

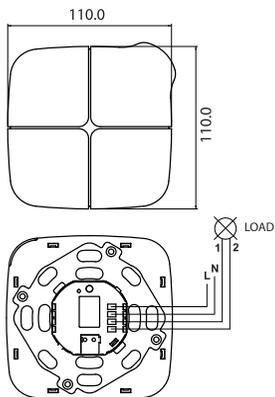
PB41AxxZWE

Eelecta Z-Wave

Push button 4 channels /
1 Relay OUT



Dimensions



- L Live terminal
- N Neutral terminal
- 1 Common terminal Relay
- 2 Out terminal Relay

Technical Specifications

Power Supply	230VAC ±10% 50/60 Hz
Output	10A cosφ 1 - 230 VAC
	3A for motors and motor reducers
Max capacitance @230V: 21μF	5,000 cycles
Incandescent lamps max load: 1500W	50,000 cycles
Fluorescent lamps max load: 6x18W	25,000 cycles
Halogen lamps max load: 500W	50,000 cycles
Gas discharge lamps max load: 200W	25,000 cycles
Ambient temperature during operation	-5°...+45°
Storage temperature	-20°...+55°
Relative humidity (not condensing)	max 90%
Protocol radio	Z-Wave 868,4 MHz
Maximum distance	100m outdoor (40m indoor)
Dimensions	110mm x 110mm
Consumption	< 400 mW
Degree of protection	IP 20
Actuator Element	Bistable Relay
Compliance certificate	CE, RoHS

Description and product functions

Eelecta is a device able to provide the command of a remote dry contact load and the management of 4 commands through Z-Wave technology.

Management of a load with dry contact locally.

The local dry contact is handled by one of the four buttons chosen during the setup.

Load/contacts management remotely.

The device has 4 buttons for remote loads control, it's equipped on board with a relay controllable by one of the four buttons.

Device Activation

1. First of all, check that the main power network is in the OFF position.
2. Install and connect the device according to the diagrams provided.
3. Power Up the system.
4. Reset the device when powered up (by pressing 6 times one of the buttons within one minute from the power up).
5. Include the device in the Z-Wave network using the controller.

Include (Add) device into an existing Z-Wave network

PB41AxxZWE (with factory default configuration) can be included in any Z-Wave network and communicate with other Z-Wave devices of other Manufacturers.

Through the feature of "meshing" of the Z-Wave technology, PB41AxxZWE can be used as a repeater node.

The device supports both the mechanism "Network Wide Inclusion" (which offers the possibility of inclusion in a network even though the device is not directly related to the controller) and the "Normal Inclusion".

If the device is in factory default configuration, the single click of one of the buttons, starts the "Network Wide Inclusion" process that lasts for a time between 15 and 30 seconds.

Exclude (Remove) device from a Z-Wave network

Only a controller has the ability to remove a device from the Z-Wave network where is included. PB41AxxZWE is compatible with all certified Z-Wave controllers.

The exclusion procedure must be initiated by the controller and ended on the device that can be removed with the triple consecutive pressing of one of the buttons on the device.

Restore factory default settings

To restore the device to the original factory configuration one of the following methods can be adopted:

1. Remove the device from the Z-Wave network using the controller;
2. Disconnect the device from the main power supply and reconnect it pressing consecutively six times one of its buttons within 1 minute from the device start. Please use this procedure only when the network primary controller is missing or otherwise inoperable.

INFO: Upon removal, if the device (node) is included in a network it notifies to other devices its removal (Device Reset Locally Notification).

If the device receives a notification of removal from part of another device in the network, the associations of the latter will be removed.

Firmware Update

The device supports firmware update over the air without having to remove the device from its position. The firmware update can be performed by all certified controllers compliant with "Firmware Update v2.0" feature.

The firmware update procedure has to be enabled from the device with four consecutive button press. The activation lasts for 10 seconds; beyond this period, if the firmware update process has not started, it must be re-enabled.

Nota: After the firmware update procedure, the system is restarted. It is recommended to perform the firmware update procedure only if necessary and after a careful intervention planning.

