

## Parameters

Electrical Parameters:	
Input Voltage	AC220V±10%
Frequency	50Hz±2%
Power consumption with load	Less than 10W
Output channel	6 channels
Out current in each channel	Max. 12A
Total current in channel	Less than 60A
Connection	Three phase and five wires
Environment Conditions:	
Working temperature	-5°C~45°C
Working relative humidity	< 90%
Storage temperature	-20°C~+60°C
Storage relative humidity	< 93%
Approved:	
CE	
RoHS	
Product Information:	
Dimensions	470×290×162(mm)
Weight	15kg
Housing material	
Installation	Wall mount
Protection degree	IP20

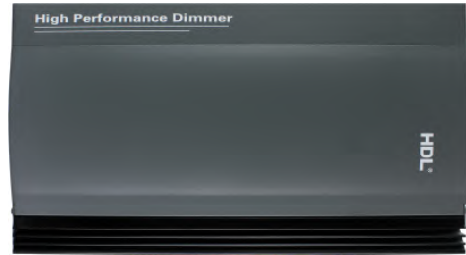
## Installation

- **Power cable:** Phase A - Yellow 6mm<sup>2</sup> copper wire  
Phase B - Green 6mm<sup>2</sup> copper wire  
Phase C - Red 6mm<sup>2</sup> copper wire
- **Line:** Light blue 6mm<sup>2</sup> copper wire
- **Earth Line of Equipment:** Double-color of yellow and green 6mm<sup>2</sup> copper wire
- **Load:** 2.5 mm<sup>2</sup> copper wire
- **Buspro connection:** Cat5e
- **Fire protection line:** 18AWG double core wire

## Notes

- According to the total load, select the power distribution system.
- Ensure good ventilation, pay attention to damp proof, quake-proof and dustproof.
- Do not disturb the equipment and overload.
- Ensure enough power source.
- (PE) should be connected.
- Check the connection, avoid the wires has damaged.
- Contact professional maintenance staff or HDL company when Product has problem.

## Overview



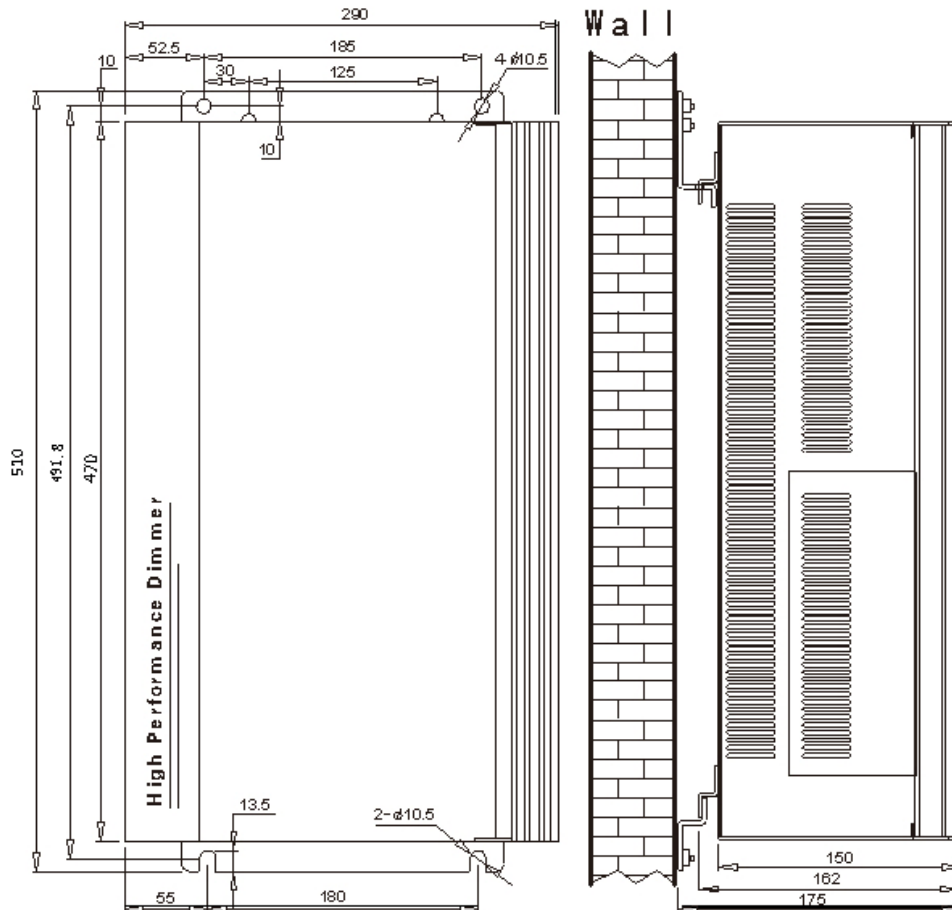
SB-WL-D0610 is the high performance intelligence dimmer which is a silicon controlled rectifier power output with 6 channels. Communication is HDL Buspro cable, it has scene controller and fire protection control output. In addition, it can be added the load test function according to users' requirement. It can be used in intelligence lighting, switch control and so on.

