

# auxi wls

Wireless module 2 inputs/2output:  
868 MHz bidirectional

## Installation guide

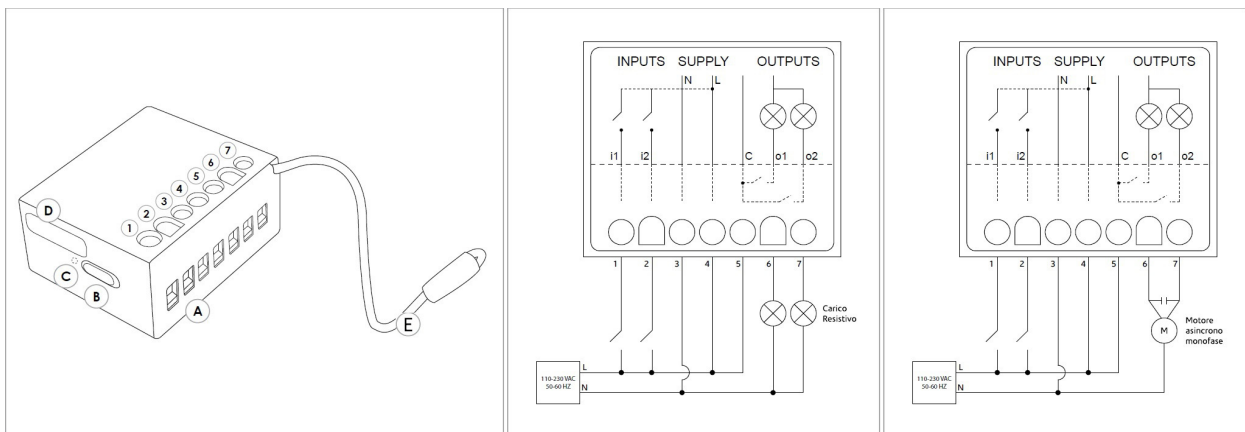


KSI2300002.300

### INTRODUCTION

auxi wls is a wireless module with 2 built-in inputs and outputs. Powered directly from the mains, auxi wls is ideal to remotely manage lights, home automations (such as roller blinds and curtains) and, generally, any load unreachable by cables. auxi wls can be used in conjunction with lares 4.0 control panels or as a stand-alone device. In the second case, the outputs can be controlled locally (using the inputs on board) or remotely, using the opera remote control.

### DESCRIPTION OF THE PRODUCT - TERMINALS - WIRING EXAMPLES



#### LEGEND

- A - Terminal blocks
- B - Programming button
- C - Status LED
- D - Serial Number Label
- E - Radio Antenna DO NOT CUT

- 1 - Input 1
- 2 - Input 2
- 3 - Common relay contacts
- 4 - Power supply - neutral
- 5 - Relay output 1
- 6 - Power supply - phase
- 7 - Relay output 2

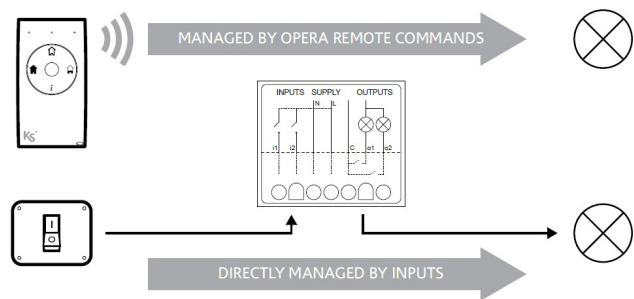
## TECHNICAL DATA

- Voltage: 110 -230 VAC 50-60Hz
- Frequency: 868 MHz
- Operative range in open air: up to 150m
- Inputs: Nr. 2
- Outputs: Nr. 2 (5A 250V~AC - 5A 30VDC)
- Operative range: -20 / + 55°C
- Dimensions: 42 x 35 x 20 mm
- Protection class: IP20