Association

PB41AxxZWE can control other devices as relays or dimmer through an association configured by the controller. PB41AxxZWE supports up to 9 linkage groups, to each group up to 8 devices can be paired:

ID	Group Name	Profile	Commands received
1	LifeLine Group	LifeLine Main 1	Switch Binary Report, Device Reset Locally Notification
2	On/Off control (Switch 1/2/3/4)	Control Key2/3/4/5	Switch Binary/Push Button Set
3	Dimming control (Dimming 1/2/3/4)	Control Key6/7/8/9	Dimmer Set

Configuration parameters

Parameter N°1: Local load control (1 Byte)

Defines which button is related to the control of the local load. The setting of this parameter restarts the device.

Configuration	Value and Description
None of the buttons	0 - None of the buttons controls the local load
Button 1 (Default)	1 - Relay controlled by button 1
Button 2	2 - Relay controlled by button 2
Button 3	3 - Relay controlled by button 3
Button 4	4 - Relay controlled by button 4

Parameter N°2: Control of devices linked with groups 2,3,4,5,6,7,8,9 (1 Byte)

Defines in which cases the control of the linked devices will be activated with a "click" of a configured button. In order to control devices linked to a group these devices have to belong to this group.

Configuration	Value and Description
Never	1 - The possible associations will be ignored and associated devices will be not controlled
Always	2 - The associated devices will always be controlled by a click of one of the four buttons
Exclusively (Default)	3 - The associated devices will be controlled only from those buttons that aren't associated to the local load

Parameter N°3: Defines to which button is associated the All On/Off function (*)

This parameter allows you to control devices associated with the button in a predefined way and not depending on their current state or command sent previously.

Configuration	Value and Description
Button1	0- on/off standard control (Default) 1-always on 2-always off
Button 2	0- on/off standard control (Default) 4-always on 8-always off
Button 3	0- on/off standard control (Default) 16-always on 32-always off
Button 4	0- on/off standard control (Default) 64-always on -128-always off

* The setting value for the parameter is calculated as the sum of the associated value to the individual buttons.

Ex: To associate to the buttons 3 and 4 the functionality "turn all off" the value of the parameter MUST be set to 0 + 0 + 32-128-> -96

Default value: 0

Allowed values: from -128 to 127.

Parameter N°5: LED Feedback (1 Byte)

Defines which events trigger LED feedback.

The value to be entered for this parameter it's calculated as the sum of the values associated with the individual entities indicated in table.

Configuration	Description
1-LED reporting state of the Relay	If activated, the LED associated to the state of the relay will be turned on if the relay is closed and it will be switched off when the relay is open.
2-Feedback on press button	If set, the LED related to button will blink on pressing
4-Feedback on notification received from Remote devices	If set, when device receives a feedback from a different node which belongs to a single group controller, the associated LED lit on

Default value: 3

Parameter N°60: Status at Power on (1 Byte) Status after device restart.

Configuration	Device settings
1-ON	Local Relay close
2-OFF	Local Relay open
4-Previous State	Keep status before power down (Default)

Parameter N°61: Configuration Reset (1 Byte)

Define which parameters will be set to Factory Defaults.

Configuration	Value and Description
Reset Associations	1 - All and only the associations are reset
Reset Configurations	2 - The associations are preserved while all other parameters of configuration will be reset to Factory defaults, except this one that remains unchanged
Restart Device	3 - Device will be restarted
Ignore (Default)	4 - No action is carried out

Parameter N°62: Switch or dimmer option (1 Byte) (*)

This parameter define the behaviour of the button between switch and dimmer functions.

Configuration	Value and Description
Button 1	0-switch (Default) 1-push button 2-dimmer
Button 2	0-switch (Default) 4-push button 8-dimmer
Button 3	0-switch (Default) 16-push button 32-dimmer
Button 4	0-switch (Default) 64-push button -128-dimmer

* The setting value for the parameter is calculated as the sum of the associated value to the individual buttons.

