

Lumidriver LED 1-10 V & PUSH XL (code 3036243)


SELV

DIRECT CURRENT DIMMABLE ELECTRONIC BALLAST FOR HIGH POWER LED AND LED MODULES.

Lumidriver LED 1-10V & PUSH XL is a ballast for LEDs which can power both voltage LED strips (48 V) and power current powered LEDs (350 mA, 500 mA, 700 mA, 900 mA, 1050 mA, 1400 mA). The function mode is selected by means of the DIP SWITCH, which is below the terminal cover, according to the following table.

DIP SWITCH position	1	2	3	4	5	6
25 W 350mA	-	-	-	-	-	-
36 W 500mA	-	-	-	-	-	ON
50 W 700mA	-	-	-	-	ON	ON
50 W 900mA	-	-	-	ON	ON	ON
50 W 1050mA	-	-	ON	ON	ON	ON
50 W 1400 mA *	-	ON	ON	ON	ON	ON
50 W 48 V	ON	-	ON	ON	ON	ON

* not for continuous working

Moreover, Lumidriver LED 1-10V & PUSH XL is a dimmer ballast which can vary the light intensity of the connected LEDs by means of a type 1...10V control signal, potentiometer, normally open push button or external NTC. The connections must be carried out as shown in the diagrams.

Ballast function

1...10 V function

The light intensity of the LEDs vary proportionally to the signal sent to the terminal. Intensity is null with a signal less than 1 V.

Potentiometer function

By rotating the potentiometer there is variation of the LED light intensity in a proportionate or logarithmic way depending on the model of potentiometer used. The use of a logarithmic potentiometer is recommended.

Push button function

By pressing the push button for less than one second the LEDs turn on or off. By pressing the push button for more than one second the light intensity of the LEDs is dimmed according to the following modalities:

- If the light intensity is not at maximum, by pressing the key there will be an increase of this to maximum or to the corresponding level at the moment the key is released;
- A further pressure on the key inverts the dimming direction to the minimum value or to the corresponding level at the moment the key is released;
- If light intensity is at maximum by pressing the key there will be a decrease to the minimum value or to the corresponding level at the moment the key is released.

Function synchronization during dimming of more than one ballast is possible by means of the sync gates. In this way there is the same light intensity (with the same connected led load) among all the connected ballasts. This possibility is highly recommended when more than one ballast needs to be controlled by one push button (see the diagram). If more than one device is operated with a single key during PUSH operation without synchronization cable, asynchronous behaviour might occur, which will require manual resynchronization using the method described. It is recommended not to control more than 4/5 devices using a single key. Should this be unacceptable, a synchronization cable will have to be used instead. Any control system dimmer that does not feature a central control module (as each driver will have its own controls) can develop asynchronous behaviour (e.g. children might play with the key). The system will then be out of sync, i.e. some lamps will be on, others off or the dimming direction will differ from lamp to lamp. Method of resynchronization:

when the drivers are switched on, press the PUSH key for more than one second (long PUSH) followed with a short push (<1s). Now the devices are switched off, do a long PUSH, the system will now be resynchronised. Total length of PUSH cables: 15m.

N.B.: The use of the push button inhibits the use of the 1...10 V signal. To return to use of the 1...10 V signal keep the signal less than 0,5 V for at least 2 seconds.

Technical data

Input

- Nominal: 110÷240 Vac -10/+10 % 50...60 Hz;
- Terminal block for up to 1 x 1,5 mm²;
- Strain relief for cables with D = 3...8 mm;
- Max Input Current: 0,16 A;
- Power factor λ: 0,95 C;
- Harmonic content of mains current: ac-cording to EN 61000-3-2.

Output

- SELV insulation on output;
- Terminal block for up to 1 x 1,5 mm²;
- Strain relief for cables with D = 3...8 mm;
- Selection of current and voltage output through Dip switch (See table);
- Max output power and current precision @ 220÷240 Vac:
 - 25 W @ 350 mA ± 6% (2...74 V);
 - 36 W @ 500 mA ± 5% (2...72 V);
 - 50 W @ 700 mA ± 5% (2...71 V);
 - 50 W @ 900 mA ± 5% (2...55 V);
 - 50 W @ 1050 mA ± 5% (2...48 V);
 - 50 W @ 1400 mA ± 5% (2...35 V) not for continuous working;
 - 50 W @ 48 V ± 5% (1050 mA max);
- Max. output voltage: 90 VDC;
- Efficiency @ full load: 0,91%, DIM 50% = 0,87%;
- No load consumption: 1,6 W;
- 12 V isolated auxiliary output max. 50 mA.