## FUNCTIONS

### STAND-ALONE

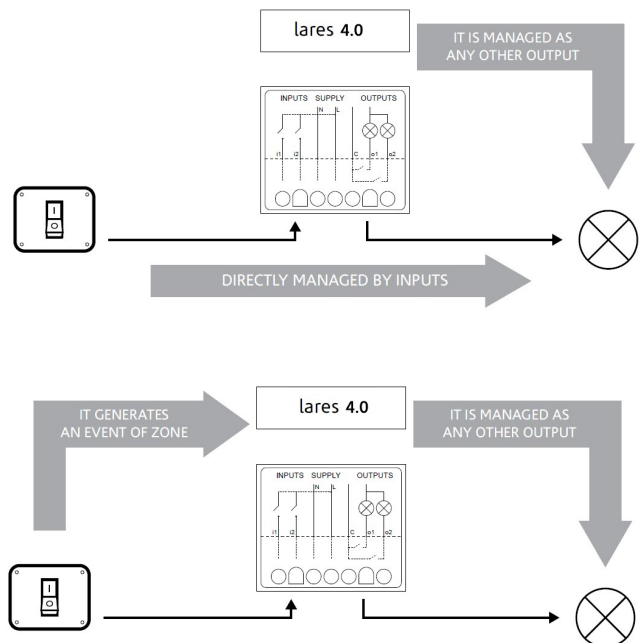
It is possible to manage relay outputs through the closure of the inputs present on auxi wls or using the opera remote commands previously programmed.



### LARES 4.0 CONTROL PANELS

Depending on its size, lares 4.0 control panels can manage up to 64 auxi wls. The activation of the outputs can be managed through scenarios or using the built-in inputs on auxi wls. Inputs present on auxi wls can work in different ways:

- **Local:** no panel zone has to be associated to the input, in order to work in this mode. The 2 inputs present on device could be used to change the status of the outputs.
- **As Panel zone:** in order to work in this mode, a Panel zone has to be assigned to the input. The closure / opening of inputs is notified to the Panel that will performs the programmed actions during the real time of the associated zone or its restoral.

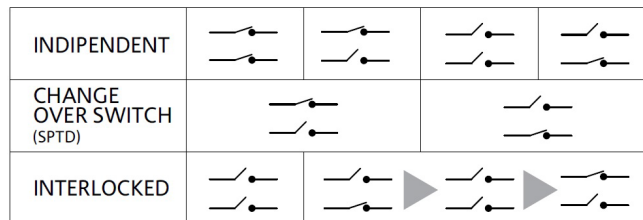


## OUTPUTS WORKING MODES

Both in stand-alone or directly connected to the Panel, the relay outputs can be programmed as follows:

- **INDIPENDENT OUTPUTS:** both the outputs are completely independent and can be separately programmed (eg. the first output as bistable and the second one as monostable).
- **STPD (change over switch) OUTPUTS:** the outputs are considered as an unique logic output. The first is Normally Open and the second one is Normally Closed. The outputs are dependent and cannot be separately managed. The commutation of the first relay implies the commutation of the second one.
- **INTERLOCKED OUTPUTS:** in this mode, particularly useful to manage electric motors, the relay outputs cannot be active at the same time. In case an output is active and the other one has to be activated, both of the outputs will be deactivated for half a second and then will commutate.

The outputs can be programmed as Bistable or Monostable, regardless the selected configuration.

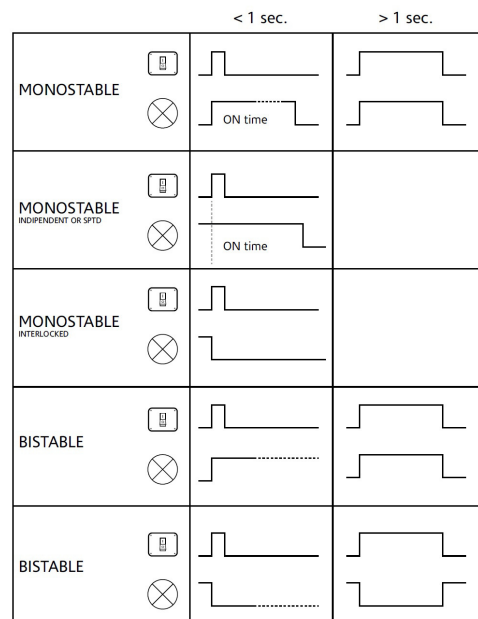


## OUTPUTS MANAGEMENT THROUGH LOCAL CONTACTS (STAND-ALONE | LARES 4.0)

What follows is valid only for using auxi wls as stand-alone device or as peripheral on Panel, without associated zones (see above). In case of independent or interlocked outputs, the first input manage the first relay output and the second input manage the second relay output. In case of STPD (change over switch) output it is possible to use one or another input to manage the output.

