RF Control Wireless System

Advantages:

- Remote switching of home electrical appliances
- Easy installation without any demolition works or cutting into walls.
- Flexible location: ideal for installing in existing buildings, as well as for refurbished and new buildings: thanks to RF Control, you are not limited by the location of a switch, for instance when moving furniture. The wireless wall switch button may be glued to glass, mounted on a beam or just placed on a night table and easily moved elsewhere at anytime.
- Wireless wall switch buttons do not need an external power supply (battery-powered).
- Receivers (actuators) may be mounted in an installation box, under the existing switch, light covers or ceiling, or on a DIN rail inside the switchboard.

Wireless Wall Switch Button BU-WS2, BU-WS4

Technical data

Type	BU-WS2	BU-WS4
Supply voltage	3V CR 2032 battery	
Transmission indication	red LED	
Number of buttons	2	4
Transmitter frequency	868 MHz	
Signal transmission method	unidirectionally addressed message	
Range in free space	up to 200 m	
Operating temperature	-10 ...+50 °C	
Operating position	any	
Mounting	glue / screws	
Protection	IP 20	
Contamination degree	2	
Dimensions		
Frame - plastic	85 x 85 x 16 mm	
Frame - metal, glass, wood, granite	94 x 94 x 16 mm	
Weight*	38g	39g
Related standards	EN 60669, EN 300 220, EN 301 489	

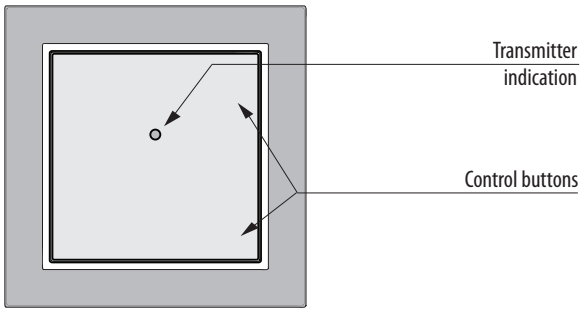
*including standardly delivered plastic frame. No installation into multi-frames.

Wireless wall switch buttons serve as transmitters to control RF Control system receivers. The signal is transmitted via wireless communication between the system units. The flat design makes it ideal for easy and quick installation on any surface (glass, wood, wall...).

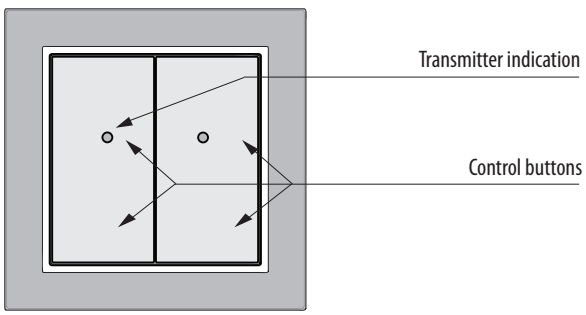
- Wireless wall switch buttons may simultaneously control an unlimited number of assigned actuators within the range of the RF signal.
- Keep in mind that the radio signal range for RF installations depends on the building structure, materials used and the manner of unit location in the area.
- Based on an impulse (pressing a button), these switches can send a radio signal with information to the receiver.
- The transmitters are battery-powered; battery life is about 5 years (depending on the frequency of use).