## Functions

- 10Bitdimming accuracy.
- 6-channel dimming outputs.
- LED indicator status.
- Scene controller.
- Maximum 6 separate areas, each area has 99 scenes and the maximum running time is 60 minutes.
- Up to 99 sequences, each sequence has 99 steps and the time interval is 60 minutes for each step, each sequence has 4 running modes of "forward", "backward", "forward and backward" and "random".
- Low, high, max threshold for each channel.
- Each channel has emergency bypass button and debugging bypass button
- Each scene, area, sequence, channel should mark up.
  - \* Each channel has current load testing.
  - \* Each channel has MCB status testing.
  - \* MCB switch trip warning.
  - \* Bad lights warning.
- Communication: HDL Buspro
- Provides 400mA current(DC24V) for HDL Buspro.
- Fire protection switch.
- Short circuit and overload protection, earth protection.
- Remote programming and management.
- Device can be restored to previous scene or specified scene, sequence.

**Note: functions with \* are optional.**

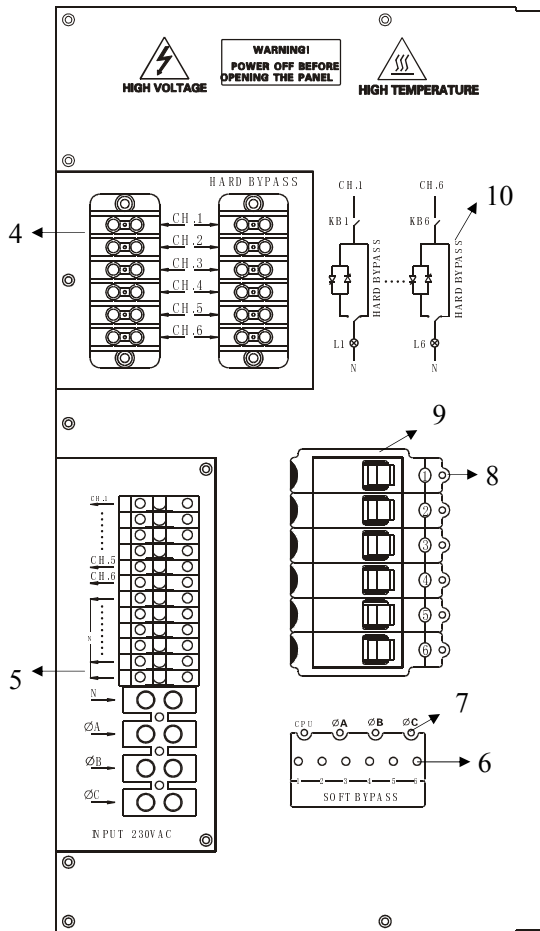
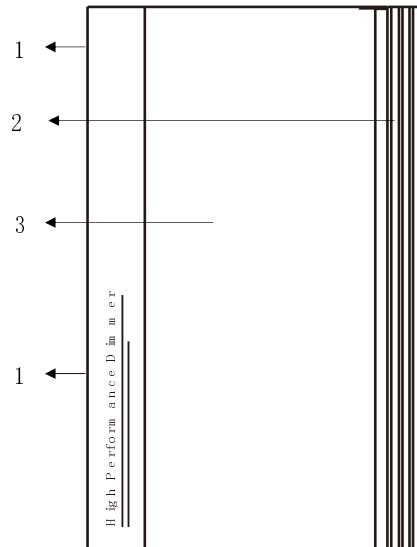
## Dimensions and Wiring



