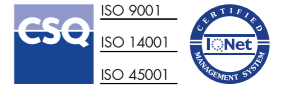


## SELECTION GUIDE

# Dimmers



# ABOUT US



Finder was founded in Italy in 1954. Since then 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





## WHY CHOOSE FINDER DIMMERS?

For over 65 years Finder has been working alongside installers realising electrical systems with devices, designed and made in Italy that are original, reliable and safe. Finder's 15 Series comprises a range of dimmers (dimmer switches) that allow you to control the light level of lamps and LED strips of different technology, to create just the right ambience.

### System safety

Finder dimmers are designed to safeguard themselves and the installation, thanks to their integral short circuit and overload protection.

### A complete range

Comprising a wide range of devices for surface, recess, wall or junction box mounting; devices compatible with the main Italian residential wiring systems and versions for direct integration into Smart Home and KNX systems.



## CREATE THE RIGHT AMBIENCE FOR EVERY ROOM

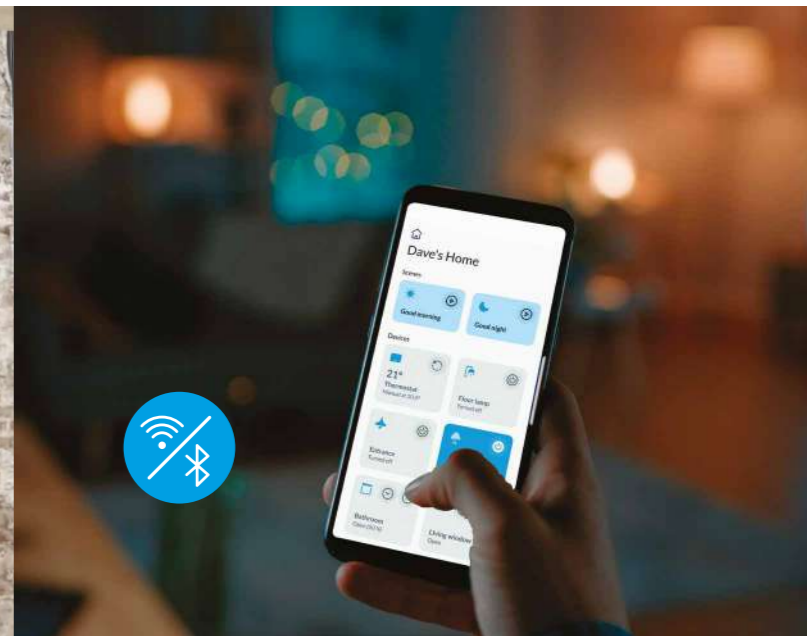
Your home should be able to continually evolve and change with you, even on a daily basis, which is why it needs to deliver the right lighting ambience throughout - making every room welcoming, functional and sophisticated at all times.

### Every situation in the right light

Bright lights while cooking, medium lighting during dinner, soft lighting and candlelight effects for relaxing.

### Same room, different atmosphere

Choose the level of light intensity to transform your favorite environment from a bright and stimulating place to study or work into a relaxing environment where you can listen to music or watch a movie.



Finder YOU





## RECESS MOUNTING



Type 15.51



Type 15.91



Type 15.21.8.230.0200

## SMART PRODUCTS FOR THE YESLY SYSTEM



Dimmer 230 V AC  
Bluetooth  
Type 15.21.8



Dimmer PWM  
Bluetooth  
Type 15.21.9



Dimmer 230 V AC  
Bluetooth  
Type 15.71

## 35 MM RAIL MOUNTING



Dimmer Master&Slave  
Types 15.10 & 15.11



Type 15.81

## PRODUCT FOR KNX SYSTEMS



KNX Dimmer  
Type 15.2K



Finder YOU



# DIMMABLE LIGHTING LOADS BY TYPE

## NOTES

- \* Automatically adopts appropriate dimming method
- \* Drives a single transformer only
- \*\* Drives a single transformer only - Trailing Edge method (TE)
- \*\*\* Drives a single transformer only - Leading Edge method (LE)
- \*\*\*\* Drives up to 32 slaves (15.11) or similar 0-10V / 1-10V devices



## SELECT DIMMER ACCORDING TO LOAD TYPE



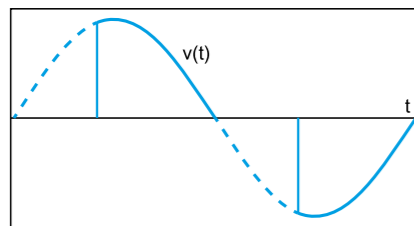
	15.51	15.91	15.21.8.230.0200	15.81	15.71	15.21.8.230.B300	15.21.9.024.B200	15.10	15.11	15.2K
DIMMABLE LED 230 V AC <b>LED</b>	50 W	50 W	200 W	100 W	100 W	150 W	—	—	100 W	100 W
ELECTRONIC TRANSFORMER (Low voltage LED) <b>LED</b>	50 W **	50 W ***	200 W	100 W	200 W	300 W	—	—	100 W	100 W
STRIP LED 230 V AC	—	—	180 W	450 W	180 W	270 W	—	—	360 W	100 W
STRIP LEDs 12...24 V DC	—	—	—	—	—	—	8 A 192 W - 24 V 96 W - 12 V	—	—	—
INCANDESCENT OR HALOGEN	400 W	100 W	200 W	500 W	200 W	300 W	—	—	400 W	400 W
TOROIDAL TRANSFORMER (Low voltage Halogen)	300 W *	—	—	500 W	200 W	300 W	—	—	400 W	400 W
ELECTROMAGNETIC TRANSFORMER (Low voltage Halogen)	—	—	—	500 W	200 W	300 W	—	—	400 W	400 W
ELECTRONIC TRANSFORMER "Ballast" (Low voltage Halogen)	400 W *	—	200 W	500 W	200 W	300 W	—	—	400 W	400 W
DIMMABLE COMPACT FLOURESCENT (CFL)	—	—	—	100 W	100 W	150 W	—	—	100 W	100 W
LIGHT INSTALLATION WITH 0-10 V / 1-10 V POWER SUPPLY	—	—	—	—	—	—	—	**** 0-10 V, +35 mA 1-10 V, -35 mA	—	—
MINIMUM POWER LEVEL	10 W	3 W	3 W	3 W	3 W	3 W	—	—	3 W	2 W



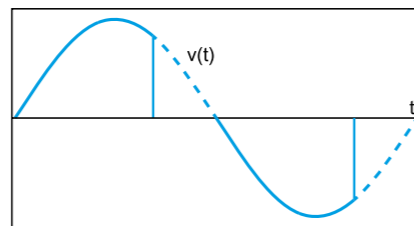
## 230 V Dimmers with phase-cut output for 230 V AC loads

Light dimming is achieved by "phase-cutting" whereby cutting-off part of the voltage waveform reduces the RMS voltage fed to the lamp. When the cut-off part is the initial part of each half cycle it is called Leading Edge dimming, while a dimmer that cuts off the final part is Trailing Edge dimming. The two methods are each suitable for dimming different types of load: Trailing Edge is, in general, more suitable for electronic transformers for low-voltage lamps (halogen or LED); Leading Edge is more suitable for electromagnetic transformers for LV lamps, and for CFLs. Both methods can be used with 230 V halogen lamps and incandescent lamps.

