Wireless Modbus-to-Modbus bridge

Wireless Modbus-to-Modbus bridge



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

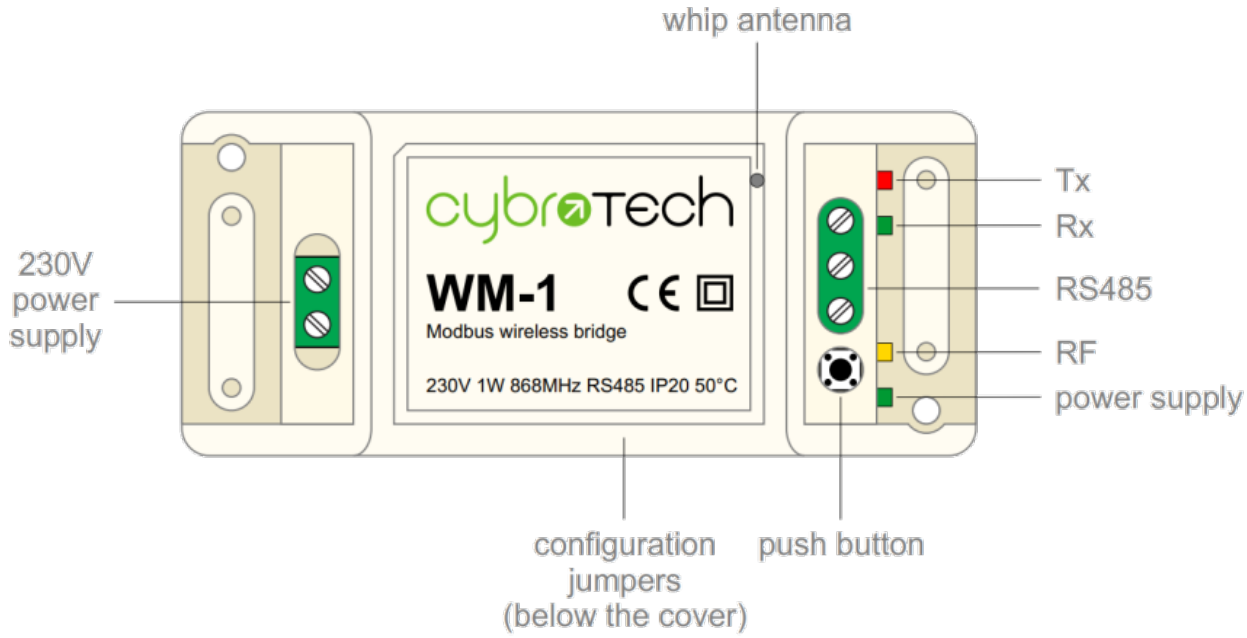
Applications

- Replacement for RS485 wiring solution with wireless. Optimal for long range Modbus RTU serial communications with half duplex configuration.

Installation and mounting

- Carefully open WM-1 module and configure serial communication with jumpers. (Default configuration is 9600bps, 8N1 with normal timeout)

- Place WM-1 module at least 10cm from other objects. Installation is not recommended inside metal cabinets.
- Connect RS485 terminals to WM-1 RS485 terminals
  - A - A
  - B - B
  - C - GND
- Connect to 230V power supply
- Configure radio pairing



Features

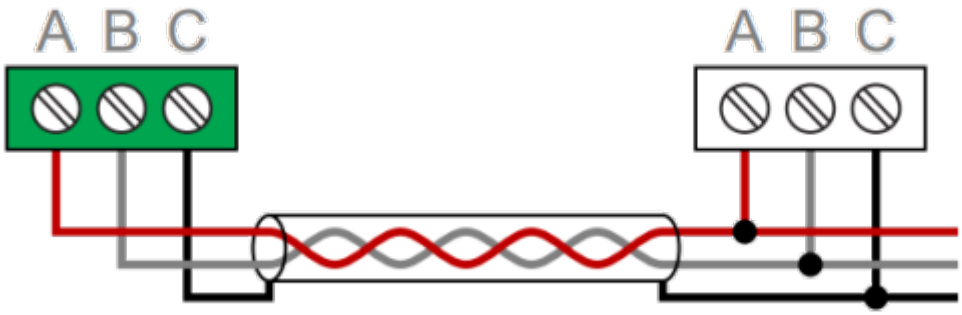
- replacement for RS485 wiring
- Modbus RTU serial protocol
- wired/wireless combinations
- very long range, no hopping
- protected private connection
- multiple slaves per device
- multiple addressable groups

Technical specification

Power supply:	230V, 50/60Hz, 1W
Ingress protection:	IP20
Operating temperature:	-20..50°C
Storage temperature:	-40..85°C
Relative humidity:	0..85% n/c

