

Wireless actuator

Universal dimmer switch

FUD61NPN-230V

300W power MOSFET. Only 0.5 watt standby loss. With adjustable minimum brightness and dimming speed. With switching operation for children's rooms and snooze function. Also for dimmable energy saving lamps. Light scenes can be taught-in.

For installation. 45 mm long, 55 mm wide, 33 mm deep.

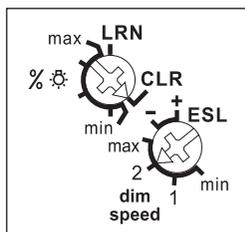
Universal dimmer switch for R, L and C loads up to 300 watt, depending on ventilation conditions. Dimmable energy saving lamps ESL up to 100 watt. Automatic detection of load R+L or R+C. ESL is manually settable.

Switching voltage and control voltage local 230V. No minimum load.

The brightness level is stored on switch-off (memory) and is switched on again after a power failure provided it was switched on before.

Automatic electronic overload protection and overtemperature switch-off.

Function rotary switches



The minimum brightness (fully dimmed) is adjustable with the % rotary switch. In the setting LRN up to 35 wireless pushbuttons can be assigned therefrom one or more central pushbuttons.

The dimming speed is adjustable using the **dimming speed rotary switch**. At the same time, the soft ON and soft OFF periods are changed.

The settings ESL consider the special conditions regarding dimmable energy saving lamps: The starting operation is optimized and the dimmspeed changes logarithmically. In these settings the special switching operation for

children's rooms is not possible and no wound (inductive) transformer must be dimmed. In position -ESL Memory is switched off. This can be of advantage for energy saving lamps because cold energy saving lamps require a higher minimum brightness as it will possibly be stored in Memory for warmer energy saving lamps.

Zero passage switching with soft ON and soft OFF to protect lamps.

In addition to the wireless control input via an internal antenna, this universal dimmer switch can also be controlled locally by a conventional 230V control switch if fitted previously. Either separate local control inputs for dim brighter and dim darker as a direction switch, or these two inputs can be bridged and controlled with a single switch as a universal switch. The dimming direction can then be changed by interrupting the control. Short control commands switch on/off.

The wireless pushbuttons can be taught-in either as direction switches or universal switches:

When installed as a direction switch, one side is then 'switch on and dim up' and the other side is 'switch off and dim down'. A double-click on the switch-on side activates automatic dim-up to full brightness at dim speed. A double click on the switch-off side activates the snooze function. The children's room function is implemented on the switch-on side.

As a universal switch, change the direction by briefly releasing the pushbutton. With switching operation for children's rooms and snooze function.

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)

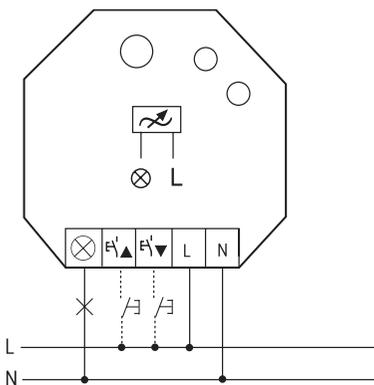
which can be reduced as required. It can be switched off at any time by short-time control commands during the lighting is dimmed down.

Light scenes on the PC are set and retrieved using the Wireless Visualisation and Control Software FVS. A description of the FVS is at "eltako-wireless.com". One or several FUD61NPN devices must be taught in on the PC as dimming switches with percentage brightness values.

Lights scenes with wireless switches are taught in on the FUD61NPN device. Up to four brightness values which can be taught-in in light scene pushbuttons with double rocker.

The LED performs during the teach-in process according to the operation manual. It shows wireless control commands by short flickering during operation.

Typical connection



Technical data

Incandescent lamp and halogen lamp load ¹⁾ 230V	up to 300W ²⁾
Dimmable energy saving lamps ESL ³⁾	up to 100W
Local control current at 230V control input	1mA
Max. parallel capacitance (approx. length) of local control lead at 230V AC	0,06µF (200m)
Standby loss (active power)	0,5W

¹⁾ Applies to lamps of max. 150W.

²⁾ Also max. 2 induction transformers of the same type (L load) and electronic transformers (C load).

³⁾ In the settings ESL no wound (inductive) transformer must be dimmed.

Teaching-in Wireless Sensors in Wireless Actuators

All sensors such as wireless pushbuttons, wireless hand-held transmitters, wireless transmitter modules, wireless window/door contacts, wireless timers and wireless motion detector and brightness sensors must be taught-in in the actuators (receivers with dimmers, switches and relays) so that they can detect and execute commands.

Teaching-in actuator FUD61NPN-230V

The teach-in memory is empty on delivery from the factory. If you are unsure whether the teach-in memory contains something or not, **you must first clear the memory contents completely:**

Set the upper rotary switch to CLR.

The LED flashes at a high rate. Within the next 10 seconds, turn the lower rotary switch three times to the right stop (turn clockwise) and then turn back away from the stop.

The LED stops flashing and goes out after 2 seconds. All taught-in sensors are cleared.

Clear individual taught-in sensors in the same way as in the teach-in procedure, except that you set the upper rotary switch to CLR instead of LRN, and operate the sensor. The LED previously flashing at a high rate goes out.

Teaching-in sensors

1. Setting of the lower rotary switch to the desired teaching-in function:

Left stop min = Teach in direct light scene pushbutton, a complete pushbutton with double rocker is assigned automatically.

Teach in a PC using the Wireless Visualisation and Control Software FVS:

The percentage brightness can be set there between 0 and 100 percent and saved. Several dimmer switches can be linked to form a light scene.

Position 1 = teach-in 'central OFF';

Position 2 = teach-in universal switch 'dim and ON/OFF';

Universal switches must be taught-in identically at top and bottom if the switch is to have the same function at top and bottom.

Position max = teach-in 'central ON';

Right stop ESL = Direction switches; Direction switches are completely taught-in automatically when operating the top or bottom pushbutton. Otherwise top and bottom must be taught-in in the same way if the top and bottom pushbutton are to

have the same function.

- Set the upper rotary switch to LRN. The LED flashes at a low rate.
- Operate the sensor which should be taught-in. The LED goes out.

To teach-in further sensors, turn the upper rotary switch briefly away from position LRN. Continue the procedure from pos 1.

After teach-in, set the rotary switches of the actuators to the required function.

Saving light scenes

Up to four brightness values retrievable with a direct light scene pushbutton can be saved.

- Adjust the required brightness level with a previously taught-in universal pushbutton.
- Press the pushbutton for longer than 3 seconds on one of the four rocker ends of the light scene pushbutton with double rocker to save the brightness value.
- Repeat from point 1 to save further directly retrievable light scenes.



When an actuator is ready for teach-in (the LED flashes at a low rate), the very next incoming signal is taught-in. Therefore, make absolutely sure that you do not activate any other sensors during the teach-in phase.

Important reminder!

This electrical equipment may only be installed by skilled electricians otherwise fire hazard or danger of electric shock exists!