



# Wireless Actuator Fan relay F2L61NP-230V

2-speed fan actuator 1+1 NO contacts not potential free 10A/250 V AC. Only 0.9 watt standby loss. Activates passive and active sensors.

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

Supply voltage and switching voltage 230 V.

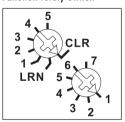
This wireless actuator features state-of-the-art hybrid technology that we developed: we combined the wear-free receiver and evaluation electronics and two bistable relays with zero passage switching.

By using a bistable relay coil power loss and heating is avoided even in the on mode. An automatic short synchronisation takes place after installation.

Maximum current as the sum of both contacts 16 A bei 230 V.

When the two contacts are switched in parallel, the 2-speed actuator for 2 fan speeds becomes an actuator for one fan.

#### **Function rotary switch**



**The top rotary switch** must be set to position LRN for teach-in.

**The bottom rotary switch** selects the later function in operation during teach-in. Up to 34 passive sensors are taught-in, e.g. wireless pushbuttons, window/door contacts, HOPPE window handles or wireless transmitter modules. A single active sensor for  $\mathrm{CO}_2$ , humidity or temperature can be taught-in additionally or individually.

A wireless switch with double rocker is taught-in in rotary switch position 1 if the 2 contacts are supposed to remain individually closed in the two speeds (exclusive), or in position 7 if contact 2 is supposed to cut in for Speed 2

(accumulative). The double rockers are programmed automatically as follows: top left Speed 1, top right Speed 2. Bottom left and bottom right OFF: the two contacts open. If the two contacts are switched in parallel, it is sufficient to have one wireless switch with 1 rocker. Here, top is ON and bottom is OFF.

In rotary switch position 4, all passive sensors can be taught-in as circuit-breakers. The active sensors are assigned as follows:  $\mathrm{CO}_2$  sensor exclusive = position 2,  $\mathrm{CO}_2$  sensor accumulative = position 5; humidity sensor exclusive = position 3, humidity sensor accumulative = position 6; temperature sensors exclusive = position 4, temperature sensors accumulative = position 7. Only one sensor can be taught-in.

When operated with an active sensor, use the bottom rotary switch to set the switch-on threshold. When the threshold is reached, stage 1 is switched on. Use the top rotary switch to set the addition value at which Contact 2 closes.

## Overview of switch-on thresholds

(lower rotary switch):

## CO<sub>2</sub>-Wert (ppm):

1 = 800 ppm; 2 = 1000 ppm; 3 = 1200 ppm; 4 = 1400 ppm; 5 = 1600 ppm; 6 = 1800 ppm and 7 = 2000 ppm.

#### Humidity (%):

1 = 10%, 2 = 25%, 3 = 40%, 4 = 55%, 5 = 70%, 6 = 85% and 7 = 100%.

## Temperature (°C):

1 = 20 °C, 2 = 23 °C, 3 = 26 °C, 4 = 29 °C, 5 = 32 °C, 6 = 35 °C and 7 = 38 °C.

## Overview of addition values

(upper rotary switch):

## CO<sub>2</sub> difference:

 $1 = 50 \, \text{ppm}, \ 2 = 100 \, \text{ppm}, \ 3 = 200 \, \text{ppm}, \ 4 = 300 \, \text{ppm} \text{ und } 5 = 500 \, \text{ppm}.$ 

## Fixed hysteresis: $50\,ppm$ .

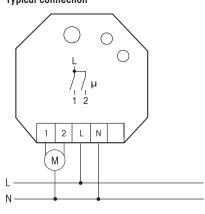
**Humidity difference:** 1 = 5 %, 2 = 15 %, 3 = 25 %, 4 = 35 % und 5 = 45 %. Fixed hysteresis: 5 %.

## Temperature difference (K):

1 = 1 K, 2 = 2 K, 3 = 4 K, 4 = 7 K und 5 = 10 K. Fixed hysteresis: 1 K.

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

## Typical connection



#### Technical Data

Rated switching capacity	10A/250V AC
each contact	
230 V AC fan	max. 250 VA per channel
Standby loss (active power)	0,9 W

## <u>Teaching-in wireless sensors in wireless</u> actuators

All sensors must be taught-in in the actuators so that they can detect and execute commands.

## Teaching-in actuator F2L61NP-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 or sensors of a channel 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

- If an FT4 or an FSM is required to act as a pure off switch, then set the lower rotary switch to Position 4, if not set it to position 1 or 7.
- 2. Set the upper rotary switch to LRN. The LED flashes at a low rate.
- 3. Operate the sensor to 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 teaching-in active sensors, use the bottom rotary switch to set the required switch-on threshold and use the top rotary switch to set the addition value.



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 Note!**

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

09/2010 Subject to change without notice.