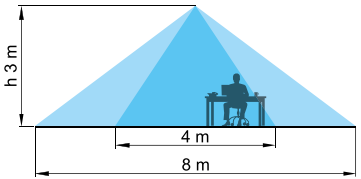
Suspended ceiling mounting and recess mounting version

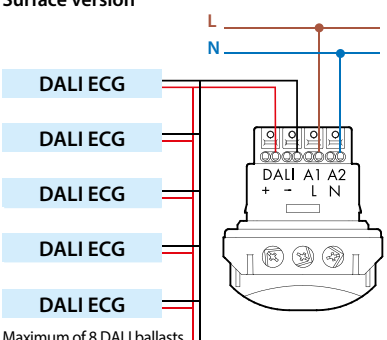
Surface version

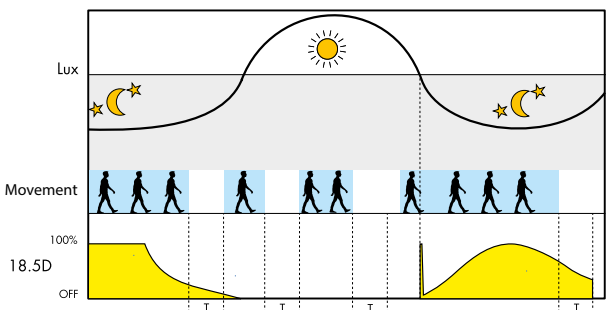
Type 18.5D
PIR Movement and presence detector with DALI.
Three selectable functions.

Internal ceiling installation
Protection category IP 40

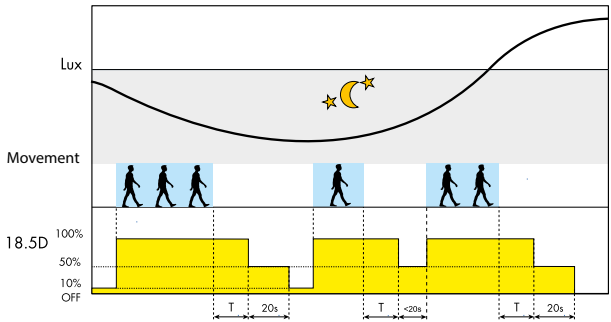
- 1 NO, 10 A 230 V AC
- Supply voltage: 110…230 V AC







Comfort *- Daylight-linked constant light level control*
Adjusts to maintain a constant brightness level considering the detection of movement and the level of daylight - increasing or decreasing the power of the artificial light as appropriate.
Suitable for small offices, classrooms or workplaces. This allows considerable energy saving while maintaining a comfortable level of illumination.

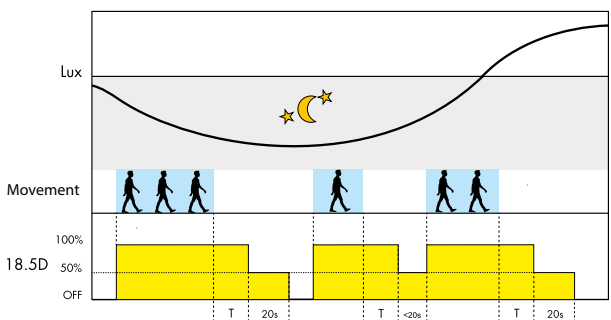


Courtesy

ON/OFF control with early warning + courtesy light level

If the brightness level is lower than the set value, artificial light is maintained at 10% power, guaranteeing a minimum level of illumination at all times. When movement is detected, the power of the lamps is raised to 100%. There is an early warning of any reduction from the 100% power level by a reduction to 50% for 20 seconds.

Suitable for common areas, lobbies, corridors, elevator zones.



Simplicity

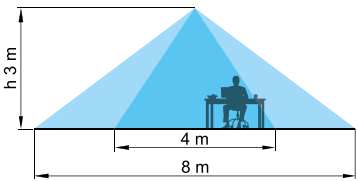
ON/OFF control with early warning

Works as a simple movement detector, activating the lamps at 100% power. But provides an early warning of the next shutdown with a power reduction to 50% for 20 seconds.

Avoids a sudden total shutdown of lighting.

Suspended ceiling mounting and recess mounting version

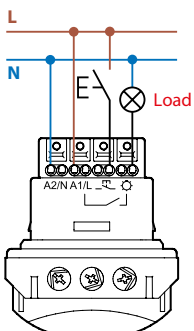
Surface version

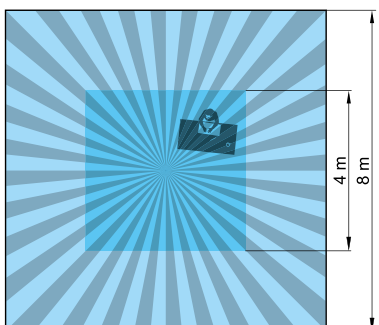


Type 18.51.8.230.0040
Possibility to connect external push-button to force the output state.
Dynamic light compensation
Applications: offices, schools, zones of low activity

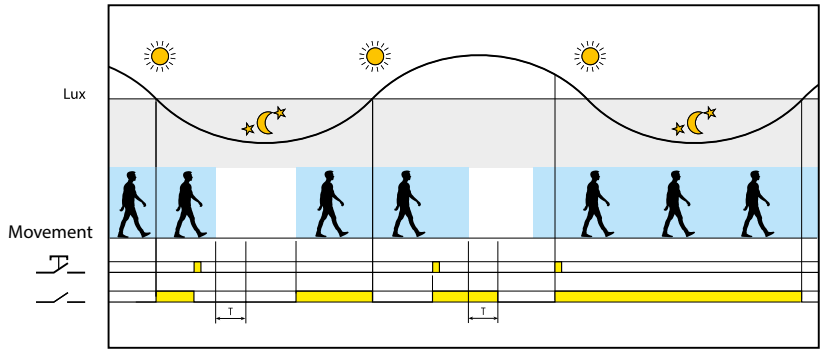
Internal ceiling installation
Protection category IP 40

- 1 NO, 10 A 230 V AC
- Supply voltage: 110…230 V AC





Special function Type 18.51.8.230.0040



External push-button
A control pulse on the push-button inverts the status of the output relay, until the timing after the last movement detected has elapsed.

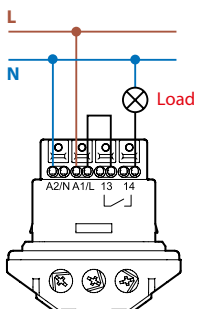
Dynamic Light Compensation

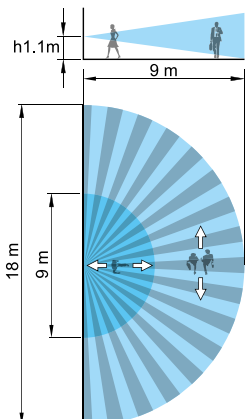
By incorporating Finder's Patented "light feedback compensation" principle, the 18.51…0040 is able to calculate the artificial light contributed by the lamps controlled by the output relay. In effect, this means the 18.51…0040 is able to continuously monitor the natural ambient light level, even when the output is On. As a consequence, whenever the natural light level exceeds the threshold setting the output is forced Off.
This can significantly minimises the time the lighting is On, particularly where there is a high level of traffic - and cost savings can be considerable. This is an advance over other types of movement detectors, which are unable to identify the natural ambient light level when the output is On and so can only turn Off after the time delay that follows the last detected movement. In busy areas this may mean that the movement detector is being continuously re-triggered and maintained in the On state, even though the natural light level has long risen above the threshold.

Type 18.61
Wall mounting compatible with 60 mm box
and 2 or 3 module box
Wide angle of survey (180°)

Internal ceiling installation
Protection category IP 40

- 1 NO, 10 A 230 V AC
- Supply voltage: 110…230 V AC





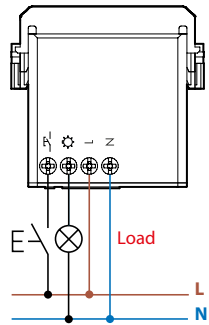
White
Type 18.91.8.230.0040

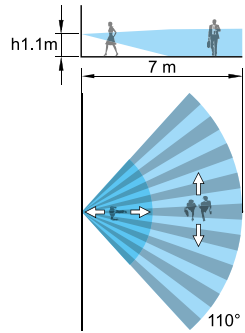
Black
Type 18.91.8.230.0042

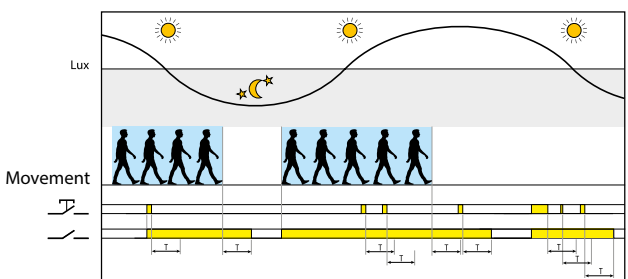
Movement detectors
Wall mounting compatible with 3 module housing, complete with adaptor

Internal ceiling installation
Protection category IP 40

- 200 W - 230 V AC
- Supply voltage: 230 V AC







Detection of movement
Detected movement closes, or keeps closed, the output contact.
Operating the push-button closes, or keeps closed, the output contact - for the set time T.

Your Smart home
in a few simple steps

WORKS WITH amazon alexa

works with the Google Assistant

Works with IFTTT

find out more
YESLY.LIFE

finder
SWITCH TO THE FUTURE

YESLY

TIME FOR COMFORT LIVING

finder

YESLY is the comfort living system designed to manage lighting, electric shutters and much more in your home - in a smart way and without the need for invasive renovations. YESLY is a solution that can be simply applied in a single room, or just as easily throughout your home, according to your requirements.

By installing one or more multifunction relays or bluetooth dimmers you can control lighting levels or raise and lower electric shutters directly from your smartphone or by means of special wireless buttons.

Furthermore, thanks to Finder's GATEWAY, devices can also be controlled remotely or through the voice assistants Google Assistant and Amazon Alexa.

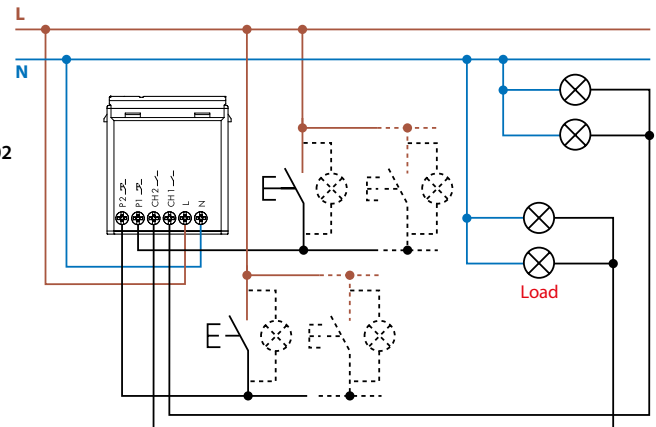
13 Series - Multifunction Relays

15 Series - Dimmer

1Y Series - Accessories

White
Type13.72.8.230.B200

Black
Type13.72.8.230.B202



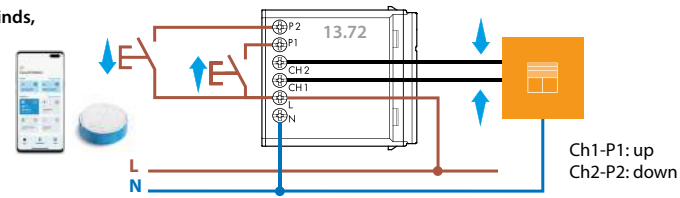
2 contacts NO 6 A - 230 V AC independent and programmable channels

- Transmission protocol Bluetooth Low Energy
- 21 available functions
- Default function (both channels):
  RI – Step relay (pushbutton control)
- App programming with iOS or Android Smartphone
- Wall mounting, compatible with most popular Italian residential switch boxes

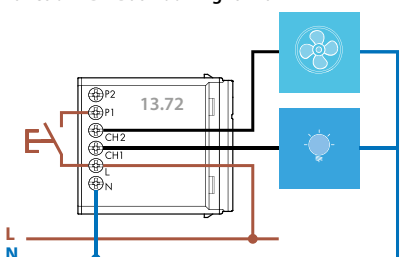
YOU
Finder YOU

Type 13.72 - Examples of applications

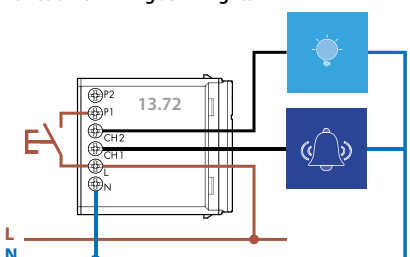
Function TP - Roller Blinds, Shutters and Curtains



Function VB – Bathroom light + fan



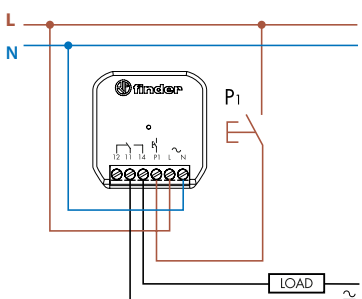
Function CP – Ringbell + Lights



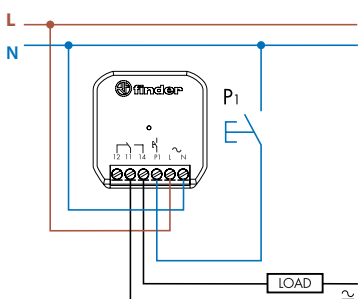
Finder YOU

Type 13.21.8.230.B000
1 CO 16 A - 250 V AC
- Transmission protocol Bluetooth Low Energy
- 12 available functions
- Default function (both channels): RI – Step relay (pushbutton control)
- Lamp load: 200 W 230 V AC
- Supply voltage 110…230 V AC (50/60Hz)
- Round wall box (ie: ø 60mm) mounting

Wiring with pushbutton to phase

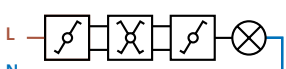


Wiring with pushbutton to neutral



Type 13.21.8.230.B000 - 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

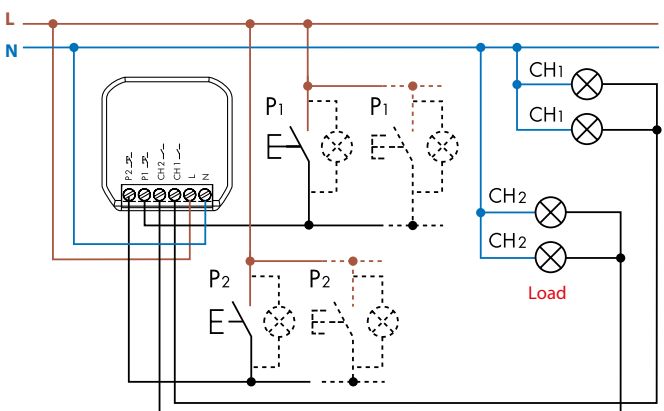


Traditional installation

A Smart installation

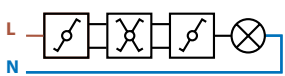
Finder YOU

Type 13.22.8.230.B000
2 contacts NO 6 A - 230 V AC independent and programmable channels
- 21 available functions
- Default function (both channels): RI – Step relay (pushbutton control)
- Transmission protocol Bluetooth Low Energy
- App programming with iOS or Android Smartphone
- Round wall box (ie: ø 60mm) mounting

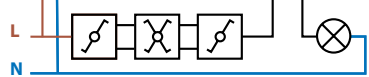


Type 13.22.8.230.B000 - Special function Rla - Step relay (switch control).
Ideal for converting a traditional lighting system using one, two, or four way switches, into a Smart system.

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



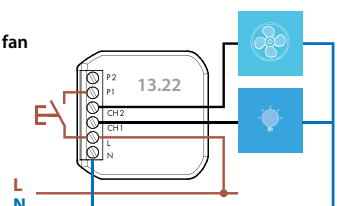
Traditional installation



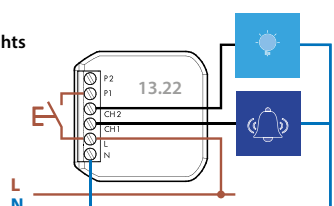
A Smart installation

Examples of applications

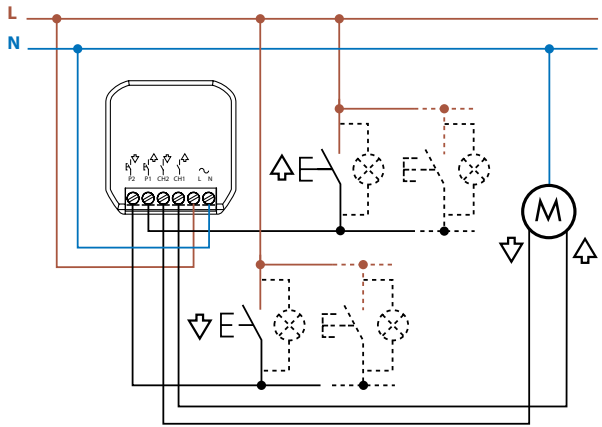
Function VB
Bathroom light + fan



Function CP
Ringbell + Lights



Type 13.S2.8.230.B000
Electronic roller shutter actuator
- 2 contacts NO 6 A - 230 V AC
- Single phase motor rating: 200 W 230 V AC
- Transmission protocol Bluetooth Low Energy
- App programming with iOS or Android Smartphone
- Round wall box (ie: Ø 60mm) mounting

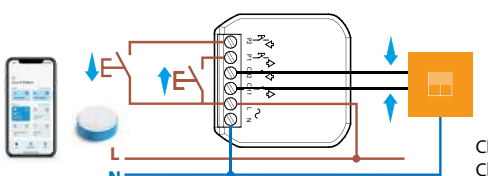


YOU
Finder YOU

Example: 20% open

Adjusting how far the blind is opened using the app, voice assistants or scenarios

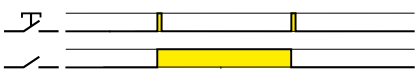
Function TP - Roller Blinds, Shutters and Curtains



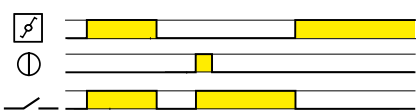
Ch1-P1: up
Ch2-P2: down

Type 13.21, 13.22, 13.72. Multifunction electronic relays can be configured with the app

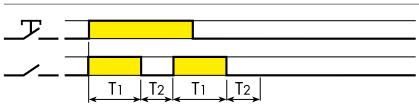
(RM) Monostable relay



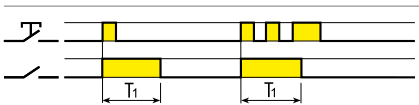
(RI) Step relay (pushbutton control)



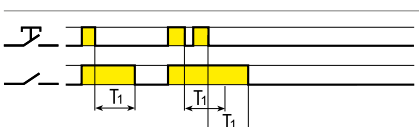
(RIa) Step relay - lighting switch control
(Type 13.22 and 13.21.8.230.B000 only)



(LE) Asymmetric flasher (starting pulse on) with control signal

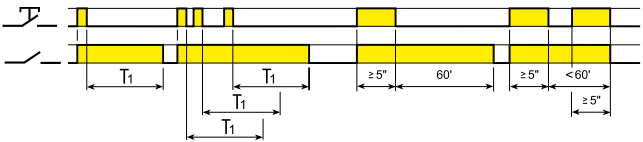


(DE) Interval with control signal on

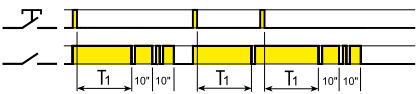


(BE) Staircase timer

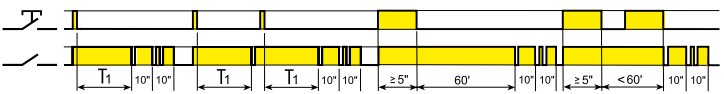
Type 13.21, 13.22, 13.72. Multifunction electronic relays can be configured with the app