Description

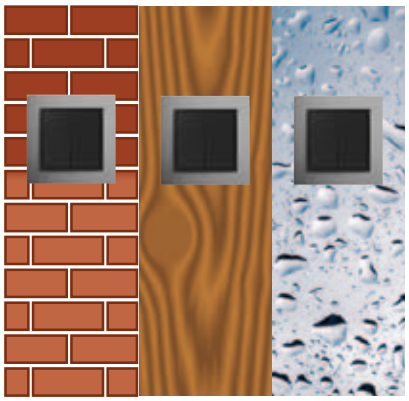
BU-WS2



BU-WS4



On wall On wood On glass



Switching Actuator BU-SU, BU-SU Multi

Technical data

Type	BU-DU	BU-DU Multi
Supply voltage	230 V AC / 50 - 60 Hz	
Apparent input	7 VA / cos φ = 0.1	
Dissipated power	0.7 W	
Supply voltage tolerance	+10 %; -15 %	
Output		
Number of contacts	1x switching ($AgSnO_2$)	
Rated current	16 A / AC1	
Switching power	4000 VA / AC1, 384 W / DC	
Peak current	30 A / <3 s	
Switching voltage	250 V AC1 / 24 V DC	
Max. DC switching power	500 mW	
Mechanical service life	$3x10^7$	
Electrical service life (AC1)	$0.7x10^5$	
Control		
RF, by command from transmitter	868 MHz	
Manual control	PROG (ON/OFF) button	
Range in free space	up to 200 m	
Other data		
Operating temperature	-15 ... + 50 °C	
Operating position	any *	
Mounting	free at lead-in wires	
Protection	IP 30	
Overvoltage category	III.	
Contamination degree	2	
Terminals (CY wire, cross-section)	2x 0.75 mm^2, 2x 2.5 mm^2	
Length of terminals	90 mm	
Dimensions	49 x 49 x 21 mm	
Weight	46 g	
Related standards	EN 60669, EN 300 220, EN 301 489	

RF switching actuators serve to control electrical appliances, lights, heating, garage door, sockets, etc.

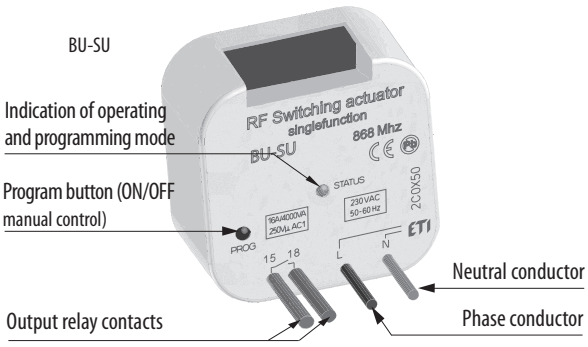
- Switching actuator design;

BU-SU: 1-channel design, single function ON/OFF, 16A rated current

BU-SU Multi: 1-channel design, multifunction, 16A rated current

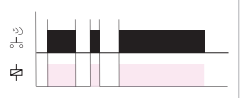
- Multifunction actuator functions: button, ON/OFF, impulse relay, delayed return, delayed start
- For programming and manual control ON/OFF, press the Prog button
- Can be controlled by up to 32 channels
- Possibility to assign receivers to the RF Control system
- LED indicator of the device status on the front panel
- Installation box design

Description



Functions and their programming - BU-SU Multi

1 Button



Program mode — Press 1x

The output contact will close by pressing the button and open by releasing the button.

2 Switch On

Program mode — Press 2x

The output contact will close by pressing the button.

3 Switch Off

Program mode — Press 3x

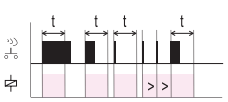
The output contact will open be pressing the button.

4 Impulse relay

Program mode — Press 4x

The output contact will switch to the opposite position with each press of the button. If the contact was closed, it will open and vice versa.

5 Delayed return

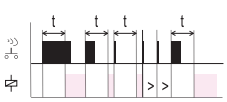


t = 2s..60min

Program mode — Press 5x

The output contact will close by pressing the button and open after the set time interval has elapsed.

6 Delayed start

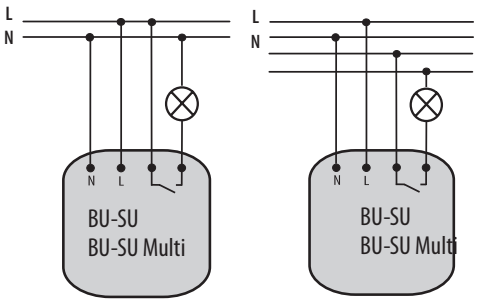


t = 2s..60min

Program mode — Press 6x

The output contact will open by pressing the button and close after the set time interval has elapsed.

