

Datasheet GRENTON ROLLER SHUTTER WIFI WRE-222-W-01

Grenton ROLLER SHUTTER WiFi allows you to control a roller shutter drive and two digital inputs (230 V_{ac}). It contains the Common Logic Unit (CLU) with WiFi wireless communication controller, executes the function of processing logic and storing the configuration.



1. Parameters - CLU WiFi

Properties:	
Uptime	Working time since last reset (in seconds)
ClientReportInterval	Reporting period for changes in properties
Date	Returns the current date
Time	Returns the current time (hh:mm:ss)
LocalTime	Returns the current time
TimeZone	Local time zone
UnixTime	Returns the current Unix time
FirmwareVersion	WiFi module firmware version
UseCloud	Specifies whether WiFi module connects to the Cloud
CloudConnection	Specifies whether WiFi module is connected to the Cloud
NTPTimeout	NTP Timeout
UseNTP	Specifies whether WiFi module uses NTP
PrimaryDNS	Preferred DNS server
SecondaryDNS	Alternate (secondary) DNS server
RSSI	Received signal strength indicator
Methods:	
SetDateTime	Sets date and time
StartConsole	Starts Lua console
StartConsoleOnReboot	Starts Lua console on next boot
FactoryReset	Factory reset of module
SetClientReportInterval	Sets the reporting period for changes in properties
SetPrimaryDNS	Sets the PrimaryDNS property
SetSecondaryDNS	Sets the SecondaryDNS property
Events:	
OnInit	Event occurs once during the device initialization
Virtual Objects:	
Timer	Timer operating in Interval or Countdown modes. Detailed interface description in the Grenton 2.0 System Manual - chapter XIII.5 Virtual Object - Timer

2. Parameters - ROLLER SHUTTER

Properties:	
State	The output state (0 - no movement, 1 - moving upwards, 2 - moving downwards)
MaxTime	Default Time parameter value. 0 if not specified
Up	State of Up relay (moving upwards)
Down	State of Down relay (moving downwards)
Methods:	
MoveUp	Roller shutter Up or Stop if movement. Parameter Time specifies movement time (0 - the movement time equals MaxTime)
MoveDown	Roller shutter Down or Stop if movement. Parameter Time specifies movement time (0 - the movement time equals MaxTime)
Start	Roller shutter Up if the preceding movement was Down or roller shutter Down if the preceding movement was UP
Stop	Stop if moving
Hold	Blind movement hold
HoldUp	Hold always Up
HoldDown	Hold always Down
Events:	
OnStateChange	Occurs when a change in the roller shutter state takes place
OnUp	Occurs when changing the Stop state to the Up state
OnDown	Occurs when changing the Stop state to the Down state
OnStart	Occurs when the blind has been turned on
OnStop	Occurs when the blind has stopped

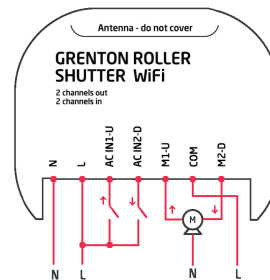
3. Parameters - DIN (digital input)

Properties:	
Value	Returns the input state as 0 or 1
Inertion	Specifies the entry time constant. The value step is 20ms
HoldDelay	Time in milliseconds after which, when pressing and holding a button, the OnHold event occurs
HoldInterval	Cyclical interval in milliseconds after which, when pressing and holding a button, the OnHold event occurs
Coupling	Returns the percentage of coupling between wires. Less than 30%, there is little coupling between wires when input physically Off
Methods:	
SetInertion	Sets the input inertion time
SetHoldDelay	Sets HoldDelay property
SetHoldInterval	Sets HoldInterval property
Events:	
OnValueChange	Occurs when a change in the input state takes place (regardless of the value)
OnSwitchOn	Occurs when the high state is set at the input
OnSwitchOff	Occurs when the low state is set at the input
OnShortPress	Occurs after pressing the button for 500 - 2000 ms
OnLongPress	Occurs after pressing the button for at least 2000 ms
OnHold	Occurs for the first time after HoldDelay time and then cyclically every HoldInterval value
OnClick	Occurs after pressing the button for less than 500 ms

