



Qubino

Flush Dimmer 0-10V

SKU: GOAEZMNHVD1



Quickstart

This is a **secure 10V Dimmer** for **Europe**. To run this device please connect it to your mains power supply. To add this device to your network execute the following action:

- press service button S for more than 2 second or
- press push button I1 three times within 3s (3 times change switch state within 3 seconds).

Important safety information

Please read this manual carefully. Failure to follow the recommendations in this manual may be dangerous or may violate the law. The manufacturer, importer, distributor and seller shall not be liable for any loss or damage resulting from failure to comply with the instructions in this manual or any other material. Use equipment only for its intended purpose. Follow the disposal instructions. Do not dispose of electronic equipment or batteries in a fire or near open heat source.

What is Z-Wave?

Z-Wave is the international wireless protocol for communication in the Smart Home. This device is suited for use in the region mentioned in the Quickstart section.

Z-Wave ensures a reliable communication by reconfirming every message (**two-way communication**) and every mains powered node can act as a repeater for other nodes (**meshed network**) in case the receiver is not in direct wireless range of the transmitter.

This device and every other certified Z-Wave device can be **used together with any other certified Z-Wave device regardless of brand and origin** as long as both are suited for the same frequency range.

If a device supports **secure communication** it will communicate with other devices secure as long as this device provides the same or a higher level of security. Otherwise it will automatically turn into a lower level of security to maintain backward compatibility.

For more information about Z-Wave technology, devices, white papers etc. please refer to www.z-wave.info.



Product Description

Universal dimmer module with a standard 0-10V output and a multi-function input, which may be a push button / switch, a potentiometer or 0-10V signal.

- Push button (mono stable switch)
- Bi stable switch
- Potentiometer
- 0-10V input (requires external source)

Prepare for Installation / Reset

Please read the user manual before installing the product.

In order to include (add) a Z-Wave device to a network it **must be in factory default state**. Please make sure to reset the device into factory default. You can do this by performing an Exclusion operation as described below in the manual. Every Z-Wave controller is able to perform this operation however it is recommended to use a Z-Wave controller that supports this operation.

the primary controller of the previous network to make sure the very device is excluded properly from this network.

Reset to factory default

This device also allows to be reset without any involvement of a Z-Wave controller. This procedure should only be used when the primary controller is inope

- press service button S for more than 6 second or
- press push button I1 five times within 3s (5 times change switch state within 3 seconds) in the first 60 seconds after the module is connected to the po supply.

Safety Warning for Mains Powered Devices

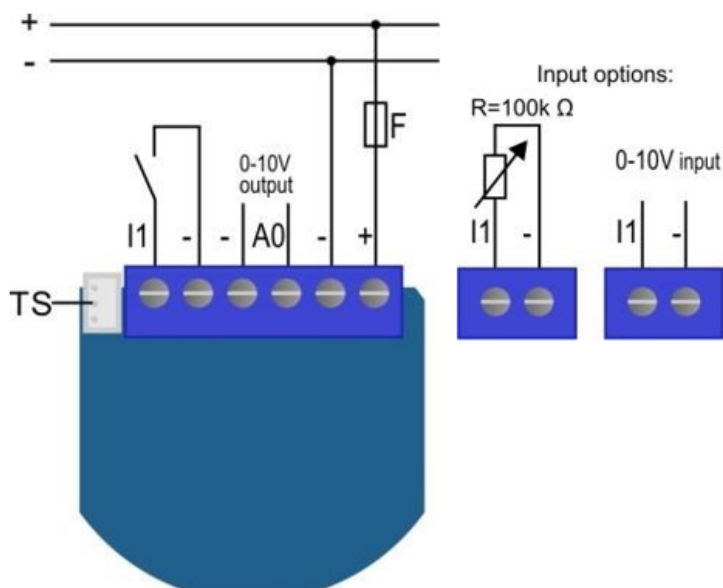
ATTENTION: only authorized technicians under consideration of the country-specific installation guidelines/norms may do works with mains power. Prior to assembly of the product, the voltage network has to be switched off and ensured against re-switching.

Installation

- Before the installation disconnect power supply (1224VDC)
- Connect the module according to electrical diagram.
- Locate the antenna far from metal elements (as far as possible).
- Do not shorten the antenna.

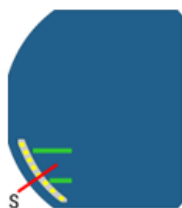
Note! Do not connect the module to loads exceeding recommended values. Connect the module only in accordance to the below diagrams. Improper conn be dangerous.

Electrical diagram



Notes for the diagram:

- +** 12 - 24VDC
- GND
- AO** 0 - 10VDC
- I1** Input for push button/switch/potentiometer or 0/10V
- TS** Terminal for digital temperature sensor (only for Flush Dimmer 0-10V module compatible digital temperature sensor, which must be ordered separately).



- S** Service button (used to add or remove module from the Z-Wave network).