Wiring



Dimming Actuator BU-DU, BU-DU Multi

Technical data

Type	BU-DU	BU-DU Multi
Supply voltage	230 V AC / 50 Hz	
Apparent input	8.3 VA / cos φ = 0.1	
Dissipated power	0.83 W	
Supply voltage tolerance	+10/ -15 %	
Connection	3 conductors, including neutral	
Output		
Resistance load	250 VA*	
Capacity load	250 VA*	
Inductive load	250 VA*	
Control		
RF, by command from transmitter	868 MHz	
Manual control	PROG (ON/OFF)	
Range in free space	up to 160 m	
Other data		
Operating temperature	-15 ... + 50 °C	
Operating position	any	
Mounting	free at lead-in wires	
Protection	IP 30	
Overvoltage category	III.	
Contamination degree	2	
Terminals (CY wire, cross-section)	3x0.75 mm²	
Length of terminals	90 mm	
Dimensions	49 x 49 x 21 mm	
Weight	40 g	
Related standards	EN 60669, EN 300 220, EN 301 489	

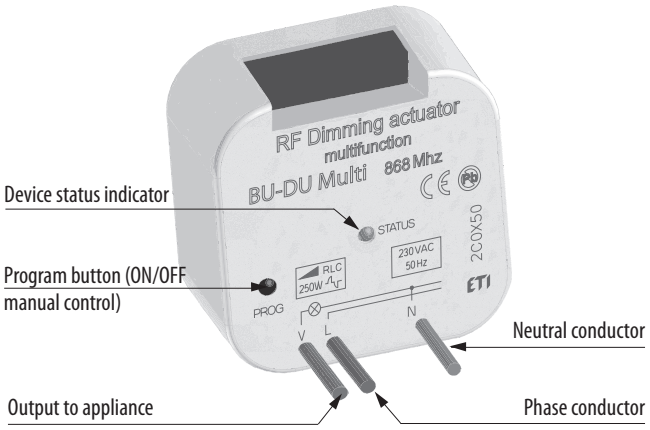
Serves for light dimming and creating light scenes (4 preset light scenes)

- Allows dimming bulbs and halogen lights with electronic or wound R, L, C 250VA transformer

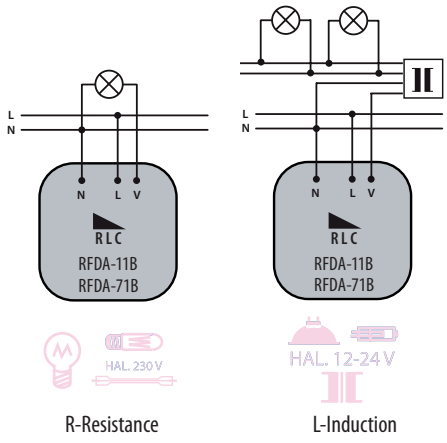
BU-DU: single-function - button dimmer
BU-DU Multi: multifunction - 6 light functions, ON/OFF function, possibility to set continuous switching on/off of light (between 2 seconds and 30 minutes)

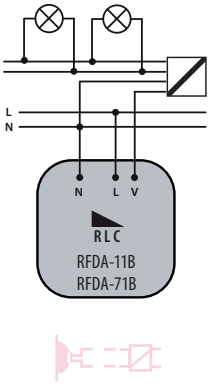
- Easy control: switch on/off the light by pressing the button shortly; adjust brightness by pressing and holding
- Each actuator can be controlled by up to 32 channels (1 channel is represented by 1 button on the wireless wall switch button or the BU-TSD / TSW unit)
- Electronic overcurrent protection - the output is switched off in case of overloading or short-circuit
- For programming and manual control, press the Prog button
- Installation box design

