



MR-ZJ61WH Signal Amplifier (Waterproof) Instructions

Functional Overview

MR-ZJ61WH signal amplifier is used to shape and amplify DMX512 signals after attenuation during long-distance transmission, which has the function of extending the signal transmission distance.

The signal amplifier uses full isolation protection technology between the input and output ends of the signal port, thus avoiding the high voltage that may be generated when the control line and other equipment fail to burn out the precision components, ensuring its safe operation. It can not only protect the controller in the application, but also ensure that the DMX signal can be transmitted normally to various lighting equipment, thus improving the reliability and stability of the entire control system.

The MR-ZJ61WH signal amplifier has an addressing line and supports addressing line isolation protection function, which can effectively protect lamps and controllers and other equipment in the data line and improve the addressing success rate of DMX512 lamps.

DMX512 Signal Signal Amplifier MR-ZJ61WH Amplifier is mainly applied between DMX512 controller and the first DMX512 fixture, and its installation position should be close to the first fixture, with a distance of no more than 2 metres.

In the signal cascade chain of DMX512 fixtures, according to the general principle, for every 32 DMX512 fixtures, a set of MR-ZJ61WH signal amplifier needs to be added.

Technical parameters

- ◆ Product Specifications: Fully isolated amplifier (one input and one output)
- ◆ Signal Type: USITDMX512/1990 protocol and extended DMX protocol
- ◆ Equipment Function: Reshaping and amplification after long-distance transmission attenuation, shielding interference signals
- ◆ Baud Rate: 250Khz-1Mhz
- ◆ IP Protection Grade: IP65
- ◆ The device port has over-current and over-voltage protection, so that the device can operate safely and reliably for a long time
- ◆ Surge Protection: 1.5KV
- ◆ Supports severe working environment -40°C-80°C, and operates normally without trouble

- ◆ Output voltage: DC6V~48V
- ◆ Rated power: ≤2W
- ◆ Signal isolation type: full magnetic coupling isolation
- ◆ Addressing isolation type: full magnetic coupling isolation
- ◆ Input terminal definition: Ground, Data + (A), Data - (B), Addressing input (Win)
- ◆ Output terminal definition: ground, data + (A), data - (B), addressing output (Wout)
- ◆ Supports severe working environment -40°C-80°C, and operates normally without trouble
- ◆ The ports are equipped with over-current and over-voltage protection, so that the equipment can operate safely and reliably for a long time

Wiring Definition



① DMX512 signal input terminal

② DMX512 signal output terminal

③ Power supply interface (DC6~48V)

The wiring is defined as:

Signal input terminal (left side)

Ground wire: GND-Black-Black

Data+: A-Green-Green

Signal output terminal (right side)

Ground wire: GND-Black-Black

Data+: A-Green-Green

Power input terminal (right side)

Power negative pole: V--Black-Black

Power positive pole: V+-Red

Data-: B-Blue

Data-: B-Blue

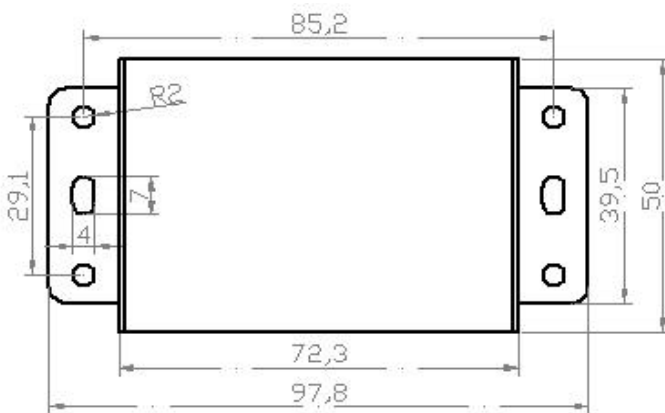
Address input: Win-Yellow

Address output: Wout-Yellow

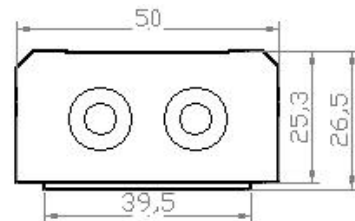
Note 1-1: The signal line and addressing line input and output color lines are the same. Please distinguish the input and output terminals and do not confuse them.

Standard Sizes

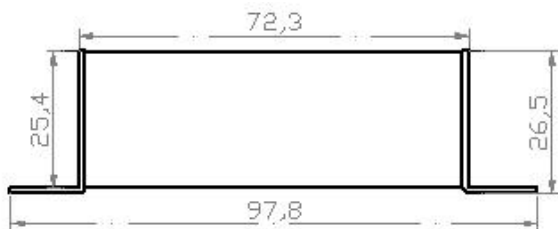
MR-ZJ61WH signal amplifier top view:



MR-ZJ61WH signal amplifier left view:

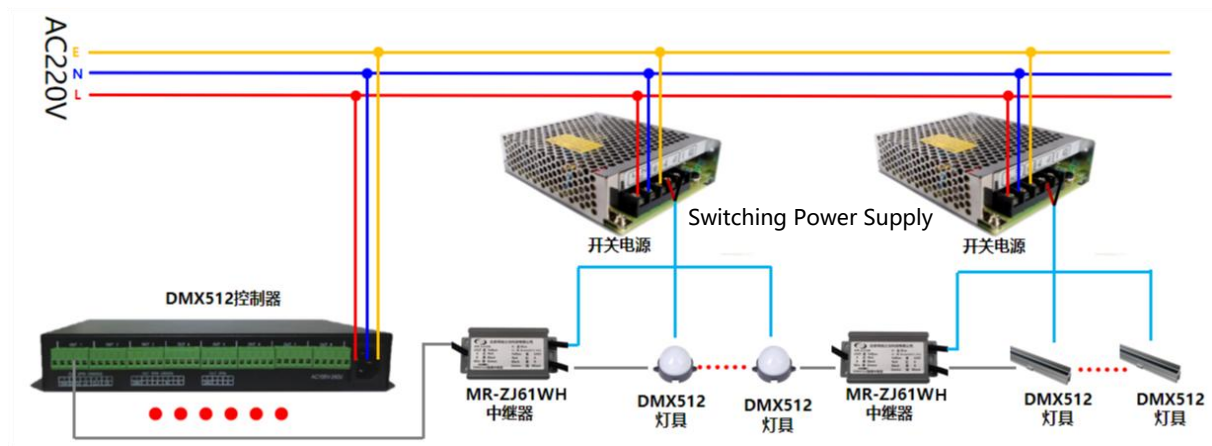


MR-ZJ61WH signal amplifier side view:



Unit: mm (the above dimensions are measured manually, there may be slight errors)

Application Mode



In the use of MR-ZJ61WH signal amplifier, the input and output are fully isolated by the signal port, so the wiring must not connect the ground (GND1) of the input to the ground (GND2) of the output.

Precautions:

- ① The power supply voltage of the signal amplifier should be taken from the power supply of the "lamp connected to the signal output terminal of the signal amplifier". If the power is taken from the lamp connected to the signal input terminal of the signal amplifier, the isolation protection of the signal amplifier will fail;
- ② If the signal amplifier is used between lamps, the lamp before the signal amplifier input and the lamp after the signal amplifier output should be powered by two switching power supplies respectively. If the same power supply is used, the isolation protection of the repeater will fail;
- ③ In DMX512 control signal transmission, it is generally necessary to add a signal amplifier after every 32 loads. (The specific application shall be subject to the actual situation on site).