4. Technical data

Device power supply	110-265 V _{ac} 50/60 Hz
Maximum power consumption	1,4 W
Standby power consumption	1,0 W
Maximum load voltage	250 V _{ac} or 24 V _{dc}
Maximum channel load AC3	1,5 A / 250 V _{ac}
Maximum channel load DC1	1 A / 24 V _{dc}
Maximal breaking capacity AC3	350 VA
Maximum wire cross section	2,5 mm ²
WiFi frequency band	2,4 GHz
Weight	40 g
Fixing	flush mounted
Dimensions (H/W/D)	22/46/37 mm
Operating temperature range	0 to +45 °C

5. Wiring diagram



- The device without a target configuration loaded via Object Manager tool, has the minimal embedded configuration. The inputs are connected to the outputs, which allows for local blind control.
- The maximum recommended length of cables connected to the AC IN1 or AC IN2 inputs is 25 m. This value results from the capacitive-inductive coupling of a typical conductor between its lines. Additionally, the Coupling property was introduced in the DIN object that reveals the real coupling. Too much coupling can cause false input state detection.

N	"Neutral" signal
L	"Line" signal
AC IN1-U	input no.1 marked as UP signal (230 V _{ac})
AC IN2-D	input no.2 marked as DOWN signal (230 V _{ac})
M1-U	output M1 marked as UP (potential free)
COM	common signal for M1 and M2
M2-D	output M2 marked as DOWN (potential free)

6. Wireless communication configuration

The brand new device on power up starts with the AP (access point) SSID: CLU54xxxxxx[reset] with the factory password (PIN) "00000000". After connection setup with the AP please connect to the device http server using web browser and http://192.168.4.1 link. Next please set up a PIN and a WiFi network parameters, the WiFi network the device is meant to be connected to. The PIN is the new AP password and the "Secret Key" used by the Object Manager tool during the discovery process as well. In case of connection failure with the previously configured WiFi network, the Roller Shutter WiFi starts with the AP SSID: CLU54xxxxxx after 2 minutes of unsuccessful retries. After 10 minutes from the power on the AP is deactivated and the Roller Shutter WiFi only keeps trying to connect to the configured WiFi network.

WiFi Setup

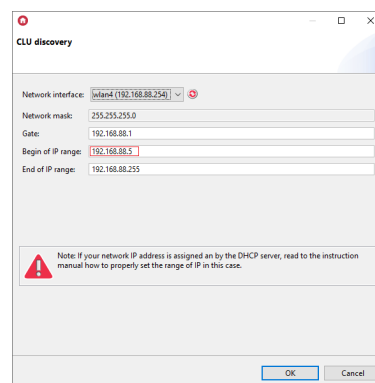
PIN:

SSID:

Password:

7. Device configuration in the Grenton System

After connecting the device to the WiFi network, please process configuration using the Object Manager tool. Select the CLU Discovery action in the upper left corner. Then set the "Beginning of IP address" not less than x.x.x.5. After discovering the device, the Object Manager asks for a "Secret Key"; it is the PIN mentioned earlier. Further configuration is the same as in the case of the CLU Z-Wave with devices connected via the TF-Bus.



8. Restoring Factory Settings

Restoring Factory Settings activates sequence of 5 pulses ended with 2-second break given to one of the inputs. Duration of the 5 pulses must be less than 5 seconds. The time window while the factory reset can be done is from 5 to 30 seconds from the power on.

9. 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.



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.

10. 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/EU, the Low Voltage Directive (LVD 2014/35/EU) and the Directive on the limitation of the use of specific substances in electrical and electronic equipment (RoHS II - 2011/65/EU).



11. Warranty

Warranty available at: www.grenton.com/warranty

12. Manufacturer contact details

Grenton Sp. z o.o.
ul. Na Wierzbachach 3
30-222 Kraków, Polska (PL)
www.grenton.com