

Startup guide ProLucent AC Safety Dimmer		ProLucent TM
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Version	R1	

DRAFT

A Product



ProLucent AC safety dimmer – PN: PLD04802

B Safety Instructions

CAUTION: DO NOT REMOVE THE LID TO REDUCE THE RISK OF ELECTRIC SHOCK. FOR INSPECTION AND SERVICING, CONSULT QUALIFIED PERSONNEL ONLY.

Read the instructions - All safety and operating instructions must be read before the device is put into operation.

Cleaning - Do not use solvents or abrasives for cleaning. Use a soft cloth to wipe the outside surface of the device.

Maintenance - The user should not attempt to service the device. All maintenance work must be performed by qualified service personnel. There is a risk of electric shock when touching the device.

Damage that requires service - The appliance must be serviced by qualified service personnel when:

- Electronic components are damaged
- Liquid has been spilled into the device
- The device does not seem to work normally

Temperature - The device can be used up to a maximum ambient temperature of 45 ° C

Regular inspection of the product and assembly is necessary to ensure safety. In case of doubt about the safety of the product and the installation, the customer must immediately contact ProLucent.



C Warranty Conditions

Warranty period - 2 (two) years

This warranty can be provided when the ProLucent product is used with due care and notification of the instructions in its normal intended use. ProLucent obligations are limited to these warranty conditions and the guarantee does not cover losses due to damage to other property or persons.

The warranty does not cover defects that are the result of:

- Defects occurred during transport of the ProLucent product
- Negligence by the user of the ProLucent product or non-compliance with instructions or proper care
- Circumstances beyond the control of ProLucent, such as theft, accidents or acts of vandalism
- Failure to observe the installation or operating instructions or other errors during installation of the ProLucent product
- Normal wear and tear

Under no circumstances will the warranty period for ProLucent products, including repaired or replaced parts, exceed the original warranty period mentioned above.

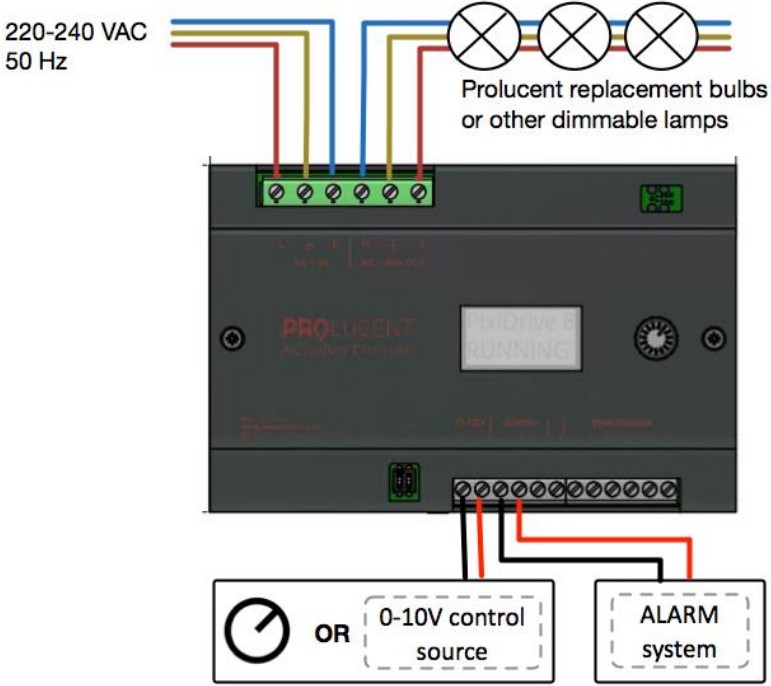
The customer is responsible for the costs and associated taxes and charges for shipping defective products for repair or replacement.

On-site repair is not covered.