Terminals and wiring

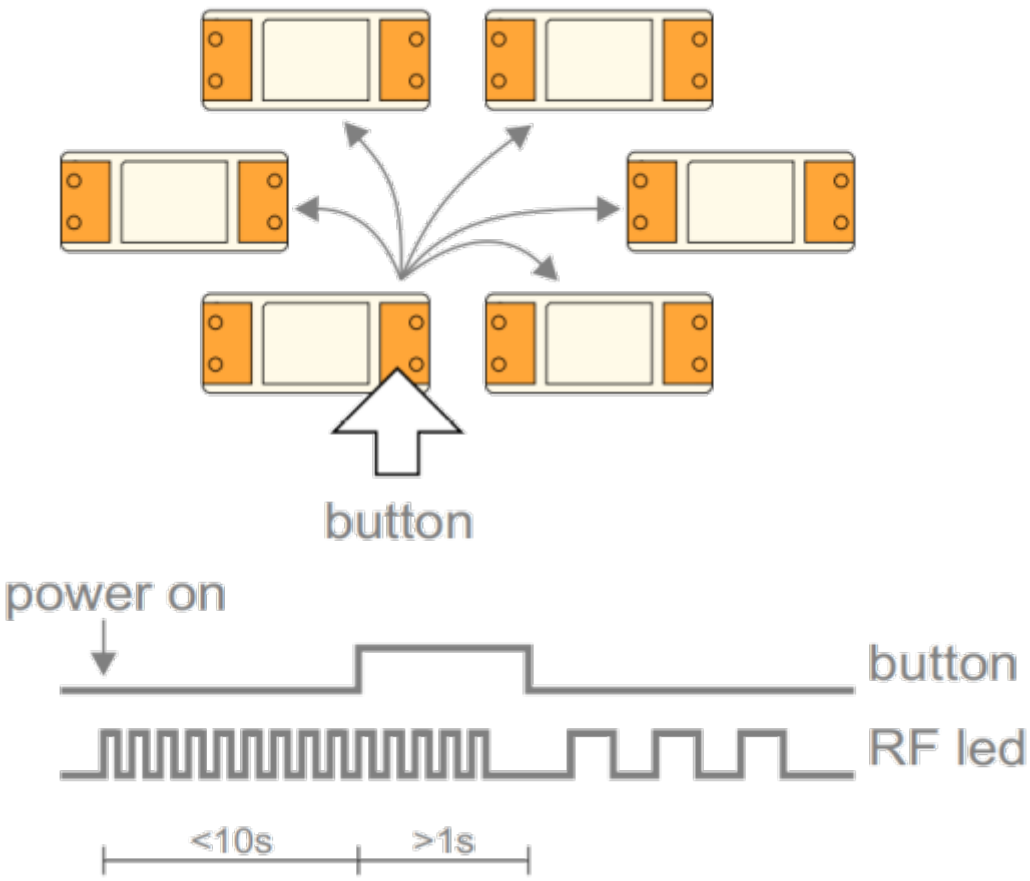
To power sensor	**A** **B** **C**	RS485 bus
To power supply	**L** **N**	230V AC



Radio configuration

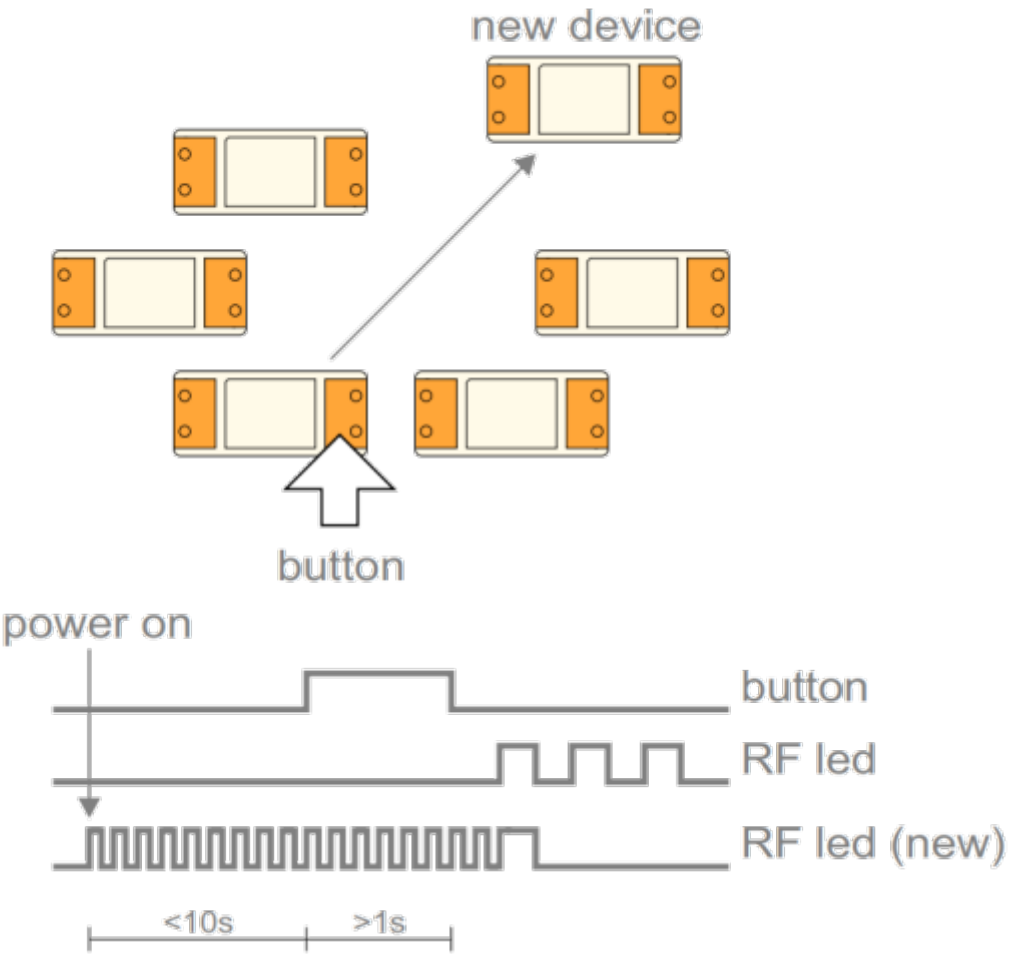
Create new secure group

```
* 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.
```



