Wireless universal dimming
FD62NPN-230V

Only skilled electricians may install this electrical equipment otherwise there is the risk of fire or electric shock!

Temperature at mounting location:
-20°C up to +50°C.
Storage temperature: -25°C up to +70°C.
Relative humidity:
annual average value <75%.

Wireless universal dimming actuator. With power MOSFET. 230 V incandescent lamps and halogen lamps up to 300 W depending on ventilation conditions. Dimmable LED lamps in 'phase cut-off' mode up to 300 W or in 'phase control' mode up to 100 W depending on ventilation conditions. No inductive (wound) transformers. With children's rooms and snooze function. No minimum load. Only 0.5 watt standby loss.
For installation. 49x51 mm, 20 mm deep.
The terminals are plug-in terminals for conductor cross-sections of 0.2 mm^2 to 2.5 mm^2.
Up to 32 wireless universal pushbuttons, wireless direction pushbuttons, wireless central control pushbuttons and motion sensors can be taught in using easy tap technology.
Bidirectional wireless switchable.
Zero passage switching with soft ON and soft OFF to protect lamps.
Supply voltage, switching voltage and control voltage local 230 V.
The brightness level is stored on switch-off (memory).
If supply voltage fails, the device is switched off in defined mode.
Automatic electronic overload protection and overtemperature switch-off.
In addition to the wireless control input via an internal antenna, this wireless actuator can also be controlled locally by a conventional 230 V control switch if fitted previously.
Glow lamp current is not permitted.

Typical connection
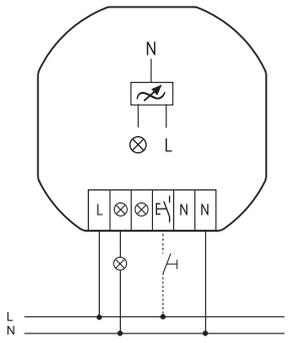
Start-up:
After plugging the device into the socket the teach-in mode is automatically active for 2 minutes provided the memory content is empty (as-delivered state) and/or the teach-in mode is not blocked.
Readiness for teach-in is indicated by the lamp briefly switching on/off.
If no action occurs for 2 minutes, teach-in mode ends automatically.
This is signalled by the lamp switching on and off briefly.

Teaching-in sensors:
Universal pushbutton: tap briefly 3 times;
Direction pushbutton: tap briefly 4 times;
Direction pushbutton teach-in is fully automatic when the pushbutton is tapped. Where you tap is then defined as switch-on. The other side automatically becomes switch-off.
Central control pushbutton On:
Tap briefly 5 times;
Central control pushbutton Off:
Tap briefly 6 times;
Wireless motion sensor FB65B, FBH65SB, FBHF65SB, FBH55SB: (EEP: A5-07-01);
Rotary switch and GFVS: (EEP: A5-38-08);
Confirmation telegrams are switched on and sent automatically at teach-in. It blocks the teach-in mode.
After teaching-in a pushbutton, teach-in is confirmed by the lamp switching on/off briefly; the teach-in mode is active for a further 2 minutes.
To prevent unintentional teach-in, the teach-in mode is automatically blocked

2 minutes after the last teach-in, if an universal or direction pushbutton is already taught-in. This is indicated by the lamp switched on/off briefly twice.
Encrypted and unencrypted sensors can be taught in.
Teach in encrypted sensors:
1. Activate teach-in mode if necessary.
2. Activate sensor encryption within 2 minutes.
3. Then teach in the encrypted sensor as described under 'Teach in sensors'.
With encrypted sensors, use the 'rolling code', i.e. the code changes in each telegram, both in the transmitter and in the receiver.
If a sensor sends more than 50 telegrams when the actuator is not active, the sensor is no longer recognised when the actuator is active and must be taught in again as 'encrypted sensor'. It is not necessary to teach in the function again.

Block teach-in mode immediately:
Tap 3 times briefly and once long (>2 seconds) on a wireless pushbutton (not central control pushbutton) that is already taught in or the local pushbutton. A block is indicated by switching the load on/off twice briefly.

Unblock teach-in mode:
Tap 4 times briefly and once long (>2 seconds) on a wireless pushbutton already taught in (not a central command pushbutton) or the local pushbutton. Readiness for teach-in is indicated by briefly switching the load on/off.

Clear memory content completely (restore as-delivered state):
1. Switch power supply off/on.
2. Tap 8 times briefly and once long (>2 seconds) on a wireless pushbutton already taught in (not a central command pushbutton).
   Clear is indicated by the lamp briefly switching on/off.
3. Apply on 'Teach in wireless pushbutton'.

Adjust and save minimum brightness:
1. Switch power supply off/on.
2. If necessary, unlock the teach-in mode.
3. Set the required minimum brightness using a taught-in wireless pushbutton (not central command pushbutton) or the local push-

button.
4. Tap 2 times briefly (not central command pushbutton) on a wireless pushbutton that is already taught in or the local pushbutton.
   Save is indicated by the lamp briefly switching on/off.
5. Block teach-in mode.