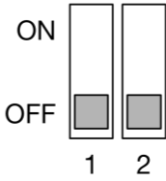
Procedure in case of a defect:

Consult our website <http://prolucent.lighting>

D Typical wiring



E Description of connections

POWER input / dimmer output	
	<p>Load rating Average guideline when using Prolucent bulbs: max load of 1300 W (in an environment of 45°C) The max load depends on the heat dissipation potential of the dimmer. A cooler environment will allow a higher load.</p> <p>Absolute max current: 8A (Internal fuse of 10A installed)</p>
Bottom terminal block	
	<ol style="list-style-type: none"> 1. 0-10V or potmeter input: GND 2. 0-10V or potmeter input: Vin 3. Alarm common: common of internal relay 4. Alarm NC: normally closed of internal relay (connected when there is NO ALARM or error situation) 5. Alarm NO: normally open of internal relay (connected when there is an ALARM or error situation) 6. Not used
DIP switch	
	 <p style="text-align: center;">1 2</p>
	<p>DIP 1: OFF -> 0-10V mode DIP 1: ON -> Potmeter mode (10K potmeter) DIP 2 : not used</p>

F Mechanical and electrical installation

!! The power should be switched off before installation

1. Install the module with the DIN rail clamps on the back of a 35mm DIN rail. There must be sufficient ventilation around the module.
2. Connect the cables

G Setup

Set lamp type

Setting the lamp type loads the optimal dimming curve for the specific lamp.
(If other than Prolucent lamps are used, select Generic lamp type)

1. To enter menu, push the knob
Select "Settings"

```
MENU
➔Back
  Operation mode
  Smart current
  Settings
  Errors
  Info
```

2. In settings menu, select Lamp type

```
SETTINGS
➔Back
  Lamp type
  OF 0-10V
  Fading
  Safety mode
  Buzzer
  Reset settings
```

3. Select the correct lamp type to the lamps connected to the dimmer

```
LAMP TYPE
➔Back
  Generic      ✓
  DimTo 12W
  Standard 12W
  Standard 7W
```

4. Select Back to go back to main screen

Set Operation mode

The dimmer has 2 modes. Manual mode and 0-10V. With manual mode, the knob is used to change the dim level. With 0-10V mode, the 0-10V input is used to control the dimmer

➔ In the menu navigate to Operation mode to select the required operation mode

```
OPERATION MODE
➔Back
  Manual
```

0-10V

✓

Smart current protection

The dimmer has a feature that monitors the current consumption of the connected lamps to detect faults in the installation of the lamps. Like bad electrical connections, broken lamps, ... When a fault is detected, the dimmer will switch off and display the error.

To enable this feature the dimmer has to learn to current in a normal situation.

1. In the menu navigate to Smart Current. And click on "Start Learning"

```
SMART CURRENT
◆Back
Start Learning
```

2. The dimmer will fade through the dim levels and return back to the initial state. After this the process is finished. And the smart current protection is switched ON.

Switching OFF the smart current protection

It is not advised to switch off the smart current protection. But it can be done in the menu. Navigate to the SETTINGS menu, then to Safety mode.

➔ **After setting the Lamp type, Operation mode and the smart current protection the device is ready to be used**

H Other settings

Other settings are changeable through the SETTINGS menu

OF 0-10V

An offset for the 0-10V input can be programmed. (standard value is 1V)

Fading

Standard the dimmer applies a smooth fade when changing dim levels. This can be switched OFF

Buzzer

The device has an internal buzzer. This buzzer is activated when an ERROR occurs. This buzzer can be switched OFF

I Errors

The device has several safety features to protect the device and the installation. When an error is detected the device goes in an error state.

The device can be in these error states

ERROR! Ifast	Fast over current error
ERROR! Tc	Over temperature
ERROR! Ix or Im	Over current error
ERROR! S	Smart current error
ERROR! Bad Freq	Wrong AC input frequency

Clear error

When an error occurs, the dimmer output is switched off.

The cause of the error should be solved. After the cause is solved, the errors can be cleared and the dimmer will resume normal function.

- ➔ Go to menu. And select "Errors". Then confirm to reset the errors.
(the errors submenu only appears when an error is active)

```
MENU
➔Back
  Operation mode
  Smart current
  Settings
  Errors
  Info
```

J Main menu

```
OUT          0%
0-10V:0.0V   0%
T: 26.7 P:   0%
ERRORS: None
```

The main menu shows some parameters:

- OUT: output of the dimmer from 0 to 100%
- 0-10V: input voltage from 0-10V input
- T: internal temperature
(When $t > 80$ degrees, the device will switch of dimmer output for protection. -> Tc – error)
- P: shows the load from 0-100%. P can show a load >100%. This is allowed for a short time but not recommended
- ERRORS: when in error state, it is shown here.