Installation dimensions

## Dimensions and Wiring

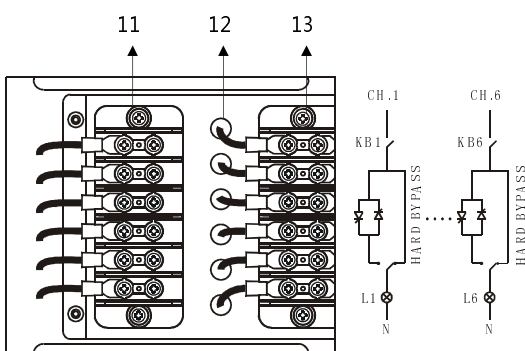
- 2 cover board adsorbed magnets, it is in the inner cover board.
- Heat dissipation aluminum rod.
- Cover, it can be opened from the left side with your hand.



Inside

Front

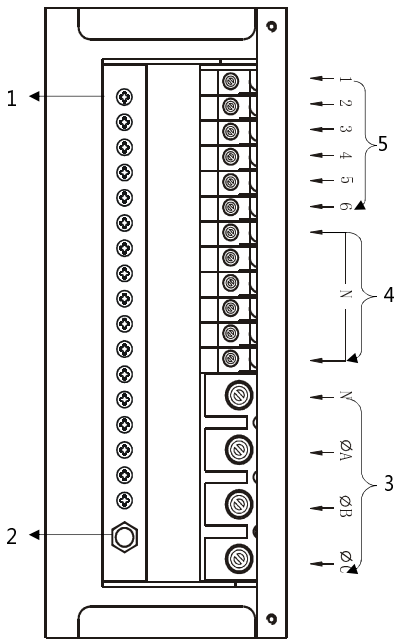
- Cover board of jumper wiring  
Shown as left, it must open the cover when is wiring.
- Cover board of power input and load wiring  
Shown as left, it must open the cover when is wiring.
- Channel controller  
The total is 6, they can control on/off of the channel 1 to 6.
- Status indicator  
From the left:  
CPU indicator - On-status on, off-status off.  
A phase of power indicator - On-power on, off-power off.  
B phase of power indicator - On-power on, off-power off.  
C phase of power indicator - On-power on, off-power off.
- Channel output signal indicator  
The total is 6, from top to button is channel 1~6.
- Load channel switch(16A)  
The total is 6, from top to button is channel 1~6. The rated current is 16A, it will be closed in a moment when over current to the load circuit to protect it
- Connection schematic  
It has two types of control: one is bypass and the other is silicon controlled rectifier. And the original is bypass



Jumper wiring terminal

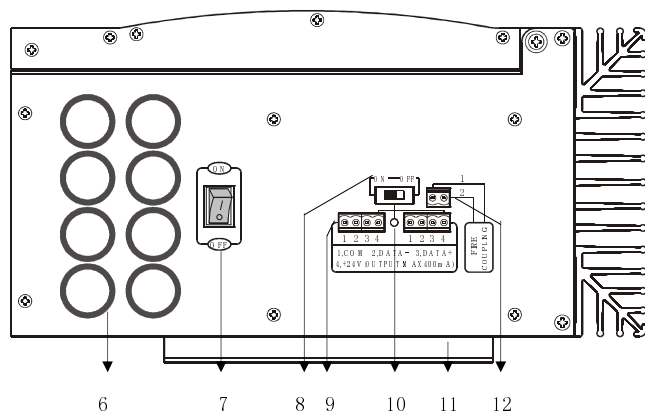
- The jumper wiring terminal is under the "4 cover board of jumper wiring", open the screw of the cover board, you can find it, shown as left.
- There are 6 terminals and from top to button is channel 1(CH1), channel 2(CH2), ...channel 6(CH6)
- Jumper terminal of the silicon controlled rectifier channel
  - Output connection terminal
  - Jumper terminal of bypass

## Dimensions and Wiring



Power input and load wiring terminal

1. Load ground wiring terminal: Connect to load wiring terminal.
2. Equipment ground terminal: Connect to ground.
3. Power input socket: from top to bottom is N, phase A, phase B, phase C.
4. Null line of channel 1 to 6 wiring terminal (common terminal).
5. Live line of channel 1 to 6 wiring terminal: From top to bottom is channel 1 to 6. Relationship of channel and phase 3 input power: channel 1, 4 is correspond to phase A, channel 2, 5 is correspond to phase B, channel 3, 6 is correspond to phase C.