Leading Edge dimming



Trailing Edge dimming



Type 15.11  
Slave Dimmer



Type 15.91



Type 15.51



Type 15.81



Type 15.21.8.230.B300



Type 15.21.8.230.0200



Type 15.71

## 0-10 V

Use to expand the maximum number of 0-10 V channels of an existing system or for interfacing with another 0-10 V system



Master Dimmer  
Type 15.10



Slave Dimmer  
Type 15.11

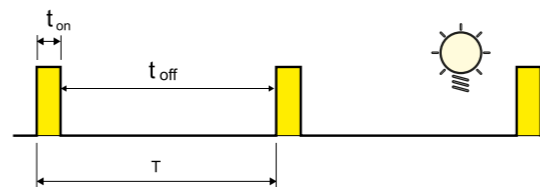


## PWM

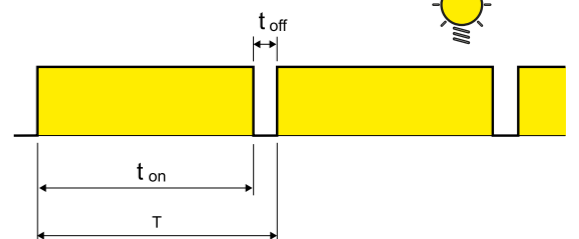
Dimmer for controlling 12...24 V DC LED strips

PWM: "Pulse Width Modulation" is an electrical power regulation technique that consists of modulating the width i.e. the on-time duration of a series of pulses such that, the longer the pulse, the greater the power applied to the load. This type of modulation applies exclusively to direct current, which is used particularly for the dimming of DC powered LED strips. In this case, the dimmer is positioned downstream of the DC power supply.

Duty cycle 10%



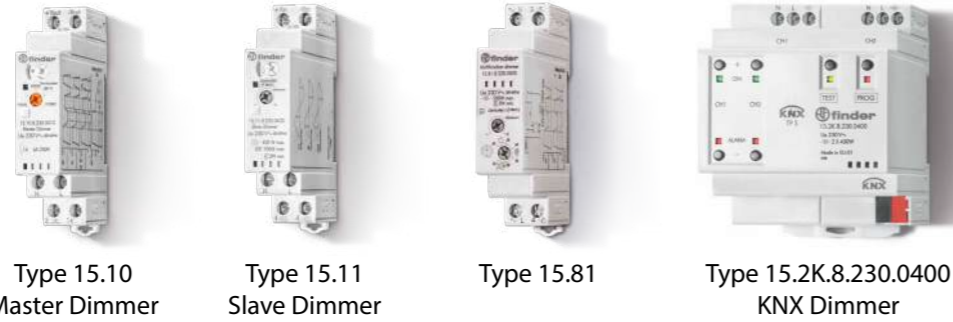
Duty cycle 90%



PWM Dimmer  
Type 15.21.9.024.B200

## Rail mounting

35 mm rail mounting  
(EN 60715)