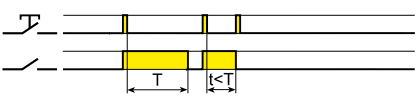
(ME) **Staircase timer + Staircase maintenance**



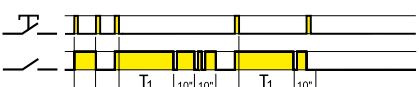
(BP) **Staircase timer with switch off early warning**



(MP) **Staircase timer with switch off early warning + staircase maintenance**

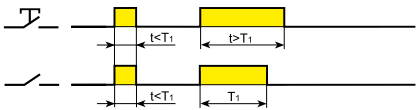


(IT) **Timing step relay**

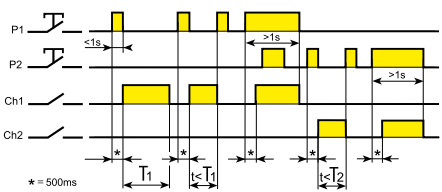


(IP) **Timing step relay with switch off early warning**

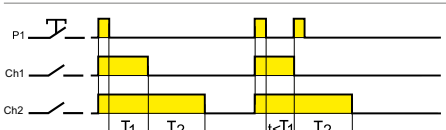
Type 13.21, 13.22, 13.72.
Multifunction electronic relays can be configured with the app



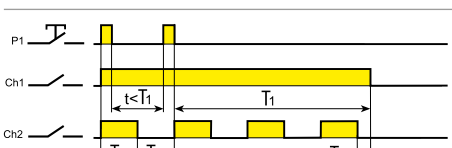
(FZ) Timing monostable



(TP) Roller shutter



(VB) Bathroom light + fan



(CP) Ringbell + light

Sequences Type 13.72 - 13.22

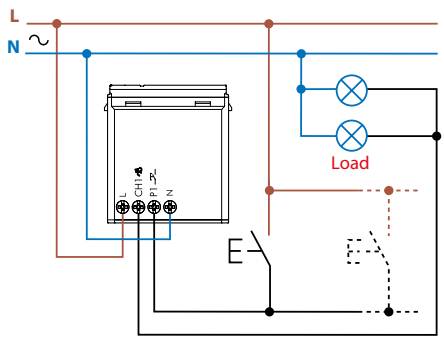
P1 (SET): press to advance through the sequence

P2 (RESET): press to return to Step 1

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

White
Type 15.71.8.230.B200

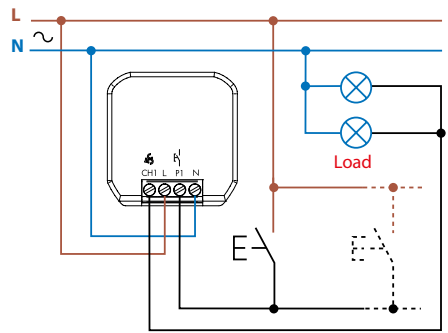
Black
Type 15.71.8.230.B202



- Nominal lamp ratings: 100 W LED, 200 W halogen
- 7 available functions
- AUTO function, to automatically set the most appropriate method for driving the type of lamp being used
- Suitable for dimmable LED lamps, dimmable CFL lamps, halogen lamps, transformers or electronic power supplies
- Transmission protocol Bluetooth Low Energy
- App programming with iOS or Android Smartphone
- Wall mounting, compatible with most popular Italian residential switch boxes

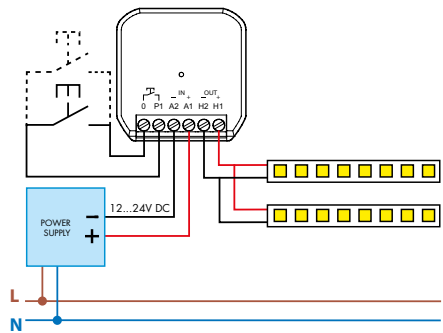
YOU
Finder YOU

Type 15.21.8230.B300
- 1 output
- Nominal lamp ratings: 150 W LED, 300 W halogen
- 7 available functions
- AUTO function, to automatically set the most appropriate method for driving the type of lamp being used
- Suitable for dimmable LED lamps, dimmable CFL lamps, halogen lamps, transformers or electronic power supplies
- Transmission protocol Bluetooth Low Energy
- App programming with iOS or Android Smartphone
- Round wall box (ie: Ø 60mm) mounting



Finder YOU

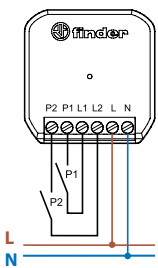
Type 15.21.9.024.B200
PWM Dimmer for LED strip Bluetooth
- 1 output
- Maximum current 8 A
- Protected against short-circuit, overload and reverse polarity
- Supply voltage: 12…24 V DC
- Transmission protocol Bluetooth Low Energy
- App programming with iOS or Android Smartphone
- Round wall box (ie: ø 60mm) mounting

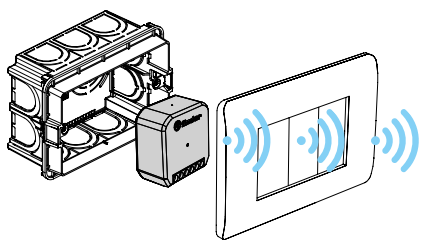


Finder YOU

Type 1Y.P2 - 2-Input YESLY interface unit
The 2-input 1Y.P2 interface has been developed to accept volt-free contacts or phase voltage (L) signals as inputs, and to integrate them into a YESLY system.
It is therefore possible to control YESLY devices for lighting or roller blind control by choosing to use traditional push buttons or voltage signals.

- 2 input channels (P1 and P2)
- Suitable for controlling YESLY devices with traditional pushbuttons or switches, for example by integrating into an existing residential lighting system
- Compatible with illuminated pushbuttons [max 5 (≤1 mA) buttons]
- Power supply: 110…230 V AC
- Transmission range: 10 meters in free space

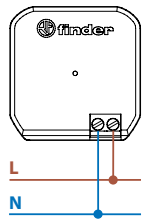


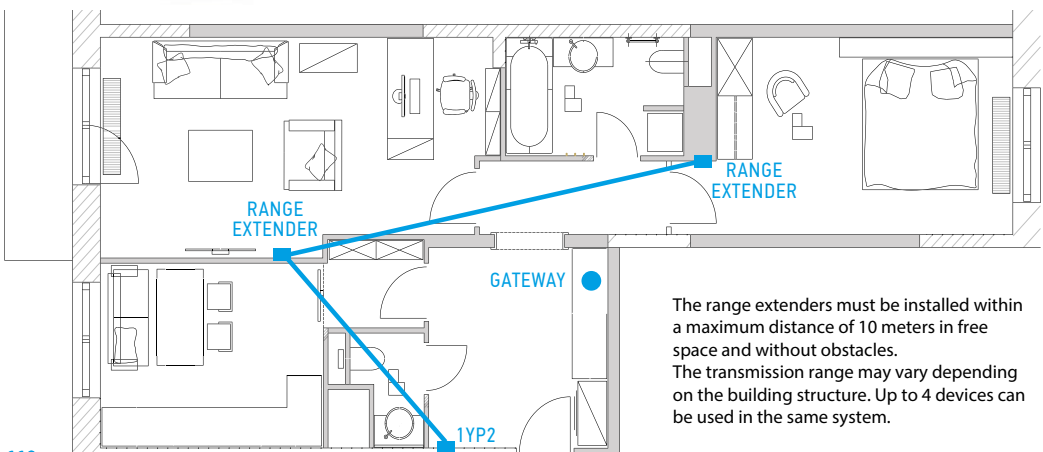


Finder YOU

Type 1Y.EU.005 - USB range extender
- Power supply: USB connector 5V – 0.5 A min
- Operating frequency 2.4 GHz
- Ambient temperature range: -10 °C…+50 °C

Type 1Y.E8.230 - Range extender, round wall box (ie: Ø 60 mm) mounting
- Power supply: 230 V AC
- Operating frequency 2.4 GHz
- Ambient temperature range: -10 °C…+50 °C





The range extenders must be installed within a maximum distance of 10 meters in free space and without obstacles.
The transmission range may vary depending on the building structure. Up to 4 devices can be used in the same system.

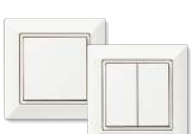
Type 1Y.GU.005-1 - Second Generation GATEWAY
With Finder GATEWAY you can control your YESLY and the Smart BLISS2 Thermostat system remotely, wherever you are in the world. It is always possible, any time and anywhere, to check their status and make changes if necessary.
Moreover, through GATEWAY and cloud connectivity it is even possible to manage your system through voice commands using the GOOGLE Assistant or AMAZON ALEXA.

Type 1Y.13.B10 - 2 channels
Type 1Y.13.B20 - 4 channels
White

Type 1Y.13.B12 - 2 channels
Type 1Y.13.B22 - 4 channels
Black

BEYON Wireless pushbutton - 2 or 4 channels

Finder's BEYON is an innovative remote control for your YESLY comfort living system.
BEYON can be paired, via the app, with other YESLY devices such as actuators and dimmers to turn on/off or dim lighting, or to control electric shutters and blinds.
BEYON can also be configured to activate scenarios as well as control many other devices of your choosing.
Your BEYON works without batteries and without any need for recharging.



Type 013.B9 - Wall-mounting pushbutton - 2 or 4 channels
Wireless Wall-mounting pushbutton can be paired, via the app, with other YESLY devices such as actuators and dimmers to turn on/off or dim lighting, or to control electric shutters and blinds.
BEYON can also be configured to activate scenarios as well as control many other devices of your choosing.
Your BEYON works without batteries and without any need for recharging.

BLISS2

Type 1C.B1.9.005.0007
Smart thermostat BLISS2 Remote management via the app (Android or iOS) thanks to the Wi-Fi GATEWAY, 1Y.GU.005.1.
Up to 10 BLISS2 can be paired with each GATEWAY

- Temperature setting (+5…+35)°C and humidity sensor (1…99)%
- 3x batteries, type AAA (estimated electrical life of 1.5 years)
- Perfect for direct surface mounting or installation over 3 modules or 60 mm round wall boxes
- 1 CO 5 A – 230 V AC

GET IT ON Google Play
Download on the App Store
YOU Finder YOU
WORKS WITH amazon alexa
works with the Google Assistant

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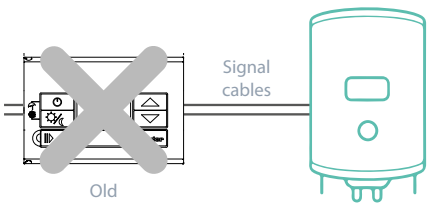
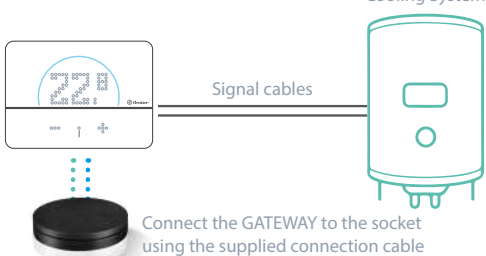
Apple is a trademark of Apple Inc. App Store is a service mark of Apple Inc.

Easily replace your old wall-mounted thermostat
Installation is easy thanks to being battery powered, while for the GATEWAY just connect the power cable to the socket.
Programming is intuitively guided via the App.

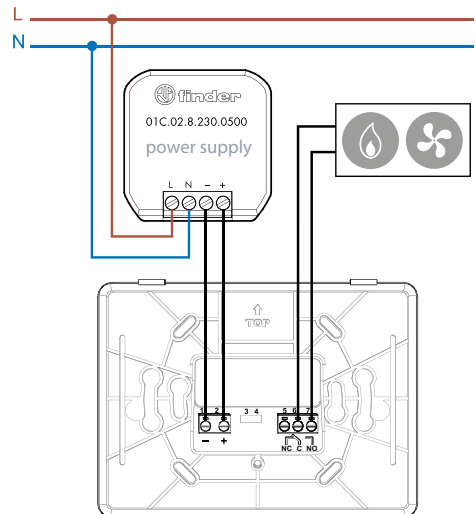




Type 01C.02.8.230.0500
Power supply for smart thermostat BLISS2

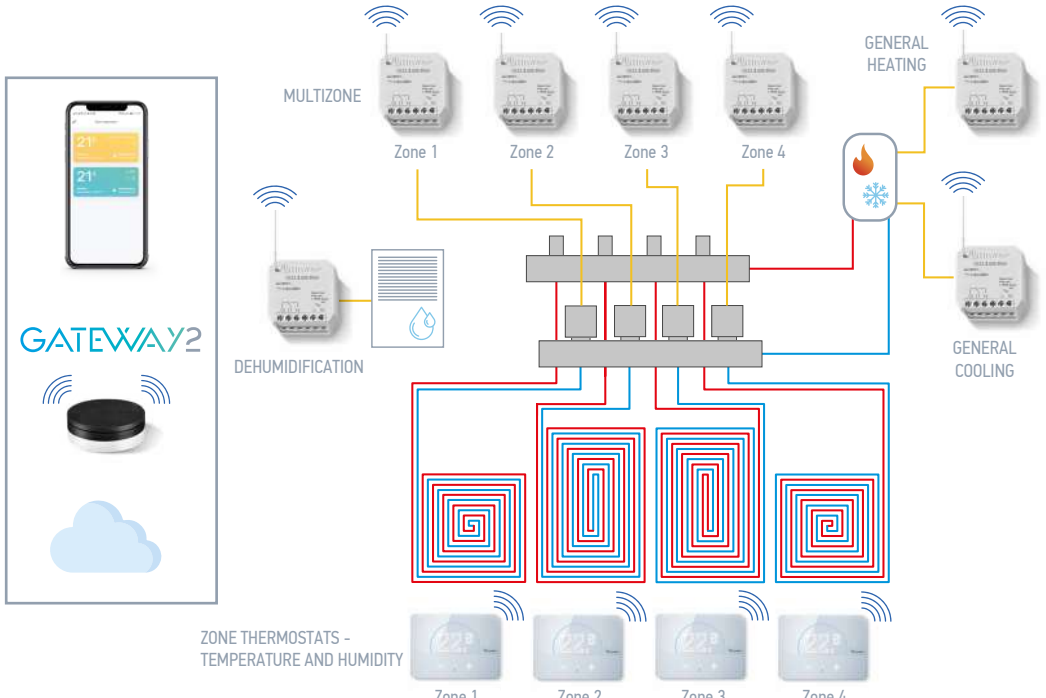
When using the smart thermostat BLISS2 with the external power supply, the batteries must be removed.

- Rated power: 2 W
- Nominal voltage: 110…230 V AC
- Output voltage: 5 V DC
- Ambient temperature range: 0…40°C
- Maximum cable length between power supply and BLISS2: 40 m (2x1.5 mm^2 flexible cable)



Type 13.21.8.230.S000
Remote actuator for the BLISS2 smart thermostat
The 13.21-S000 actuator is designed to adjust the temperature in a single-zone or multizone installation. Thanks to its long-range radio frequency transmission, the actuator can be inserted in a heating or cooling system and is extremely versatile.

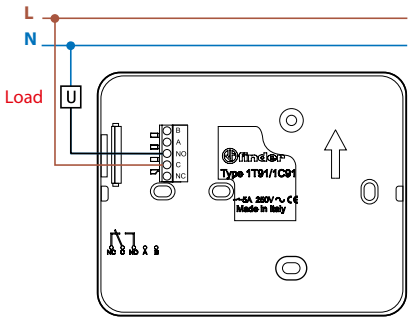
- 1 changeover contact rated 16 A - 250 V AC
- Nominal voltage: 110…230 V AC
- Compatible with the BLISS2 SERIES 1C smart thermostat
- Ambient temperature range: 0…40°C
- Long-range transmission frequency: 868 MHz


MULTIZONE
Zone 1
Zone 2
Zone 3
Zone 4
GENERAL HEATING
GENERAL COOLING
DEHUMIDIFICATION
GATEWAY2
ZONE THERMOSTATS - TEMPERATURE AND HUMIDITY
Zone 1
Zone 2
Zone 3
Zone 4

BLISS Wi-Fi

Type 1C.91.9.003.0W07

WiFi digital chronothermostat
- Remote management via the app (Android or iOS)
- Manual, or guided app programming
- Touch keys
- 4 batteries 1.5 V AA
- Summer/winter function
- PIN lock padlock function
- Temperature setting range (+5…+37)°C
- Contact rating 5 A 250 V A

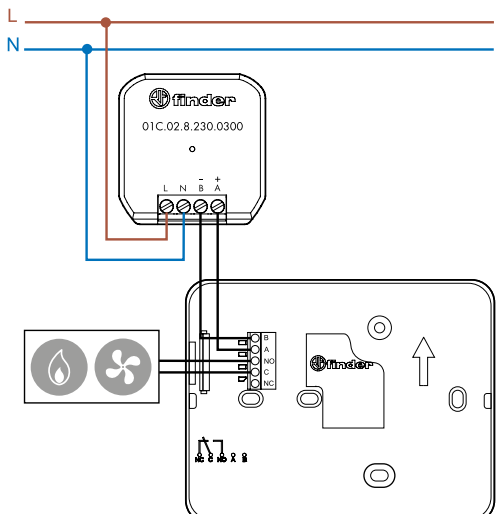


A simple and intuitive app
With the free app you are able to set and program the temperature, check the consumption and use the automatic functions for energy saving such as AUTOAWAY.