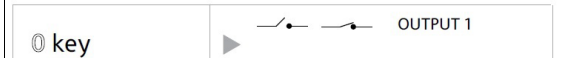
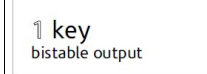





At the changing of the inputs status, outputs react as follows:

- **MONOSTABLE OUTPUT:** If the input remains closed for less than one second (use with short press of button), the output is activated during the ON time. In case the output is already active, the ON time is restarted, if the output is programmed as independent or SPTD (change over switch). Otherwise the ON time turns off, if the output is programmed as interlocked.
- **BISTABLE OUTPUT:** If the input remains closed for less than one second, the output commutates only at the input closure. If the input remains closed for more than one second, the output commutates both at the closure and at the re-opening of the input.


















## OUTPUTS MANAGEMENT THROUGH OPERA REMOTE COMMANDS (STAND-ALONE)

What follows is valid only for using auxil wls as stand-alone device. To manage outputs with opera remote command it is necessary to enroll it. As explained in 'Programming' paragraph, each key of remote command can be associated with an auxil wls or 0-1-2 keys can be programmed to manage the relay outputs of 3 different auxil wls. To associate a single key of remote command to an auxil wls allows to manage up to 3 auxil wls at the same time, with the same remote command, if these are covered by the RF channel. In case all the keys of opera remote command are associated to the same auxil wls, these operate as follows:

0 key	This key turns the 2 outputs in stay mode. This action is confirmed by turning on the central LED on <b>opera</b> remote command.		
1 key	<p>This key manages the first relay output. By pressing this key, the outputs react depending on the programming.</p> <ul style="list-style-type: none"> <li>• If the output is programmed as <b>monostable</b> it be activated and remains active during the ON time. In case the output is already active and programmed as independent or SPTD (change over switch), the ON time is re-started. Otherwise it turns off, if the output is programmed as interlocked.</li> <li>• If the output is programmed as <b>bistable</b>, it commutates at every press on the key</li> </ul> <p>To confirm the operation, opera remote command turns ON its left LED, if the outputs is activated and turns ON the central LED, if the output is deactivated.</p>	<p>1 key bistable output</p> 	<p>1 key monostable output independent / SPTD</p> 
2 key	<p>This key manage the second relay output By pressing this key, the outputs react depending on the programming.</p> <ul style="list-style-type: none"> <li>• If the output is programmed as <b>monostable</b> it be activated and remains active during the ON time. In case the output is already active and programmed as independent or SPTD (change over switch), the ON time is re-started. Otherwise it turns off, if the output is programmed as interlocked.</li> <li>• If the output is programmed as <b>bistable</b>, it commutates at every press on the key</li> </ul> <p>To confirm the operation, opera remote command turns ON its left LED, if the outputs is activated and turns ON the central LED, if the output is deactivated.</p>	<p>2 key</p> <p>the same as key 1 but on output 2</p>	
i key	<p>This key allows to visualize the outputs status. The short press on this key displays the status of the first output. If the output is active, the left LED of opera turns ON, otherwise it turns ON the central one.</p> <p>The long press on the same key (more than 3 seconds) displays the status of the second output in the same way as the first one.</p>	<p>i key short press</p> 	
		<p>i key long press</p> 	

In case the keys of the same opera remote command are associated to different auxi wls, by pressing a key the relay outputs react as follows:

<p>0 1 2 keys</p>	<p>In case the outputs are programmed as independents, a short press of the key manages the first output and a long press manages the second output. In case the output are programmed as SPTD (change over switch), there is no difference between the short or the long press of the key, considering that the outputs commute together.</p> <p>In case the outputs are programmed as interlocked, the outputs reaction depends on the previous status of the relay outputs. The activation sequence is: first output activation, output deactivation, second output activation, output deactivation, first output activation again and so on. The LED on opera remote command, corresponding to the pressed key, turns ON to confirm the operation (left led &gt; key 0, right led &gt; key 2).</p>	<table border="1"> <tr> <td data-bbox="815 464 1035 548"> <p>key 0 short pression independent / SPTD</p> </td> <td data-bbox="1035 464 1222 548"> <p>output 1 on auxi wls 0 / 1 / 2</p>  </td> <td data-bbox="1222 464 1414 548"> <p>output 1 on auxi wls 0 / 1 / 2</p>  </td> </tr> <tr> <td data-bbox="815 548 1035 632"> <p>key 0 / 1 / 2 long pression independent / SPTD</p> </td> <td data-bbox="1035 548 1222 632"> <p>output 2 on auxi wls 0 / 1 / 2</p>  </td> <td data-bbox="1222 548 1414 632"> <p>output 2 on auxi wls 0 / 1 / 2</p>  </td> </tr> <tr> <td data-bbox="815 632 1035 716"> <p>key 0 / 1 / 2 short pression interlocked</p> </td> <td colspan="2" data-bbox="1035 632 1414 716">  </td> </tr> <tr> <td data-bbox="815 716 1035 800"> <p>key 0 / 1 / 2 long pression interlocked</p> </td> <td colspan="2" data-bbox="1035 716 1414 800"> <p>not used</p> </td> </tr> </table>		<p>key 0 short pression independent / SPTD</p>	<p>output 1 on auxi wls 0 / 1 / 2</p> 	<p>output 1 on auxi wls 0 / 1 / 2</p> 	<p>key 0 / 1 / 2 long pression independent / SPTD</p>	<p>output 2 on auxi wls 0 / 1 / 2</p> 	<p>output 2 on auxi wls 0 / 1 / 2</p> 	<p>key 0 / 1 / 2 short pression interlocked</p>			<p>key 0 / 1 / 2 long pression interlocked</p>	<p>not used</p>	
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<p>i key</p>	<p>not used</p>														

### OUTPUT MANAGEMENT THROUGH PANEL SCENARIOS

In case auxi wls is associated to a lares 4.0 control panel, the activation / deactivation of the outputs can be managed also through the panel. In the same way as the panel outputs, the outputs on auxi wls can commute when a particular event occurs, or can be manually activated through web server.

### QUANTITY DATA

lares 4.0 models	wls 96	16	40	40 wls	140 wls	644 wls
Maximum number of auxi wls I/O	8	8	20	20	64	64

### LED FUNCTIONS

Powering it up, the LED on device quickly blinks 3 times. Once stops blinking, if there are programmed opera remote commands and the device is working in stand-alone mode, the led stays steady on. If the device works as a wireless peripheral of the panel, the led turns OFF. Once the starting phase is over, the led indicates the reception of a valid radio command.

## **CONFIGURATION OF RADIO MODULE USING LARES 4.0 CONTROL PANEL**

In order to work with the lares 4.0 control panels, auxi wls has to be enrolled as peripheral. The different ways to enroll an auxi wls are described here below:

1. Insert the serial number of auxi wls directly from basis software
2. Set the panel on 'Enrolling' mode and power up the auxi wls
3. Set the panel on 'Enrolling' mode and press shortly on programming button on auxi wls

The outputs and the inputs can be programmed as normally open or normally closed. Please refer to the lares 4.0 Programming Manual for more details.

## **CONFIGURATION OF RADIO MODULE AS STAND-ALONE DEVICE**

In order to program auxi wls as stand-alone device, at least an opera remote command has to be memorized. The procedures to memorize an opera remote command and to program the relay outputs are described here below.