Type 15.10  
Master Dimmer

Type 15.11  
Slave Dimmer

Type 15.81

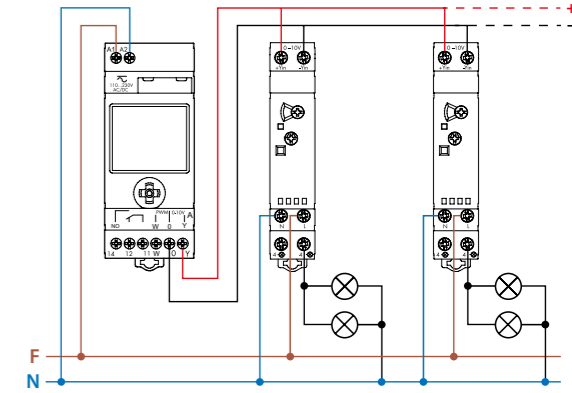
Type 15.2K.8.230.0400  
KNX Dimmer

Dimming lights  
on a time/time-  
of-day, and/or  
ASTRO basis



ASTRO Timeswitch  
Type 12.A4

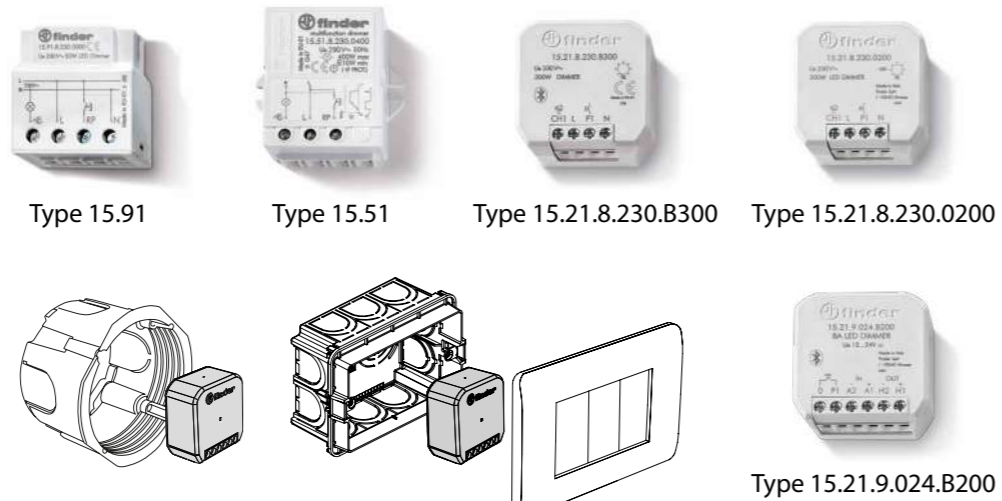
Slave Dimmer  
Type 15.11



Connection example - Type 12.A4 + Type 15.11

## Enclosed

Wall box  
or Junction box  
mounting



Type 15.91

Type 15.51

Type 15.21.8.230.B300

Type 15.21.8.230.0200

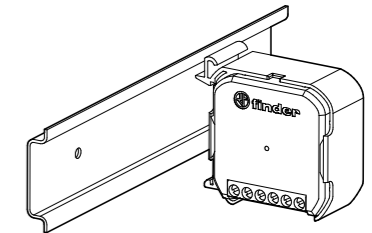
Type 15.21.9.024.B200

35 mm rail  
installation of  
"octagonal"  
shape devices



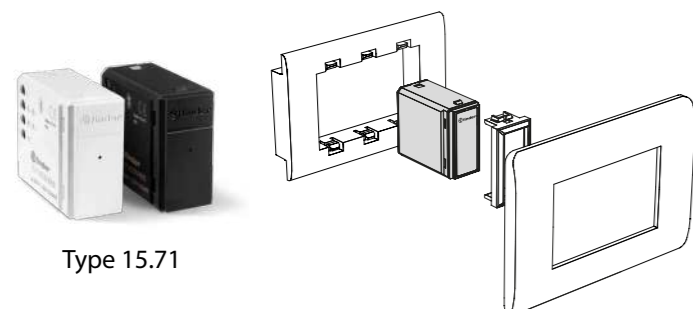
"Octagonal"  
device

35 mm rail mounting  
adapter  
Type 0.13.17



## Residential products

Compatible with the main  
Italian residential wiring systems



Type 15.71

## Panel

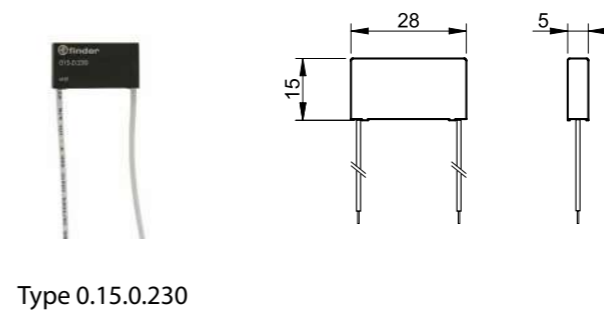
Screw mounting to panel



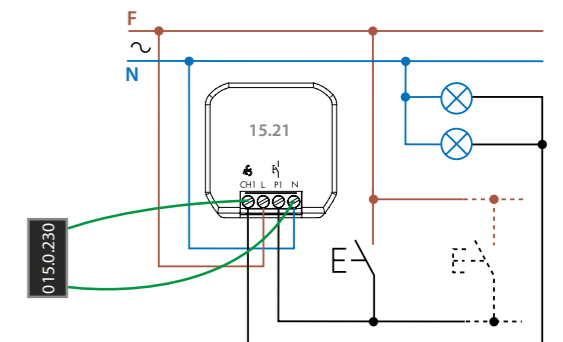
Type 15.51

## Accessory for 230 V AC loads

**Residual current suppression module.**  
Cancels residual current in LED lamps if, with the Dimmer off, the lamps do not turn off completely.  
Absorbs 0.8 W at 230 V AC.



Type 0.15.0.230



Connection example - Type 15.21 + 0.15.0.230



Bluetooth Technology

**YESLY** TIME FOR COMFORT LIVING

Download on the App Store

GET IT ON Google Play



Finder You

Thanks to the new **Finder YOU** app you can configure and use all of Finder's smart home devices

Turn on the lights, open the blinds and adjust the room temperature, all from the same app



Type 15.21.8.230.B300



Type 15.71



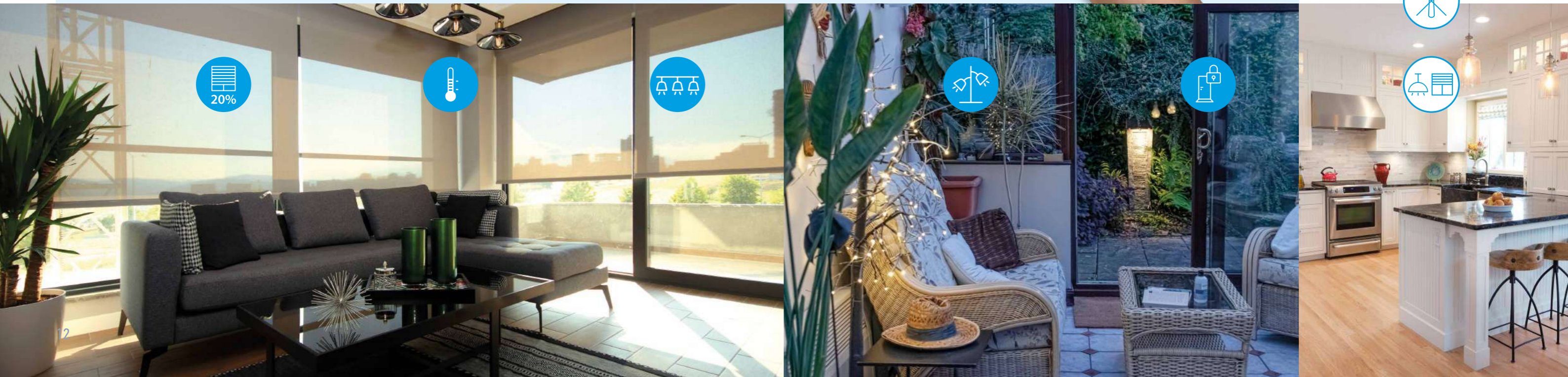
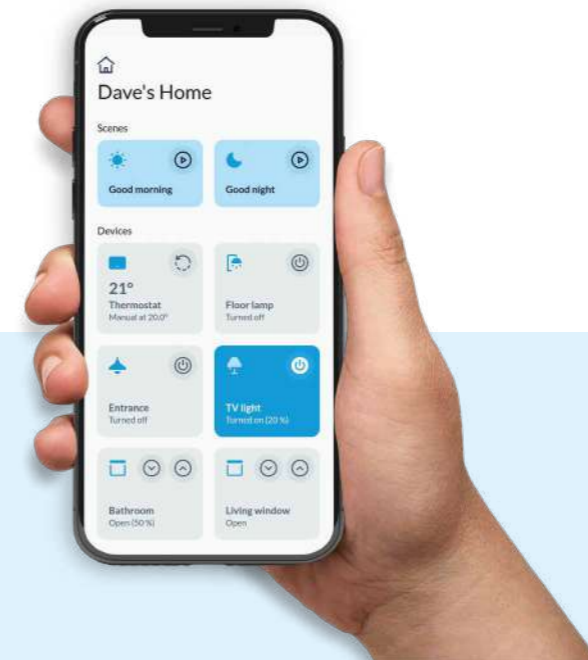
Type 15.21.9.024.B200

## YESLY is Finder's system for a modern and efficient smart home

Simple and flexible - Finder's **YESLY** system ranges from offering you the simple control of home functions such as lighting, electric blinds and shutters, room temperature and electric locks... through to the creation of customised scenarios, controllable from smartphones or through voice assistants, both locally or remotely.