GET IT ON Google Play
Download on the App Store
Finder YOU
WORKS WITH amazon alexa
works with the Google Assistant

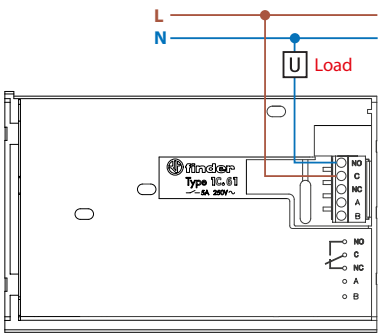
Type 01C.02.8.230.0300
Power supply for chronothermostat BLISS Wi-Fi
When using the chronothermostat BLISS Wi-Fi with the external power supply, the batteries must be removed

- Nominal voltage: 110…230 V AC
- Maximum cable length between power supply and chronothermostat BLISS Wi-Fi: 10 m (2x1.5 mm² flexible cable)



Type 1C.61.9.003.0101
White RAL 9010

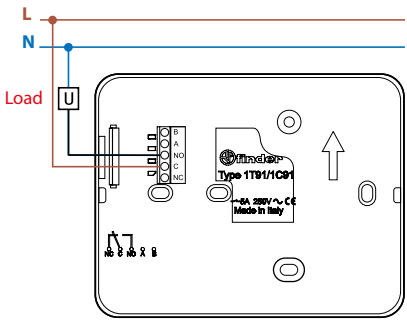
Chrono Touch Slide
Chronothermostat "touch slide" with weekly function
- 1 contact output 5 A/250 V AC
- Power supply: two alkaline 1.5 V AAA
- Calendar with automatic leap year & daylight - saving updates
- Summer/Winter switch
- 24 point for temperature setting
- The weekly function allows each day to be set to, automatic mode, hand mode, or OFF
- Minimum interval setting 15 minutes
- Surface mounting over 3 module wall box



BLISS T

Type 1T.91.9.003.0000

Digital thermostats
- Backlit touch keys
- 2 selectable temperatures (day/night)
- Summer/Winter switch
- PIN lock padlock function
- Temperature setting range (+5…+37)°C
- 1 contact output 5 A/250 V AC



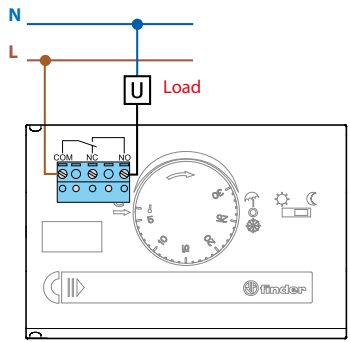
Touch-screen operated

Turn on the display
via the "Finder" button

Type 1T.41.9.003.0000
White

Type 1T.41.9.003.2000
Black

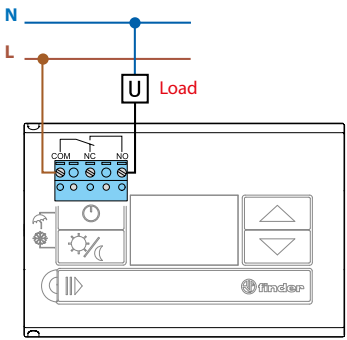
Thermo FastSet
Room thermostat
- 1 contact output 5 A/250 V AC
- Power supply: two alkaline 1.5 V AAA
- Temperature regulation (+5…+30)°C
- Functions: OFF (with Frost protection)/Summer/Winter
- Programming: Day/Night (set-back by –3 °C)
- Surface mounting over 3 module wall box



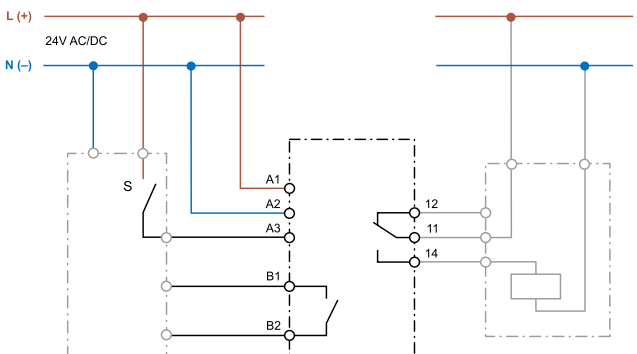
Type 1T.31.9.003.0000
White

Type 1T.31.9.003.2000
Black

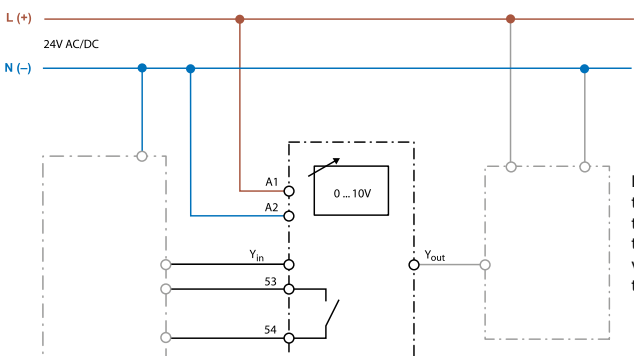
Thermo DuoSet
Digital room thermostat
- 1 contact output 5 A/250 V AC
- Power supply: two alkaline 1.5 V AAA
- Independently set temperatures for Day and Night
- Functions: OFF (with Frost protection)/Summer/Winter
- Surface mounting over 3 module wall box



Type 19.21.0.024.0000 - Auto/Off/On output module 10 A
Feedback contact
11.2 mm width
- 1 CO, 10 A 250 V AC
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount



Type 19.50.0.024.0000 - Analogue override module - Auto/Hand (0…10)V
1 feedback output contact
LED indicator
17.5 mm width
- 1 CO, 5 A 250 V AC
- Supply voltage: 24 V AC or DC
- 35 mm rail (EN 60715) mount

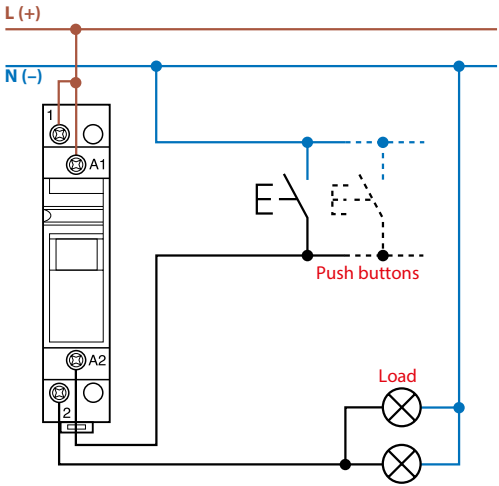


In the selector position A (Automatic) the 0…10 V signal at Yin is transferred through Yout, to the end process; in the selector position H (Hand) the 0…10 V value set by the module's regulator is transferred, through Yout, to the end process.

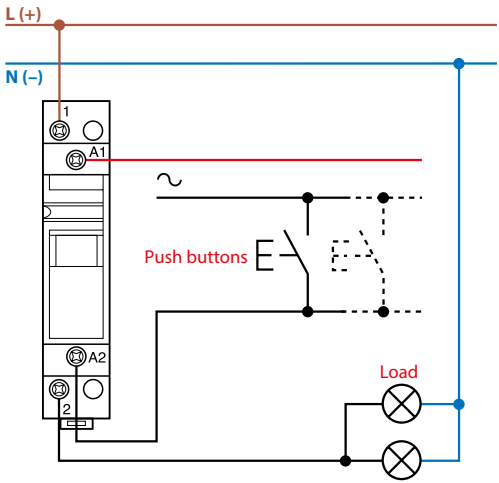
Type 20.21
- 1 NO, 16 A 250 V AC
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount

Type	Number of steps	Sequence	
		1°	2°
20.21	2		

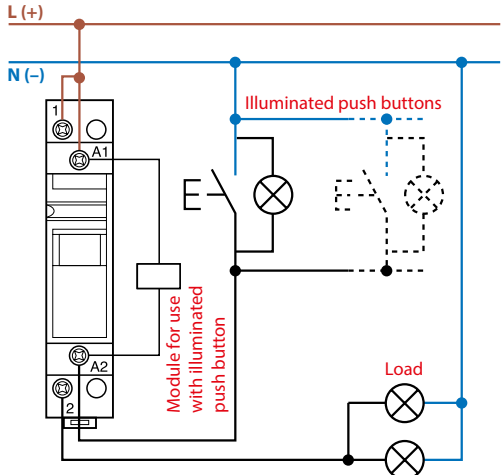
Wiring diagram – Single pole relay
Common supply to relay coil and load



Wiring diagram – Single pole relay
Low voltage command circuit



Wiring diagram – Single pole relay - Common supply to relay coil and load with illuminated push buttons



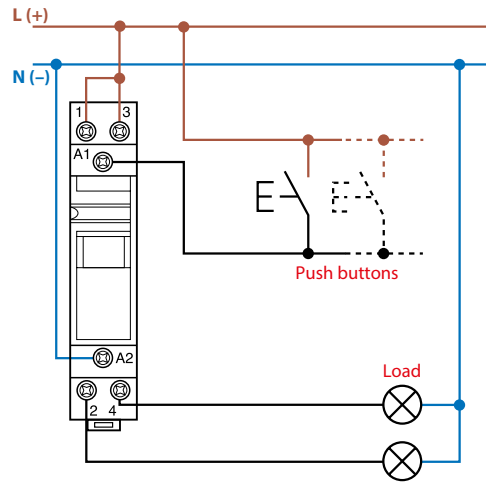
Accessories

Module Type 026.00 for use with illuminated push buttons
Sealed construction, 7.5 cm insulated flexible wire termination. 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.

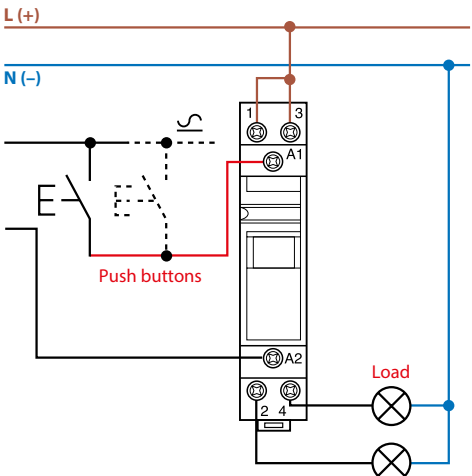
Type 20.22/23/24/26/28
- 2 NO, 16 A 250 V AC
- 1 NO + 1 NC, 16 A 250 V AC (20.23 only)
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount

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

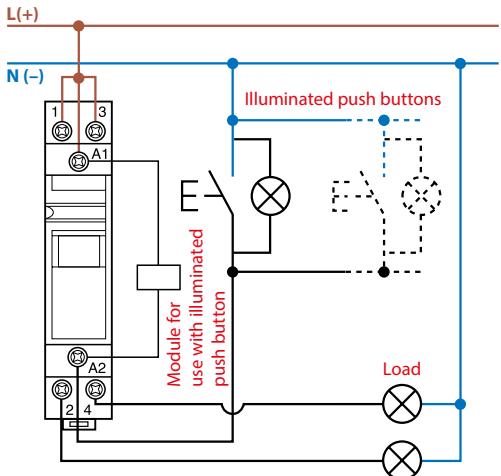
Wiring diagram – 2 pole relay
Common supply to relay coil and load



Wiring diagram – 2 pole relay
Low voltage command circuit



Wiring diagram – 2 pole relay - Common supply to relay coil and load with illuminated push buttons



Accessories

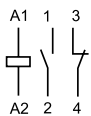
Module for use with illuminated push button Type 026.00
Sealed construction, 7.5 cm insulated flexible wire termination. This module is necessary when using between 1 and a maximum of 15 illuminated push buttons in the coil circuit (each 1.5 mA max, 230 V AC). It must be connected in parallel to the coil of the relay.

Type 22.32 **Type 22.32 with Auxiliary contact module**

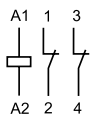
Options: - 2NO or 1NO + 1NC or 2NC, 25 A 250 V AC
- 12; 24; 48; 60; 120; 230 V AC/DC
- without selector

- 35 mm rail (EN 60715) mount

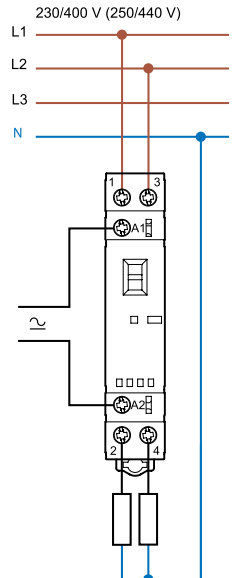
2 NO
(x3x0)



1 NO + 1 NC
(x5x0)

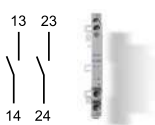


2 NC
(x4x0)

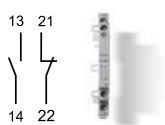


Accessories

Auxiliary contact module **Type 022.33** **Type 022.35**



2 NO 6 A

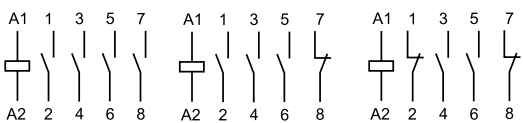


1NO+1NC 6 A

Type 22.34 **Type 22.34 Auxiliary contact module**

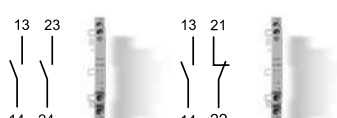
Options: - 4NO or 3NO + 1NC or 2NO + 2NC, 25 A 250 V AC
- 12; 24; 48; 60; 120; 230 V AC/DC
- without selector

- 35 mm rail (EN 60715) mount

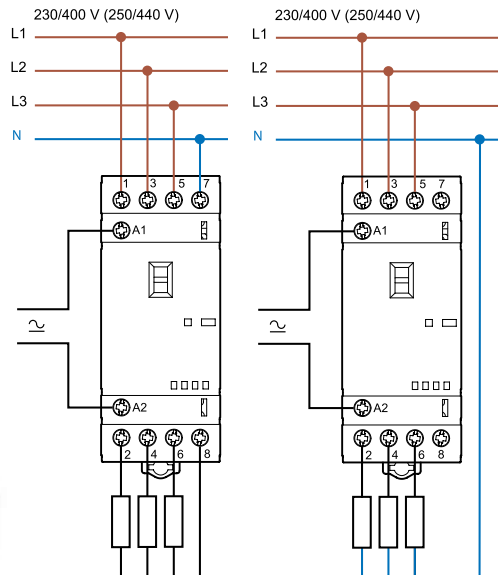


Accessories

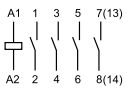
Auxiliary contact module **Type 022.33** **Type 022.35**



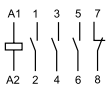
Line and neutral switched **Line only switched**



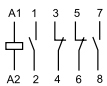
Type 22.44
- 4 NO, 3 mm contact gap
  (or 3NO + 1NC or 2NO + 2NC)
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount



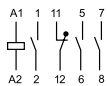
4 NO
(4310)



3 NO + 1 NC
(4710)



2 NO + 2 NC
(4610)

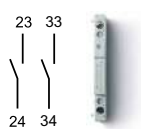


3 NO + 1 NC
(4717)

Accessories

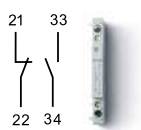
Auxiliary contact module

Type 022.63



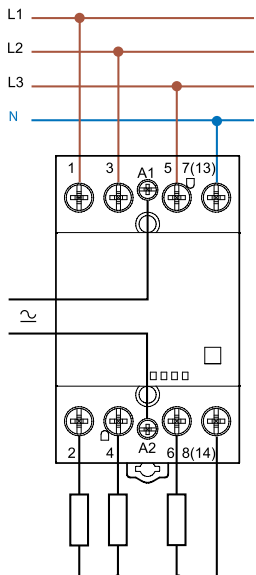
2 NO 6 A

Type 022.65

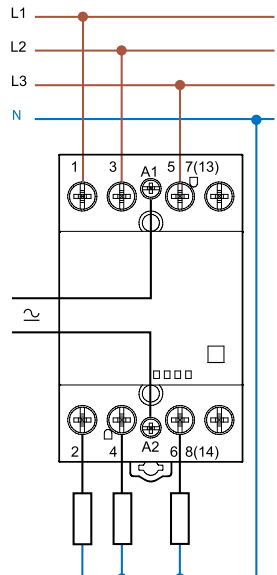


1NO+1NC 6 A

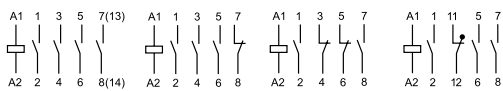
Line and neutral switched



Line only switched



Type 22.64
Specifically intended: for high inrush current loads
- 4 NO, 3 mm contact gap (or 3NO + 1NC or 2NO + 2NC)
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount

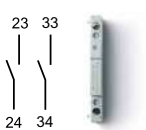


4 NO (4310) | 3 NO + 1 NC (4710) | 2 NO + 2 NC (4610) | 3 NO + 1 NC (4717)

Accessories

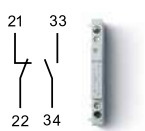
Auxiliary contact module

Type 022.63



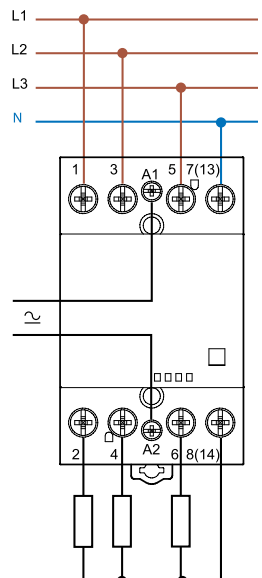
2 NO 6 A

Type 022.65

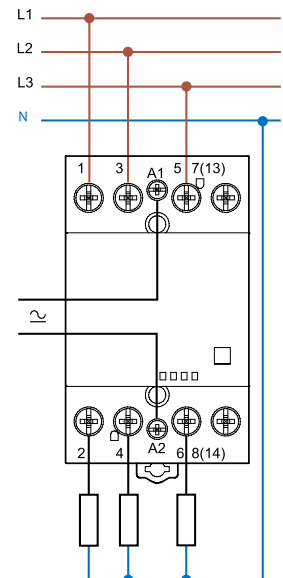


1NO+1NC 6 A

Line and neutral switched



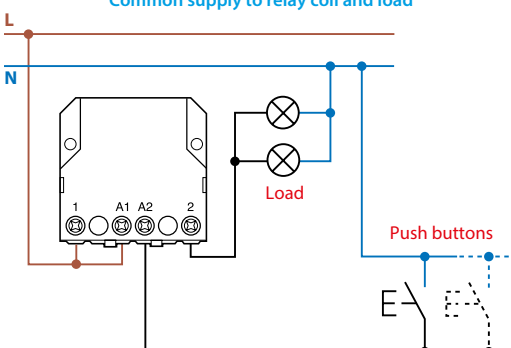
Line only switched



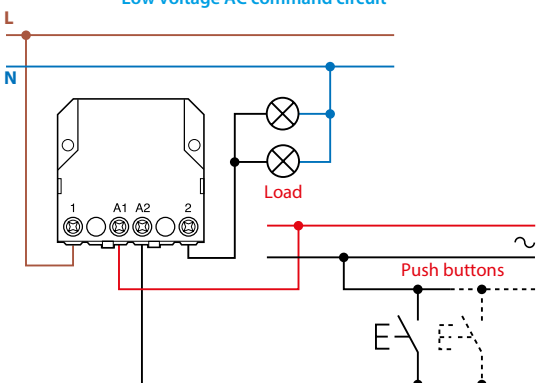
Type	Number of steps	Sequence	
		1°	2°
26.01	2		

Type 26.01
- 1 NO, 10 A 250 V AC
- Supply voltage: AC
- Panel mount

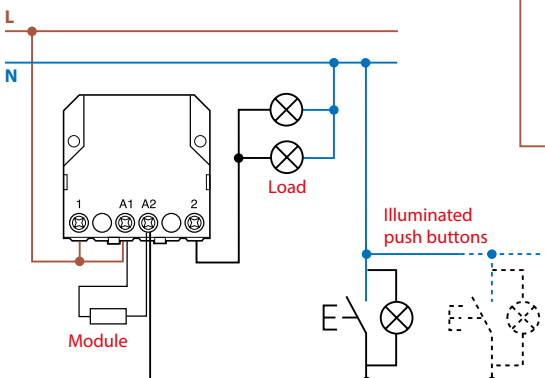
Wiring diagram – single pole relay
Common supply to relay coil and load



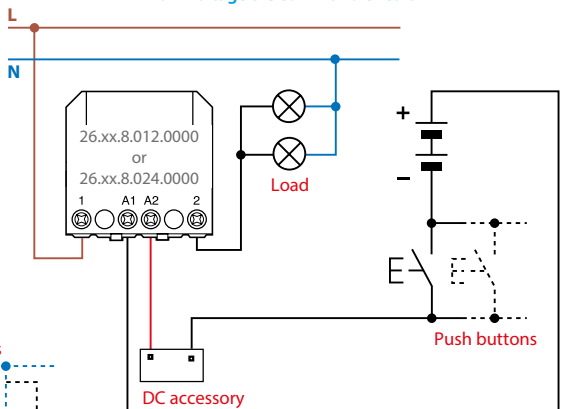
Wiring diagram - Single pole relay
Low voltage AC command circuit



Wiring diagram – Single pole relay
Common supply to relay coil and load
with illuminated push buttons



Wiring diagram – Single pole relay
Low voltage DC command circuit



Accessories

Module for use with illuminated push button Type 026.00
Sealed construction, 7.5 cm insulated flexible wire termination.
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.

