# RF Wireless Receiver (Model 0020052 S1PX-DC12-ANT3)

#### Feature:

Application: It can be used in industry automation, agriculture automation and home automation, such as factory, house, farm, pasture, vehicle, ship, offshore operation, aerial vehicle, field call, etc. It can remote control equipments on land, water and air, such as remote control lights, sirens, locks, motors, fans, winches, blinds, linear actuators, doors, windows, electric solenoid valves, security alarm, business signs and various devices.

Wireless control, easy to install.

Waterproof: The receiver has waterproof case and waterproof connector, it can be installed outdoors.

DC Power Output: It can control DC equipment with voltage DC 6V / 9V / 12V / 24V.

High Power: Each channel can work at maximum current 30A, such as 360W/12V, 180W/6V, 270W/9V, 720W/24V.

With wired control terminals: You can connect sensors, limit switches, manual switches or external devices to control the receiver.

With the external antenna, it can have a further working range.

Design with low-power and high-speed CMOS technology.

You can turn on/ off the receiver with transmitter (remote control) from any place within a reliable distance.

Wireless RF signal can pass through walls, floors, doors or windows.

With reverse power protection and over current protection.

Reliable control: The receiver only works with the transmitter which use same code.

One/several transmitters can control one/several receivers simultaneously.

You can use two or more units in the same place.

### **Receiver Parameters:**

Model No.: S1PX-DC06-ANT3 / S1PX-DC09-ANT3 / S1PX-DC12-ANT3 / S1PX-DC24-ANT3

Power Supply (Operating Voltage): DC6V (S1PX-DC06-ANT3), DC9V±1V (S1PX-DC09-ANT3), DC12V±1V (S1PX-DC12-ANT3), DC24V±2V

(S1PX-DC24-ANT3)

Output: DC6V (S1PX-DC06-ANT3), DC9V (S1PX-DC09-ANT3), DC12V (S1PX-DC12-ANT3), DC24V (S1PX-DC24-ANT3)

Working Frequency: 315MHz / 433MHz

Channel: 1CH

Control Modes: Toggle, Momentary, Latched

Static Current: ≤6mA

Maximum Working Current: 30A / each channel

PCB size: 90mm x 59mm x 18mm Case size: 100mm x 68mm x 50mm

Work with Fixed code transmitters or Learning code transmitters.

### **Matching Transmitters:**

The receiver can work with different transmitters, such as model C-1 / C-2 (100M), CWB-1 / CWB-2 (50M, waterproof), CP-1 / CP-2/CV-2 (500M), or CB-1 / CB-2 (1000M), CBW-1/CBW-2 (1000M, waterproof) etc.

When you set the receiver in toggle or momentary mode, it should work with single button transmitter, such as model C-1 (100M), CWB-1 (50M, waterproof), CP-1 (500M), or CB-1 (1000M), CBW-1 (1000M, waterproof) etc. When you set the receiver in latched mode, it should work with two buttons transmitter, such as model C-2 (100M), CWB-2 (50M, waterproof), CP-2 (500M), CV-2 (500M), CB-2 (1000M), or CBW-2 (1000M, waterproof) etc.

### Working Range:

Super long range, with a transmitter (such as CB-2) to form a complete set, the maximum working distance can reach 2000M 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.

### **External Telescopic Antenna:**

Length of external telescopic antenna: 108mm / 445mm (stretch)

With SMA connector.

If you stretches the external telescopic antenna, it can have a further working range.

### Usage (with the transmitter CB-2):

The receiver can be used to control DC 6V / 9V / 12V / 24V equipments. If the power supply of those equipments is DC 12V, you should choose the receiver with same DC 12V version; and if the power supply of those equipments is DC 24V, you should choose the receiver with same DC 24V version.

# Wiring:

If you want to control a DC 12V lamp, do as following:

- 1) Connect the positive pole of DC power supply to terminal "L / +" of INPUT, and connect the negative pole of DC power supply to terminal "N / -" of INPUT.
- 2) Connect the positive pole of lamp to terminal "L / +" of OUTPUT, and connect the negative pole of lamp to terminal "N / -" of OUTPUT.

### Setting different control modes:

Setting different control modes (We have set the receiver as Toggle control mode before delivery. If you want to use other control modes, do as following operation):

Setting control mode Toggle: Only connect Jumper-2.

Control mode Toggle (with transmitter CB-1): Press -> On; Press again -> Off. Press button of the transmitter: Output terminal outputs DC power, the lamp is on.

Press button again: Output terminal stops outputting, the lamp is off.

Setting control mode Momentary: Only connect Jumper-1.

Control mode Momentary (with transmitter CB-1): Press and hold -> On; Release -> Off. Press and hold button of the transmitter: Output terminal outputs DC power, the lamp is on.

Release button of the transmitter: Output terminal stops outputting, the lamp is off.

Setting control mode Latched: Do not connect Jumper-1 and Jumper-2.

Control mode Latched (with transmitter CB-2): Press -> On, Press another button -> Off. Press button A of the transmitter: Output terminal outputs DC power, the lamp is on. Press button B of the transmitter: Output terminal stops outputting, the lamp is off.

### Wired control terminals:

The receiver has manual control terminals, you can connect external devices, sensors, or manual switches to control the receiver.

1) Signal input:

You can connect external devices (with low level output signal) to manual terminals 1 (Signal -) and terminal 2 (Signal +), then the external device's output signal can control the receiver.

When the external device outputs low level signal to manual terminal 1 and terminal 2, turn on the relay. Output terminal outputs DC power, the lamp is on

When the external device stops to output signal, turn off the relay. Output terminal stops outputting, the lamp is off.

### 2) The manual switches:

You can connect manual switch to terminals 1 and 2, and then you can use this manual switch to control the receiver.

When connect terminals 1 and 2, turn on the relay. Output terminal outputs DC power, the lamp is on.

And when disconnect terminals 1 and 2, turn off the relay. Output terminal stops outputting, the lamp is off.

## 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 on. The receiver enters into status of LEARNING.
- 2) Press any one button on transmitter. If signal LED flashes quickly 15 times and turns off, it means learning is successful.
- 3) When receiver is in the status of LEARNING, press again the button of receiver, signal LED turns off, learning process will be discontinued.
- 4) The receiver can learn several remote controls with different codes.

# Delete all transmitters:

We have learned remote control to the receiver. If you don't want the receiver to work with the remote control, you can delete all codes of remote controls, which are stored in the receiver.

Operation: Press and hold the button of receiver until signal LED flashes slowly; release the button, LED keeps slow flash. That means all stored codes have been deleted successfully.

