Datasheet CLU Z-Wave

CLU-300-E-00

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

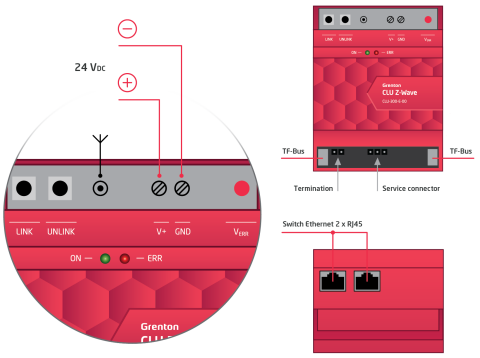
1. Parameters - CLU

Features:	
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 change 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
LastMeasurementSendTime	Time of sending the last measurement packet
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	$24V_{dc}$
Maximum power consumption	2,4W
Maximum device current	100mA (for $24V_{dc}$)
TF-bus power supply	$24V_{dc}$ with current limitation to 1A
Z-Wave frequency	868MHz
Internal battery	CR2032
Maximal radio power	1mW
Maximal wire cross section	$2{,}5mm^2$
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 IOM 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. 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.

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 licences.
● 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 Radio Equipment Directive (RED - 2014/53/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.

8. Manufacturer Contact Details

Grenton Sp. z o.o.
ul. Na Wierzchowinach 3
30-222 Kraków, Poland
www.grenton.com