Accessories - for 12 and 24 V DC control applications (use with appropriate 12 or 24 V AC coil relay)

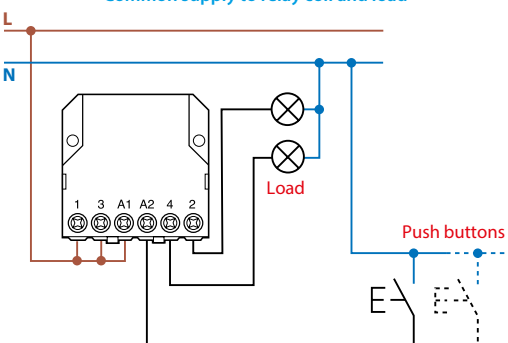
Type	026.9.012	026.9.024
Nominal voltage	12 V DC	24 V DC
Max temperature	+ 40°C	+ 40°C
Operating range	(0.9…1.1)U_N	

Type 26.02/03/04/06/08
- 2 NO, 10 A 250 V AC
- 1 NO + 1 NC, 10 A 250 V AC (26.03)
- Supply voltage: AC
- Panel mount

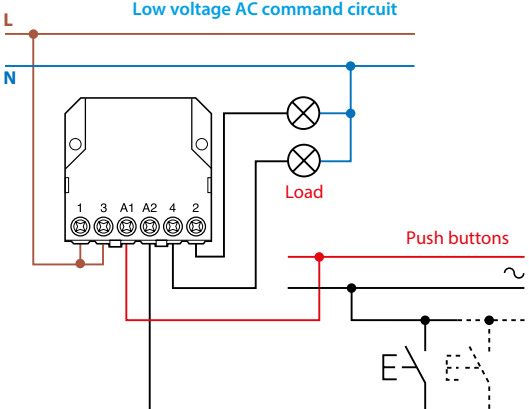
Type	Number of steps	Sequence			
		1°	2°	3°	4°
26.02	2				
26.03	2				

Type	Number of steps	Sequence			
		1°	2°	3°	4°
26.04	4				
26.06	3				
26.08	4				

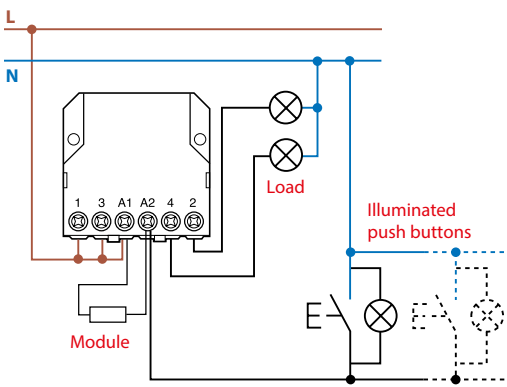
Wiring diagram – 2 pole relay
Common supply to relay coil and load



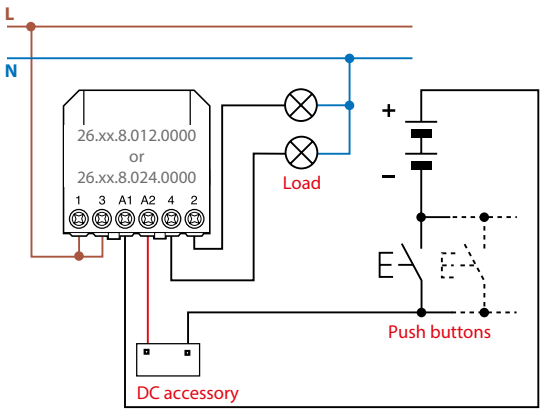
Wiring diagram - 2 pole relay
Low voltage AC command circuit



Wiring diagram – 2 pole relay
Common supply to relay coil and load
with illuminated push buttons



Wiring diagram – 2 pole relay



Accessories

Module for use with illuminated push button Type 026.00
Sealed construction, 7.5 cm insulated flexible wire termination. 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.

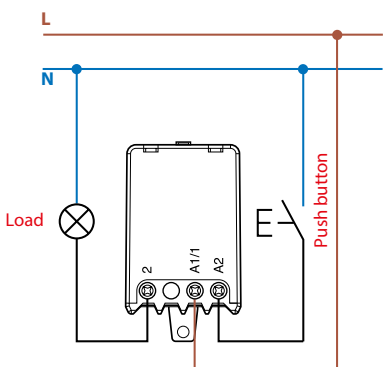
Accessories - for 12 and 24 V DC control applications (use with appropriate 12 or 24 V AC coil relay)

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

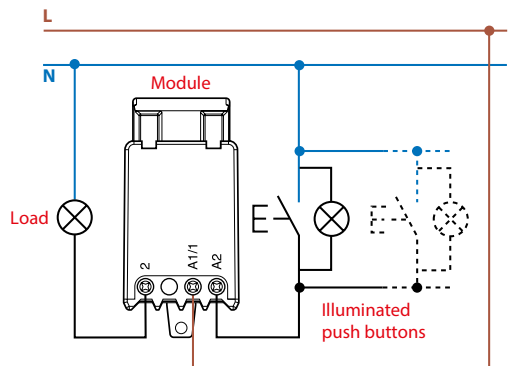
Type	Number of steps	Sequence 1°	Sequence 2°
27.01	2		

Type 27.01
Connect up to 24 illuminated push buttons with the addition of module
- 1 NO, 10 A 230 V AC
- Supply voltage: AC
- Panel mount

Wiring diagram – Single pole relay
Common supply to relay coil and load



Wiring diagram - single pole relay
Common supply to relay coil and load
with illuminated push buttons



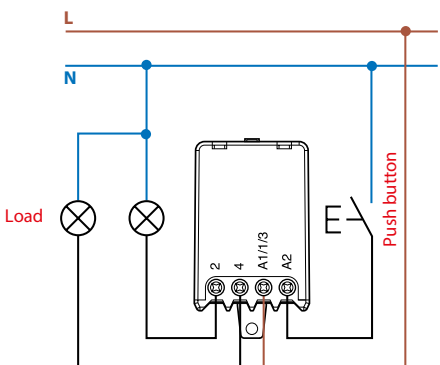
Accessories

Module for illuminated push buttons
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.

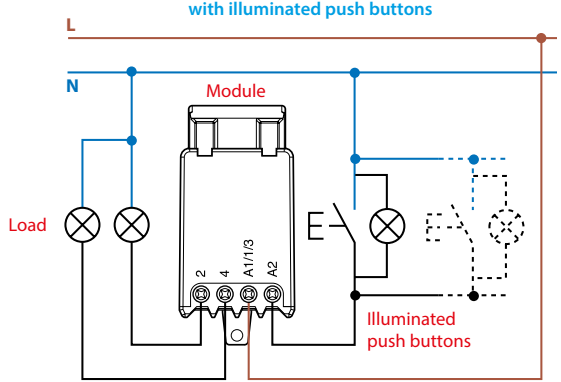
Type	Number of steps	Sequence			
		1°	2°	3°	4°
27.05	4				
27.06	3				

Type 27.05/06
Connect up to 24 illuminated push buttons with the addition of module
- 2 NO, 10 A 230 V AC
- Supply voltage: AC
- Panel mount

Wiring diagram – 2 pole relay
Common supply to relay coil and load

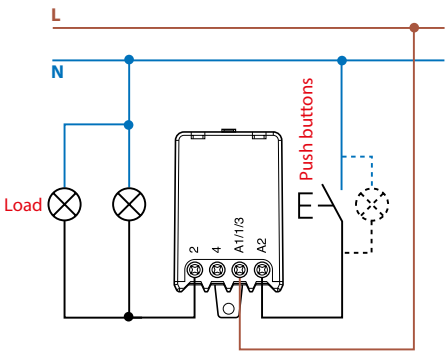


Wiring diagram - 2 pole relay
Common supply to relay coil and load
with illuminated push buttons



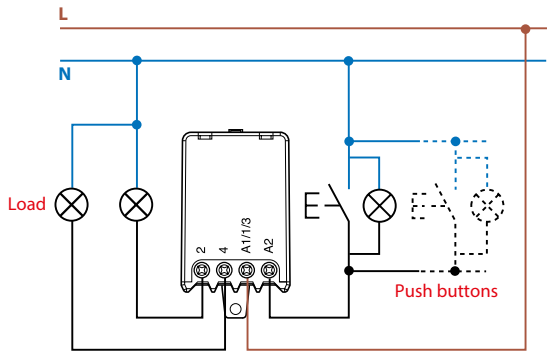
Type 27.21 EVO
Connect up to 15 illuminated push buttons (without additional module)
- incorporates coil power limiter to permit continuous coil energisation
- 1 contact, 10 A 230 V AC
- Supply voltage: AC
- Panel mount

Type	Number of steps	Sequence	
		1°	2°
27.21	2		



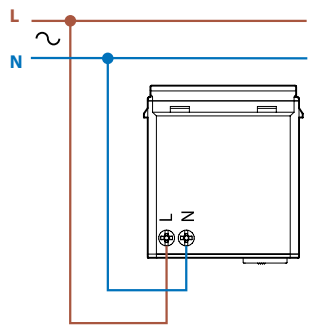
Type 27.25 EVO and 27.26 EVO
Connect up to 15 illuminated push buttons (without additional module)
- incorporates coil power limiter to permit continuous coil energisation
- 2 NO, 10 A 230 V AC
- Supply voltage: AC
- Panel mount

Type	Number of steps	Sequence			
		1°	2°	3°	4°
27.25	4				
27.26	3				

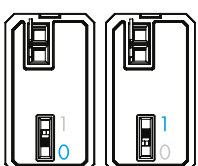


White
Type 1L.10.8.230.0000

Black
Type 1L.10.8.230.0002



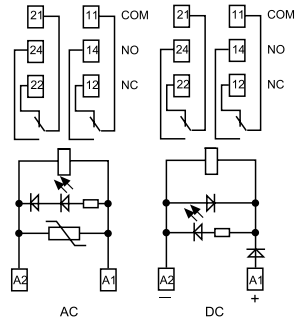
LED emergency light "LUMOS"
- Complies with CEI 64-8
- Nominal voltage: 230 V AC (50/60)Hz
- Rechargeable battery
- Battery run time 2.5 hours
- Wall mounting compatible with 3 module housing, complete with adaptor



PUTTING INTO SERVICE
After carrying out the connection and before proceeding with closure of the wall box move the selector from position 0 to 1. With this setting the Lamp will turn on when power is OFF and will turn off with the power supply present.

Push-in terminals

Type 4C.P2
- 2 CO, 8 A 250 V AC
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount



Accessories

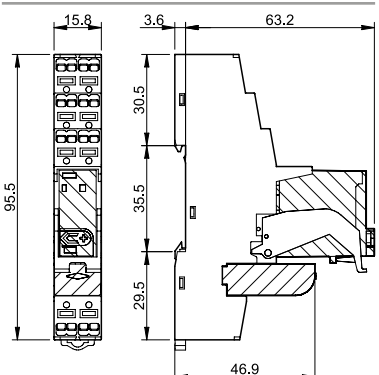
8-way jumper link Type 097.58

2-way jumper link Type 097.52

2-way jumper link Type 097.42

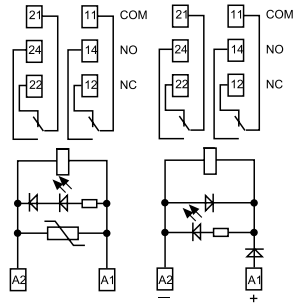
Marker tag holder Type 097.00

Sheet of marker tags (48 tags)
CEMBRE'S Thermal transfer printers, Type 060.48



Push-in terminals

Type 48.P5
- 2 CO, 8 A 250 V AC
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount



Accessories

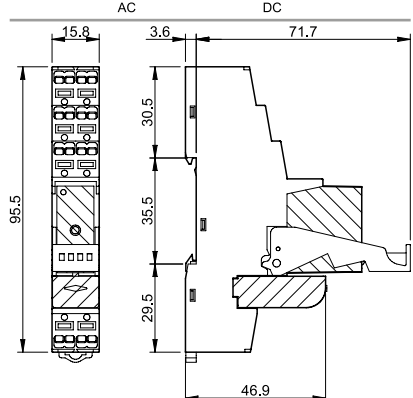
8-way jumper link Type 097.58

2-way jumper link Type 097.52

2-way jumper link Type 097.42

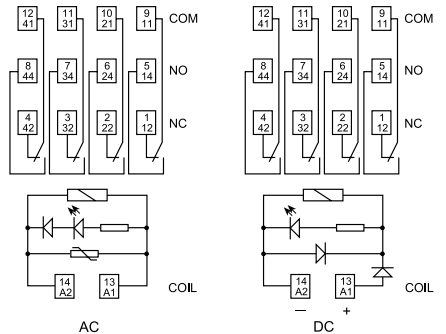
Marker tag holder Type 097.00

Sheet of marker tags (48 tags)
CEMBRE'S Thermal transfer printers, Type 060.48



Push-in terminals

Type 58.P4
- 4 CO, 8 A 250 V AC
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount



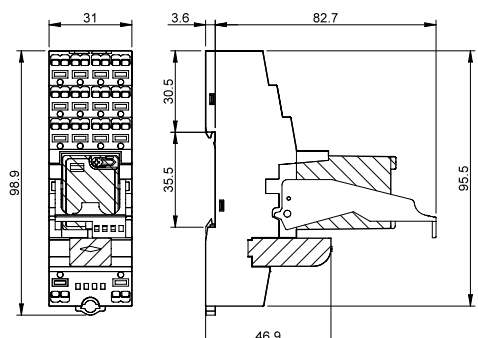
Accessories

2-way jumper link Type 097.52/097.52.1

6-way jumper link Type 094.56

Marker tag holder Type 097.00

Sheet of marker tags (48 tags)
CEMBRE'S Thermal transfer printers, Type 060.48

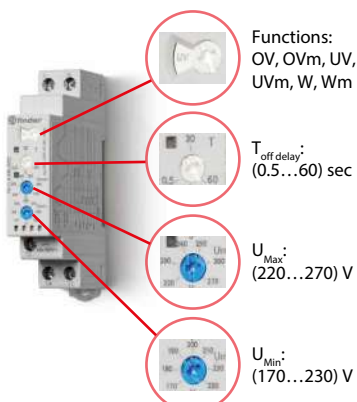


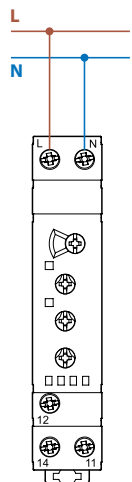
Type 70.11 - Single-phase (220…240 V) voltage monitoring:

- Undervoltage
- Overvoltage
- Window mode (overvoltage + undervoltage)
- Voltage fault memory selectable

- 1 CO, 10 A 250 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount

Front view: function selector and regulators



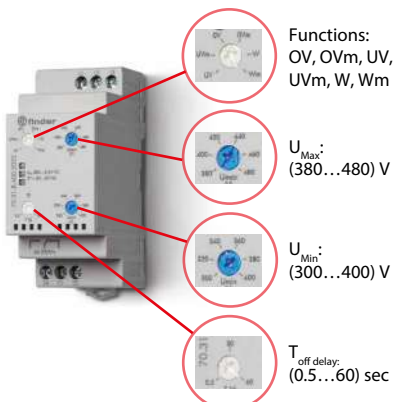


Type 70.31 - Three-phase (380…415 V) voltage monitoring:

- Undervoltage
- Overvoltage
- Window mode (overvoltage + undervoltage)
- Voltage fault memory selectable
- Phase loss
- Phase rotation

- 1 CO, 6 A 250 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount

Front view: function selector and regulators

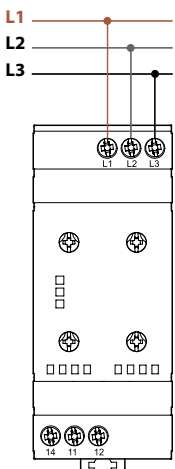


Functions:
OV, OVm, UV,
UVm, W, Wm

U_{Max}:
(380…480) V

U_{Min}:
(300…400) V

$T_{off\ delay}$:
(0.5…60) sec

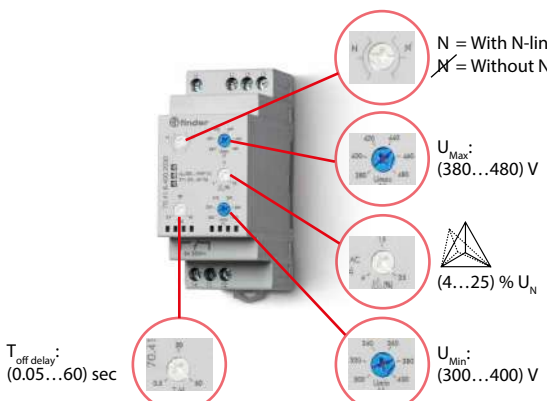


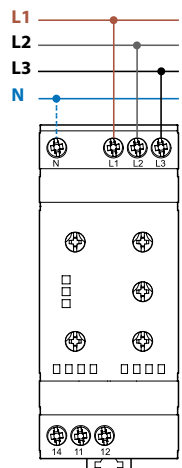
Type 70.41 - Three-phase (380…415 V, with or without neutral) voltage monitoring:

- Window mode (overvoltage + undervoltage)
- Phase loss
- Phase rotation
- Asymmetry
- Neutral loss selectable

- 1 CO, 6 A 250 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount

Front view: function selector and regulators



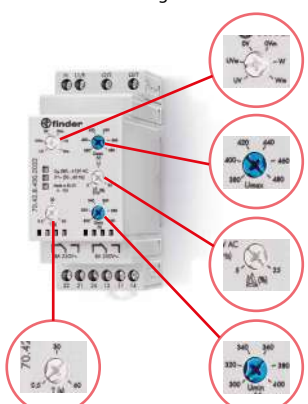


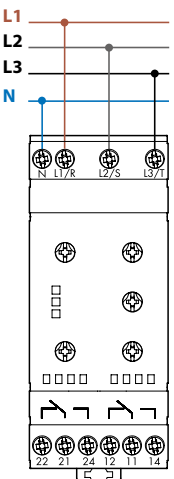
Type 70.42 - Three-phase (380…415 V, with neutral) voltage monitoring:

- Undervoltage
- Overvoltage
- Window mode (overvoltage + undervoltage)
- Phase loss
- Phase rotation
- Asymmetry
- Neutral loss selectable

- 2 CO, 8 A 250 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount

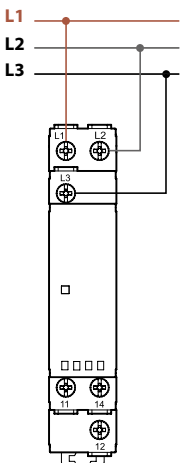
Front view: function selector and regulators





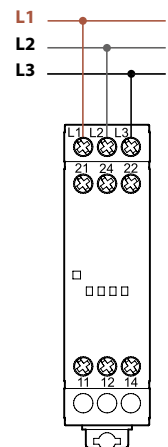
Type 70.61
Three-phase (208…480 V) voltage monitoring:
- Phase loss
- Phase rotation

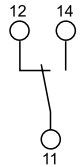
- 1 CO, 6 A 250 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount



Type 70.62
Three-phase (208…480 V) voltage monitoring:
- Phase loss
- Phase rotation

- 2 CO, 8 A 250 V AC
- Supply voltage: AC
- 35 mm rail (EN 60715) mount





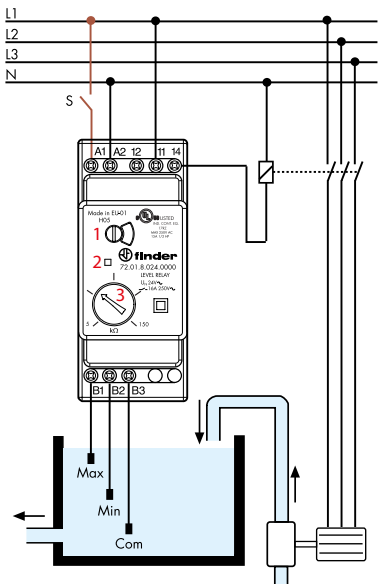
Type 72.01
Adjustable sensitivity
- 1 CO, 16 A 250 V AC
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount

Functions

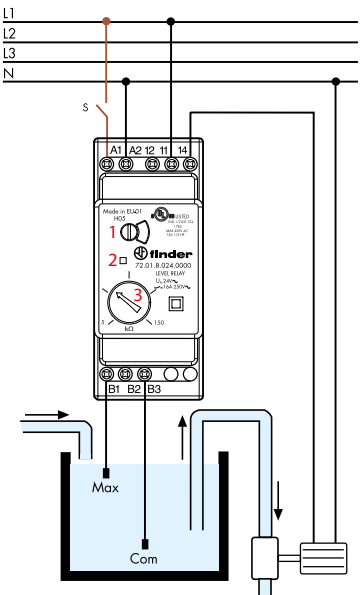
FL	Level control by Filling, Long (7sec) run-on delay
EL	Level control by Emptying, Long (7sec) run-on delay
FS	Level control by Filling, Short (0.5sec) run-on delay
ES	Level control by Emptying, Short (0.5sec) run-on delay

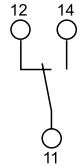
1 = Rotary function selector
2 = Red LED
3 = Sensitivity adjustment according to liquid type

Wiring diagram with 3 electrodes (Example: control by Filling)



Wiring diagram with 2 electrodes (Example: control by Emptying)



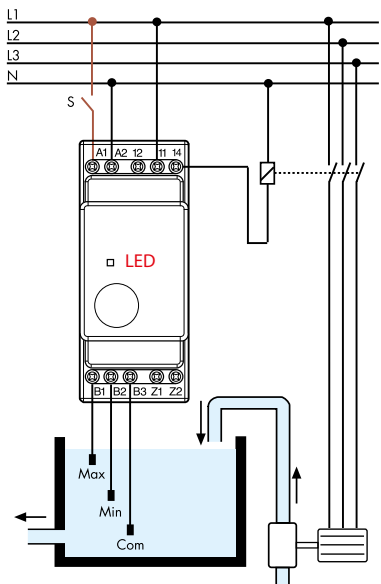


Type 72.11
Fixed sensitivity
- 1 CO, 16 A 250 V AC
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount

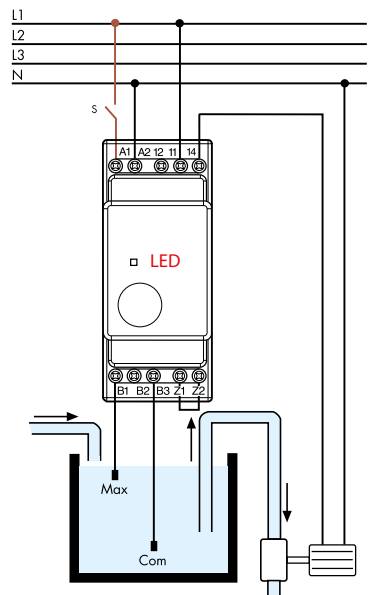
Functions

F	Level control by Filling, Z1–Z2 open. Run-on time fixed at 1sec.
E	Level control by Emptying, Z1–Z2 linked. Run-on time fixed at 1sec.

