

Wireless actuator



Multifunction impulse switch

FMS61NP-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 &lt;75%.

**valid for devices from production week 08/13** (see bottom side of housing)

1+1 NO contacts not potential free 10A/250V AC, incandescent lamps up to 2000 watts. Bidirectional wireless and repeater function are switchable. Only 0.7 watt standby loss.

For installation.

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

Switching voltage and control voltage local 230V.

**This wireless actuator is a multifunction impulse switch and 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.**

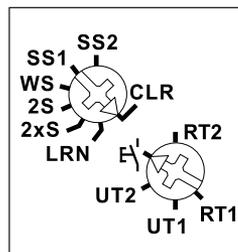
By using a bistable relay coil power loss and heating is avoided even in the on mode. After installation, wait for short automatic synchronisation before the switched consumer is connected to the mains.

In addition to the wireless control input via an internal antenna, this multifunction impulse switch can also be controlled locally by a conventional 230V control switch previously mounted (in the 2xS function only contact 1).

**Bidirectional wireless** and a **repeater** function can be switched on. Every change in state and incoming central command telegrams are confirmed by a

wireless telegram. This wireless telegram can be taught-in in other actuators, in the GFVS software and in FUA55 universal displays.

### Function rotary switches



**With the top rotary switch** in the setting LRN up to 35 wireless pushbuttons can be assigned therefrom one or more central control pushbuttons. The required function of this multifunction impulse switch can then be selected. Switching will be visualised by flashing of the LED.

**2xS** = 2fold impulse switch each with 1 NO contact

**2S** = impulse switch with 2 NO contacts

**WS** = impulse switch with 1 NO contact and 1 NC contact

**SS1** = impulse multicircuit switch 1+1 NO contact with switching sequence 1

**SS2** = impulse multicircuit switch 1+1 NO contact with switching sequence 2

Switching sequence SS1:

0 - contact 1 - contact 2 - contacts 1+2

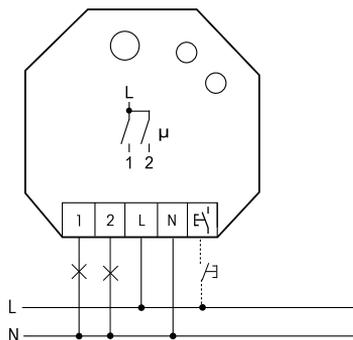
Switching sequence SS2:

0 - contact 1 - contacts 1+2 - contact 2

The bottom rotary switch is only required to teach-in the transmitters.

**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

Rated switching capacity 10A/250V AC each contact

Incandescent lamp and halogen lamp load<sup>1)</sup> 230V 2000 W

Local control current at 230V control input 3.5 mA

Fluorescent lamp load with KVG\* in lead-lag circuit or non compensated 1000 VA

Fluorescent lamp load with KVG\* 500 VA shunt-compensated or with EVG\*

Compact fluorescent lamps with EVG\* and energy saving lamps 15x7 W 10x20 W

Max. parallel capacitance (approx. length) of local control lead at 230V AC 0.01 µF (30m)

Standby loss (active power) 0.7 W

<sup>1)</sup> Applies to lamps of max. 150W.

### Teaching-in wireless sensors in wireless actuators

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

### Teaching-in actuator FMS61NP-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, the repeater and the confirmation telegram are switched-off.

**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:

**RT1** = teach-in direction pushbutton for contact 1 with the function 2xS;

**UT1** = teach-in universal pushbutton for contact 1 with the function 2xS;

**UT2** = teach-in universal pushbutton for contact 2 with the function 2xS;

**↔** = teach-in universal pushbutton for series pushbutton, 2S and WS;

**RT2** = teach-in direction pushbutton for contact 2 with the function 2xS;

Direction pushbuttons are completely taught-in automatically when operating.

The side on which the pushbutton is first operated is defined for switching on, the other side for switching off. A taught-in direction pushbutton RT1 or RT2 acts as a **central pushbutton** in the functions 2S, WS, SS1 and SS2. A direction pushbutton has to be taught-in into both channels RT1 and RT2 in the function 2xS to act as a **central pushbutton**.

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.

### Switching on/off repeater:

If control voltage is applied to the local control input when the power supply is switched on, the repeater is switched on/off. When the power supply is switched on, the LED lights up for 2 seconds = repeater off (as-delivered state) or 5 seconds = repeater on to indicate the state.

### Switch-on confirmation telegrams:

For deliveries ex-works the confirmation telegrams are switched-off. Set the upper rotary switch to CLR. The LED flashes nervously. Now within 10 seconds turn the bottom rotary switch 3 times to the left (anticlockwise) and then back away. The LED stops flashing and goes out after 2 seconds. The confirmation telegrams are switched-on.

### Switch-off confirmation telegrams:

Set the upper rotary switch to CLR. The LED flashes nervously. Now within 10 seconds turn the bottom rotary switch 3 times to the left (anticlockwise) and then back away. The LED goes out immediately. The confirmation telegrams are switched-off.

### Teaching-in feedback of this actuator

**in other actuators: Contact 1:** Set the upper rotary switch to 2xS. For changing of switching state and simultaneously transmitting of feedback the local control input has to be applied.

**Contact 2:** Turn the upper rotary switch from 2S to WS, contact 2 switches on and the corresponding feedback will be sent. Turn the upper rotary switch from WS to 2S, contact 2 switches off and the corresponding feedback will be sent.

### Teaching- in feedback of other actuators

**in this actuator:** Teaching-in feedback other actuators is only reasonable if this actuator is run in function setting 2S or 2xS. The confirmation telegrams will be taught-in as a central pushbutton. After teaching-in set the rotary switch to the desired 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.

**Must be kept for later use!**

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