Description



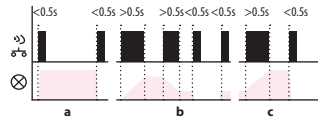
Wiring with different types of load





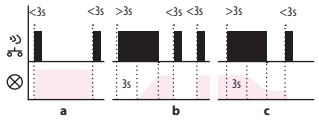
C-Capacity

Function 1 - press 1x



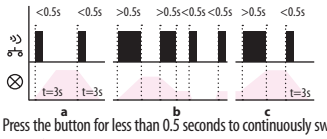
a) Press the button for less than 0.5 seconds to switch on the light; press again to switch it off.
b) Press and hold the button for more than 0.5 seconds to adjust brightness continuously. After releasing the button, the brightness level is saved into memory and pressing the button shortly later will switch on/off the light to this intensity.
c) Brightness may be adjusted at any time by pressing and holding the button. The receiver remembers the adjusted value even after disconnecting from power supply.

Function 2 - press 2x



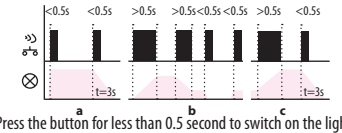
a) Press the button for less than 3 seconds to switch on the light; press again to switch it off.
b) To avoid undesirable brightness adjustment, the continuous brightness regulation is only activated pressing and holding the button for more than 3 seconds. After releasing the button, the brightness level is saved in the memory and pressing the button shortly later will switch on/off the light to this intensity.
c) Brightness may be adjusted by pressing and holding the button for more than 3 seconds at any time. The receiver remembers the adjusted value even after disconnecting from power supply.

Function 3 - press 3x



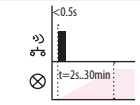
a) Press the button for less than 0.5 seconds to continuously switch on the light for 3 seconds (at 100% brightness). By pressing the button shortly again, the light will continuously switch off for 3 seconds.
b) Press and hold the button for more than 0.5 seconds to adjust brightness continuously. After releasing the button, the brightness level is saved in the memory and pressing the button shortly later will switch on/off the light to this intensity.
c) Brightness may be adjusted at any time by pressing and holding the button. The receiver remembers the adjusted value even after disconnecting from power supply.

Function 4 - press 4x



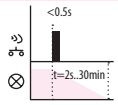
a) Press the button for less than 0.5 second to switch on the light,. By pressing the button shortly again, the light will continuously switch off for 3 seconds (at 100% brightness).
b) Press and hold the button for more than 0.5 second to adjust brightness continuously. After releasing the button, the brightness level is saved into memory and pressing the button shortly later will switch on/off the light to this intensity.
c) Brightness may be adjusted at any time by pressing and holding the button. The receiver remembers the adjusted value even after disconnecting from power supply.

Sunrise - press 5x



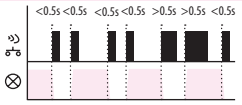
After pressing the button, the light will start to switch on during the selected time period, ranging from 2 seconds to 30 minutes.

Sunset - press 6x



After pressing the button, the light will start to switch off during the selected time period, ranging from 2 seconds to 30 minutes.

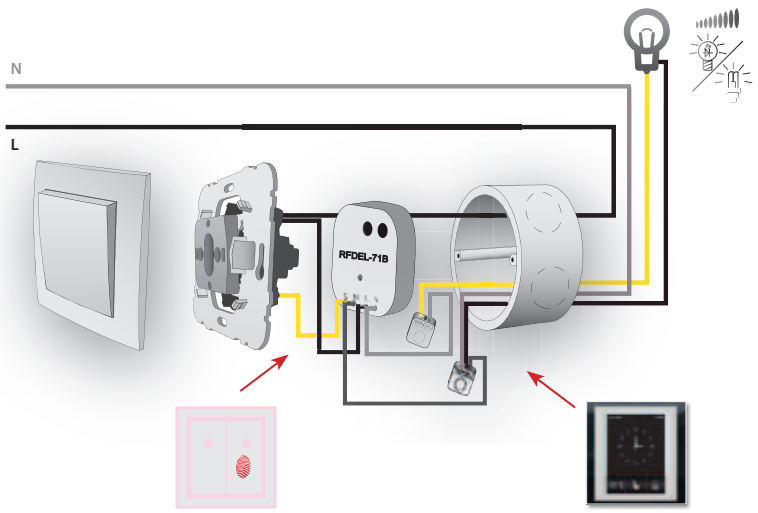
ON/OFF - press 7x



If the light is off, press the button to switch it on. If the light is on, press the button to switch it off.

