

Wireless actuator

Impulse switch with integrated relay
function FSR61-230V**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%.**valid for devices from production week
41/12** (see bottom side of housing)1 NO contact potential free 10A/250V AC,
incandescent lamps up to 2000 watts,
off delay with switch-off early warning
and switchable pushbutton permanent
light. Bidirectional wireless and repeater
function are switchable.

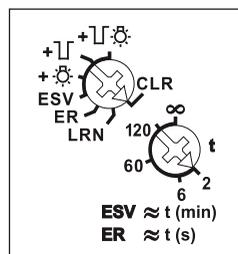
Only 0.6 watt standby loss.

For installation.

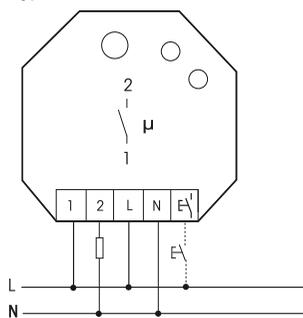
45 mm long, 55 mm wide, 33 mm deep.

Supply voltage and if necessary control
voltage locally 230V.**This wireless actuator features state-
of-the-art hybrid technology that we
developed: we combined the wear-free
receiver and evaluation electronics with
a bistable relay.**In addition to the wireless control input via
an internal antenna, this wireless actuator
can also be controlled locally by a con-
ventional control pushbutton mounted
upstream. Glow lamp current is not
approved.

From production week 41/2012

bidirectional wireless and **repeater**
function can be switched on. Every change in state
and incoming central command telegrams
are then confirmed by a wireless telegram.This wireless telegram can be taught-in
in other actuators, in the FVS software
and in FUA55 universal displays.**Scene control:** several FSR61s can beswitched on or off in a scene by one of
the four control signals of a double-rocker
pushbutton taught-in as scene pushbutton.**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. In addition
wireless window/door contacts with the
function N/O contact or N/C contact while
the window is open, wireless outdoor
brightness sensors FAH and wireless
motion/brightness sensors FBH. The
required function of the impulse switch
with integrated relay function can then
be selected:**ER** = switching relay**ESV** = impulse switch.

Possibly with off delay, then:

+ ☼ = ESV with pushbutton
permanent light+ ⏏ = ESV with switch-off
early warning+ ⏏ ☼ = ESV with pushbutton
permanent light and
switch-off early warning**If the permanent light function** ☼ is
switched on, the function can be activated
by pressing the pushbutton for longer than
1 second. This function switches off auto-
matically after 2 hours or by pressing the
pushbutton.**If the switch-off early warning** ⏏ is
switched on, the light starts to flicker
approx. 30 seconds before time-out.
This is repeated three times at decreasing
time intervals.If both switch-off early warning and push-
button permanent light ⏏ ☼ are switched
on, switch-off early warning is activated
before automatic switch-off of the
permanent light.The function **ESV on the bottom rotary
switch** sets the off delay from 2 to 120
minutes. In setting ∞ normal impulse
switch function ES without off delay,
without pushbutton permanent light and
without switch-off early warning.In setting ER = switching relay of the
other rotary switch, this 2nd rotary switch
fulfils a safety and power saving function
in the settings except ∞. If the switch-off
command is not recognised, e.g. since
the pushbutton is jammed or it was
pressed too quickly, the relay switches
off automatically on expiry of a time
adjustable between 2 and 120 seconds.
When a FTK is taught-in, this time
function is turned off.**Twilight switch** with taught-in wireless out-
door brightness sensor FAH and then in
function setting ESV. In time setting 120 the
contact opens with a delay of 4 minutes
if the brightness level is sufficient. In time
setting ∞ the contact opens instantly. The
local and central push-button control is
still possible.**Motion detection** with taught-in wireless
motion detector FBH in function setting
ER. The device switches on when motion
is detected. If no more motion is detected,
the contact opens after the time delay
setting t = 2 to 255 seconds
(Position ∞).**Outdoor brightness sensor and motion
detector** can be used together with
function setting ER to evaluate motion
only in darkness. If the FAH detects bright-
ness, the contact opens immediately.**When teaching-in**, the switching threshold
is also taught-in: between break of
twilight and complete darkness.**The LED** performs during the teach-in pro-
cess 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

Incandescent lamp and 2000 W
halogen lamp load¹⁾ 230VFluorescent lamp load with 1000 VA
KVG* in lead-lag circuit or
non compensatedFluorescent lamp load 500 VA
with KVG* shunt-compensated
or with EVG*Compact fluorescent lamps 15 x 7 W
with EVG* and 10 x 20 W
energy saving lampsLocal control current 3.5 mA
at 230V control inputMax. parallel capacitance 0.01 μF
(approx. length) of (30 m)
local control lead

Standby loss (active power) 0.6W

¹⁾ Applies to lamps of max. 150W.* EVG = electronic ballast units;
KVG = conventional ballast units**Teaching-in wireless sensors in wire-
less actuators****All sensors must be taught-in in
actuators so that they can detect and
execute their commands.****Teaching-in actuator FSR61-230V**The teach-in memory is empty on delivery
from the factory. If you are unsure whether
the teach-in memory contains some-
thing 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:

The flashing of the LED as soon as a new setting range has been reached when turning the rotary switch helps to find the desired position reliably.

Left stop 2 = teach-in 'central OFF' and FTK and Hoppe window handle as NC contact;

Pos. 6 = teach in scene pushbutton; a complete doublerocker pushbutton is assigned automatically;

Pos. 60 = teach-in pushbutton 'ON/OFF';

Pos. 120 = teach-in pushbutton as NC contact;

Right stop ∞ = teach-in 'central ON' and FTK and Hoppe window handle as NO contact.

The FBH requires no teach-in function.

When a **FAH is taught-in as twilight sensor**, the position of the bottom rotary switch defines the threshold: 2 = complete darkness and 120 = break of twilight.

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.

Teaching-in scenes:

Four scenes can be saved by a scene pushbutton previously taught-in.

1. Switch on/off impulse relays

2. The switching state is saved by pressing one of the four rocker ends of a doublerocker scene pushbutton for 3-5 seconds.

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:

For changing of switching state and simultaneously transmitting of feedback the local control input has to be applied.

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 ESV.

'switch on' will be taught-in in position 'central ON'.

'switch off' will be taught-in in position 'central OFF'.

After teach-in the function ESV and the off-delay will be set.



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.

For later use!

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