

PLC-208-010



Dimmable:
.....
Max. 0.1%-100%



RoHS **CE** **Class 2**



Features

- Integrated 0-10V standard dimming interface.
- Dimming range: 0~100%, LED dimming starts from 0.1%.
- Digital control for one signal to adjust brightness and another to adjust color temperature.
- Built-in microcontroller for setting dimming curves and fade times.
- Supports group control: up to 32 groups.
- Adaptive 0-10V and 1-10V functionality.
- Signal reverse connection protection: one signal in the same line can be reversed without affecting other power operations.
- Overload, over-temperature, and short-circuit protection with automatic recovery.
- Complies with SELV safety extra-low voltage standards.
- Suitable for indoor Class I, II, and III luminaire applications.

Product Description

This PLBUS intelligent lighting controller utilizes Lihe Micro's high-performance power line communication chip and adheres to the PLBUS protocol, enabling intelligent control through power lines. The controller outputs PWM dimming signals, compatible with standard lighting fixtures on the market, making it widely suitable for smart lighting applications in settings such as malls, hotels, exhibition halls, and classrooms. The application of PLBUS power line communication technology in smart lighting offers advantages such as no need for additional wiring, low cost, and convenient installation and maintenance.

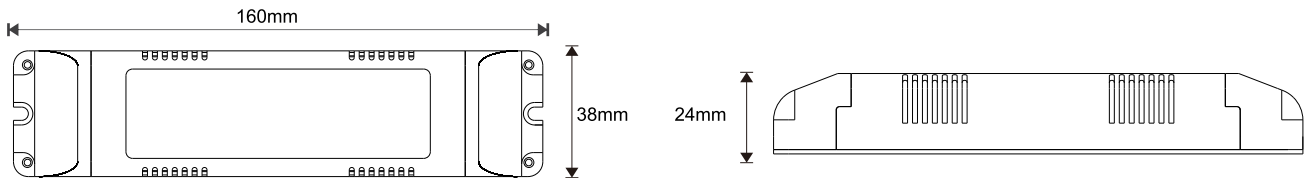
Technical Parameters

Model		PLC-208-010
Output	Relay output	Resistive Load:1 channel / 8A, Capacitive Load:1 channel /4A
	0-10V output	2 channels / 40mA (single channel 40mA)
Input	Input Signal	PLC BUS
	Input Voltage	110-220Vac
	Frequency Range	50/60HZ
Environment	Operating Temperature	ta:45°C tc:75°C
	Operating Humidity	ta:20~95%RH,No Condensation
	Storage Temperature / Storage Humidity	-40~80°C,10~95%RH
	Temperature Coefficient	±0.03%/°C(0-50)°C
Protection	Vibration Resistance	10-500Hz, 2G, 12 minutes per cycle, 72 minutes on each X, Y, Z axis
	Over-temperature protection	Based on the PCB temperature exceeding the limit (≥110°C), the current output can be intelligently adjusted or shut down, with automatic recovery.
	Overload protection	When the load power is ≥102%, the current will be reduced and can automatically recover.
	Short-circuit protection	The output circuit will automatically shut down in the event of a short circuit and can automatically recover.
Safety regulations and electromagnetic specifications	Dielectric strength	Input to output:3750Vac
	Insulation resistance	Input to output:100MO/500VDC/25°C/70%RH
	Safety standards	IEC/EN61347-1,IEC/EN61347-2-13
	Flicker testing standards	IEEE 1789
Others	Product dimensions	160×38×24mm(L×W×H)
	Packaging dimensions	PE bag packaging
	Product weight	104g±10g

Precautions

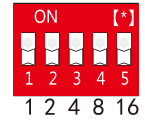
- This product must not be operated while powered on. Please have it installed and debugged by qualified professionals. Read the product manual carefully before installation.
- This product is not waterproof and should be protected from direct sunlight and rain.
- Do not stack this product during use.
- Good heat dissipation conditions will extend the product's lifespan. Please install the product in a well-ventilated environment.
- Please check all parameters of the product to ensure they meet the application requirements.
- For safety reasons, it is recommended to use 0.75 - 1.5mm² PVC or rubber cables for input for output connections. Ensure all wiring is secure to prevent overheating or poor contact, which could lead to accidents.
- Before powering on for debugging, make sure all wiring is correct to avoid product damage due to incorrect connections.
- In case of malfunction, do not disassemble the product yourself. If you have any questions, please contact the supplier.