NOTE: When connecting temperature sensor to module that has already been included, you have to exclude module first. Switch off power supply, connect and re-include the module.

Inclusion/Exclusion

On factory default the device does not belong to any Z-Wave network. The device needs to be **added to an existing wireless network** to communicate with devices of this network. This process is called **Inclusion**.

Devices can also be removed from a network. This process is called **Exclusion**. Both processes are initiated by the primary controller of the Z-Wave network controller is turned into exclusion respective inclusion mode. Inclusion and Exclusion is then performed doing a special manual action right on the device.

Inclusion

- press service button S for more than 2 second or
- press push button I1 three times within 3s (3 times change switch state within 3 seconds).

Exclusion

- press service button S for more than 6 second or
- press push button I1 five times within 3s (5 times change switch state within 3 seconds) in the first 60 seconds after the module is connected to the power supply.

Auto-Inclusion

Beside the standard inclusion this device supports the so called **auto inclusion**. Right after powering up the device remains in inclusion state and can be (any) gateway without further actions on the device itself. The auto inclusion mode will time out after some time.

Quick trouble shooting

Here are a few hints for network installation if things don't work as expected.

1. Make sure a device is in factory reset state before including. In doubt exclude before include.
2. If inclusion still fails, check if both devices use the same frequency.
3. Remove all dead devices from associations. Otherwise you will see severe delays.
4. Never use sleeping battery devices without a central controller.
5. Don't poll FLIRS devices.
6. Make sure to have enough mains powered device to benefit from the meshing

Association - one device controls another device

Z-Wave devices control other Z-Wave devices. The relationship between one device controlling another device is called association. In order to control a device, the controlling device needs to maintain a list of devices that will receive controlling commands. These lists are called association groups and they are related to certain events (e.g. button pressed, sensor triggers, ...). In case the event happens all devices stored in the respective association group will receive the same wireless command, typically a 'Basic Set' Command.

Association Groups:

Group Number	Maximum Nodes	Description
1	1	Lifeline
2	16	basic on/off
3	16	start level change/stop level change
4	16	multilevel set
5	16	multilevel sensor report (triggered at change of analogue sensor)
6	16	multilevel sensor report (triggered at change of temperature sensor)

Configuration Parameters

Z-Wave products are supposed to work out of the box after inclusion, however certain configuration can adapt the function better to user needs or unlock further enhanced features.

IMPORTANT: Controllers may only allow configuring signed values. In order to set values in the range 128 ... 255 the value sent in the application shall be value minus 256. For example: To set a parameter to 200 it may be needed to set a value of 200 minus 256 = minus 56. In case of a two byte value the same applies: Values greater than 32768 may be needed to be given as negative values too.

Parameter 1: Input switch type

Size: 1 Byte, Default Value: 0

Setting	Description
0	mono-stable switch type (push button)
1	bi-stable switch type

Parameter 5: Working mode

With this parameter it is possible to change the module presentation on the user interface.

NOTE: After parameter change, first exclude module (without setting parameters to default value) then wait at least 30s and then re-include the module!

Size: 1 Byte, Default Value: 0

Setting	Description
0	Dimmer mode
1	Switch mode

Parameter 10: Activate / deactivate functions ALL ON / ALL OFF

Size: 2 Byte, Default Value: 255

Setting	Description
255	ALL ON active, ALL OFF active.
0	ALL ON is not active, ALL OFF is not active
1	ALL ON is not active, ALL OFF active
2	ALL ON active, ALL OFF is not active DIN Dimmer module responds to commands ALL ON / ALL OFF t sent by the main controller or by other controller belonging to the system.

Parameter 11: Automatic turning off output after set time

Size: 2 Byte, Default Value: 0

Setting	Description
0	Auto OFF disabled
1 - 32536	1 second - 32536 seconds Auto OFF enabled with define time, step is 1 second.

Parameter 12: Automatic turning on output after set time

Size: 2 Byte, Default Value: 0

Setting	Description
0	Auto ON disabled
1 - 32535	1 second - 32535 seconds Auto ON enabled with define time, step is 1 second

Parameter 21: Enable/Disable Double click function

If Double click function is enabled, a fast double click on the push button will set dimming power at maximum dimming value.

Size: 1 Byte, Default Value: 0

Setting	Description
0	double click disabled
1	double click enabled

Parameter 30: Saving the state of the device after a power failure

Size: 1 Byte, Default Value: 0

Setting	Description
0	DIN Dimmer module saves its state before power failure (it returns to the last position saved before a power failure).
1	DIN Dimmer module does not save the state after a power failure, it returns to off position.

Parameter 40: Power reporting in Watts on power change

Set value means percentage, set value from 0 - 100=0% - 100%.

NOTE: *if power changed is less than 1W, the report is not send (pushed), independent of percentage set.*

Size: 1 Byte, Default Value: 5

Setting	Description
0	reporting disabled
1 - 100	1% - 100% Reporting enabled. Power report is send (push) only when actual power in Watts in real time for more than set percentage comparing to previous actual power in Watts, step is 1%.