Ex: To associate to the buttons 3 and 4 the functionality "dimmer" the value of the parameter MUST be set to 0 + 0 + 32-128-> -96

Default value: 0

Allowed values: from -128 to 127.

Parameter N°63: Light intensity at switch on (1 Byte) (*)

This parameter set the Light intensity at switch on. This behaviour is only applicable to dimmer.

Configuration	Value and Description
Button 1	0 - maximum brightness (Default) 1 - fixed value 60% 2 - previous value
Button 2	0 - maximum brightness (Default) 4 - fixed value 60% 8 - previous value
Button 3	0 - maximum brightness (Default) 16 - fixed value 60% 32 - previous value
Button 4	0 - maximum brightness (Default) 64 - fixed value 60% -128 - previous value

* The setting value for the parameter is calculated as the sum of the associated value to the individual buttons.

Ex: To associate to the buttons 3 and 4 the functionality "previous value" the value of the parameter MUST be set to 0 + 0 + 32-128-> -96

Default value: 0

Allowed values: from -128 to 127.

Parameter N°64: Increase or decrease brightness (1 Byte) (*)

This parameter allows you to set the ramp time during dimming.

Configuration	Value and Description
Button 1	0 - second (Default) 1 - 5 seconds 2 - 10 seconds
Button 2	0 - second (Default) 4 - 5 seconds 8 - 10 seconds
Button 3	0 - second (Default) 16 - 5 seconds 32 - 10 seconds
Button 4	0 - second (Default) 64 - 5 seconds -128 - 10 seconds

* The setting value for the parameter is calculated as the sum of the associated value to the individual buttons.

Ex: To associate to the buttons 3 and 4 the value "10 seconds" the value of the parameter MUST be set to 0 + 0 + 32-128-> -96

Default value: 0

Allowed values: from -128 to 127.

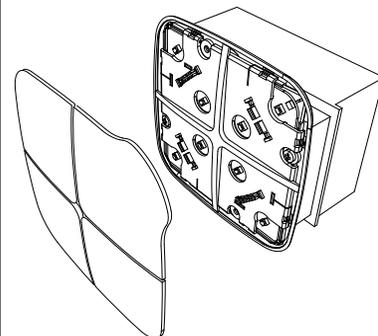
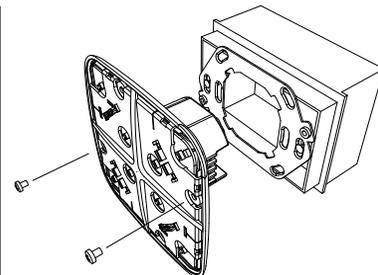
Installation Instructions

The device may be used for permanent indoor installations in dry locations within wall box mounts. **WARNING**

- The device must be connected to the power cables with a 230VAC voltage.
- The device must be installed in a location that is accessible only to qualified installers.
- The applicable safety and accident prevention regulations must be observed.
- The device must not be opened. Any faulty devices should be returned to manufacturer.
- For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.

Z-Wave Supported Command Class

COMMAND_CLASS_BASIC
COMMAND_CLASS_SWITCH_BINARY
COMMAND_CLASS_ASSOCIATION_GRP_INFO
COMMAND_CLASS_DEVICE_RESET_LOCALLY
COMMAND_CLASS_ZWAVEPLUS_INFO
COMMAND_CLASS_CONFIGURATION
COMMAND_CLASS_MANUFACTURER_SPECIFIC
COMMAND_CLASS_POWERLEVEL
COMMAND_CLASS_FIRMWARE_UPDATE_MD
COMMAND_CLASS_ASSOCIATION
COMMAND_CLASS_VERSION
COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION



DISPOSAL

If the crossed-out bin symbol appears on the equipment or packaging, this means the product must not be included with other general waste at the end of its working life. The user must take the worn product to a sorted waste centre, or return it to the retailer when purchasing a new one. An efficient sorted waste collection for the environmentally friendly disposal of the used device, or its subsequent recycling, helps avoid the potential negative effects on the environment and people's health, and encourages the re-use and/or recycling of the construction materials.

For further information please visit: www.eelectron.com

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