Dimming Actuator for LED and Dimmable Energy-saving Light Bulbs BU-DEU

Examples of connection



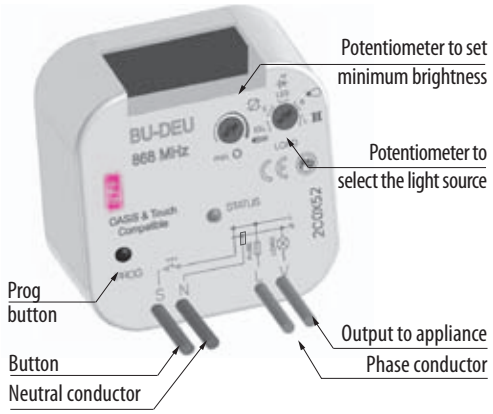
Serves to control the light intensity of 230V dimmable energy-saving light bulbs and LED lamps

- Type of the light source is selected by switch on the front panel
- Control options: with RF transmitter / with the existing button
- Multifunction - 7 program functions: 6 different light functions, ON/OFF function
- The setting of minimum brightness by potentiometer on device panel eliminates the flickering of various types of energy-saving tubes
- When switched off, the adjusted level of brightness is saved in memory to be restored when the light is switched on again
- Each actuator can be controlled by up to 32 channels (1 channel is represented by 1 button on the wireless wall switch button or the BU-TSD / TSW unit)
- Electronic overcurrent protection - the output is switched off in case of overloading or short-circuit
- For programming and manual output switching, press the Prog button
- Installation box design

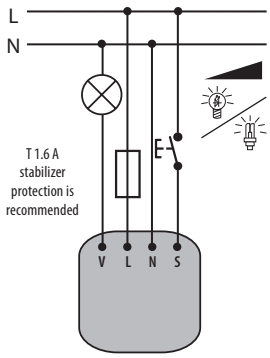
Technical data	
Supply voltage	230 V AC / 50 Hz
Apparent input	7 VA
Dissipated power	0.83 W
Supply voltage tolerance	+10/ -15 %
Connection	4 conductors, including "NEUTRAL"
Dimmed load	LED, ESL
Output	
Contactless	2 x MOSFET
Load capacity	160 W (-> cos φ=1)*
Control	
RF, by command from transmitter	868 MHz
Manual control	PROG (ON/OFF) button), external button
Range in free space	up to 160 m
Other data	
Operating temperature	-20 ... +35 °C
Storage temperature	-30 ... +70 °C
Operating position	any
Mounting	free at lead-in wires
Protection	IP30 at normal conditions
Overvoltage category	III.
Contamination degree	2
Terminals (CY wire, cross-section)	4 x 0.75 mm^2
Length of terminals	90 mm
Dimensions	49 x 49 x 21 mm
Weight	40 g
Related standards	EN 607 30-1 ED.2

Installation recommendation: ensure sufficient cooling of the device.
* Due to a large number of light source types, the maximum load depends on the internal construction of dimmable LEDs and ESL bulbs and their power factor cos φ. The power factor of dimmable LEDs and ESL bulbs ranges from cos φ = 0.95 to 0.4. An approximate value of maximum load may be obtained by multiplying the load capacity of the dimmer by the power factor of the connected light source.

