WR-5

Wireless Modbus relay

Model number:	**WR-5**

Features

- wireless fan-coil controller
- 5 remote controlled relays
- 1 temperature sensor input
- 1 digital input, dry contact
- modbus RTU slave protocol
- very long range, no hopping
- up to 16 devices per group
- multiple addressable groups
- protected private connection

Technical specification

MODBUS

Address range:	220..235
Data bits & parity:	8n1

Supported functions:	01 – read coils
	04 – read input registers
	05 – write single coil
	15 – write multiple coils

RELAY OUTPUT

Nominal rating:	5A 250VAC resistive
Timeout:	24h (reset if no messages)

TEMPERATURE SENSOR

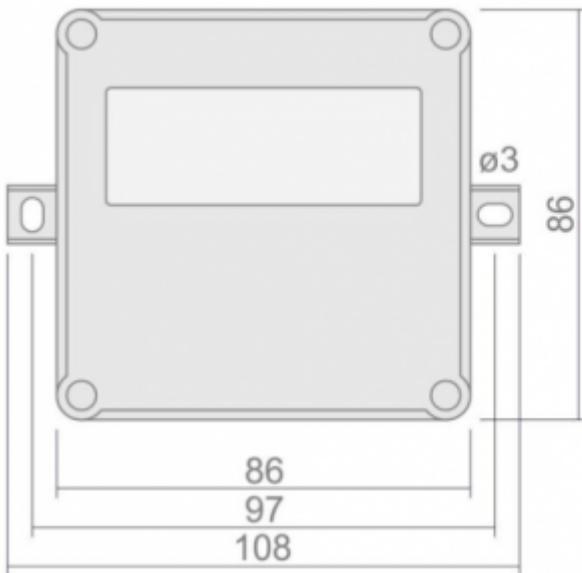| Input type:	ES digital sensor DS18B20
Connection protocol:	1-wire digital thermometer
Sensor error	-1000: missing, -1001: short
Measuring range	-50..+125°C
Accuracy	±0.5°C (-10°C to +85°C)
Cable length	50m, UTP 0.25..0.5mm2

RADIO

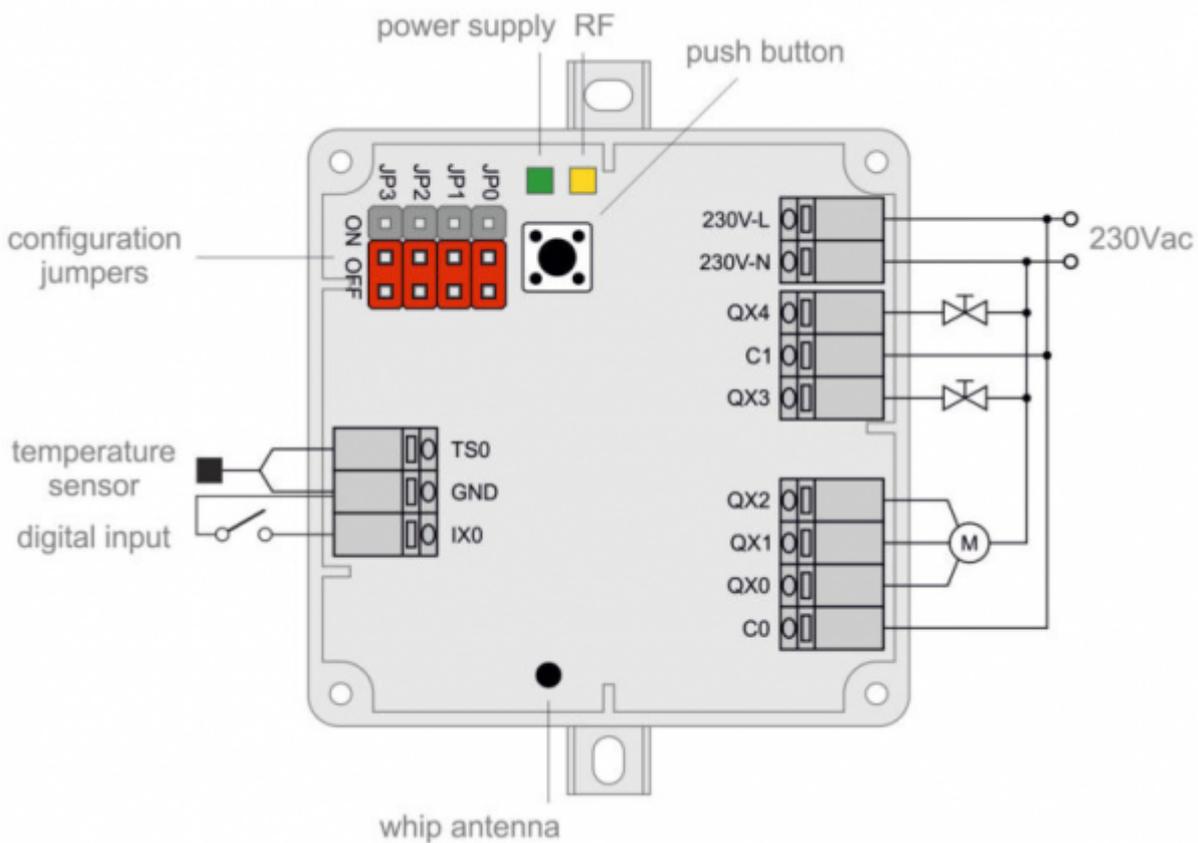| Frequency band:	ISM 868MHz (EU)
Subband:	L 866.8MHz, 25mW, 1% utility
Modulation	FSK 38.4kbps 80kHz bandwidth
Group address	32-bit, automatically generated
Listen before talk	yes, delay limited to 20ms
Startup time	10s power-on to network ready
Message delay	5ms from tx start to relay on
Operating range	300m with optical visibility
Output power	25mW

GENERAL

Power supply	230V, 50..60Hz, 3.5W
Terminals	0.25..2.5mm2
Operating conditions	-20..+50°C, 0..85% rh nc
Storage temperature	-40..+85°C
Weight	220g
Degree of protection	IP20
Standards	EN60730-1, EN300-220-2, EN 301 489-1, EN 301 489-3

Dimensions and mounting

Device should not be installed inside the metal cabinet. Distance from antenna to the nearest object should be at least 10cm.
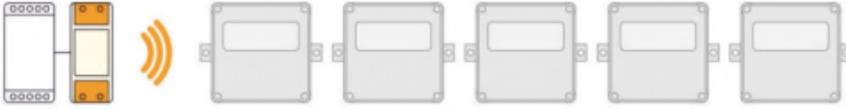
Terminals

Examples

Cybro-3-RFM, as modbus master, can directly control WR-5 devices.

Any modbus master, using WM-1 bridge, can control WR-5 devices.