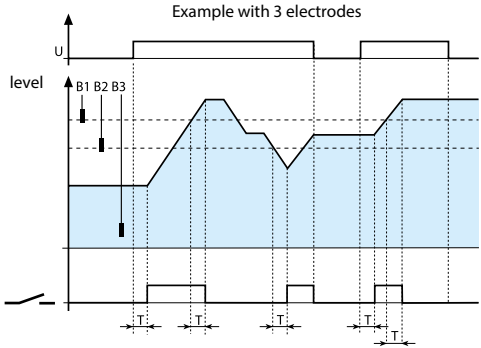
Wiring diagram with 3 electrodes (Example: control by Filling)

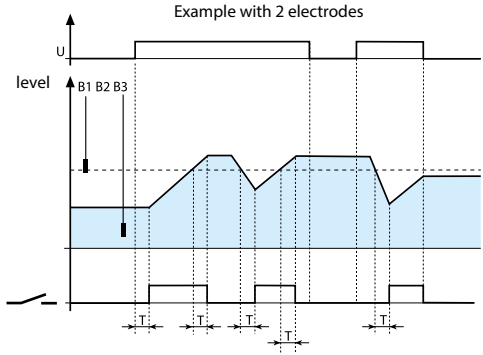


Wiring diagram with 2 electrodes (Example: control by Emptying)

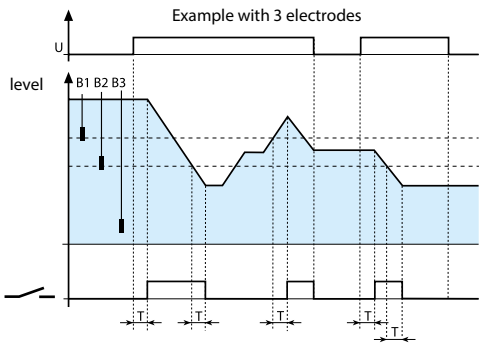


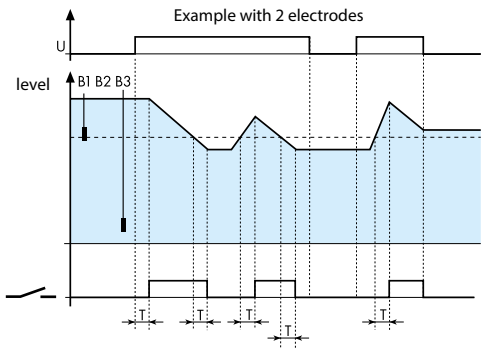
Filling functions





Emptying functions



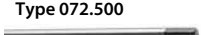


Type 072.01.06 - Cable length: 6 m (1.5 mm²)
Type 072.01.15 - Cable length: 15 m (1.5 mm²)
Suspended electrode for conductive liquids, complete with cable. Suitable for level monitoring in wells and reservoirs not under pressure. All materials used are compatible with food processing applications.

Type 072.11 - Floor water sensor, designed for the detection and reporting of the presence of floor surface water.

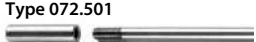
Type 072.51 - Electrode holder with two pole connector, one connected directly to the electrode and the second connected to the grounded installation thread. Suitable for metal tank with G3/8" linkage.

Type 072.500



Electrode
500 mm long

Type 072.501



Electrode connector.

Type 072.02.06
Cable length (blue colour): 6 m (1.5 mm²)
Electrode for swimming pools with high levels of chlorine, or in salt-water pools with high levels of salinity.

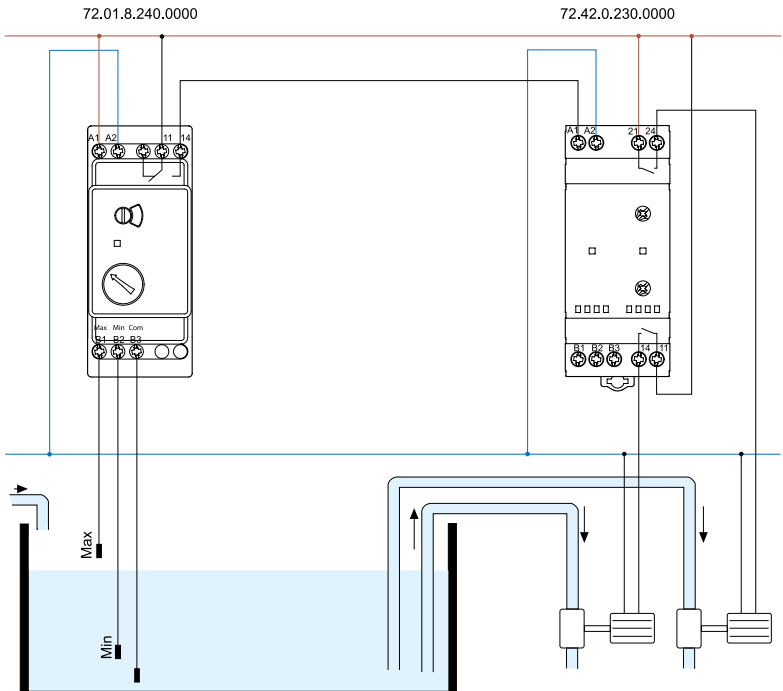
Type 072.31
Suspended electrode

Type 072.53
Electrode holder with three poles

Type 072.503
Electrode separator

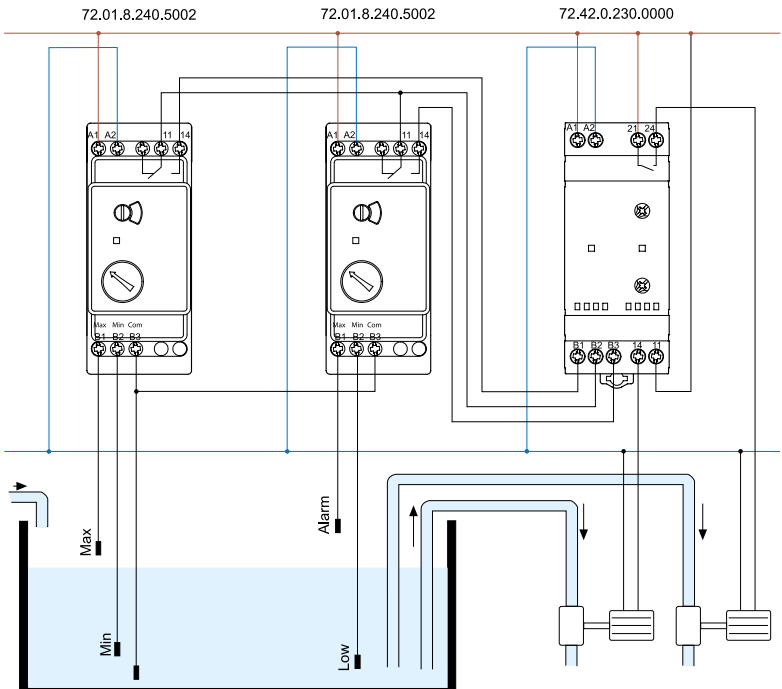
(MI) Function example

This shows the 72.42 Priority change relay working in conjunction with a single 72.01 level controller. Under normal conditions the liquid level is expected to remain within the range shown as Min to Max. In this case the function of the 72.42 will be to alternate the duty between both pumps, to even wear across both pumps. There is no provision to run both pumps simultaneously.

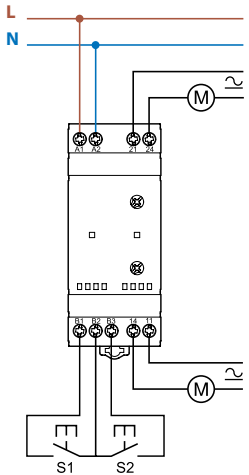


(ME) Function example

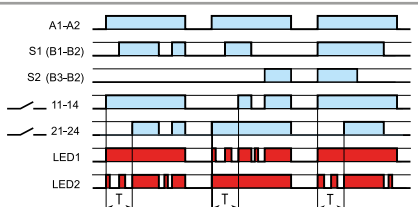
This shows the 72.42 Priority change relay working in conjunction with two 72.01 level controllers. Under normal conditions the liquid level is expected to remain within the range shown as Min to Max. In this case the function of the 72.42 will be to alternate the duty between both pumps, to even wear across both pumps. Should the liquid level rise above the Alarm level then the function of the 72.42 will call for the simultaneous operation of both pumps, by virtue of the signal to terminal B3 from the Alarm/Low level controller. Note: due to the low level of 72.42 control signals, it is suggested to use level controller 72.01.8.240.5002 because of its superior low load switching capability.



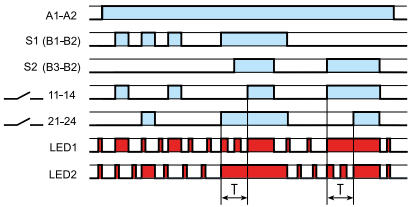
Type 72.42
- 2 independent NO output, 12 A 250 V AC
- Supply voltage: (110…240)V and 24 V AC/DC
- 35 mm rail (EN 60715) mount



Functions

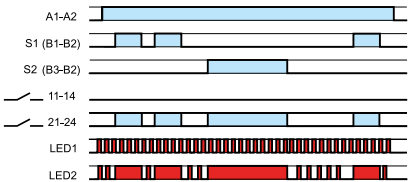


(MI) Outputs alternate on successive applications of supply voltage
- Application of the supply voltage to A1-A2 forces just one output contact to close, but the contact that closes will alternate between 11-14 and 21-24 on each successive application of the supply – ensuring even wear across both motors.
- The other output contact can be forced closed by the closure of either S1 or S2 - but to limit high current surges the other motor cannot start within T seconds of the first motor.



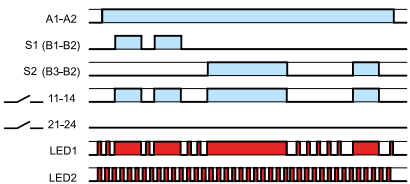
(ME) Outputs alternate according to control signal

- The supply voltage is permanently applied to A1-A2.
  When closed, S1 forces just one output contact to close. The contact that closes will alternate between 11-14 and 21-24 on each successive S1 closure - ensuring even wear across both motors.
- If closed, S2 forces both output contacts to close (irrespective of S1). However, to limit high current surges, both motors cannot start within T seconds of each other.



(M2) Output 2 (21-24) only

- Supply permanently applied to A1-A2.
- Closure of either S1 or S2 will close output contact 2 (21-24).
  Use when load 1 (11-14) is out of service.



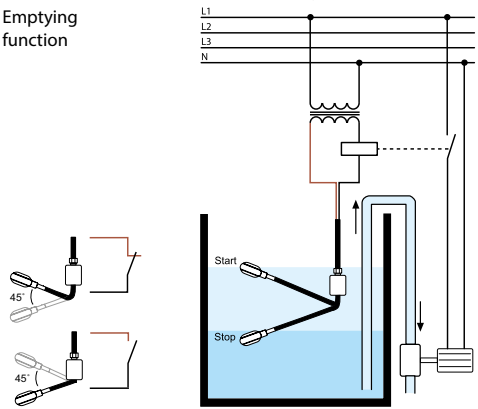
(M1) Output 1 (11-14) only

- Supply permanently applied to A1-A2.
- Closure of either S1 or S2 will close output contact 1 (11-14).
  Use when load 2 (21-24) is out of service.

Type 72.A1
- **Float switch with 2 watertight chambers, for grey water pumping and drainage systems**
- **Counterweight (300 g) with cable grip, included**

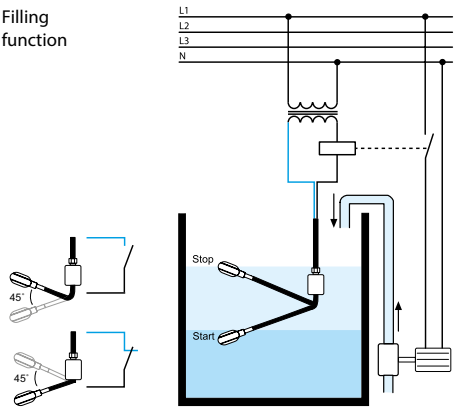
Type 72.A1.0000.xx02
Float switch suitable for level regulation of potable water and liquid foodstuffs
Manufactured from metal and plastics certified to ACS (Attestation de Conformitè Sanitaire).
- 1 CO 10 A 250 V AC
- Protection category: IP 68

Emptying function



When black and brown wires are used, the circuit opens when the float is down and closes when the float in up.
In this case the blue/grey wire must be insulated.

Filling function



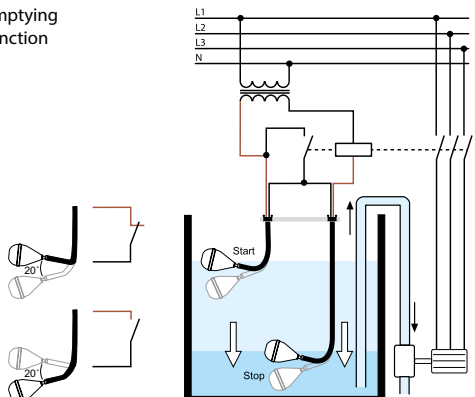
When black and blue/grey wires are used, the circuit opens when the float is up and closes when the float in down.
In this case the brown wire must be insulated.

Type 72.B1

- **Float switch with 3 watertight chambers, for dirty water systems, drainage plants and pumping stations**
- **Supplied with fixing kit**

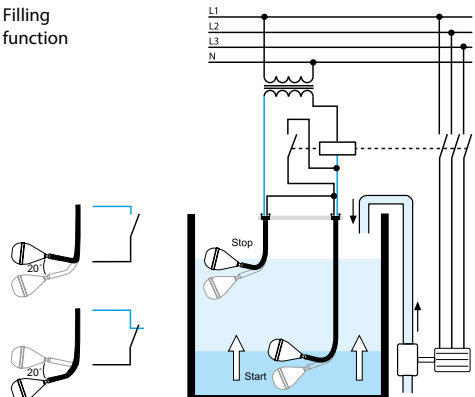
- 1 CO 10 A 250 V AC
- Protection category: IP 68

Emptying function



When black and brown wires are used, the circuit opens when the float is down and closes when the float in up.
In this case the blue/grey wire must be insulated.

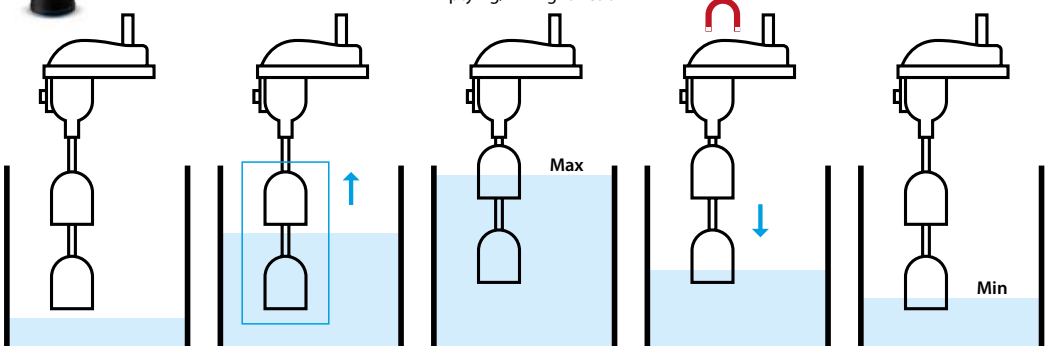
Filling function



When black and blue/grey wires are used, the circuit opens when the float is up and closes when the float in down.
In this case the brown wire must be insulated.

Type 72.C1.0.000.0201
Space saving version, for narrow spaces
Suitable for emptying and filling
- 1 CO 10 A 250 V AC
- Manual switch for automatic (ON/OFF) or manual (always ON) operation
- Magnetic contact
- Cable length 2 m

Emptying/ Filling function



The tank fills.

As the water level encounters the (max level) float the combined float unit starts to lift.

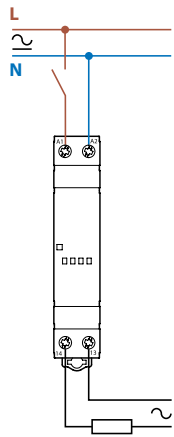
As the combined float unit lifts the magnetic switch closes. The pump then starts and the tank begins to empty.

As the water uncovers the (min level) float the extra weight of the combined float unit disengages the magnet.

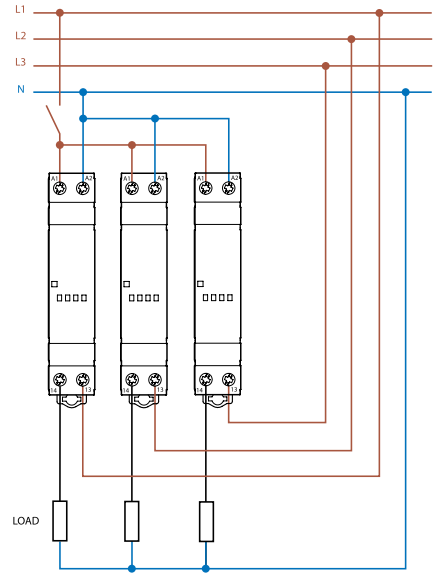
And, the pump stops at the minimum level.

