

Wireless actuator

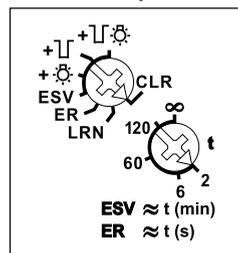
Impulse switch with integrated
relay function FSR61/8-24V UC**Only skilled electricians may install
this electrical equipment otherwise
there is the risk of fire or electric
shock!**Temperature at mounting location:
-20°C up to +50°C.Storage temperature: -25°C up to +70°C.
Relative humidity:
annual average 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 2000 watts, off
delay with switch-off early warning and
switchable pushbutton permanent light.
Bidirectional wireless and repeater function
are switchable.

Only 0.3-0.8 watt standby loss.

For installation.

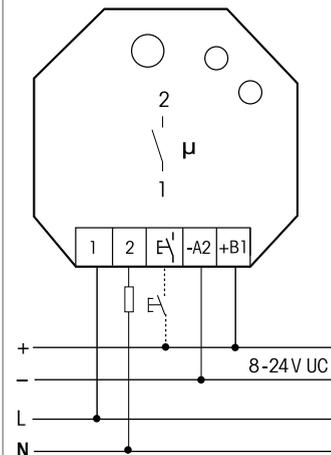
45mm long, 55mm wide, 33mm deep.
Supply voltage and if necessary control
voltage locally 8 to 24V UC.**This wireless actuator features state-
of-the-art hybrid technology that we
developed: we combined the wear-free
receiver and evaluation electronics with
a bistable relay.**In addition to the wireless 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 be
switched on or off in a scene by one of thefour 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
automatically 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 pushbutton 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 halogen lamp load ¹⁾	2000W 230V
Fluorescent lamp load with KVG* in lead-lag circuit or non compensated	1000VA
Fluorescent lamp load with KVG* shunt-compensated or with EVG*	500VA
Compact fluorescent lamps with EVG* and energy saving lamps	15x7W 10x20W
Control current (e. g. 24V DC), local control input	0.2mA
Standby loss (active power)	0.3-0.8W

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 FSR61/8-24V UC**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:

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 double-rocker 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 double-rocker 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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09/2012 Subject to change without notice.