

# Datasheet CLU Z-Wave

## CLU-200-E-00

The Common Logic Unit (CLU) device performs processing of the system logic and stores the configuration. It is equipped with the Z-wave wireless communication controller, as well as ports for TF-Bus and Ethernet wired communication means.



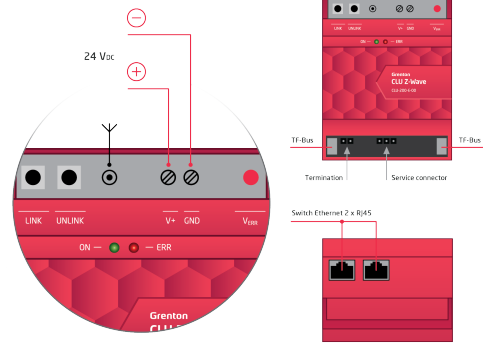
### 1. Parameters - CLU

| Characteristics        |   |
|------------------------|---|
| Uptime                 | Time of device operation since last reset (in seconds)  |
| Log                    | Internal device log   |
| State                  | Device state  |
| IsLocalPower           | Power state   |
| Date                   | Returns the current date  |
| Time                   | Returns the current time (hh:mm:ss)   |
| Day                    | Returns the number of the current day of the month  |
| Month                  | Returns the current number of the month   |
| Year                   | Returns the current number of the year  |
| DayOfWeek              | Returns the current day of the week (0=Sunday)  |
| Hour                   | Returns the current hour (no minutes or seconds)  |
| Minute                 | Returns the current number of minutes from last full hour   |
| LocalTime              | Returns the current time  |
| FirmwareVersion        | CLU firmware version  |
| UseCloud               | Specifies whether CLU connects to the cloud   |
| CloudConnection        | Specifies whether CLU is connected to the cloud   |
| VoltageFrequency       | Supply frequency  |
| DefaultVoltageValue    | Default value of voltage defined in devices   |
| NTPServer              | UTC time server address   |
| TimeZone               | Time zone   |
| QoS                    | Quality of service  |
| PrimaryDNS             | Preferred DNS server  |
| SecondaryDNS           | Alternate (secondary) DNS server  |
| BusVoltage             | CLU supply Voltage  |
| BusVoltageSensitivity  | Minimum value of supply voltage state when the OnBusVoltageChange, OnBusVoltageLower or OnBusVoltageRise event is generated   |
| MaxBusVoltage          | Maximum value of the Value characteristic after exceeding which the OnBusVoltageOutOfRange event is generated   |
| MinBusVoltage          | Minimal value of the Value characteristic after exceeding which the OnBusVoltageOutOfRange event is generated   |
| TelnetLogLevel         | Specifies the logging level   |
| ZWaveRouting           | Enables use of routing when sending commands from CLU to Z-wave module  |
| MeasurementKey         | A key used to synchronize measurements in the cloud   |
| Methods                |   |
| AddToLog               | Adds a new entry to the internal log  |
| ClearLog               | Deletes the contents of the internal device log   |
| SetDateTime            | Sets date and time  |
| StartZWaveInclusion    | Initiates Z-Wave module inclusion mode  |
| StopZWaveInclusion     | Stops Z-Wave module inclusion mode  |
| StartZWaveExclusion    | Initiates Z-Wave module exclusion mode  |
| StopZWaveExclusion     | Stops Z-Wave module exclusion mode  |
| SetPrimaryDNS          | Sets the PrimaryDNS feature   |
| SetSecondaryDNS        | Sets the SecondaryDNS feature   |
| SetTelnetLogLevel      | Specifies the logging level   |
| Events                 |   |
| OnInit                 | Event occurring once during device initialization   |
| OnBusVoltageChange     | Event resulting from changing value of supply   |
| OnBusVoltageLower      | Event occurs when a value of supply lower than the value from the last reading appears at input   |
| OnBusVoltageRise       | Event occurs when a value of supply higher than the value from the last reading appears at input  |
| OnBusVoltageOutOfRange | Event resulting from exceeding the permissible range (BusVoltageMin - BusVoltageMax)  |
| OnBusVoltageInRange    | Event resulting from returning to the permissible range (BusVoltageMin - BusVoltageMax)   |
| OnTimeChange           | The event is raised after the time has changed by more than ± 60 seconds. Possible cases: calling the SetDateTime method, updating the time from the NTP server, changing the local time summer / winter. |