**YESLY** is a scalable system that readily accepts the integration of new control points and new features as needed and without invasive intervention, even integrating into existing systems and buildings with a legacy of outdated technology.

**YESLY** is the Finder system for a modern and efficient smart home.

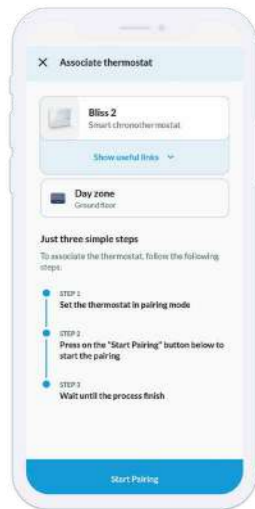




Bluetooth Technology

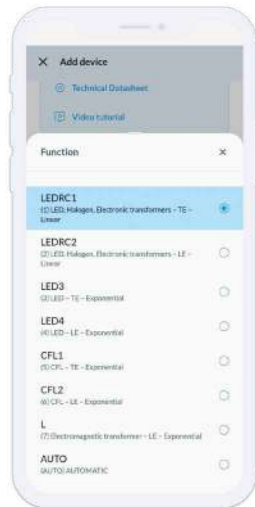
**YESLY** TIME FOR COMFORT LIVING

Example of 230 V AC phase-cut dimmer display screen (15.71 or 15.21.8.230.B300)



The following parameters can be set:

- Minimum light value
- Switching time (time it takes the dimmer to ON/OFF)
- Dimming time (time it takes the dimmer to reach the extremes of brightness in manual dimming)
- Scene time (time it takes the dimmer to reach the required % value recalled by a scenario)
- Memory (when turned ON, the dimmer returns to the light value previous to being turned off)
- Reset after blackout (when power returns, the dimmer reaches the light value before the blackout)

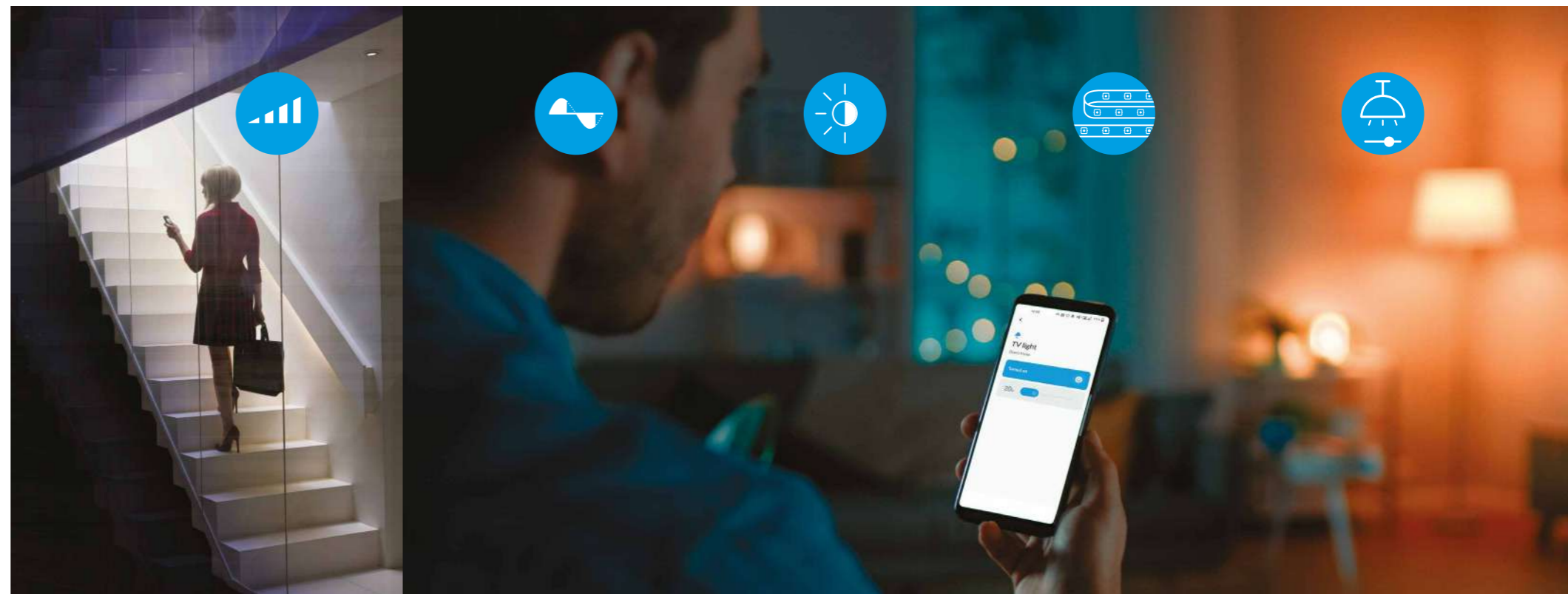


Choice of phase-cutting:

- Leading Edge
- Trailing Edge
- AUTOMATIC

With the AUTOMATIC function the dimmer will flash the lamp load twice to check the best phase-cut method for adjusting the light level