Type 77.01
- 1 NO 5 A
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount

Example of single-phase connection



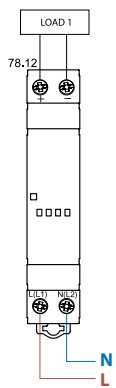
Example of three-phase connection (with 3 x 77.01.8.230.8051)



Type 78.12…2400
24 V DC, 12 W output

Type 78.12…1200
12 V DC, 12 W output

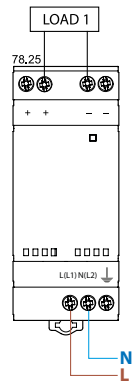
- Supply voltage: (110…240)V AC
  220 V DC not polarized
- 35 mm rail (EN 60715) mount



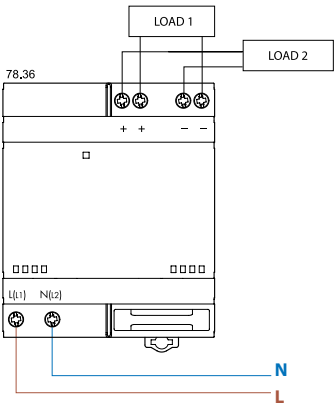
Type 78.25…2400
24 V DC, 25 W output

Type 78.25…1200
12 V DC, 25 W output

- Supply voltage: (110…240)V AC,
  220 V not polarized
- 35 mm rail (EN 60715) mount



Type 78.36
- 24 V DC, 36 W output
- Supply voltage: (110…240)V AC,
  220 V DC not polarized
- 35 mm rail (EN 60715) mount



Type 78.50

Type 78.51
Suitable for
battery charging

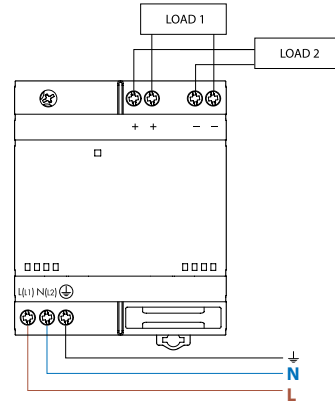
12 V DC, 50 W output

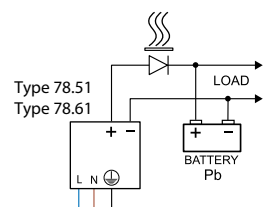
Type 78.60

Type 78.61
Suitable for
battery charging

24 V DC, 60 W output

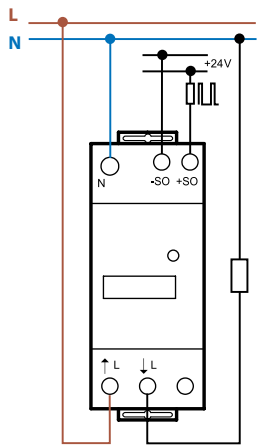
- Supply voltage: (110…240)V AC
  220 V DC not polarized
- 35 mm rail (EN 60715) mount





Type 7E.12.8.230.0002
- Nominal current 10 A (25 A Maximum)
- 1-phase 230 V AC
- 35 mm width
- 35 mm rail (EN 60715) mount

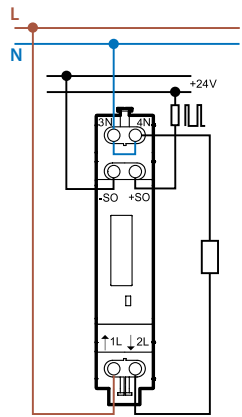
Type 7E.16.8.230.0010
- Nominal current 10 A (65 A Maximum)
- 1-phase 230 V AC
- 35 mm width
- 35 mm rail (EN 60715) mount



Accessories
Terminal cover
Type 07E.16

For the tamper-proof lead seal use 2 terminal covers.

Type 7E.13
- Nominal current 5 A (32 A Maximum)
- 1-phase 230 V AC
- 17.5 mm width
- 35 mm rail (EN 60715) mount

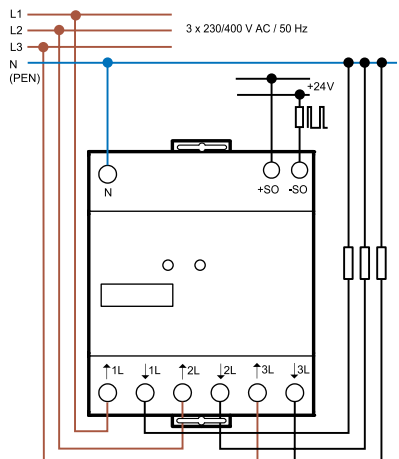


Accessories

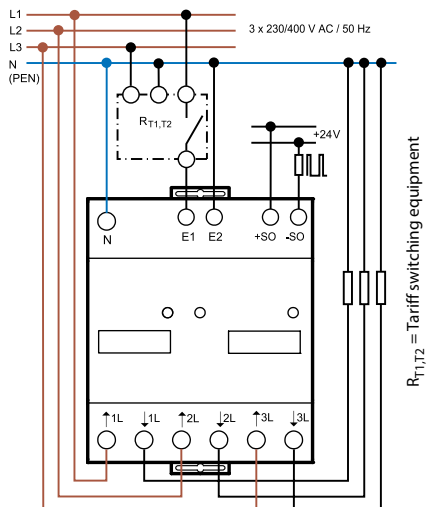
Terminal cover Type 07E.13

For the tamper-proof lead seal use 2 terminal covers.

Type 7E.36.8.400.0010
- Nominal current 10 A (65 A Maximum)
- 3-phase
- 70 mm width



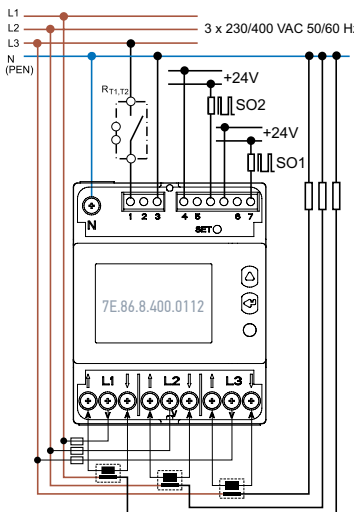
Type 7E.36.8.400.0012
- Nominal current 10 A (65 A Maximum)
- 3-phase
- Dual tariff (Day and Night)
- 70 mm width

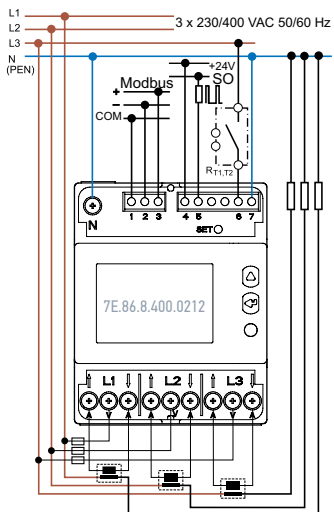


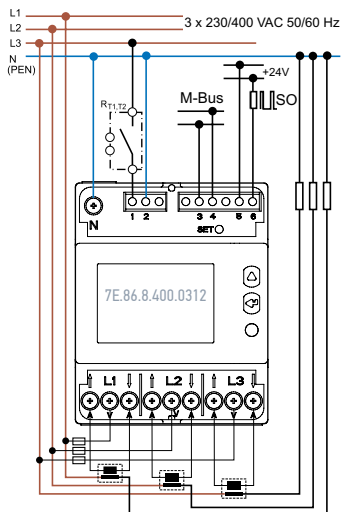
Accessories - Terminal cover Type 07E.16
For the tamper-proof lead seal use 4 terminal covers.

Type 7E.86.8.400.0112 3 or 4 wire
Type 7E.86.8.400.0212 RS485 Modbus integrated interface, 4 wire
Type 7E.86.8.400.0312 M-Bus integrated interface, 3 or 4 wire, dual tariff
- Multifunction Bi-directional MID certified
- Reference current 1 A (6 A Maximum)

$R_{T1,T2}$ = Tariff switching equipment





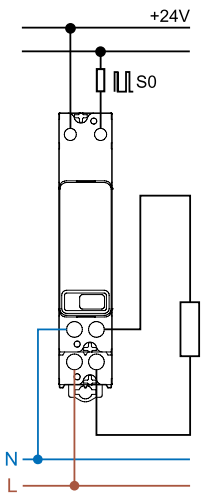


Single-phase Bi-directional energy meters, multi-function and MID certified
Reference current 5 A (40 A Maximum)
Backlit LCD display

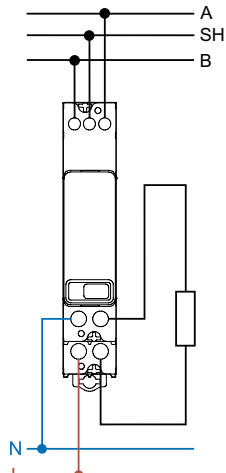
Programming via Smartphone - Android and Apple - with NFC technology
Energy meter programming and customization via app
Ability to read the measured energy via NFC even in the absence of a network

	7M.24.8.230.0001	7M.24.8.230.0010	7M.24.8.230.0110	7M.24.8.230.0210	7M.24.8.230.0310
NFC Interfaces	—	—	✔	✔	✔
Output specification (S0+/S0-)					
Number/Type	1 opto-isolated output	1 opto-isolated output	1 opto-isolated output	—	—
Pulses per kWh Imp/kWh	1000	1000	1000	—	—
Communication protocol					
Bus System	—	—	—	Modbus RS485	M-bus
Baud rate Baud	—	—	—	1200…115 200	300…9600
Technical data					
Accuracy class EN 50470-3 (MID)	B	—	—	—	—
Accuracy class IEC EN 50470-3 / IEC EN 62053-23	—	1/2	1/2	1/2	1/2

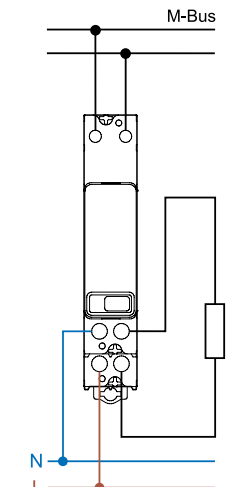
7M.24.8.230.0001
7M.24.8.230.0010
7M.24.8.230.0110



7M.24.8.230.0210



7M.24.8.230.0310



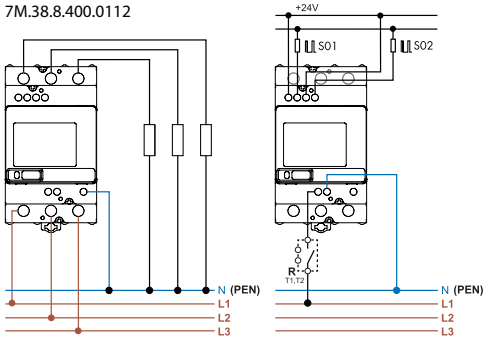
Multi-function Bi-directional energy meters
MID certified up to 80 A @ 70°C, for 3 or 4 wire systems and single phase applications

Reference current 5 A (80 A Maximum)
Backlit LCD display

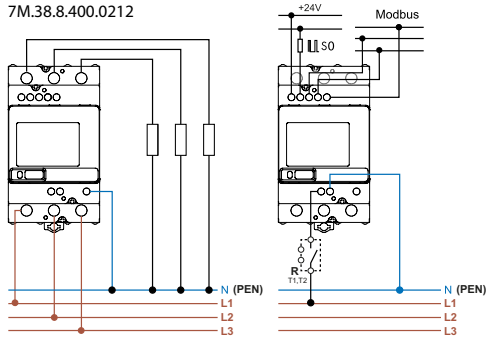
Programming via Smartphone - Android and Apple - with NFC technology
Energy meter programming and customization via app
Ability to read the measured energy via NFC even in the absence of a network

	7M.38.8.400.0112	7M.38.8.400.0212	7M.38.8.400.0312
NFC Interfaces	✔	✔	✔
Output specification (S0+/S0-)			
Number/Type	2 opto-isolated outputs	1 opto-isolated output	1 opto-isolated output
Pulses per kWh Imp/kWh	500	500	500
Communication protocol			
Bus System	—	Modbus RS485	M-Bus
Baud rate Baud	—	1200…115 200	300…9600
Technical data			
Accuracy class EN 50470-3 (MID)	B/2	B/2	B/2

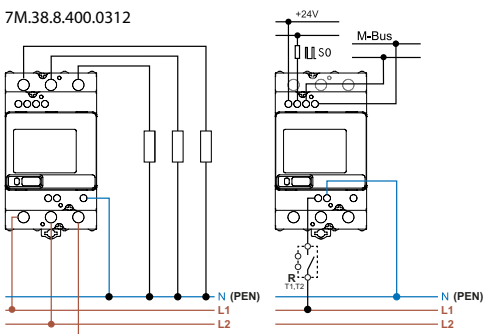
7M.38.8.400.0112



7M.38.8.400.0212



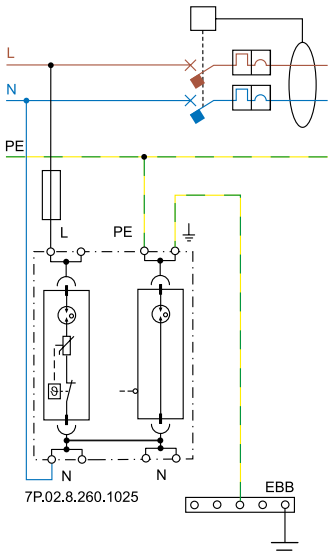
7M.38.8.400.0312



Type 7P.02.8.260.1025 - SPD Type 1+2
For single phase TT and TN-S system
Varistor + GDT protection L-N + GDT protection N-PE

- Visual fault and remote contact fault signalling varistor/GDT status, N-PE GDT presence
- Upside down mounting possible
- Replaceable modules
- Possibility of serial connection (V-shape)
- 35 mm rail (EN 60715) mount

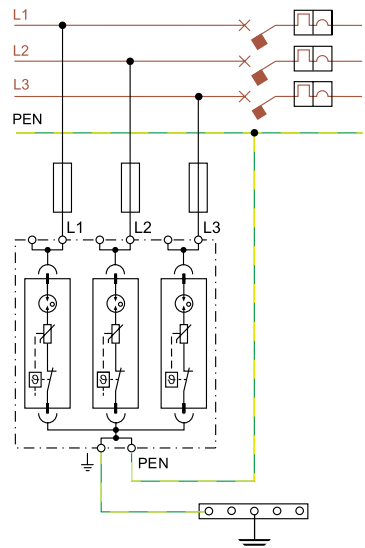
TT-single phase system - SPD up-stream of RCD



Installation examples

Type 7P.03.8.260.1025 - SPD Type 1+2
For three phase TN-C system without Neutral (PEN conductor)
Varistor + GDT protection L1, L2, L3-PEN
- Visual fault and remote contact fault signalling varistor/GDT status
- Upside down mounting possible
- Replaceable modules
- Possibility of serial connection (V-shape)
- 35 mm rail (EN 60715) mount

TN-C three phase system - SPD up-stream of RCD

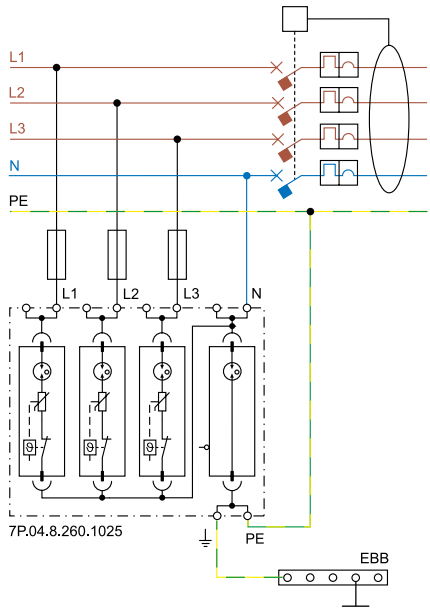


Installation examples

Type 7P.04.8.260.1025 - SPD Type 1+2
For three phase TT and TN-S system with Neutral
Varistor + GDT protection L1, L2, L3-N +
spark gap protection N-PE

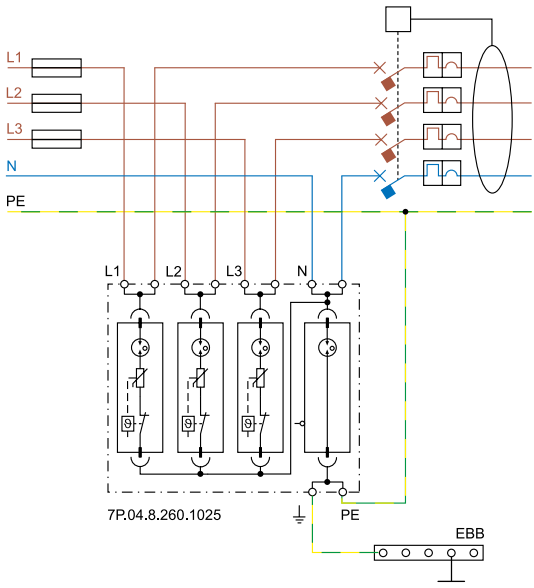
- Visual fault and remote contact fault signalling varistor/GDT status, N-PE GDT presence
- Upside down mounting possible
- Replaceable modules
- Possibility of serial connection (V-shape) example on next page
- 35 mm rail (EN 60715) mount

TT three phase system - SPD up-stream of RCD



Installation examples

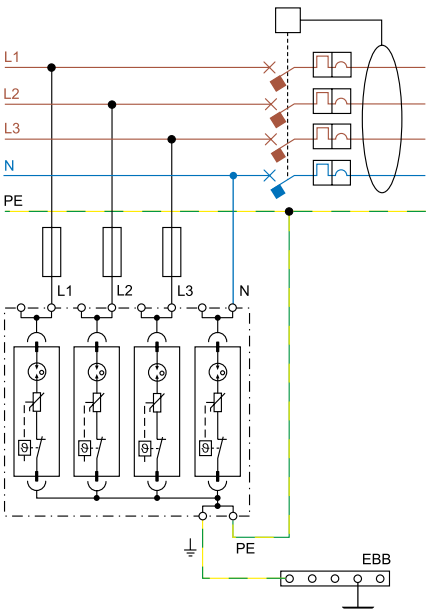
TT three phase system - SPD up-stream of RCD
Wiring diagrams "V-shape" (fuse max = 125 A)



Type 7P.05.8.260.1025 - SPD Type 1+2
For three phase TN-S system with Neutral.
Varistor + GDT protection L1, L2, L3-N +
varistor + GDT protection N-PE

- Visual fault and remote contact fault signalling varistor/GDT status
- Upside down mounting possible
- Replaceable modules
- Possibility of serial connection (V-shape)
- 35 mm rail (EN 60715) mount

TT or TN-S three phase system - SPD up-stream of RCD

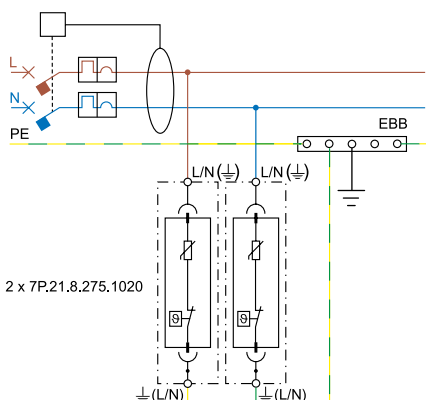


Installation examples

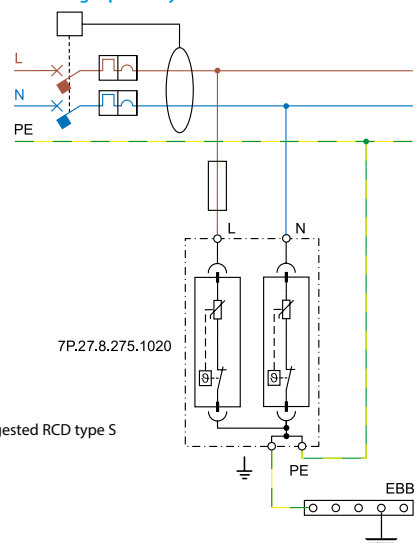
Type 7P.21.8.xxx.x0xx
SPD Type 2, unipolar
Varistor protection +/– or L/N (GND);
–/+ or GND (L/N)