Description



Wiring



Additional information

- dimming is only possible for LED lamps equipped with condenser power supply
- dimming is not possible for energy-saving fluorescent tubes not designated as dimmable
- an incorrect setting of the type of light source will only affect the dimming range, i.e. will not cause damage to the dimmer or the load
- the maximum number of dimmable light sources depends on their internal construction
- maximum load capacity is calculated using a LC filter - DIM-15F

Function description

6 light functions (identical to BU-DEU functions)

Control with the added button:

- press the button shortly (<0.5 s) to switch the light on/off
- press and hold the button (>0.5 s) to regulate the intensity of light continuously
- setting a minimum brightness is only possible when decreasing brightness by pressing and holding the button

Setting minimum brightness:

"LED lamp":

- if the light is off, press the button shortly (< 0.5s) to turn on the light onto last set intensity level

„Energy-saving fluorescent tube":

- if the light is off, press the button shortly to turn on the light onto max. intensity level (fluorescent tube will „light up") and then intensity decreases onto set level.
- setting of minimum light intensity by energy-saving fluorescent tubes serves for adjusting the lowest luminance before automatic turning off

Twilight light switch BU-DUSK1

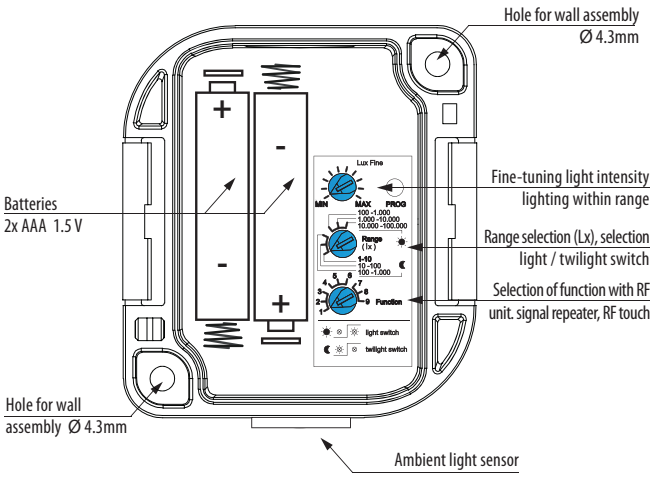
BU-DUSK1 is used to control blinds, awnings, lights and other appliances in relation to the ambient light intensity level:

- outdoor design in IP65 designed for wall mounting
- built-in light sensor
- two devices in one, functions are chosen by rotary switch:
  - twilight switch - switches upon a drop in ambient light intensity, switches off upon increase. Used for switching on lighting at twilight and at night (street and garden lighting, advertisement illumination, shop windows)
  - light switch - switches upon an increase in ambient light intensity, switches off upon decrease. Used for switching equipment when reaching the set ambient light level, usually by sunlight (dimming - blinds or awnings, solar panels - activation)
- 3 adjustable ranges of light level with option of fi ne-tuning
- 3 adjustable time delay values (for eliminating short fl uctuations in light intensity – ex. glare of automobile refl ectors)
- power by batteries 2x AAA 1.5V, battery life up to 2 years (based on amount of controlled units)
- option of programming up to 32 actuators
- compatibility with actuators:
  - BU-SU Multi (Switching actuator)
  - BU-DU Multi (Dimming actuator)

Technical data	
Power	2x1.5 batteries AAA
Battery life	around 2 years (based on number of controlled units)
Setting light level range	
Function (twilight switch)	
- range 1:	1 ... 10 lx
- range 2:	10 ... 100 lx
- range 3:	100 ... 1.000 lx
Function (light switch)	
- range 1:	100 ... 1 000 lx
- range 2:	1 000 ... 10 000 lx
- range 3:	10 000 ... 100 000 lx
Setting functions:	rotating switch
Fine-tuned lighting level:	0.1 ... 1 x range
Fine-tuned setting of lighting level:	potentiometer
Time delay t:	0 / 1 min. / 2 min.
Delay setting t:	rotating switch
Output	
Sending communication RF packet:	868 MHz
Range in the open:	up to 160 m
Further data	
Working temperature:	-20.. +50°C*
Storage temperature:	-30 .. +70°C
Working position:	sensor down and to sides
Degree of protection:	IP65
Pollution degree:	2
Dimensions:	72 x 62 x 34 mm
Weight	104 g
Relating standards:	EN 60730-1, EN 300 220, EN 301 489

*Note pay attention to the working temperature of the batteries

Description



Function