The Finder YESLY range



## KNX Technology

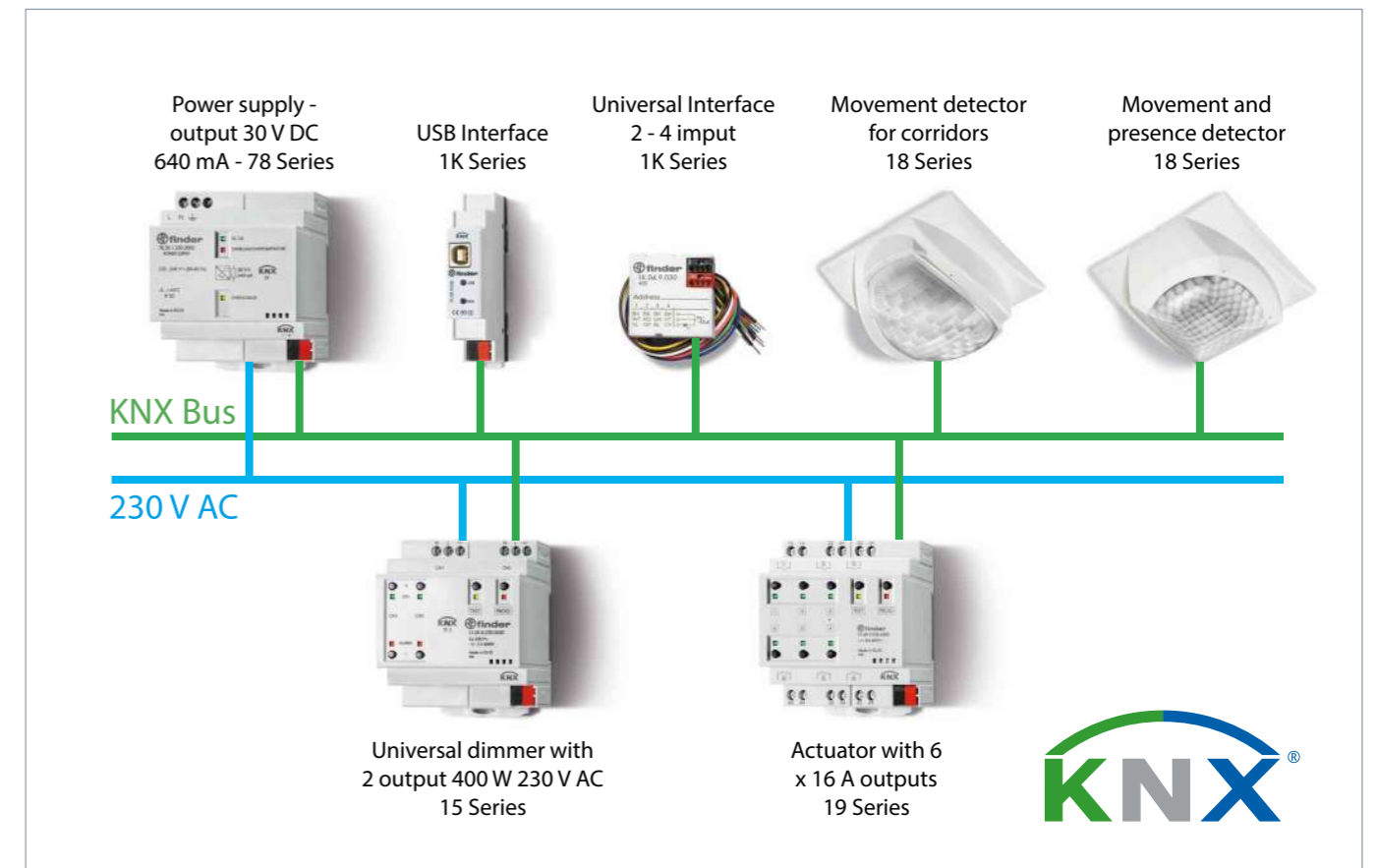


Type 15.2K.8.230.0400

The **KNX** system is the world's most advanced standard for the automated management of high-end building installations. This technology can be used to control: lighting, shutters, alarms and video surveillance, heating, ventilation and air conditioning, water management, energy optimisation, energy meters, appliances and audio systems.

- KNX is approved as:
- European Standard (CENELEC EN 50090 and CEN EN 13321-1)
  - International Standard (ISO/IEC 14543-3)
  - Chinese Standard (GB/T 20965)
  - US Standard (ANSI/ASHRAE 135)

## The Finder KNX range





# SUMMARY 15 SERIES DIMMERS



**MASTER DIMMER**  
Type 15.10

page 20



**SLAVE DIMMER**  
Type 15.11

page 21



Type 15.91

page 22



Type 15.51

page 23



Type 15.81

page 24



**TRADITIONAL 230 V**  
Type 15.21.8.230.0200

page 25



**BLUETOOTH 230 V**  
Type 15.21.8.230.B300

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**PWM BLUETOOTH**  
Type 15.21.9.024.B200

page 27



**BLUETOOTH 230 V**  
Type 15.71

page 28



**KNX DIMMER**  
Type 15.2K

page 29

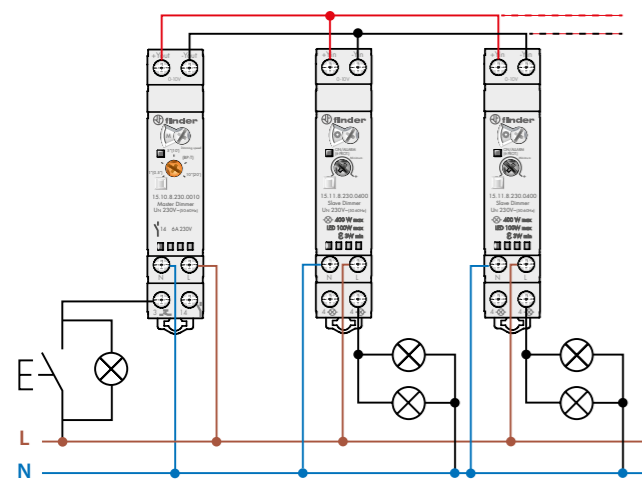
# Type 15.10 Master Dimmer



Multifunction Master for  
the control of one or more  
Type 15.11 Slaves or other  
drivers with 0-10 V input

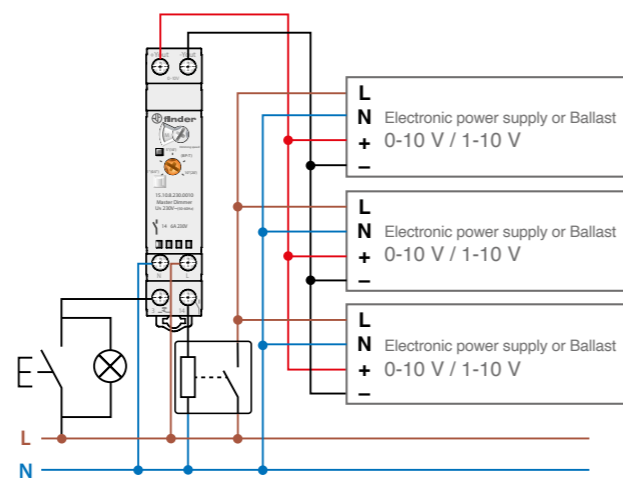
### Features:

- 230 V AC 50/60 Hz power supply with automatic frequency recognition
- Multifunction (with or without light intensity memory, including a special function with memory for CFL lamps)
- Linear adjustment
- Dimming speed adjustment
- Staircase light function with early switch-off warning by dimming the lamps
- Auxiliary terminal for the safe disconnection of 1-10 V ballasts for signals < 1 V
- Module width 17.5 mm, 35 mm rail mounting (EN 60715)



#### MASTER DIMMER TYPE 15.10 AND SLAVE DIMMER TYPE 15.11

This is the recommended configuration; the Master controls one or more Slaves up to a maximum of 32 units. Pushbuttons (max. 15, if luminous); a short press performs ON/OFF control, while a longer press adjusts the brightness level. Each Slave can drive a different type of load.



