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# **Wireless Modbus Relay**

#### **Wireless Modbus Relay**



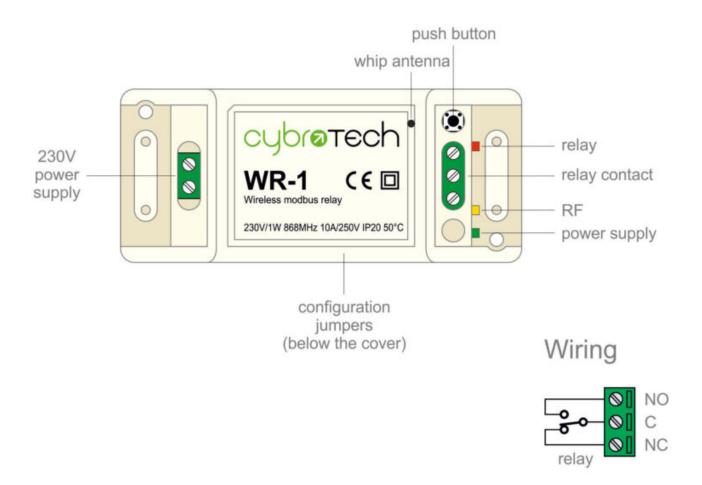
Model number:	WR-1
Frequency:	ISM 868MHz (EU)
Dimensions:	93x45x27 mm

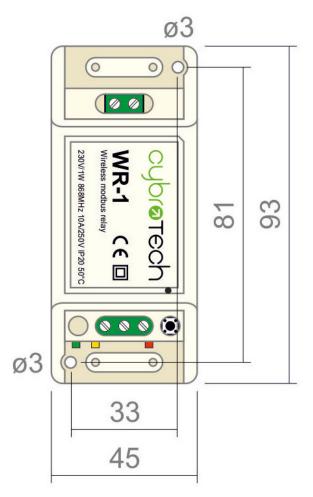
## **Applications**

 Remote controlled relay. Act as modbus RTU slave. Optimal for long range, no hopping.

## Installation and mounting

- Carefully open WR-1 module and configure serial communication with jumpers. (Default configuration is 9600bps, 8N1 with normal timeout)
- Place WR-1 module at least 10cm from other objects. Installation is not recommended inside metal cabinets.
- Connect RS485 terminals to WR-1 RS485 terminals
  - A A
  - ∘ B B
  - ∘ C GND
- Connect to 230V power supply
- · Configure radio pairing





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#### **Features**

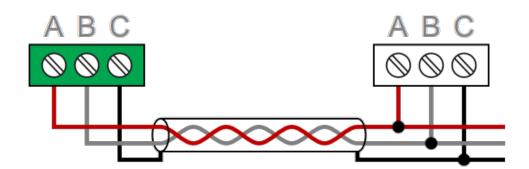
- remote controlled relay
- act as modbus RTU slave
- very long range, no hopping
- up to 8 relays per network
- protected private connection
- multiple addressable groups

# **Technical specification**

Power supply:	230V, 50/60Hz, 1W
Ingress protection:	IP20
Operating temperature:	-2050°C
Storage temperature:	-4085°C
Relative humidity:	085% n/c

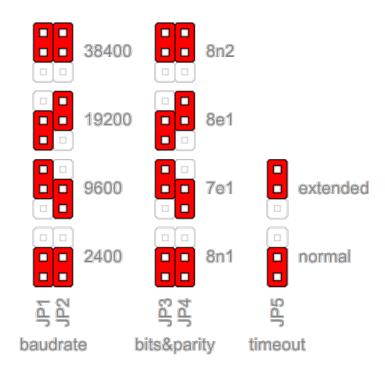
# **Terminals and wiring**

To power sensor	A B C	RS485 bus
To power supply	L N	230V AC



## Serial configuration and timeout

- Available baudrates 2400, 9600, 19200, 38400 bps
- Data bits and parity 8N1, 7E1, 8E1, 8N2
- Max 64 bytes per transmition
- Integrated 240 Ohm termination resistor



	normal	extended
2400	25ms	200ms
9600	10ms	100ms
19200	5ms	100ms
38400	5ms	100ms

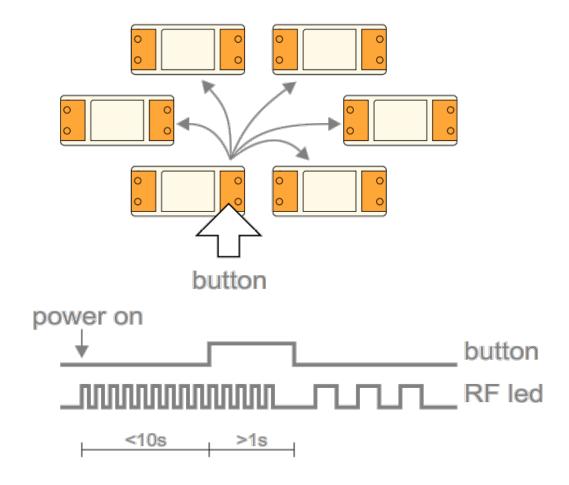
## Radio pairing configuration

#### Create new secure group

- \* turn on all devices as the same time
- \* within 10 seconds, while RF LED is blinking, press and hold button on one of the devices
- \* after a second, the new address is randomly generated and sent to all devices. RF LED will blink 3 times to confirm the new address.

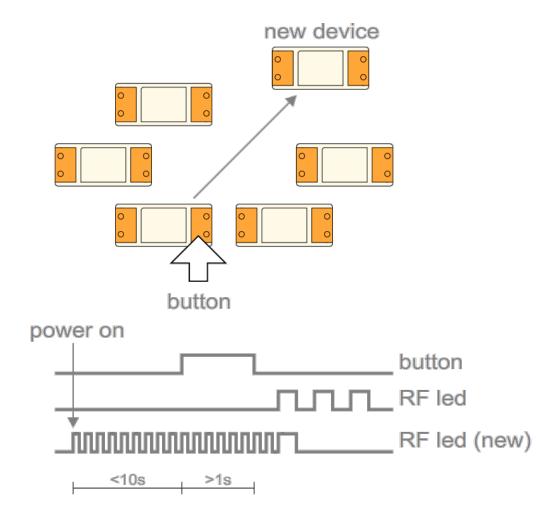
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#### Add new device to the group

- \* turn on the device
- \* within 10 seconds, press and hold button on one of the existing devices
- \* after a second, the existing group address is sent to the new device. RF LED will blink 3 times to confirm the address is sent.

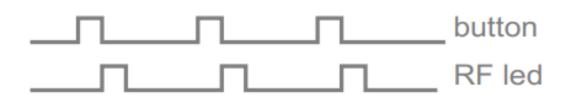


#### **Examples**



## **Connection check**

- Press button shortly
- RF LED will blink shortly on each connected device
- Serial interface is unaffected

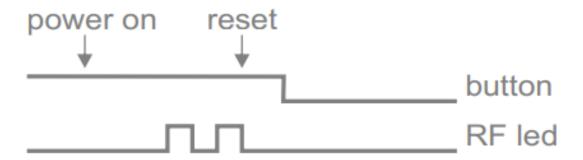


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## **Factory reset**

- Hold button and turn the device ON
- RF led will blink twice. Group address is now reset to default.
- Other devices will not be affected.



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