Product Dimensions



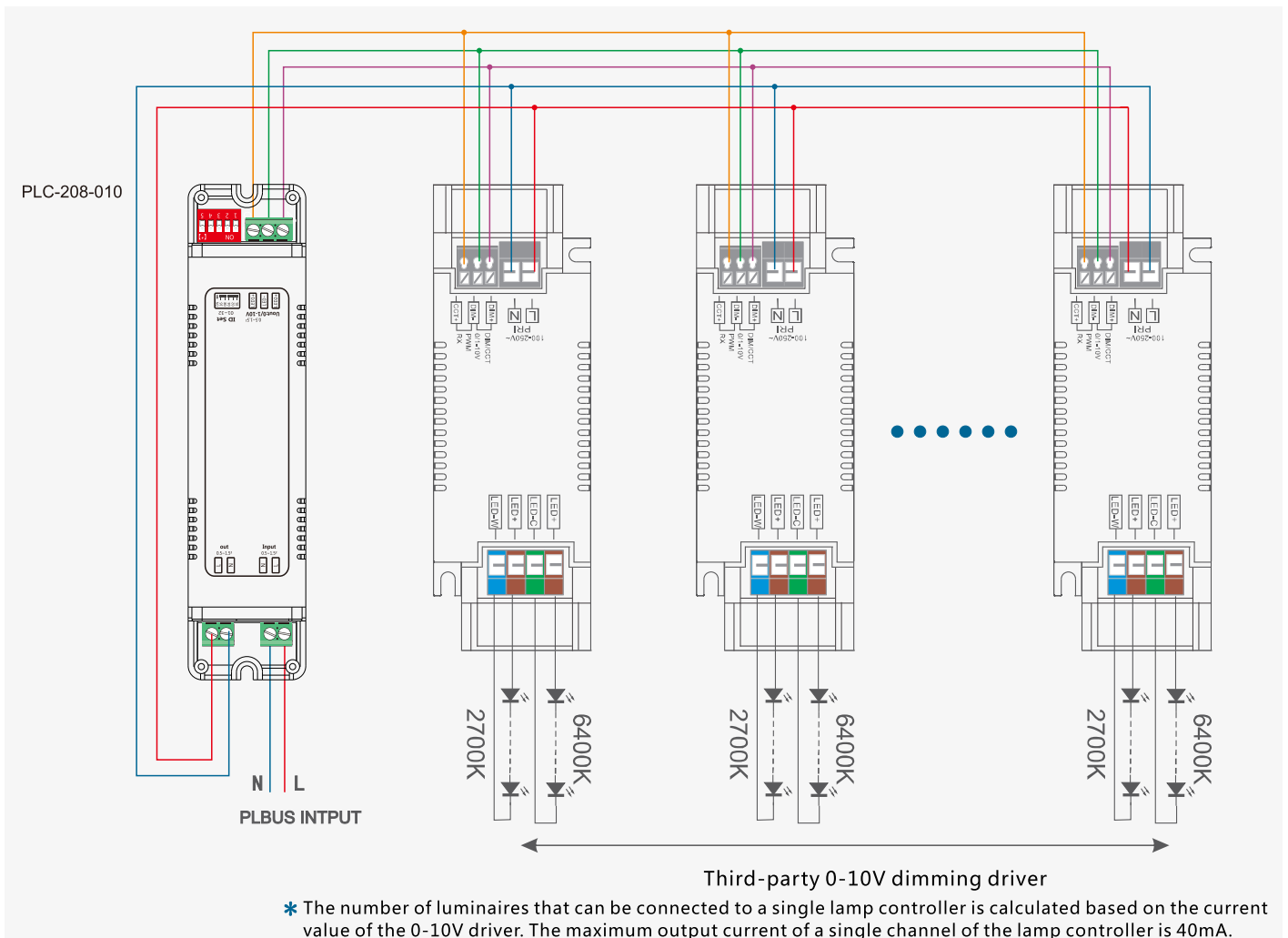
Group Settings

(Figure 1)The dip switch has a total of 5 positions, numbered 1, 2, 3, 4, and 5. Each position represents a value of 1, 2, 4, 8, and 16, respectively. When switched to the ON position, the values of the ON positions are added together, and then 1 is added to get the group address of the device. For example, address 11 is calculated as: (2 + 8) + 1 = 11, and address 30 is calculated as: (1 + 4 + 8 + 16) + 1 = 30. The group address range is from 1 to 32. Multiple controllers can have the same group address, and a single PLBUS can connect a maximum of 128 0-10V controllers. Note: When all dip switches are in the OFF position, it represents group address 1.



(Figure1)

Connection Application Diagram



* The number of luminaires that can be connected to a single lamp controller is calculated based on the current value of the 0-10V driver. The maximum output current of a single channel of the lamp controller is 40mA.

Fault Analysis

Encountered Issues	Solutions
The light does not turn on	<ol style="list-style-type: none">1. Check whether the input and output wiring of the product is connected according to the instructions in the manual, and confirm that the terminal connections are secure.2. Verify whether the input voltage of the product is normal, whether there is voltage present, and whether the applied voltage meets the product's rated voltage.3. Check whether the selected matching luminaire parameters conform to the product's rated voltage and current, and confirm whether the luminaire is defective.