Parameter 42: Power reporting in Watts by time interval

Set value means time interval (0 – 32767) in seconds, when power report is send.

Size: 2 Byte, Default Value: 0

Setting	Description
0	reporting disabled
1 - 32767	1 second - 32767 seconds. Reporting enabled. Power report is send with time interval set by entered va Please note, that too fast reporting can cause too much Z-Wave traffic resulting in Z-Wave poor respons

Parameter 60: Minimum dimming value

NOTE: *The minimum level may not be higher than the maximum level! 1% min. dimming value is defined by Z-Wave multilevel device class*

Size: 1 Byte, Default Value: 1

Setting	Description
1 - 98	1% - 98%, step is 1%. Minimum dimming values is set by entered value.

Parameter 61: Maximum dimming value

NOTE: *The maximum level may not be lower than the minimum level! 99% max. dimming value is defined by Z-Wave multilevel device class.*

Size: 1 Byte, Default Value: 99

Setting	Description
2 - 99	2% - 99%, step is 1%. Maximum dimming values is set by entered value.

Parameter 65: Dimming time (soft on/off)

Set value means time of moving the DIN Dimmer between min. and max. dimming values by short press of push button I or controlled through UI (BasicSe

Size: 2 Byte, Default Value: 100

Setting	Description
50 - 255	500 mseconds - 2550 mseconds (2,55s), step is 10 mseconds

Parameter 66: Dimming time when key pressed

Time of moving the DIN Dimmer between min. and max dimming values by continues hold of push button I or associated device.

Size: 2 Byte, Default Value: 3

Setting	Description
1 - 255	1 second - 255 seconds

Parameter 67: Ignore start level

*This parameter is used with association group 3. A receiving device SHOULD respect the start level if the Ignore Start Level bit is 0. A receiving device MU
the start level if the Ignore Start Level bit is 1.*

Size: 1 Byte, Default Value: 0

Setting	Description
0	respect start level
1	ignore start level

Parameter 68: Dimming duration

*This parameter is used with association group 3. The Duration field MUST specify the time that the transition should take from the current value to the new
value. A supporting device SHOULD respect the specified Duration value.*

Size: 1 Byte, Default Value: 0

Setting	Description
0	dimming duration according to parameter 66
1 - 127	from 1 to 127 seconds

Parameter 110: Temperature sensor offset settings

Set value is added or subtracted to actual measured value by sensor.

Size: 2 Byte, Default Value: 32536

Setting	Description
1 - 100	value from 0.1 °C to 10.0 °C is added to actual measured temperature.
1001 - 1100	value from -0.1 °C to -10.0 °C is subtracted to actual measured temperature.

Parameter 120: Digital temperature sensor reporting

If digital temperature sensor is connected, module reports measured temperature on temperature change defined by this parameter.

Size: 1 Byte, Default Value: 5

Setting	Description
0	reporting disabled
1 - 127	0,1°C - 12,7°C, step is 0,1°C

Parameter 250: Unsecure/Secure Inclusion (Version 2.04 or higher)

Size: 1 Byte, Default Value: 0

Setting	Description
0	Unsecure
1	Secure

Technical Data

Dimensions	41,8x36,8x15,4 mm
Weight	28 gr
Hardware Platform	ZM5202
EAN	3830062070553
IP Class	IP IP20
Voltage	12-24V DC
Device Type	10V Dimmer
Generic Device Class	Multilevel Switch
Firmware Version	02.04
Z-Wave Version	04.22
Certification ID	ZC10-17025424
Z-Wave Product Id	0x0159.0x0001.0x0053
Frequency	Europe - 868,4 Mhz
Maximum transmission power	5 mW

Supported Command Classes

- Basic
- Device Reset Locally
- Zwaveplus Info
- Manufacturer Specific
- Powerlevel
- Version
- Security
- Switch Binary
- Switch Multilevel
- Switch All
- Association Grp Info
- Configuration
- Association
- Multi Channel Association

Explanation of Z-Wave specific terms

- **Controller** — is a Z-Wave device with capabilities to manage the network. Controllers are typically Gateways, Remote Controls or battery operated wall controllers.
- **Slave** — is a Z-Wave device without capabilities to manage the network. Slaves can be sensors, actuators and even remote controls.
- **Primary Controller** — is the central organizer of the network. It must be a controller. There can be only one primary controller in a Z-Wave network.
- **Inclusion** — is the process of adding new Z-Wave devices into a network.
- **Exclusion** — is the process of removing Z-Wave devices from the network.
- **Association** — is a control relationship between a controlling device and a controlled device.
- **Wakeup Notification** — is a special wireless message issued by a Z-Wave device to announce that it is able to communicate.
- **Node Information Frame** — is a special wireless message issued by a Z-Wave device to announce its capabilities and functions.

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