

Operating Instructions

RATIO® Radio Bus System

UP Blinds Actuator 1-channel 6A

UPJ230/01



General Information:

The Ratio® actuators/receivers are controlled via radio signals of the Ratio® radio transmitters. Every transmitter can control an unlimited number of actuators/receivers. The Ratio® radio transmitters have a fixed address and must be learned in for Ratio® actuators / receivers. The Ratio® switch actuators activate various end users such as light bulbs, blinds, gates, doors and others.

Product and function description

The Ratio® blinds actuator UPJ230/01 is a device for flush or surface mounting. A drive for blinds or a door can be lifted and lowered via its isolated output by means of Ratio® radio transmitters.

Depending on the parameter setting, different functions can be assigned to the output, for example, key sequences or switch-off delays of 10 minutes, i.e. the Ratio® UP actuator consists of the device itself (hardware) and the application program (software).

Position and function of the display and operating elements	Technical data
<p>A1: Button to switch from normal to learning mode and learn in and unlearn transmitters A1': LED indicating a valid telegram in the learning mode A2: Button for unlearning all learned-in transmitters A2': LED indicating the learning mode A3: Screw-type terminals 4mm² for connection of the supply voltage and the load circuit</p>	<p>2 closing contacts 6A potential-free, Rated current 6A / 250VAC</p> <p>Inrush current 20ms/30A Nominal current: 6A for switch actuators Switched power AC1 1500VA Switched power AC15 300VA Incandescent bulb 750W Halogen lamp 230VAC 500W Fluorescent bulbs compensated 200W Fluorescent bulbs uncompensated 300W Fluorescent bulbs Duo-switched 300W electronic ballast assuming max. 10 uF 1 Stk. Motor 1Ph AC3/230VAC 0,185kW Capacitive load 10uF</p>

Note in installation

The device may only be used for fixed installation indoors, in dry rooms and for installation in plastic sockets, taking into consideration the technical data.

Warning:

- The device may be installed in flush-mounted sockets (230VAC) and may only be installed and taken into operation by a licensed specialist electrician.
- Please make sure that the device can be enabled by means of a line safety switch.
- For insulation tests, the connection line (outer and neutral wire) have to be connected with each other.
- For wire insulation tests which, contrary to today's valid standard DIN VDE 0100 T.610, measure wire against wire, the device has to be disconnected; otherwise, it may be destroyed.
- When planning and setting up electrical systems, the pertinent directives, rules and regulations applicable in each country have to be observed.
- The applicable safety and accident prevention regulations have to be observed.
- The technical data of the device, in particular the data of the switch contact, have to be observed.

Do not open the device. A defective device has to be returned to the trader or the Omnia AG agency in charge.

Assembly and Wiring

The Ratio® UP actuator can be used in plastic sockets, for flush or surface mounting or in devices.

The position and the ranges depend on the materials used in a building. Do not install the Ratio® UP actuator in a casing made of metal or in the immediate vicinity of large metal objects. Installation close to the floor or on the floor is not recommended. See the data sheet Range Planning under www.omnia.ch.

Connecting control and load circuits:

- The connections consists of screw-type terminals 4mm².
- Strip the wires approx. 9..10mm, insert them into the terminal and tighten the screws using a screwdriver size 1.
- Max. two wires with 1.5mm² cross-section may be connected.

Range between transmitter and receiver

The signal strength of the radio signals decreases with rising distance between transmitter and receiver. If there is any visual contact, the range is approx. 30m in corridors and 100m in halls. In buildings the range of the radio signal is dependent on the construction materials used:

Material	Typical range	Material	Typical range
Brickwork	20m, through max. 3 walls	Plaster boards / wood	30m, through max. 5 walls
Reinforced concrete	10m, through max. 1 wall / ceiling	Heat-insulating windows	5m, through max. 1 window

Limitation of the range of the radio signals due to:

- Installation of the transmitters / receivers in the direct vicinity of materials with metal components or metal objects. A distance of at least 10cm should be observed.
- Installation of the receivers on the floor (floor outlet) or close to the floor
- Humidity in materials

Devices that also emit high-frequency signals, e.g. computers, audio and video systems or electronic ballast for illuminants. A minimum distance of 50cm should be observed.

Learning in and unlearning of radio transmitters

Learning mode:

Keep the **LRN** button pushed. After 1 second, the learning mode becomes active, indicated visually by the flashing **CLR**-LED and the connected devices. If you push the **LRN** button immediately or if no button of a Ratio® radio transmitter is pushed for 30 seconds, the learning mode will be quit automatically.