#### MASTER DIMMERS AND ELECTRONIC TRANSFORMERS OR BALLASTS 0-10 V

Using only the Master Dimmer it is possible to control electronic transformers or ballasts with 0-10V/1-10 V input (respecting polarity). In this application it is recommended to interrupt the Live to the ballast via contact 14. This solution ensures complete disconnection of the ballast for signals < 1 V. Note: When using terminal 14, check that the maximum peak current of the ballast does not exceed 30 A 230 V AC. Otherwise, use a contactor or power relay.

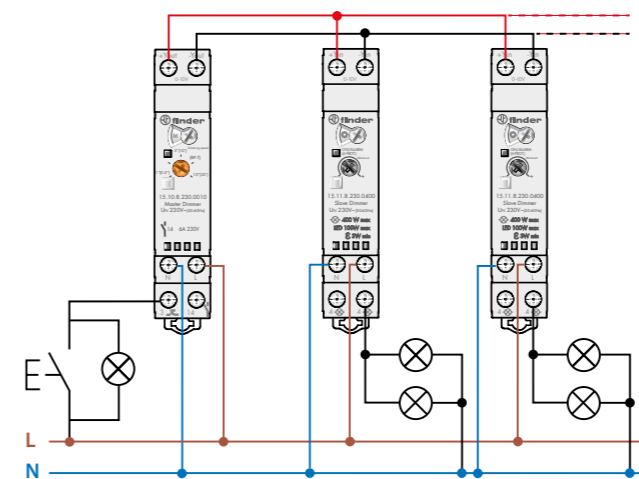
# Type 15.11 Slave Dimmer



Slave Dimmer 230 V AC  
with phase-cut output

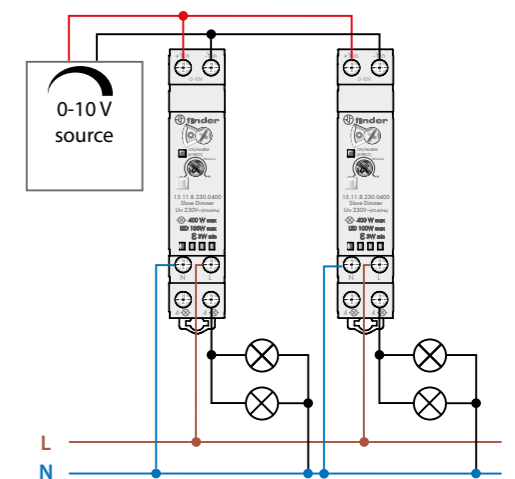
### Features:

- Maximum switchable power 400 W
- Maximum switchable power with LED or CFL 100 W
- Leading Edge or Trailing Edge control method (depending on function)
- Transformer function (for use with electromagnetic transformers)
- Minimum light level control
- 35 mm rail mounting (EN 60715)



#### MASTER DIMMER TYPE 15.10 AND SLAVE DIMMER TYPE 15.11

This is the recommended configuration; the Master controls one or more Slaves up to a maximum of 32 units. Pushbuttons (max. 15, if luminous); a short press performs ON/OFF control, while a longer press adjusts the brightness level. Each Slave can drive a different type of load.



#### DRIVING 0-10 V SLAVE DIMMERS

In the case of Home Automation or Building Management Systems (BMS) only the Type 15.11 Slave Dimmer can be directly driven by the 0-10 V outputs of such systems. Of course, the Type 15.11 could also be driven by a manual 0-10 V regulator or other 0-10 V source.



# Type 15.91 Dimmer

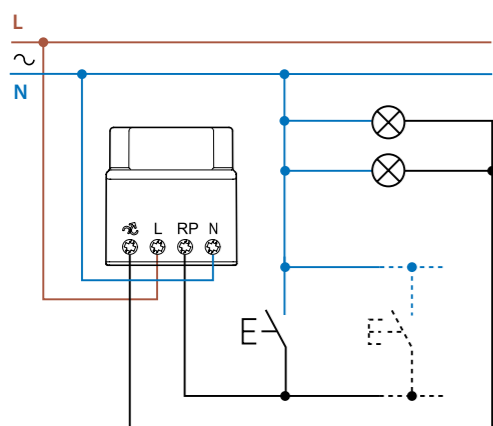


230 V AC phase-cut dimmer,  
leading edge adjustment

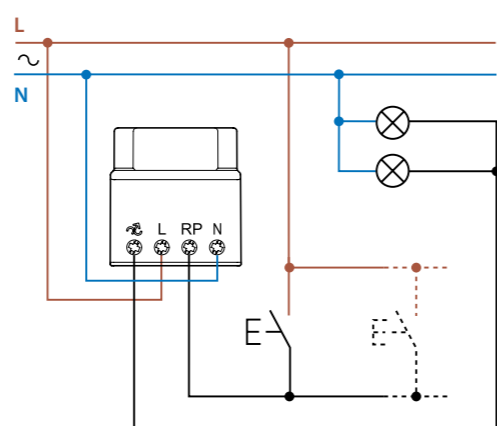
### Features:

- Phase-cut dimmer
- Suitable for incandescent and halogen lamps
- Leading Edge dimming method
- Maximum switchable power 100 W (50 W LED)
- Power supply 230 V AC 50/60 Hz with automatic automatic frequency recognition
- Can be used in both 3-wire and 4-wire systems
- "Soft" switching on and off
- Two types of programming: with or without light level memory
- Protection with thermal fuse

Connection diagram  
Type 15.91 - 3-wire connection  
(pushbutton to Neutral)



Connection diagram  
Type 15.91 - 4-wire connection  
(pushbutton to Live)