Type 7P.27.8.275.1020 - SPD Type 2
For single phase TN system with Neutral (TN-S)
Varistor protection L, N-PE

TT - TN-S single phase system
SPD down-stream of RDC



TN-S single phase system - SPD down-stream of RDC



Note: suggested RCD type S

- Surge arrester suitable for AC and DC systems to protect equipment against induced overvoltage or switching transients
- Replaceable modules
- Visual and optional remote connector for signalling of the varistor status
- 35 mm rail (EN 60715) mount

Installation examples

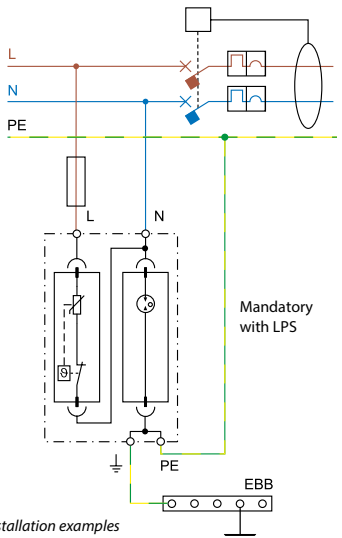
Type 7P.02.8.275.1012
SPD Type 1+2
Varistor + GDT protection L-N + GDT protection N-PE

Type 7P.12.8.275.1012 - SPD Type 1+2
with high performance "Low Up"
Varistor protection L-N + spark gap protection N-PE for single phase systems

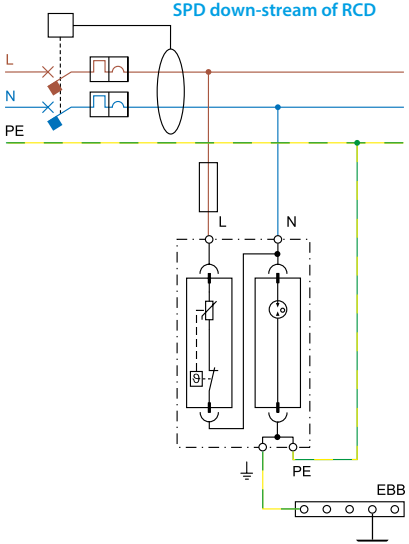
Type 7P.22.8.275.x020
SPD Type 2
Varistor protection L-N + spark gap protection N-PE

- For single phase TT and TN-S system with Neutral
- Replaceable modules
- Visual and optional remote connector for signalling of the varistor status
- 35 mm rail (EN 60715) mount

TT single phase system - SPD up-stream of RCD



TT or TN-S single phase system - SPD down-stream of RCD



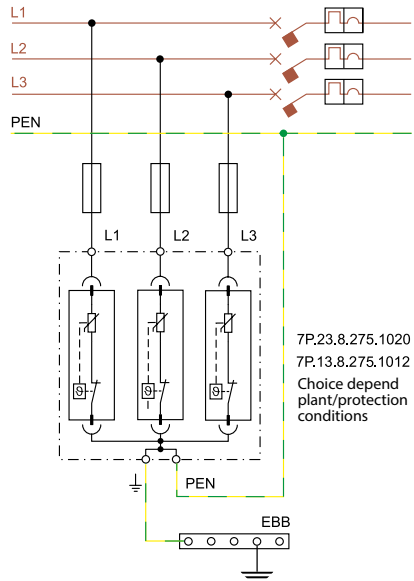
Installation examples

Type 7P.13.8.275.1012 - SPD Type 1+2

Type 7P.23.8.275.x020 - SPD Type 2
Varistor protection L1, L2, L3-PEN

- For three phase TN-C system without Neutral (PEN conductor)
- Replaceable modules
- Visual and optional remote connector for signalling of the varistor status
- 35 mm rail (EN 60715) mount

TN-C three phase system - SPD up-stream of overcurrent protection



Installation examples

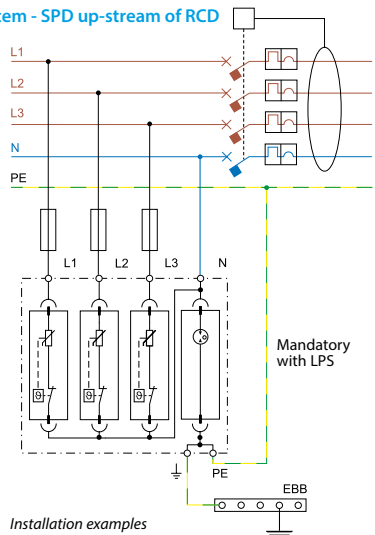
Type 7P.04.8.275.1012
SPD Type 1+2
Varistor + GDT protection L1, L2, L3-N + spark gap protection N-PE

Type 7P.14.8.275.1012 - SPD Type 1+2 with high performance "Low Up"
Varistor protection L1, L2, L3-N + spark gap protection N-PE
Non replaceable high discharge current spark gap

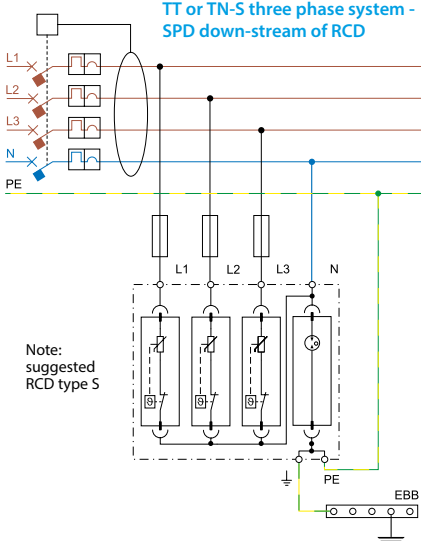
Type 7P.24.8.275.x020 - SPD Type 2
Varistor protection L1, L2, L3 + spark gap protection N-PE
Replaceable modules

- For three phase TT (TN-S) system with Neutral
- Visual and remote signalling of varistor status
- 35 mm rail (EN 60715) mount

TT three phase system - SPD up-stream of RCD



TT or TN-S three phase system - SPD down-stream of RCD



Installation examples

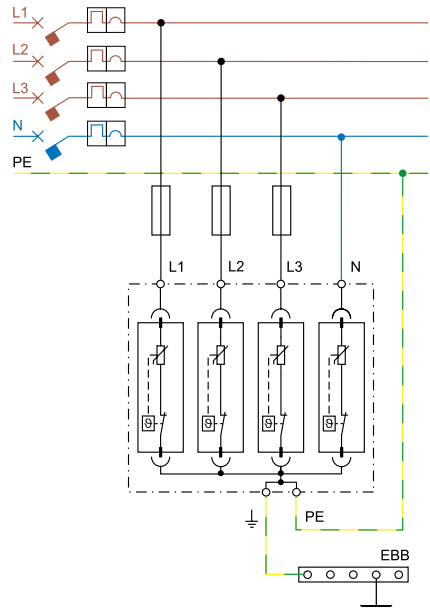
Type 7P.05.8.275.1012 - SPD Type 1+2
Varistor + GDT protection L1, L2, L3-PE and N-PE

Type 7P.15.8.275.1012 - SPD Type 1+2
Varistor protection L1, L2, L3,N-PE

Type 7P.25.8.275.x020 - SPD Type 2
Varistor protection L1, L2, L3, N-PE

- For three phase system with and without Neutral
- Visual and remote signalling of varistor status
- Replaceable varistor modules
- 35 mm rail (EN 60715) mount

TN-S three phase system -
SPD down-stream of overcurrent protection



Installation examples

Type 7P.23.9.750.x020
for 750 V DC photovoltaic systems

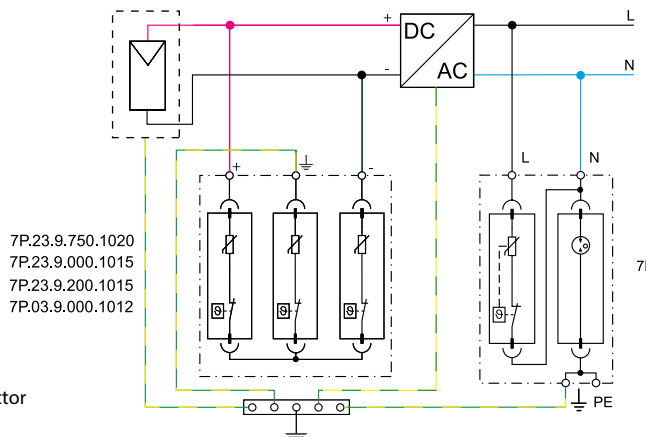
Type 7P.23.9.000.x015
for 1020 V DC photovoltaic systems

Type 7P.23.9.200.1015
for 1200 V DC photovoltaic systems

SPD Type 2
- Replaceable varistor modules
- Visual and optional remote connector for signalling of the varistor status
- 35 mm rail (EN 60715) mount

Type 7P.03.9.000.1012
SPD Type 1+2
for 1000 V DC photovoltaic systems
- For systems with LPS
- Replaceable varistor modules
- Visual and optional remote connector for signalling of the varistor status
- 35 mm rail (EN 60715) mount

Installation examples - photovoltaic



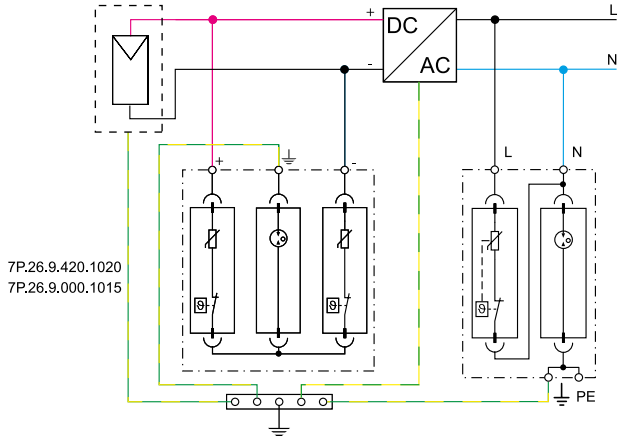
Choise of SPD dependent on plant/protection conditions

Type 7P.26.9.420.1020
for 420 V DC photovoltaic systems

Type 7P.26.9.000.x015
for 1020 V DC photovoltaic systems

SPD Type 2
- Replaceable modules
- Visual and remote signalling of varistor status
- 35 mm rail (EN 60715) mount

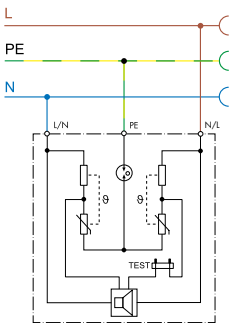
Installation examples - photovoltaic



Choise of SPD dependent on plant/protection conditions

Type 7P.36.8.275.2003
SPD Type 3 for TT and TN-S system (with Neutral)
- Provides easy additional surge protection for 230 V sockets
- "Y" configuration: varistor + spark gap with very low Up level
- Audible indication of need to replace varistor and jumper test point for SPD status
- 3-wires, 150 mm long, for connection to socket terminals
- For incorporation within socket outlets

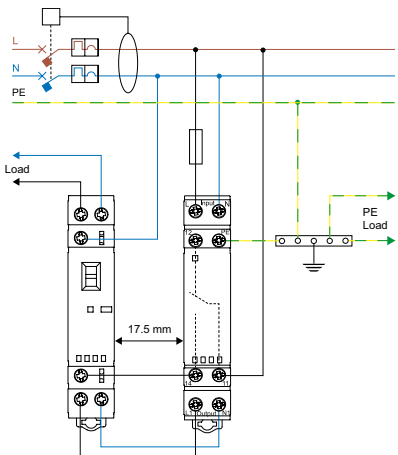
TT or TN-S single phase system - incorporated in socket outlet



Type 7P.37.8.275.1003 – SPD Type 3 for TT and TN-S system (with Neutral)

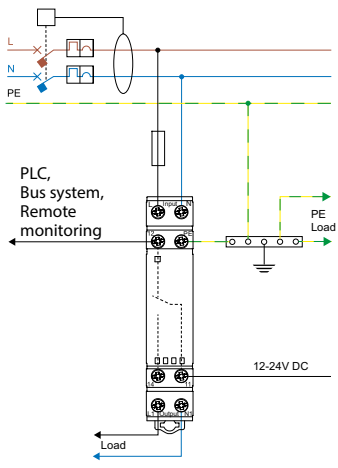
- L-N/N-PE protection
- Permits serial connection for optimized load protection up to 16 A
- Remote signaling of varistor status by integral change-over relay contact
- 35 mm rail (EN 60715) mount

TT or TN-S single phase system - SPD down-stream of RCD Serial connection



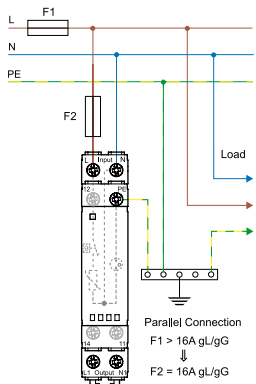
22.32.0.230.X440 7P.37.8.275.1003

TT or TN-S single phase system - SPD down-stream of RCD Serial connection + BUS line



7P.37.8.275.1003

TT, TN-S single phase system parallel connection



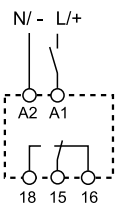
Type 80.01
1 CO, 16 A 250 V AC

Type 80.11
1 CO, 16 A 250 V AC

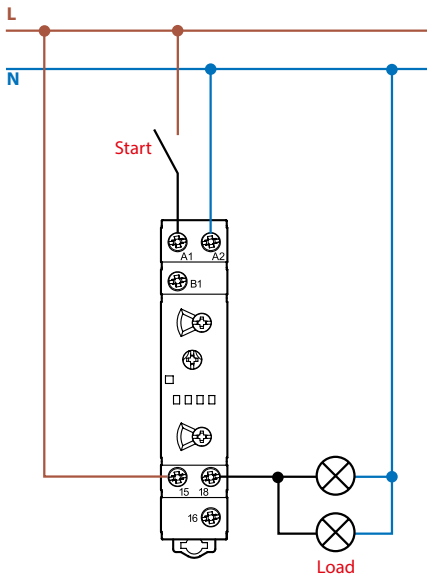
Type 80.21
1 CO, 16 A 250 V AC

Type 80.61
1 CO, 8 A 250 V AC

-- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount



Examples where: Timing function initiated by the application of supply voltage



Functions

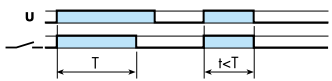
U = Supply voltage

= Output contact

Type 80.01, 80.11

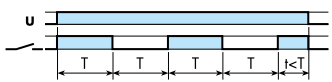
(AI) On-delay
Apply power to timer. Output contacts transfer after preset time has elapsed. Reset occurs when power is removed.

Type 80.01, 80.21



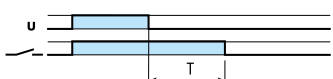
(DI) Interval
Apply power to timer. Output contacts transfer immediately. After the preset time has elapsed, contacts reset.

Type 80.01



(SW) Symmetrical flasher (starting pulse on)
Apply power to timer. Output contacts transfer immediately and cycle between ON and OFF for as long as power is applied. The ratio is 1:1 (time on = time off).

Type 80.61

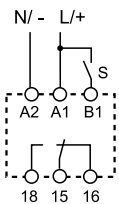


(BI) Power off-delay (True off-delay)
Apply power to timer (minimum 300ms). Output contacts transfer immediately. Removal of power initiates the preset delay, after which time the output contacts reset.

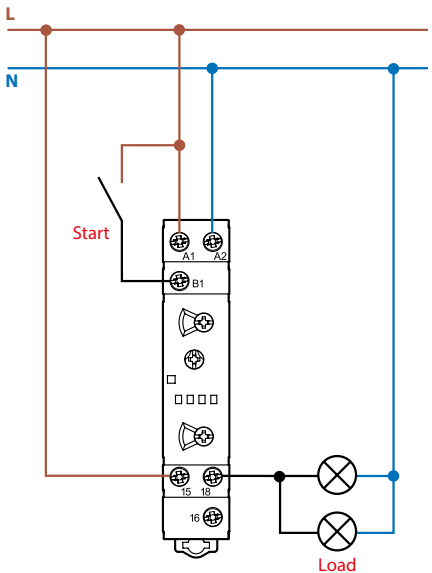
Type 80.01
1 CO, 16 A 250 V AC

Type 80.41
1 CO, 16 A 250 V AC

- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount



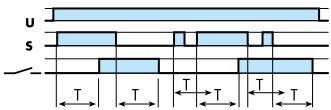
Timing function initiated by start signal to terminal B1



Functions

U = Supply voltage	S = External Start	= Output contact

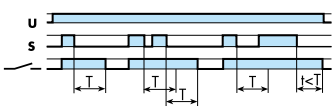
Type 80.01



(CE) On- and off-delay with control signal
Power is permenently applied to the timer. Closing the Signal Switch (S) initiates the preset delay, after which time the output contacts transfer. Opening the Signal switch initiates the same preset delay, after which time the output contacts reset.

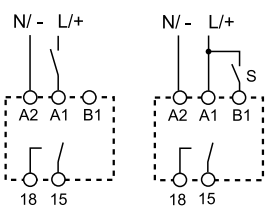
(DE) Interval with control signal on
Power is permenently applied to the timer.
On momentary or maintained closure of Signal Switch (S), the output contacts transfer, and remain so for the duration of the preset delay, after which they reset.

Types 80.01, 80.41

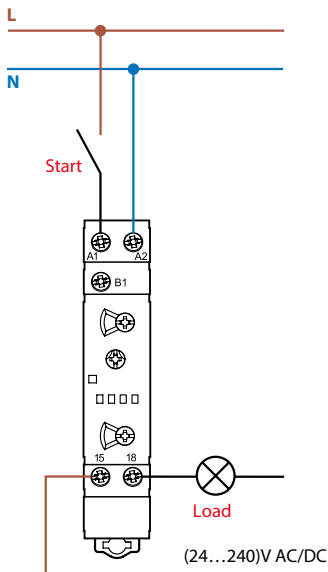


(BE) Off-delay with control signal
Power is permenently applied to the timer. The output contacts transfer immediately on closure of the Signal Switch (S). Opening the Signal Switch initiates the preset delay, after which time the output contacts reset.

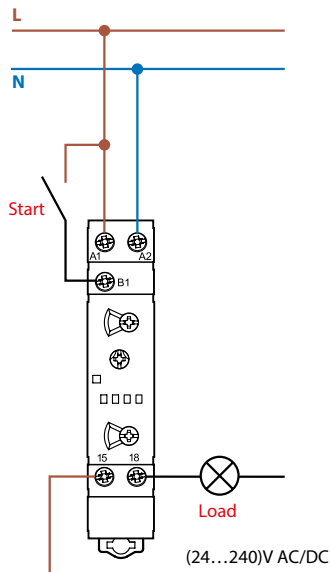
Type 80.71
Multi-function & Multi-voltage
Solid State output timer
- 1 NO, 1 A (24…240)V AC/DC
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount



Timing function initiated by the application of the supply voltage



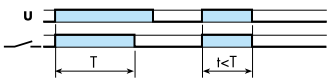
Timing function initiated by start signal to terminal B1



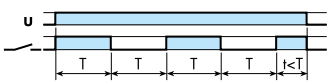
Functions

U = Supply voltage | S = External Start | = Output contact

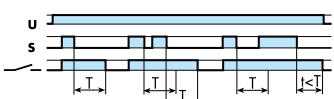
(AI) On-delay
Apply power to timer. Output contacts transfer after preset time has elapsed. Reset occurs when power is removed.



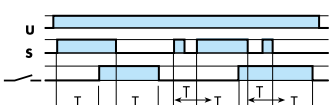
(DI) Interval
Apply power to timer. Output contacts transfer immediately. After the preset time has elapsed, contacts reset.



