

This module is used for dimming lights. The module can be controlled either through a NEXUS-NERO Communications Gateway, away or through a wall switch. The NERO-DIM module measures the power consumption of lights and supports connection of a digital temperature sensor. It is designed to act as a repeater in order to improve the range and stability of the Z-Wave Network.

Supported switches

The module supports **momentary** switches (push button) and **toggle** switches. The module is factory set to operate with momentary switches.

Installation

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

Danger of electrocution!

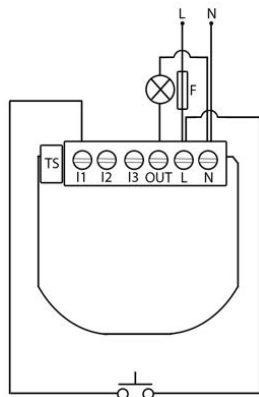
Module installation requires a great degree of skill and may be performed only by a qualified and licensed electrician.

Even when the module is turned off, voltage may be present on its terminals. Any works on configuration changes related to connection mode or load must always be performed with a disconnected power supply.

Warning!

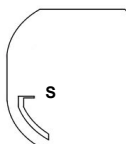
Do not connect the module to loads exceeding recommended values. Connect the module only in accordance with the below diagrams. Improper connections may be dangerous. Electrical installation must be protected by an over current protection fuse not rated higher than 1A, as illustrated in the wiring diagram.

Electrical diagram 230VAC



Notes for the diagram:

- N** Neutral
- L** Live
- OUT** Output for electrical device
- I3** Optional switch input
- I2** Optional switch input
- I1** Input for switch/push button
- TS** Terminal for digital temperature sensor



S SYNC button (used to add or remove module from the Z-Wave Network).

NOTE: SYNC button S can't be used when the module is connected to 230V power supply.

Module Inclusion (Adding to Z-Wave Network)

- Connect module to power supply (with temperature sensor connected - if applicable).
- Put NEXUS-NERO Communications Gateway into inclusion mode.
- Auto-inclusion (works for about 5 seconds after power supply is connected) or
- Press SYNC button **S** for more than 2 seconds or
- Press push button **I1** three times within 3s

NOTE 1: For auto-inclusion, ensure the module has been wired correctly, set the NEXUS-NERO Communications Gateway into inclusion mode and then relive the circuit, supplying power to the module.

NOTE2: When connecting the temperature sensor to the module that has already been included, you have to exclude the module first. Switch off power supply, connect the sensor and re-include the module.

Module Exclusion/Reset (Removing from Z-Wave Network)

- Connect module to power supply
- Bring module within maximum 1 meter (3feet) of the NEXUS-NERO Communications Gateway,

- Enable add/remove mode on NEXUS-NERO Communications Gateway,
- Press SYNC button **S** for more than 6 seconds or
- Press push button **I1** five times within 3s in the first 60 seconds after the module is connected to the power supply.

By this function, all parameters of the module are set to default values and its own ID is deleted. If SYNC button **S** is pressed more than 2 and less than 6 seconds (or if push button **I1** is pressed three times within 3s), the module is excluded, but configuration parameters are not set to default values.

	Press SYNC Button	Press Wall Switch
Include	> 2s	3 times within 3s
Exclude & save parameters	2 - 6s	3 times within 3s
Exclude & restore default parameters	> 6s	5 times within 3s

Configuration parameters

Parameter no. 1 – I1 switch type

Available parameters (data type is 1 Byte DEC):

- Default value 0
- 0 - Momentary switch type (push button) – button quick press turns between previous set dimmer value and zero
- 1 - Toggle switch type

Parameter no. 30 – Saving the state of the device after a power failure

Available parameters (data type is 1 Byte DEC):

- Default value 0
- 0 - NERO-DIM saves its state before power failure (it returns to the last position saved before a power failure).
- 1 - NERO-DIM does not save the state after a power failure, it returns to "off" position.

Parameter no. 60 – Minimum dimming value

Available parameters (data type is 1 Byte DEC):

- Default value 1 = 1% (minimum dimming value)
- 1 - 98 = 1% - 98%, step is 1%. Minimum dimming values are set by entered value.

NOTE: The minimum level may not be higher than the maximum level.

Parameter no. 61 – Maximum dimming value

Available parameters (data type is 1 Byte DEC):

- Default value 99 = 99% (Maximum dimming value)
- 2 - 99 = 2% - 99%, step is 1%. Maximum dimming values are set by entered value.

NOTE: The maximum level may not be lower than the minimum level.

Additional parameters include:

- Adjustable dimming durations
- 3-Way Switching
- Ignore start level
- Double click to ramp to 100%
- Power reporting settings
- Temperature sensor settings

For configuration parameter instructions, please refer to advanced training modules at www.environexus.com.au

Technical Specifications

Power supply	110 - 230 VAC ±10% 50Hz, 24-30VDC
Rated load current of AC output	0.6A / 230VAC
Rated load current of DC output*	0,85A / 30VDC
Output circuit power of AC output (resistive load)	140W (230VAC)
Output circuit power of DC output (resistive load)	15W (24VDC)
Power measurement accuracy	±/-2W
Digital temperature sensor range (sensor must be ordered separately)	-50 ~ +125°C
Operation temperature	-10 ~ +40°C
Distance	Up to 20 m indoors
Dimensions (WxHxD)	41.8x36.8x15.4mm
Weight	28g
Electricity consumption	0.7W
For installation in boxes	Ø ≥ 60mm or 2M

* For DC applications, please refer to the advanced training modules at www.environexus.com.au

Description of switch function:

Switch toggles (parameter 1 set to 1) the state of the light bulb between the last dimming value and 0. If the last dimming value is 0, then the light is turned 100% when the switch changes its state.

Bulb types which support dimming function:

- The classical incandescent bulbs.
- Halogen bulbs operated by 230 VAC (High Voltage Halogen).
- Low voltage halogen bulbs with electronic or conventional transformer.
- Dimmable compact fluorescent bulb (CFL). If the bulb at low intensities flashes, it is recommended to set parameter 60 (minimum dimming value) to 30 or more.
- Dimmable LED bulbs.

NOTE: Due to industry-wide variations in LED dimming technology, Environexus recommends to always test the LED's with the NERO-DIM for compatibility before installation.

Important disclaimer

Z-Wave Network wireless communication is inherently not always 100% reliable, and as such, this product should not be used in situations in which life and/or valuables are solely dependent on its function.

Warning!

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

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