# Type 15.51 Dimmer

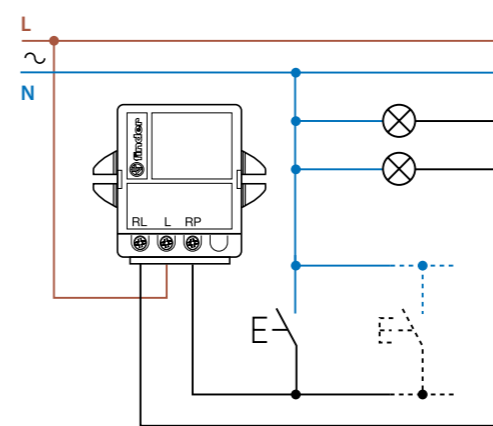


230 V AC phase-cut dimmer,  
trailing edge adjustment,  
panel or flush mounting

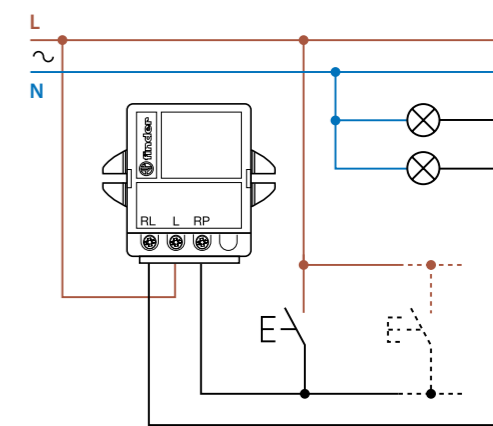
### Features:

- Phase-cut dimmer
- Trailing Edge dimming method
- Panel or flush-mounting
- Maximum switchable power 400 W (50 W LED)
- Two versions: step or linear dimming
- Programming: with or without light level memory
- Power supply 230 V AC (separate models for 50 and 60 Hz)

Connection diagram  
Type 15.51 - 3-wire connection  
(pushbutton to Neutral)



Connection diagram  
Type 15.51 - 4-wire connection  
(pushbutton to Live)



# Type 15.81 Dimmer



230 V AC phase-cut dimmer,  
35 mm rail mounting

### Features:

- 230 V AC 50/60 Hz power supply with automatic frequency recognition
- Leading edge or trailing edge control methods
- Maximum switchable power 500 W (100 W LED)
- Suitable for incandescent and halogen lamps
- Compatible with energy-saving lamps, dimmable compact fluorescent lamps (CFL), dimmable LEDs and electromagnetic transformers
- "Soft" on and off switching
- Can be used in both 3-wire and 4-wire systems
- Programming: with or without light intensity memory
- Protection with thermal fuse



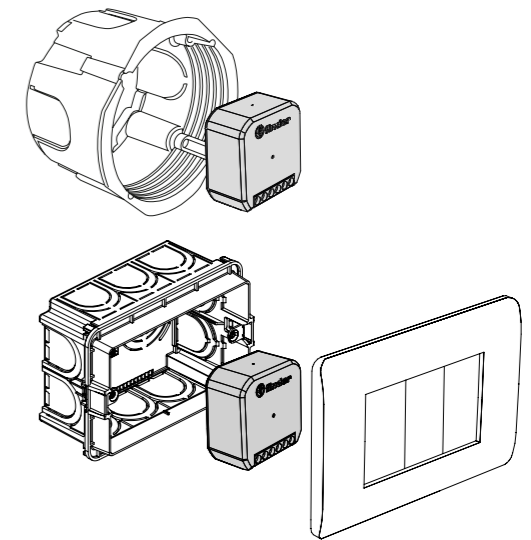
# Type 15.21.8.230.0200 Dimmer



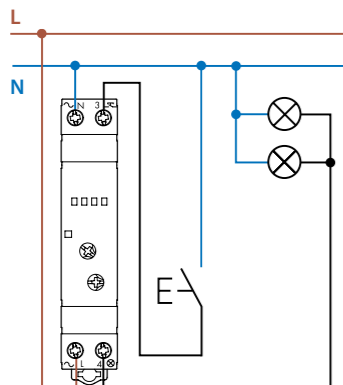
230 V AC phase-cut dimmer,  
for wall or junction box mounting.  
(Not Bluetooth)

### Features:

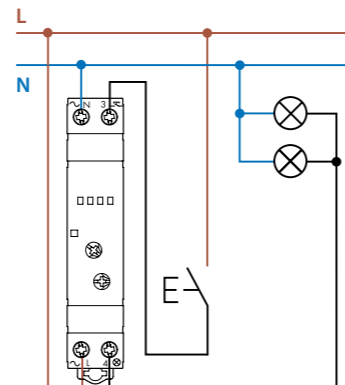
- Trailing Edge or Leading Edge adjustment method
- No BLE interface
- Suitable for LED loads
- Maximum dimmable power 200 W LED
- No memory



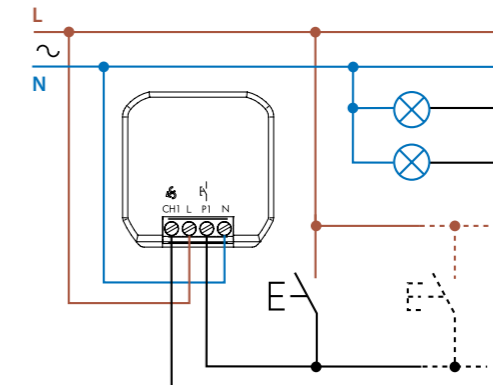
Connection diagram  
Type 15.81 - 3-wire connection  
(pushbutton to Neutral)



Connection diagram  
Type 15.81 - 4-wire connection  
(pushbutton to Live)



Connection diagram  
Type 15.21.8.230.0200 - 4-wire connection  
(pushbutton to Live)





# Type 15.21.8.230.B300 Dimmer

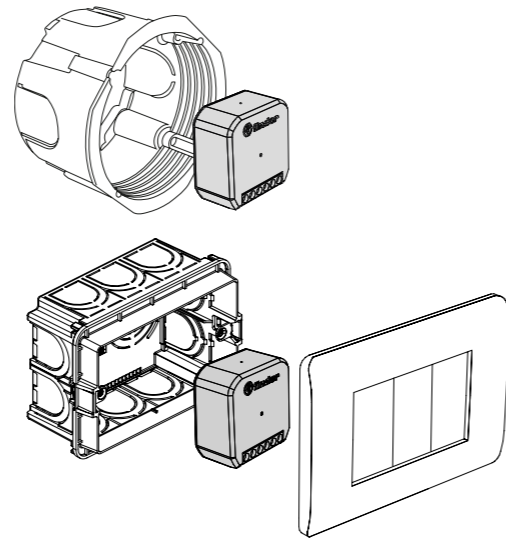


YESLY

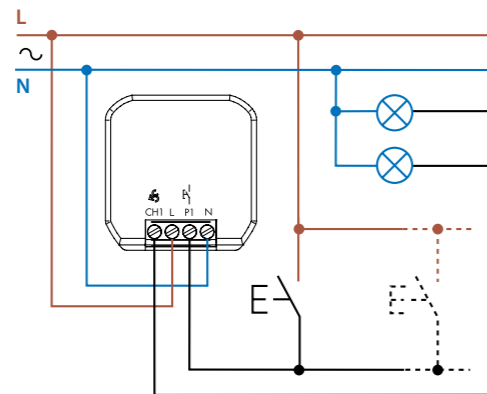
Bluetooth 230 V AC phase-cut dimmer,  
for wall or junction box mounting