### 2. Technical data

|                             |   |
|-----------------------------|---|
| Device power supply         | 24V <sub>dc</sub>                               |
| Maximum power consumption   | 2,4W  |
| Maximum device current      | 100mA (for 24V <sub>dc</sub> )                  |
| TF-bus power supply         | 24V <sub>dc</sub> with current limitation to 1A |
| Z-Wave frequency            | 868MHz  |
| Maximal radio power         | 1mW   |
| Maximal wire cross section  | 2,5mm <sup>2</sup>                              |
| Weight                      | 145g  |
| Size (DIN)                  | 4   |
| Fixing                      | Electrical box, rail DIN-3 / TH 35 / TS 35      |
| Dimensions (H/W/D)          | 90/71/58mm                                      |
| Operating temperature range | 0 to +45°C                                      |

### 3. Wiring diagram



|             |   |
|-------------|---|
| LINK        | Button - add Z-Wave devices             |
| UNLINK      | Button - remove Z-Wave devices          |
| V+          | Power supply signal                     |
| GND         | Power supply ground signal              |
| Verr        | Red diode - low voltage of power supply |
| ON          | Green diode - on                        |
| ERR         | Red diode - error                       |
| Termination | Termination connector                   |
| TF-Bus      | TF-Bus connector                        |

### 4. Device status

|     |  |
|-----|--|
| ○ ○ | No power supply  |
| ● ○ | Green LED flashes every 500ms - system OK  |
| ● ● | Configuration error, system not configured or no communication with the IQM module   |
| ● ○ | The green LED flashes every 200ms - CLU in the Z-Wave module adding mode   |
| ○ ● | The red LED flashes every 200ms - CLU in the Z-Wave module removal mode  |
| ● ○ | The green LED is on for 1 second, then both LEDs blink three times (every 200ms), confirmation of adding the module Z-Wave                     |
| ● ● | Both LEDs blink three times (every 200ms), then red goes out and the green LED flashes every 500ms, confirmation of removing the Z-Wave module |

In order to restore the factory settings of the CLU with the Hard Reset function, perform the following steps (in accordance with the order given):

1. Disconnect power from the CLU module,
2. Press and hold the Link button on the module,
3. Connect the power supply to the CLU module,
4. Keep the Link button depressed for at least 10 seconds - both LEDs on the CLU will be permanently illuminated,

5. After 10 seconds, release the Link button - the correct execution of the reset will be confirmed by a blink of both LEDs 5 times.  
NOTE! If Z-Wave modules were added to the CLU before starting the Hard Reset function, after performing the reset it will be necessary to perform the procedure of deleting and re-adding each Z-Wave module!

### 5. Warnings and Cautionary Statements



ATTENTION!

- Before proceeding with the assembly, read the installation schematics and full instructions available at [www.grenton.com](http://www.grenton.com). Failure to follow the guidelines contained in the instructions and other requirements of due care valid as a result of the nature of the equipment (device) may be dangerous to life / health, damage the device or installation to which it is connected, damage

other property or violate other applicable regulations. The manufacturer of the device, Grenton Sp. z o.o. does not bear any responsibility for the damage (property and non-property related) resulting from the assembly and / or use of the equipment not in accordance with the instructions and / or due diligence in handling the equipment (device).

- Device power supply, permissible load or other characteristic parameters have to be in accordance with the device specification, described in particular in the "Technical data" section.
- The product is not intended for children and animals.
- If you have technical questions or comments about the device operation, contact Grenton Technical Support.
- Answers to frequently asked questions can be found at: [www.support.grenton.com](http://www.support.grenton.com).



DANGER!

- Danger to life caused by electric current!
- The components of the installation (individual devices) are designed to work in a home electrical installation or directly in its

vicinity. Incorrect connection or use may cause a fire or electric shock.

- All work related to the installation of the device, in particular works involving interference in the electrical installation, may be performed only by a person with appropriate qualifications or licenses.
- When installing the device, make sure that the power supply voltage is disconnected from the circuit in which the device is connected or near which the assembly takes place.

### 6. CE Marking

The manufacturer declares that the device is in full compliance with the requirements of EU legislation that includes the directives of a new approach appropriate for this equipment. In particular, Grenton Sp. z o.o. declares that the device fulfills the requirements on safety, specified by law, and that it conforms

to the national regulations that implement the appropriate directives: The Directive on the electromagnetic compatibility (EMC - 2014/30/UE) and the Directive on the limitation of the use of specific substances in electrical and electronic equipment (RoHS II - 2011/65/UE).



### 7. Warranty

Warranty available at [www.grenton.com/warranty](http://www.grenton.com/warranty).

### 8. Manufacturer Contact Details

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