### 6. Wiring holes

7. The power switch of equipment (note: the switch is nothing to do with +24V power output)
8. The switch of +24V power output (+24V output is used in HDL Buspro cable)
9. HDL Buspro cable terminal (in two sides)

Terminal number definition: 1→COM(common port)

- 2→DATA-(signal -)
- 3→DATA+(signal +)
- 4→DC24V(the max input current is 400mA)

The corresponding relation between HDL Buspro(Cat5e) and signal:

- COM→brown white, orange white
- DATA - →blue white, green white
- DATA + →blue, green
- DC24V →brown, orange

10. +24V input indicator( It will brighten when +24V is inputting)
11. Fixed bracket
12. Terminal socket of fire protection: Connect to fire protection control

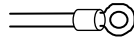
### Underside

## Dimensions and wiring

### Criterion requirement of multi-branch copper wire terminal

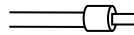
#### 1 ) Ground wiring terminal

The ground terminal is fixed by the screw. It requires that the terminal should be connected to the appropriate lug and the lug must be connected to the special equipment. Shown as following picture.



#### 2 ) Other wiring terminal

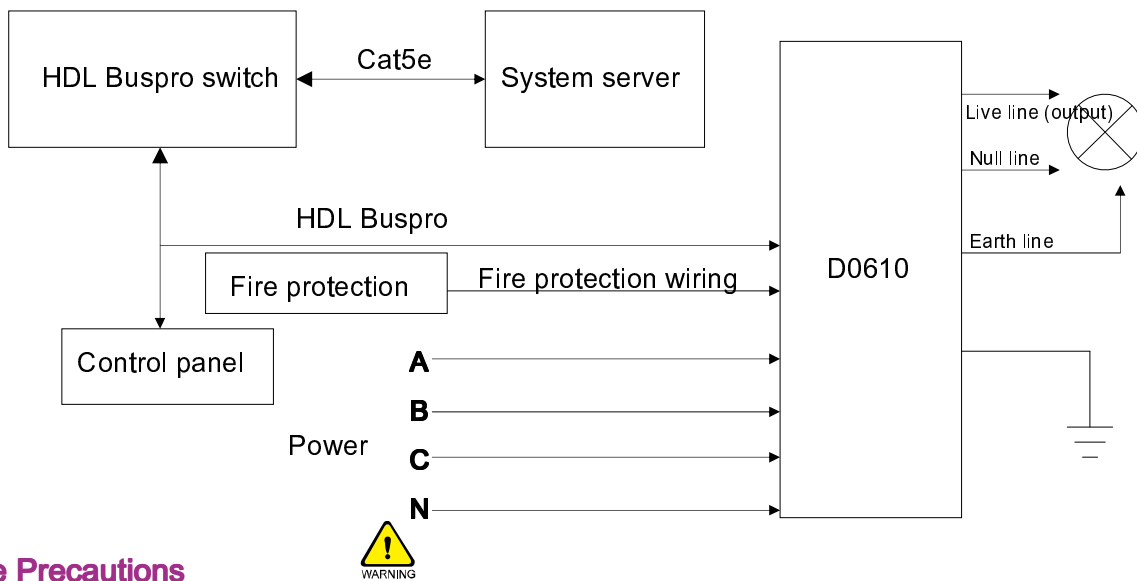
The power input, live line and null line should adopt the appropriate cable sheath. The cable sheath should be connected to the special equipment. Shown as following picture



### Typical system connection

The typical system connection (shown as following picture)

From the control panel (with infrared remote controller), system management server and fire protection management system, it can realize the function of dimming control, switch control, fire protection control, system management and other control system, etc.



## Safe Precautions

- Read all instruction in detail before using.
- Do not disturb the equipment and overload.
- Ensure enough power source.
- (PE) should be connected.
- Do not make wrong connection on Buspro interface, it will damage the Buspro interface of this module.
- Do not get AC power into Buspro wire , it will damage all devices in the system.
- Avoid contact with liquids and corrosive gases.

## Packing List

- |  |    |
|--|----|
| ■ Datasheet  | ×1 |
| ■ High Performance Intelligence Dimmer (SB-WL-D0610) | ×1 |