### Features:

- 7 selectable functions depending on load type
- Functions with or without memory
- Trailing Edge or Leading Edge adjustment method
- Linear/exponential dimming
- Suitable for dimmable LED lamps, dimmable energy, energy-saving lamps, halogen lamps, transformers or electronic control gear
- Bluetooth transmission range: approx. 10 metres in free field without obstacles
- "Soft" on/off
- Thermal overload protection and short-circuit protection
- Adjustable minimum brightness level threshold
- Brightness level reset after blackout



Connection diagram  
Type 15.21.8.230.B300 - 4-wire connection  
(pushbutton connected to Live)



# Type 15.21.9.024.B200 Dimmer

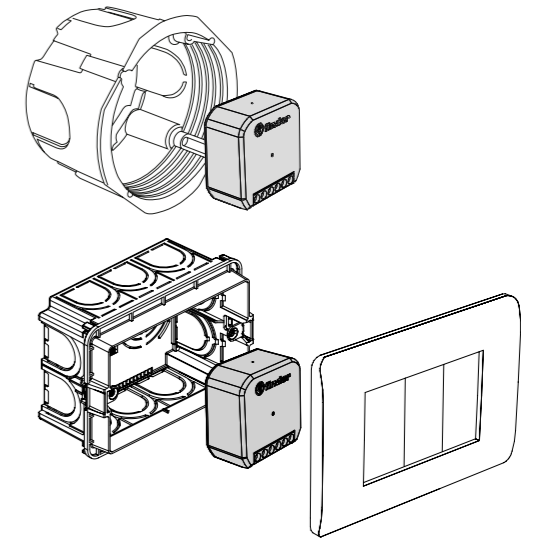


YESLY

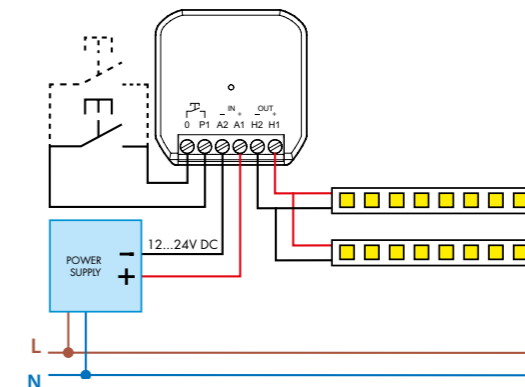
Bluetooth PWM 12...24 V DC  
dimmer for strip LEDs – wall  
or junction box mounting

### Features:

- Maximum load 8 A
- Maximum dimmable power 192W
- PWM technology
- Compatible with LED strips
- Over-temperature, short-circuit and reverse polarity protection
- Supply voltage 12...24 V DC
- Bluetooth transmission range: approx. 10 metres in free field without obstacles
- Adjustable minimum brightness level threshold
- Brightness level reset after power failure



Connection diagram  
Type 15.21.9.024.B200



# Type 15.71 Dimmer



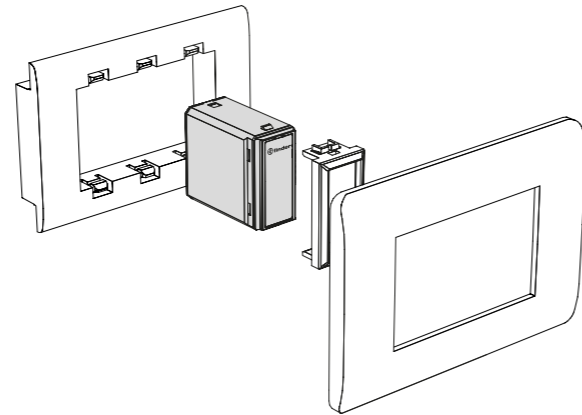
15.71.8.230.B200 = White  
15.71.8.230.B202 = Anthracite grey



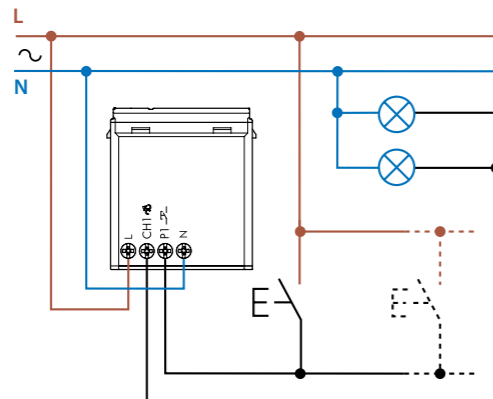
Bluetooth 230 V AC phase cut dimmer, for flush-mounting box, compatible with the most popular Italian systems

### Features:

- Maximum dimmable power 200 W
- LED status indicator
- 7 selectable functions depending on load type
- Functions with or without memory
- Trailing Edge or Leading Edge dimming method
- Linear/exponential dimming
- Bluetooth transmission range: approx. 10 metres in free field without obstacles
- "Soft" on/off
- Thermal overload protection and short-circuit protection
- Flush-mounted and compatible with the most common Italian residential systems
- Adjustable minimum brightness level threshold
- Restoration of brightness level after blackout



Connection diagram  
Type 15.71 - 4-wire connection  
(pushbutton to Live)



# Type 15.2K Dimmer



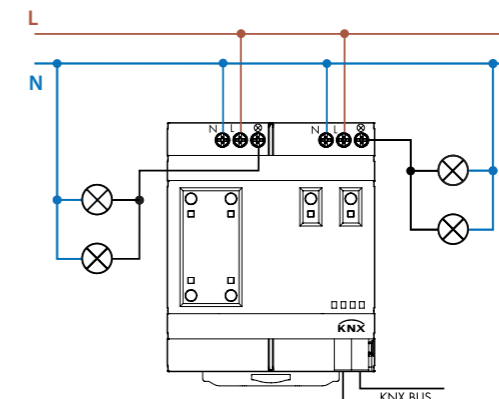
KNX universal 2 channel dimmer



### Features:

- Power supply via KNX bus
- 2 x 400W channels
- Manual control of each channel via front panel
- LED indicators for each channel
- Scenario management
- Compatible with ETS 4 (or higher)
- Thermal and short-circuit protection
- 35 mm rail mounting (EN 60715)

Connection diagram  
Type 15.2K







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