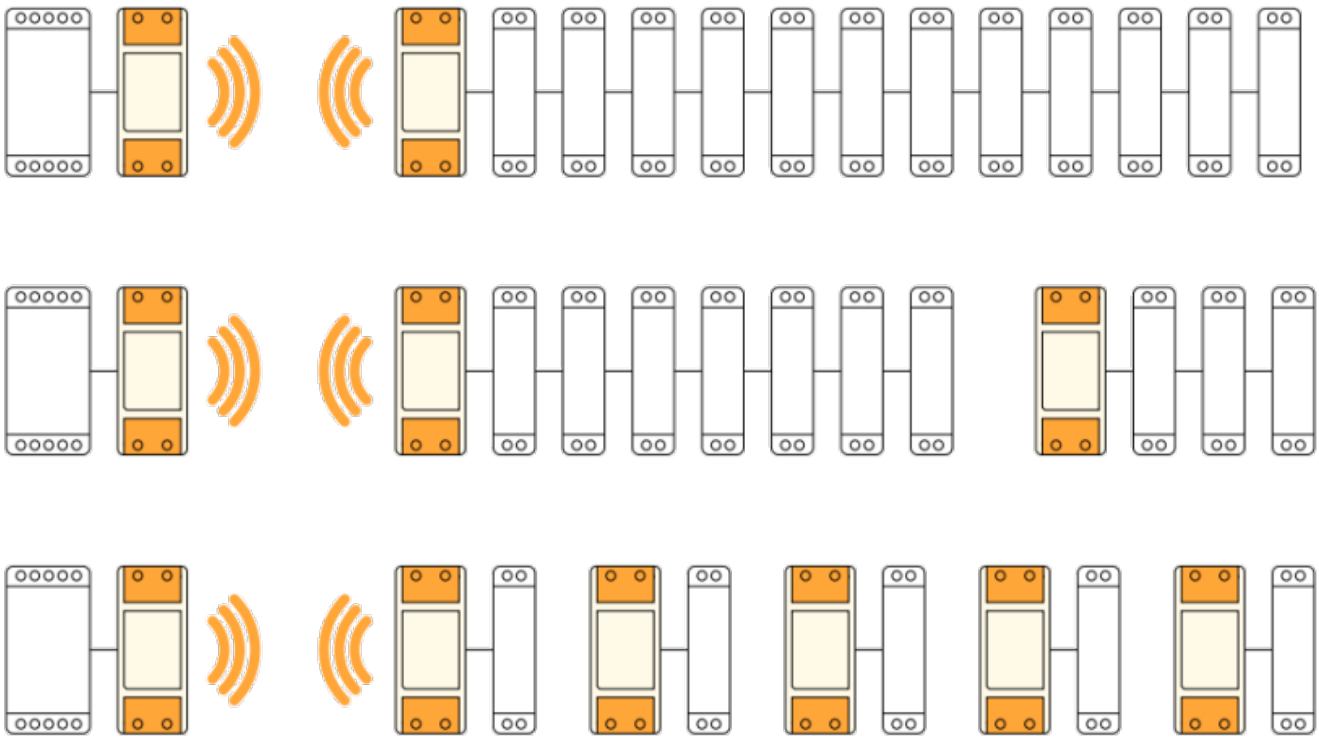
Add new device to the group

```
* 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.
```



Topology examples

```
* Modbus master, connected to 12 slaves using a pair of WM-1 devices
* Modbus master, connected to 10 slaves, organized in two groups
* Modbus master, connected to 5 slaves, each one having local WM-1 device
```



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