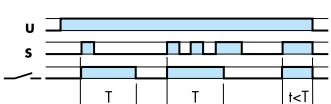
(SW) Symmetrical flasher (starting pulse on)
Apply power to timer. Output contacts transfer immediately and cycle between ON and OFF for as long as power is applied. The ratio is 1:1 (time on = time off).



(BE) Off-delay with control signal
Power is permenently applied to the timer.
The output contacts transfer immediately on closure of the Signal Switch (S).
Opening the Signal Switch initiates the preset delay, after which time the output contacts reset.

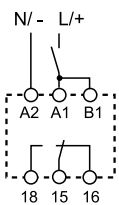


(CE) On- and off-delay with control signal
Power is permenently applied to the timer. Closing the Signal Switch (S) initiates the preset delay, after which time the output contacts transfer. Opening the Signal switch initiates the same preset delay, after which time the output contacts reset.

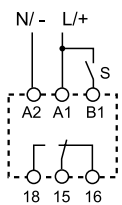


(DE) Interval with control signal on
Power is permenently applied to the timer. On momentary or maintained closure of Signal Switch (S), the output contacts transfer, and remain so for the duration of the preset delay, after which they reset.

Type 80.91
- 1 CO, 16 A 250 V AC
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount

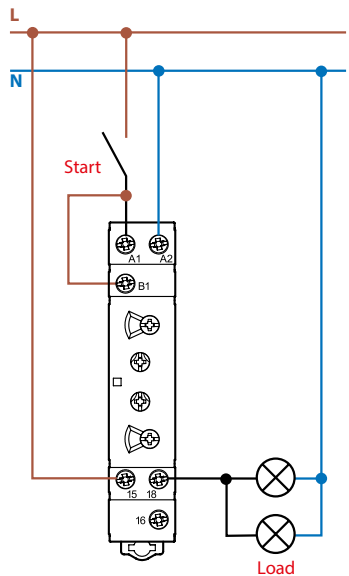


without signal START

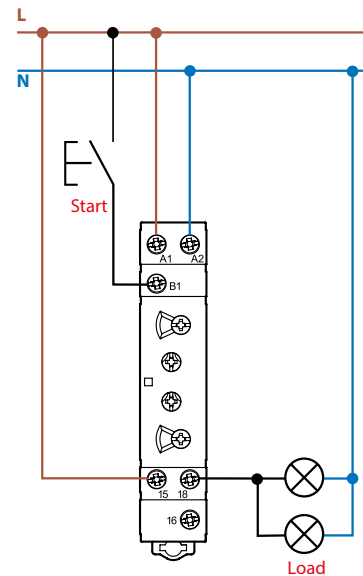


with signal START

Collegamento con Start coincidente con l'alimentazione

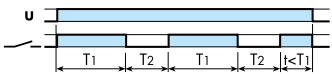


Collegamento con Start esterno

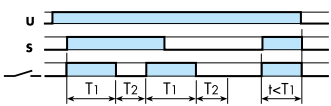


Functions

U = Supply voltage | S = External Start | = Output contact

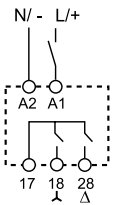


(LI) Asymmetrical flasher (starting pulse on)
Apply power to timer. Output contacts transfer immediately and cycle between ON and OFF for as long as power is applied. The ON (T 1) and OFF (T 2) times are independently adjustable.



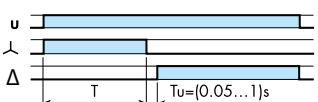
(LE) Asymmetrical flasher (starting pulse on) with control signal
Power is permanently applied to the timer.
Closing Signal Switch (S) causes the output contacts to transfer immediately and cycle between ON (T1) and OFF (T 2), until opened.

Type 80.82
Star-Delta timer
- 2 NO, 6 A 250 V AC
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount



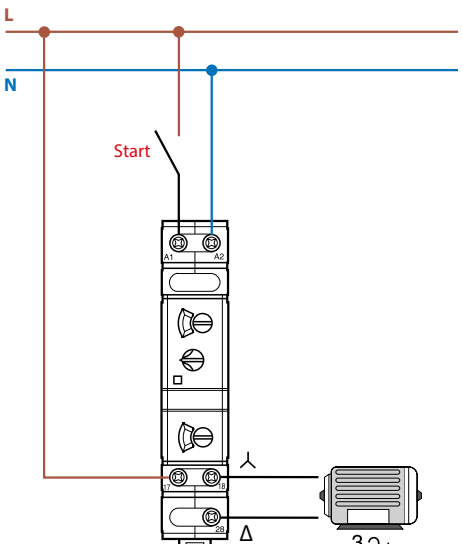
Functions

U = Supply voltage = Output contact



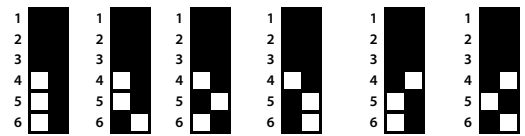
(SD) Star-delta
Apply power to timer. The star contact (人) closes immediately. After preset delay has elapsed the star contact (人) resets. After a further transfer time variable from (0.05…1)s the delta contact (Δ) closes and remains in that position, until reset on power off.

Timing function initiated by the application of supply voltage

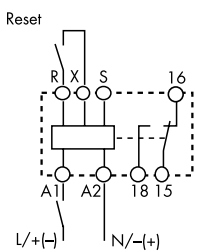


Type 81.01
Multi-function and multi-voltage timer
- 1 CO, 16 A 250 V AC
- Supply voltage: AC or DC
- 35 mm rail (EN 60715) mount

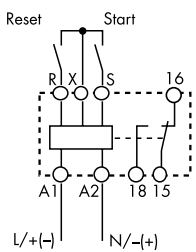
Time range setting



NOTE: time range and function must be set before energising the timer.

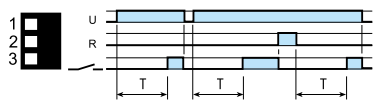


Wiring diagram
(Supply START)

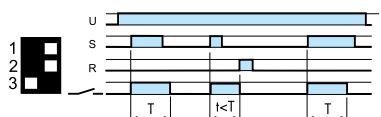


Wiring diagram
(Signal START)

RESET function (R)

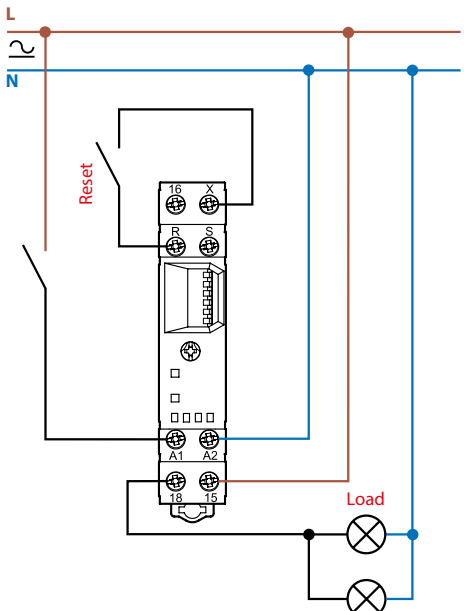


Supply START; ON delay function
Closing the external reset switch immediately resets the timer. Opening the reset switch re-initiates the timing function.

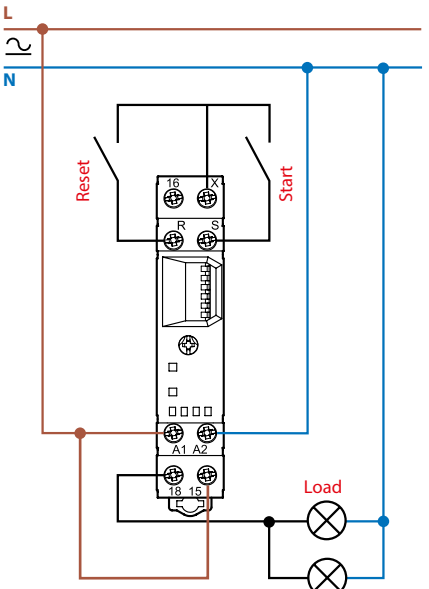


Signal START; ON pulse function.
Closing the external reset switch terminates the interval time and resets the timer. To re-start, it is necessary to open the reset switch, before closing the signal START contact.

Application of the supply voltage initiates timing

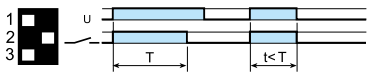


Remote Start contact initiates timing

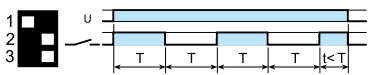


Function | U = Supply voltage | = Output contact

(AI) On-delay
Apply power to timer. Output contacts transfer after preset time has elapsed. Reset occurs when power is removed.



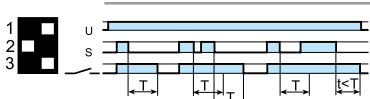
(DI) Interval
Apply power to timer. Output contacts transfer immediately. After the preset time has elapsed, contacts reset.



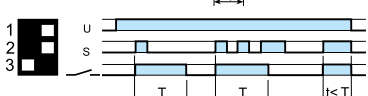
(SW) Symmetrical flasher (starting pulse on)
Apply power to timer. Output contacts transfer immediately and cycle between ON and OFF for as long as power is applied. The ratio is 1:1 (time on = time off).

(SP) Symmetrical flasher (starting pulse off)
Apply power to timer. First transfer of contact occurs after preset time has elapsed. The timer now cycles between OFF and ON as long as power is applied. The ratio is 1:1 (time on = time off).

Function | U = Supply voltage | S = External Start | = Output contact



(BE) Off-delay with control signal
Power is permenently applied to the timer. The output contacts transfer immediately on closure of the Signal Switch (S). Opening the Signal Switch initiates the preset delay, after which time the output contacts reset.



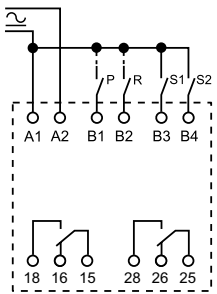
(DE) Interval with control signal on
Power is permenently applied to the timer. On momentary or maintained closure of Signal Switch (S), the output contacts transfer, and remain so for the duration of the preset delay, after which they reset.

(EE) Interval with control signal off
Power is permenently applied to the timer. On opening of the Signal Switch (S) the output contacts transfer, and remain so for the duration of the preset delay, after which they reset.

Digital Timer "Two in one": two totally independent programmable channels, in a single product
2 CO 16 A

Type 84.02.0.230.0000
- Nominal voltage: 110…240 V AC/DC non-polarized)

Type 84.02.0.024.0000
- Nominal voltage: 12…24 V AC/DC non-polarized)



Programmable from a smartphone using NFC (Near Field Communication) connectivity

Leave it to your smartphone and programming your SMARTimer is done!

Function

U = Supply voltage

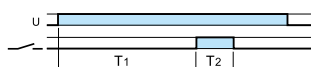
= Output contact

(OFF) Relay OFF
The output contact stays permanently open.

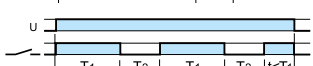
(ON) Relay ON
The output contact stays permanently closed.

(AI) On-delay
Apply power to timer. Output contact transfers after preset time has elapsed.
Reset occurs when power is removed.

(DI) Interval
Apply power to timer. Output contact transfers immediately.
After the preset time has elapsed, contact resets

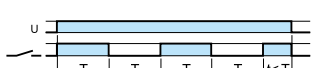


(GI) Pulse delayed
Apply power to timer. Output contact transfers after time T1 has elapsed.
Reset occurs after T2 time.



(LI) Asymmetrical flasher (starting pulse on)
Apply power to timer. Output contact transfers immediately and cycle between ON and OFF for as long as power is applied. The ON and OFF times are independently adjustable.

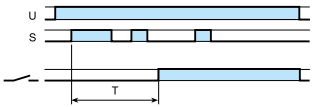
(PI) Asymmetrical flasher (starting pulse off)
Apply power to timer. Output contact transfers after time T1 has elapsed and cycle between OFF and ON for as long as power is applied. The ON and OFF times are independently adjustable.



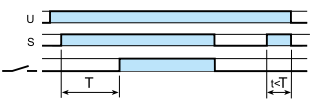
(SW) Symmetrical flasher (starting pulse on)
Apply power to timer. Output contact transfers immediately and cycle between ON and OFF for as long as power is applied. The ratio is 1:1 (time on = time off).

(SP) Symmetrical flasher (starting pulse off)
Apply power to timer. First transfer of contact occurs after preset time has elapsed. The timer now cycles between OFF and ON as long as power is applied. The ratio is 1:1 (time on = time off).

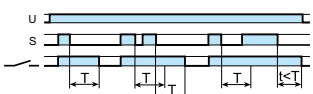
Function | U = Supply voltage | S = External Start | = Output contact



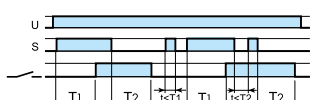
(AE) On-delay with control signal
Power is permanently applied to the timer.
Closing the Signal Switch (S) initiates the preset delay, after which the output contact transfers and remains so until the power is removed.



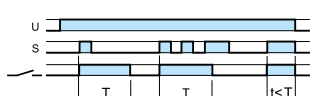
(AC) On-delay with maintained control signal
Power is permanently applied to the timer. Closing the Signal Switch (S) initiates the preset delay, after which the output contact transfers and remains so, until the Signal Switch (S) is opened.
If the Signal Switch (S) opens during the timing, the function will reset.



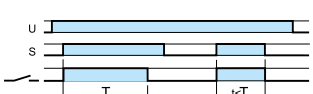
(BE) Off-delay with control signal
Power is permanently applied to the timer.
The output contact transfers immediately on closure of the Signal Switch (S).
Opening the Signal Switch initiates the preset delay, after which the output contact resets.



(CEb) On and off independent delays with control signal
Power is permanently applied to the timer. Closing the Signal Switch (S) initiates the preset delay T1, after which the output contact transfers. Opening the Signal switch initiates the preset delay T2, after which the output contact resets.

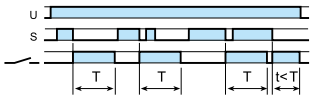


(DE) Interval with control signal on
Power is permanently applied to the timer. On momentary or maintained closure of Signal Switch (S), the output contact transfers, and remain so for the duration of the preset delay, after which it resetstransfers, and remain so for the duration of the preset delay, after which it resets.

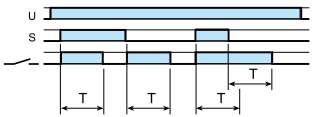


(DC) Interval with maintained control signal
Power is permanently applied to the timer. On closure of Signal Switch (S), the output contact transfers and remain so for the duration of the preset delay, unless the Signal Switch opens before the preset time has elapsed in which case the output contact resets immediately.

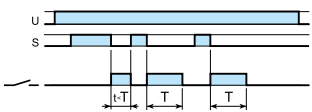
Function | U = Supply voltage | S = External Start | = Output contact



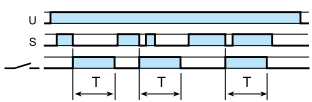
(EE) Interval with control signal off
Power is permanently applied to the timer. On opening of the Signal Switch (S) the output contact transfers, and remain so for the duration of the preset delay, after which it resets.



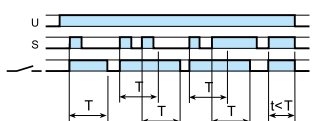
(FE) Interval with control signal on and off
Power is permanently applied to the timer. Both the opening and the closing of the Signal Switch (S) initiates the transfer of the output contact (or extends the time).
In both instances the contact resets after the preset delay has elapsed.



(EEa) Interval with control signal off (retriggerable)
Power is permanently applied to the timer. On opening of the Signal Switch (S) the output contact transfers, and remain so for the duration of the preset delay, after which it resets.

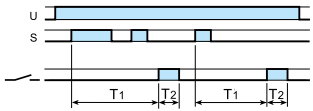


(EEb) Interval with control signal off
Power is permanently applied to the timer. On opening of the Signal Switch (S) the output contact transfers, and remain so for the duration of the preset delay, after which it resets.

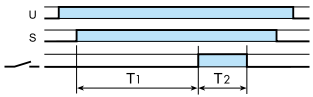


(WD) Watchdog (retriggerable interval with control signal on)
Power is permanently applied to the timer. On momentary or maintained closure of Signal Switch (S), the output contac transfers, and remain so for the duration of the preset delay, after which it resets; subsequent closures of Signal Switch during the delay will extend the time. If the closure of the Signal Switch (S) is longer than the preset time (T) then the output contact resets.

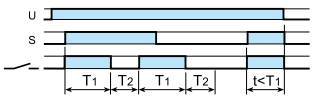
Function | U = Supply voltage | S = External Start | = Output contact



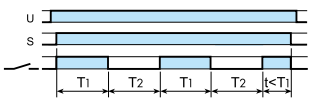
(GE) Pulse delayed with control signal on
Power is permanently applied to the timer. Closing the Signal Switch (S) initiates T1 delay, after which the output contact transfers. Reset occurs after T2 time.



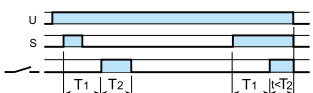
(GC) Pulse delayed with maintained control signal
Power is permanently applied to the timer. On closure of Signal Switch (S), the output contact will transfer after time T1 has elapsed. Reset occurs after T2 time. If the Signal Switch (S) opens during T1 /T2, the timing function/output contact will reset.



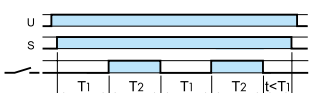
(LE) Asymmetrical flasher (starting pulse on) with control signal
Power is permanently applied to the timer. Closing Signal Switch (S) causes the output contact to transfer immediately and cycle between ON and OFF, until opened.



(LC) Asymmetrical flasher (starting pulse on) with maintained control signal
Power is permanently applied to the timer. On closure of Signal Switch (S), the output contact transfers immediately and cycles between ON and OFF for as long as the control signal is applied. The ON and OFF times are independently adjustable.
After the Signal Switch (S) is opened, the output contact resets.

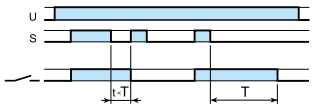


(PE)Asymmetrical flasher (starting pulse off) with control signal
Power is permanently applied to the timer. Closing the Signal Switch (S) initiates delay T1 after which the output contact transfers and continues to cycle between OFF and ON, until the Signal Switch is opened.

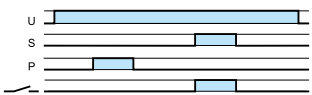


(PC) Asymmetrical flasher (starting pulse off) with maintained control signal.
Power is permanently applied to the timer. On closure of Signal Switch (S), the output contact transfers after time T1 has elapsed and cycles between OFF and ON for as long as the control signal is applied. The OFF and ON times are independently adjustable. After the Signal Switch (S) is opened, the output contact resets.

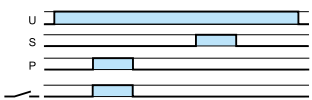
Function | U = Supply voltage | S = External Start | = Output contact



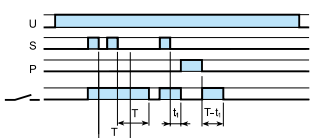
(IT) Timing step
Closing the Signal Switch (S) the output contact transfers and remains so after S opening, for the duration of the preset delay, after which it resets. During the timing period it is possible to immediate open the contact with a further impulse on S.



(SS) Monostable controlled by Signal switch
The output contact follows the status of Signal Switch (S).



(PS) Monostable controlled by Pause switch
The output contact follows the status of Pause Switch (P).



(SHp) "Shower" (off-delay with control signal and pause signal)
Power is permanently applied to the timer. The output contact transfers immediately on closure of the Signal Switch (S).
Opening the signal switch initiates the preset delay, after which the output contact resets.
Closure of the Pause Switch (P) will immediately halt the timing process, but the elapsed time will be retained. During the pause, the output contact will be open.
On opening of the Pause Switch, timing resumes from the retained value and the output contact will take the previous condition.

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