

Wireless actuator
Universal dimmer switch
FUD61NPN-230V



300 W power MOSFET. Only 0.6 watt standby loss. With adjustable minimum brightness and dimming speed. With switching operation for light alarm clocks, children's rooms and snooze function. Also for dimmable energy saving lamps.

For installation and surface mounting. 45 mm long, 55 mm wide, 33 mm deep.

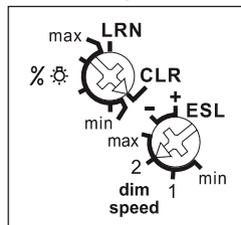
Universal dimmer switch for R, L and C loads up to 300 watt, depending on ventilation conditions. Dimmable energy saving lamps ESL up to 100 watt. Automatic detection of load R+L or R+C. ESL is manually settable. Switching capacity up to 300W depends on the ventilation conditions.

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

The brightness level is stored on switch-off (memory) and the system is disconnected in a definite sequence in case of a power failure.

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 dimm speed 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:

As a direction switch, press up is brighter and press down is darker respectively above short pressing means switch ON and below short pressing switch OFF. A double click above activates automatic updimming until full brightness with dim speed. A double click below activates snooze function. The children's room function will be realized with the upper switch.

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

Switching for light alarm clocks (with wireless system only): A wireless signal of a time clock which was taught-in accordingly starts the wake up function by switching on the light at the lowest brightness level and dims up slowly until the maximum level is reached. Dependent on the set dim speed the wake up time is between 30 and 60 minutes. By pressing shortly e.g. of a hand-held transmitter the dimming process will be stopped. At setting ESL the switching for light alarm clocks is not possible.

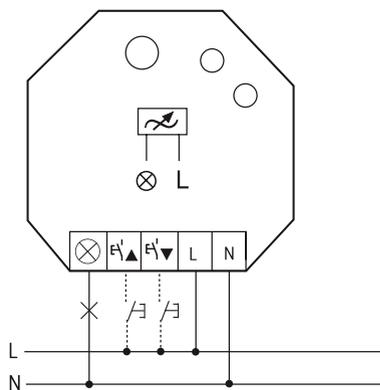
Switching operation for children's rooms:

If the light is switched on by holding down the push-button (universal switch or direction switch above), it starts at the lowest brightness level after approx. 1 second without modifying the last stored brightness level.

Snooze function (universal switch or direction switch below): 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.

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 300 W ²⁾
Dimmable energy saving lamps ESL ³⁾	up to 100 W
Local control current at 230V control input	1 mA
Max. parallel capacitance (approx. length) of local control lead at 230V AC	0,06 µF (200m)
Standby loss (active power)	0,6 W

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 timer FSU8 for wake-up light;

Position 1 = teach-in 'central OFF';

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

Position max = teach-in 'central ON';

Right stop ESL = teach-in 'switching ON and dim up' of top direction switch and 'switching OFF and dim down' of bottom direction switch

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.

2. Set the upper rotary switch to LRN. The LED flashes at a low rate.

3. 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.



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!