The wireless dimming actuator is a universal dimming actuator when it is in factory setting (AUTO) and dims with phase cut-off or phase control depending on the connected load.
With various 230 V LED lamps, the dimming function improves when dimmed with phase control.

Switch over to phase control:
1. Switch power supply off/on.
2. Tap 5 times briefly and once long (>2 seconds) on a wireless pushbutton already taught in (not a central command pushbutton) or the local pushbutton.
   Phase control is indicated by the lamp switching on/off briefly twice.

Switch over to AUTO:
1. Switch power supply off/on.
2. Tap 6 times briefly and once long (>2 seconds) on a wireless pushbutton already taught in (not a central command pushbutton) or the local pushbutton.
   Phase control is indicated by the lamp switching on/off briefly four times.

Change dimming speed:
Slow: Tap a taught-in wireless pushbutton or tap the local pushbutton 9 times. 'Slow' is indicated by the lamp briefly switching on/off.
Medium: Tap a taught-in wireless pushbutton or tap the local pushbutton 10 times. 'Medium' is indicated by the lamp switching on/off briefly twice.
Fast (factory setting): Tap a taught-in wireless pushbutton or tap the local pushbutton 11 times. 'Fast' is indicated by the lamp switching on/off briefly three times.

Switch-on or -off confirmation telegrams:
1. Switch power supply off/on.
2. Tap 7 times briefly and once long (>2 seconds) on a wireless pushbutton already taught in (not a central command pushbutton) or the local button.
   ON is indicated by the lamp switching on/off briefly twice.

OFF is indicated by the lamp briefly switching on/off.

Direction pushbutton:
'Switch on and dim up' on one side and 'Switch off and dim down' on the other side. A double-click on the switch on side triggers the automatic dimming up to full brightness.

Universal pushbutton:
Short commands switch on/off, continuous activation changes brightness up to maximum value. If you interrupt activation, it changes the dimming direction.

Switching operation for children's rooms
(universal switch or direction switch on the switch-on side): If the light is switched on by holding down the pushbutton, it starts at the lowest brightness level after approx. 1 second and dims up slowly as long as the pushbutton is held down without modifying the last stored brightness level.

Snooze function (universal switch or direction switch on the switch-off side): With a double impulse the lighting is dimmed down from the current dimming position to the minimum brightness level and switched off. The current dimming position as well as the adjustable minimum brightness level determine the dimming time (max. = 60 minutes) which can be reduced as required. It can be switched off at any time by short-time control commands during the lighting is dimmed down.

Semi-automatic motion detection with taught-in wireless motion sensor FB65B, FBH65SB, FBHF65SB, FBH55SB (factory setting):
Press the pushbutton to switch on. This starts a release delay time of 5 minutes during which the device switches on again if motion is detected. When motion is no longer detected, the device switches off automatically after 5 minutes. The actuator then responds to motion for a further 5 minutes before switching off automatically. After this time expires, the device must be switched on again by pressing the pushbutton. The device can be switched off at any time by pressing the pushbutton, but then motion is no longer detected.

Fully automatic motion detection with taught-in wireless motion sensor FB65B, FBH65SB, FBHF65SB, FBH55SB:
If the actuator is not to switch on automatically when motion is detected, e.g. in rooms without daylight, replug the jumper to 'active' on the motion sensor. When motion is no longer detected, the device switches off automatically after the 5 minute release delay time expires. Press the pushbutton at any time to switch the device on or off. When motion is detected, the device switches on again automatically.

When controlled via the GFVS software, light scenes can be set and retrieved.

Technical data

Incandescent and halogen [1] lamps 230 V (R)	up to 300 W [2]
Electronic transformers (C)	up to 300 W [2][3]
Dimmable 230 V LEDs phase cut-off	up to 300 W [2][5]
Dimmable 230 V LEDs phase control	up to 100 W [2][5]
Max./min. temperature Einbaustelle max./min.	+50°C/-20°C [4]
Standby loss (activ power)	0.5 W

[1] For lamps with 150 W max.
[2] The switching capacity is dependent on the ventilation conditions.
[3] When calculating the load, take into account 5% loss in addition to lamp load for capacitive (electronic) transformers.
[4] Affects the max. switching capacity.
[5] Usually applies for dimmable energy saving lamps and dimmable 230 V LED lamps. Due to differences in the lamps electronics, there may be limited dimming range, switch on and off problems dependent on the manufacturer and a restriction on the maximum number of lamps; especially if the connected load is very low (for 5 W-LEDs).

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THE UNIQUE WIRELESS **PROFESSIONAL SMART HOME** STANDARD

Frequency	868.3 MHz
Transmit power	max. 10 mW

Hereby, Eltako GmbH declares that the radio equipment type FD62NPN-230V is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: eltako.com

Must be kept for later use!

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