Long Range Water Tank Water Level Wireless Automatic Control System

Package Include:
1 x Receiver: S1PUW-AC-ANT3
1 x Transmitter: CC-2
1 x Transmitter: CC-2N-2
2 x Water Level Sensors
1 x User manual

Working Principle:
Transmitter CC-2N-2 is a special remote control with normally open contact trigger. It has 3 input terminals (COM, Signal 1, Signal 2) for connecting two devices with normally open contact, such as warning host, detectors, sensors, limit switches, Programmable Logic Controllers and so on.
This transmitter can be combined with different types of long range (5000M) receivers to form a wireless control system, and this system is used to wirelessly control the device A through the device B with normally open contact.

Application:
You can connect two water level sensors to this transmitter, and connect the water pump to the receiver, then the pump will automatically work according to the water level.
When the water reaches the low water level, the water level sensor 1 is triggered, the transmitter automatically emits a wireless signal "ON".
When the receiver receives this wireless signal, it will turn on the pump motor to pump water into the tank.
When the water reaches the high water level, the water level sensor 2 is triggered, the transmitter automatically emits a wireless signal "OFF".
When the receiver receives this wireless signal, it will turn off the pump motor to stop pumping water.

Feature:
Wireless control, easy to install.
Waterproof: The receiver has waterproof case and waterproof connector, it can be installed outdoors.
Automatic control AC110~240V water pump motors by two water level sensors.
Universal input: Support 110V AC (100V~120V) used in US, Canada, etc, and 220V AC (200V~240V) used in Germany, UK, France, etc.
Relay Output: This receiver is dry relay output, it can be used to operate both DC and AC equipments. The output terminals are NO / NC (normally open / normally closed), which serves as a switch. That means you should also connect a separate power supply to equipments.
High Power: Maximum load current 30A.
With wired control terminals: You can connect sensors, limit switches, manual switches or external devices to control the receiver.
With external telescopic antenna, the receiver have a farther working range.
You can control the pump by the receiver with the transmitter from any place within a reliable distance.
Wireless RF signal can pass through walls, floors, doors or windows.
Reliable control: The code has thousands of different combinations, and the receiver only works with the transmitter which use the same code.
One/several transmitters can control one/several receivers simultaneously.
You can use two or more units in the same place.

Feedback function:
The receiver and the transmitter have a Two-way working mode, and the user can know the working status of receiver by the transmitter in such a long distance.
Two-way working mode: When you press the transmitter to send RF signal to the receiver, if the receiver has been successfully triggered or operated, the receiver will immediately transmit a RF feedback signal to the transmitter. Then the transmitter will send out a buzzing sound to inform you that the receiver has been successfully operated.

Receiver:
Model No. S1PUW-AC-ANT3
Power Supply (Operating Voltage): AC100~240V (110V/120V/220V/240V)
Output: Relay output (Normally open and normally closed)
Working Voltage Range of Relay: AC110~240V or DC0~28V
Wire range for the terminals: 22-12 AWG
Working Frequency: 433.92MHz
Channel: 1 CH
Control Modes: Interlocking
Static Current: ⩽6mA
Maximum Load Current: 30A
Operating Temperature: -20°C to +70°C
PCB size: 90mm x 59mm x 18mm
Case size: 100mm x 68mm x 50mm

Transmitters:
Model No.: CC-2
Channel / Button: 2
Operating Voltage: 9V (1 x 6F22 -9V battery, can be used for 12 months)
Quiescent Current: 5μA
Working Current: 65mA (when the transmitter is transmitting the signal), 16mA (when the transmitter is receiving the signal).
Operating Frequency: 433.92 MHz
Modulation Mode: FSK+LORA

Feedback indication: buzzing sound
Transmitting Distance: 5000m / 15000ft (theoretically)
With power switch on the side.
Operating Temperature: -20°C to +70°C
Unit Size: 135mm x 42mm x 25mm

Model No.: CC-2N-2
With 3 trigger terminals (COM, Signal 1 and Signal 2)
Triggering method: When terminal "Signal 1" and terminal "COM" are connected, it will send wireless signal "ON". When terminal "Signal 2" and terminal "COM" are connected, it will send wireless signal "OFF".
With two buttons: red button and black button
Operating Voltage: 12V (12V Rechargeable Lithium Battery)
Quiescent Current: 3mA
Working Current: 50~80mA
Operating Frequency: 433.92MHz
Modulation Mode: FSK+LORA
Feedback indication: buzzing sound
Transmitting Distance: 5000m / 15000ft (theoretically)
With waterproof case and external antenna.
With power switch on the side.
Operating Temperature: -20°C to +70°C
Unit Size: 178mm x 120mm x 60mm

Water Level Sensor:
Body Material: PP
Float Material: PP
Operating Temperature: -10°C to +85°C
Maximum Voltage: DC 100V
Maximum Current: 0.5A
Maximum Power: 10W

Working Range:
The maximum working distance can reach 5000M in an open ground.
The maximum working distance is a theoretical data, it shall be operated in an open ground, no barriers, no any interference. But in the practice, it will be hindered by trees, walls or other constructions, and will be interfered by other wireless signals. Therefore, the actual distance may not reach this maximum working distance.

Usage:
1. Installation:
1) Put the water level sensor 1 downwards and install at the low water level position in the tank; Put the water level sensor 2 upwards and install at the high water level position in the tank.
2) Connect the water level sensor 1 to terminals "Signal 1" and "COM" of transmitter CC-2N-2.
3) Connect the water level sensor 2 to terminals "Signal 2" and "COM" of transmitter CC-2N-2.
4) Connect the live wire of AC power supply to the receiver's terminal "L / +", and connect the neutral wire of AC power supply to the receiver's terminal "N / -".
5) Connect the live wire of AC power supply to the receiver's terminal B, connect one side of the pump to the terminal C, and connect another side of the pump to the neutral wire of AC power supply.

2. Operation:
1) Control pump by transmitter CC-2:
Press button A of the transmitter CC-2, the relay of receiver is activated, and the pump is turned on.
Press button B of the transmitter CC-2, the relay of receiver is deactivated, and the pump is turned off.

2) Automatically control pump by transmitter CC-2N-2 & Water Level Sensors:
When the water reaches the low water level, two wires of the water level sensor 1 is connected, the transmitter CC-2N-2 automatically emits a wireless signal "ON", which is equivalent to the function of the red button on the transmitter. When the receiver receives this wireless signal, it will turn on the pump motor to pump water into the tank.
When the water reaches the high water level, two wires of the water level sensor 2 is connected, the transmitter CC-2N-2 automatically emits a wireless signal "OFF", which is equivalent to the function of the black button on the transmitter. When the receiver receives this wireless signal, it will turn off the pump motor to stop pumping water.
You also can press red button or black button on the transmitter to turn on / off the pump.

How to pair the transmitter to the receiver:
1) Press the learning button of receiver for 1~2 seconds; signal LED on the receiver is turned on, it means the receiver enters the learning status.
2) Press any one button on transmitter, if signal LED flashes twice, it means learning is successful.
3) The receiver can learn several transmitters with different codes.

Delete all transmitters:

We have learned transmitter to the receiver. If you don't want the receiver to work with the transmitter, you can delete all codes of transmitters, which are stored in the receiver.
Operation: Press and hold the learning button of receiver until signal LED flashes three times, then release the button. That means all stored codes have been deleted successfully.