Programming Ratio® radio senders in Learning mode:

By pressing a Ratio® radio sender key or the programming key of a Ratio® radio sensor (windows contact), the Ratio® switch actuator is allocated on the appropriate channel. The sender allocation is confirmed when the blinking stops for 4 seconds. Afterwards, the blinking starts again and up to 30 additional Ratio® radio senders/sensors may be programmed. Note that the rocker A (the left one) will be fix allocated on channel K1, the Rocker B (the right one) will be fix allocated on channel K2.

If the Ratio® UP actuator is in the learning mode, a transmitter must not be farther away than 5m from the Ratio® UP actuator, since in this mode the Ratio® UP actuator is working with a range limited to 5m.

Selective unlearning of transmitters:

Individually learned in Ratio® radio transmitters/sensors can be unlearned selectively. To this end, the Ratio® UP actuator has to be switched to the learning mode (push **LRN** button for 1 second). If an already learned in button of a Ratio® radio transmitter/sensor is now pushed, this button will be unlearned immediately. This is indicated by the fact the **CLR**-LED stops flashing for 4 seconds. Then the flashing starts again and you can learn in or unlearn further transmitters. If you push the **LRN** button immediately or if no button of a Ratio® radio transmitter is pushed for 30 seconds, the learning/clearing mode will be quit automatically.

Unlearning all learned in transmitters:

Keep the **CLR** button pushed. After approx. 3 seconds all learned in Ratio® radio transmitters / sensors will be cleared from the memory and after another 2 seconds the program automatically switches over to the learning mode.

Function setting:

The functionality of the Relais from the Ratio® switch actuator can be changed. That can be achieved by pressing the rocker 4 times (On or Off) of the learned in Ratio® radio wall transmitter according the table bellow. The breaks between pressing the rocker should not exceed 0,5 secondes.

Note: For activate or deactivate of parameters, there are no actions at the Ratio® switch actuator itself needed.

Selecting and deselecting parameters:

To select one of the parameters, you first have to switch to the parameterization mode (no. 8). Then you can select all parameters starting with no. 1. Every selection of a parameter is indicated by a relay pulse of 1s duration and every deselection by a relay pulse of 500ms duration. Send the key sequence (no. 8) again to quit the parameterization mode again.

Example: Selecting the switch-off delay 5 minutes:

1. Select the parameterization mode with the key sequence **1-0-0-0** for parameter no. 8. If the parameterization mode is active, a switching of the relay should not be possible any more.
2. Select parameter **no.13** with the key sequence **1-1-0-1**.
3. Quite the parameterization mode with key sequence **1-0-0-0** for parameter no. 8.

Now the Ratio® UP actuator is enabled with the function switch-off delay 5 minutes.



On / Down(1)

Off / UP (0)

Nr.	Tastabfolge eines Funksender	Default wert	Parameterbeschreibung
0	0 0 0 0 0	-	Reset to default
1	0 0 0 0 1	0	Key sequence ON/OFF
2	0 0 1 0 0	0	Reverse outlet (UP=DN / DN=UP)
3	0 0 1 1 0	0	Switchsignal will be inverted
4	0 1 0 0 0	0	Nicht definiert
5	0 1 1 1 0	0	Nicht definiert
6	0 1 1 0 0	1	Solar sensor switches outlet on (SET)
7	0 1 1 1 1	1	Solar sensor switches outlet off (CLR)
8	1 0 0 0 0	-	Parameterization mode ON/OFF
9	1 0 0 0 1	1	Timer 0 seconds (inactive)
10	1 0 1 0 0	0	Switch-off delay 6 seconds
11	1 0 1 1 0	0	Switch-off delay 1 minutes
12	1 1 0 0 0	0	Switch-off delay 2,5 minutes
13	1 1 0 0 1	0	Switch-off delay 5 minutes
14	1 1 1 1 0	0	Switch-off delay 10 minutes
15	1 1 1 1 1	0	Switch-off delay 20 minutes

0 means the Off side of a rocker of the radio wall transmitter, 1 means the On side of a rocker of the radio wall transmitter.

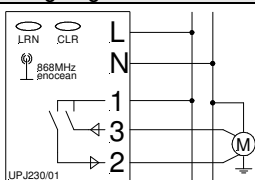
Legal requirements / old devices

The transmitters may not be used in connection with devices that are employed, directly or indirectly, for health- or life-saving purposes or if their operation may cause hazards to human beings, animals or property. Do not leave packaging material lying around carelessly. Plastic foils/bags, etc. may be hazardous toys for children.

These operating instructions are part of the device and part of our warranty terms. They have to be handed over to the customer. The technical specifications of the device may be changed without prior notice.

Do not throw old devices into the domestic garbage can. The device contains electrical components that have to be disposed off as electronic waste. The case is made of reusable plastic material.

Wiring diagram



Designation

Ratio®-UP blinds actuator single 230VAC/6A,
Main supply 230VAC

Type

UPJ230/01

Article number

3301000