### **MEMORIZE OPERA REMOTE COMMANDS**

In order to program the remote commands, hold the programming button on auxi wls for 3 seconds. The led on device stays lit to confirm the access on programming mode. Hold the key "i" on remote command for 3 seconds, in order to memorize it. The led on auxi wls blinks 4 times to confirm the memorization. It could be useful to use the same opera to manage more auxi wls placed on the same radio operational range. To do this, avoiding conflicts, just associate a single key of remote command to a single auxi wls. In order to associate only one key to an auxi wls, press the key you want to associate (0, 1 or 2) within the 5 seconds after the confirm of memorization. A memorized remote command can be deleted by holding for 3 second the key. The led on auxi wls quickly blinks 2 couple of times in order to confirm the deleted remote command.

### **PROGRAMMATION OF FUNCTIONS OF RELAY OUTPUTS**

Once the memorization of remote commands is over, by holding for 3 seconds the programming button on auxi wls, it switches from the programming of remote commands to the programming of outputs. While in outputs programming mode, the led on auxi wls blinks regularly (half a second ON, half a second OFF). At this point, a memorized remote command can be used to program the outputs. Please see the tables here below to program the outputs.

INDEPENDENT			
MONOSTABLE		BISTABLE	
relay output 1	relay output 2	relay output 1	relay output 2
Short press on key 1 of opera remote command. Once pressed, the first relay switches and the led on auxi wls starts blinking each second. This indicates that auxi wls start counting the monostable time. By pressing again, the relay re-opens and the led on auxi wls quickly blinks 3 times to confirm the configuration saving. The monostable time is the time elapsed between the two press on key.	Short press on key 2 of opera remote command. Once pressed, the first relay switches and the led on auxi wls starts blinking each second. This indicates that auxi wls start counting the monostable time. By pressing again, the relay re-opens and the led on auxi wls quickly blinks 3 times to confirm the configuration saving. The monostable time is the time elapsed between the two press on key.	Long press on key 1. The led on auxi wls blinks 3 times to confirm the configuration saving.	Long press on key 2. The led on auxi wls blinks 3 times to confirm the configuration saving.

SPTD Change over switch		INTERLOCKED	
MONOSTABLE	BISTABLE	MONOSTABLE	BISTABLE
Short press on key 0 of opera remote control. Once pressed, the first relay switches and the led on auxi wls starts blinking each second. This indicates that auxi wls start counting the monostable time. By pressing again, the relay re-opens and the led on auxi wls quickly blinks 3 times to confirm the configuration saving. The monostable time is the time elapsed between the two press on key.	Long press on key 0 of opera remote control. The led on auxi wls quickly blinks 3 times to confirm the configuration saving.	Short press on key (i) of opera remote command. Once pressed, the first relay switches and the led on auxi wls starts blinking each second. This indicates that auxi wls start counting the monostable time. By pressing again, the relay re-opens and the led on auxi wls quickly blinks 3 times to confirm the configuration saving. The monostable time is the time elapsed between the two press on key.	Long press on key (i) of opera remote control. The led on auxi wls quickly blinks 3 times to confirm the configuration saving.

By holding for 3 seconds the programming button on auxi wls, it exits from the programming mode of the outputs and the device returns to the normal working mode. The led on device blinks at the exit of programming mode, as at the start of programming.

NOTE: auxi wls have to be programmed one by one. DO NOT try to program more than one auxi at the same time, to avoid conflicts.

## **FACTORY DATA RESET**

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On factory data configuration there are no opera remote commands memorized and the outputs are programmed as independent and bistable.

In order to restore the factory default, hold the programming button on auxi wls for 10 seconds while it is in normal working mode. The led on device stays steady on, then starts regularly blinking and finally shortly blinks 3 times, like the first power up. These 3 blinks indicate the reset of factory data and auxi wls returns to the normal working mode. In case the button is released before the end of procedure (3 blinks), if the button is released while the led stays lit, auxi wls will enter in the remote commands programming, if the button is released while the led blinks regularly it will enter in the outputs programming.

In case of factory data reset, auxi wls acts as a wireless peripheral on panel, considering that there are no remote commands memorized.

## **CERTIFICATIONS**

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Europe - CE, RoHs



Technical data, appearance, functionality and other product characteristics may change without notice.