Dimming

- PWM controlled by 1...10 V signal, 100 K potenziometer or pushbutton;
- Terminal block on the secondary side for 1...10 V signal or potenziometer (max. source current 0,35 mA);
- Terminal block on primary side for push button; connection between phase and terminal block (impedance 170 Kohm);
- Header for other power supplier synchronization (1 MASTER + 9 SLAVES max).
- Terminal block for external NTC signal for load current reduction:

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trigger voltage 3V; Int Res. 18K (see table).

- Selectable Softstart. To select the softstart function keep in shortcircuit PUSH terminal block with Phase terminal block at switch on.

Protections

- Against input overvoltages from mains (according to EN 61547);
- Against short circuit;
- Thermal and overload protection (C.5. for EN 61347-1).

EMI

- According to EN 55015.

Ambient

- $t_a = -20...50\text{ }^\circ\text{C}$;
- $t_c = 80\text{ }^\circ\text{C}$;
- t_c life 50.000 h = 75 $^\circ\text{C}$.

Safety

- Hi-pot test: 3,75 kV, 100% for 2 sec.

Standards

- EN 61347-1; EN 61347-2-13; EN 61547; EN 55015;
- EN 61000-3-2; EN 60598-1; VDE 0710-T14.
- KEMA KEUR pending.

NTC value	Start operation temperature (3V Req = 26Kohm)	Total turn off temperature (2,2V Roff = 15Kohm)
100 K	55 $^\circ\text{C}$	72 $^\circ\text{C}$
150 K	65 $^\circ\text{C}$	80 $^\circ\text{C}$
220 K	75 $^\circ\text{C}$	90 $^\circ\text{C}$

External NTC Table. See NTC manufacturer datasheet.

Diagram with 1...10 V or potentiometer

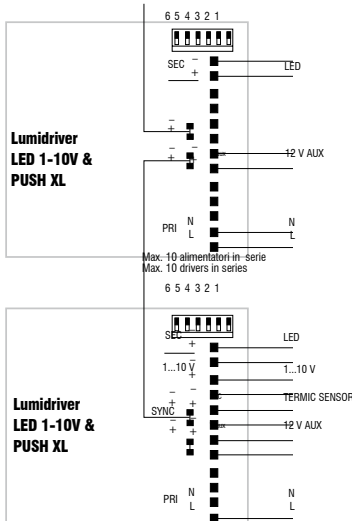
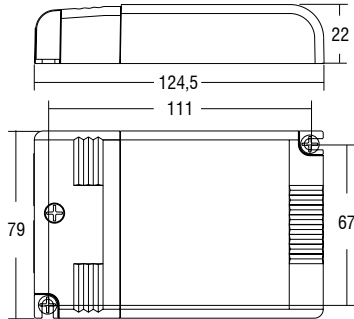
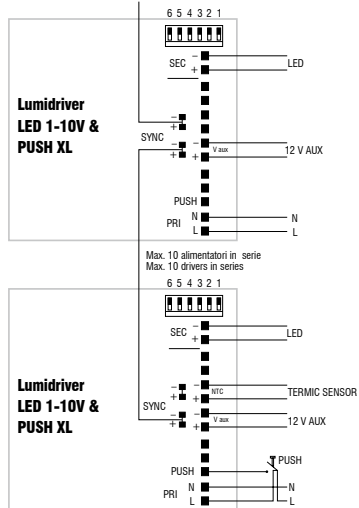


Diagram with push button



WARRANTY: our products are guaranteed for 24 months from the date of manufacture. Our warranty covers all manufacturing defects. Our warranty does not cover defects and/or damages due to improper use or not conforming to the operating and installation instructions. The warranty will be invalidated if the products are opened or tampered with. **Note:** according to the regulations in force, the Manufacturer reserves the right to make technical and dimensional changes to improve product characteristics and performance without prior notice.



Directive UE 2002/96/EC (WEEE) - INFORMATION FOR USERS - THIS PRODUCT CONFORMS WITH EU DIRECTIVE 2002/96/EC.

It carries the symbol of the crossed-out waste bin, which means that once its useful life is over it must be treated separately from other domestic waste: it must be taken to a recycling centre for electrical and electronic equipment, or taken back to a retailer and left there when a new equivalent device is purchased. The user is responsible, when the device is to be disposed of, for taking it to the appropriate collection point. Proper differentiated collection is necessary so that the obsolete device can be sent on for environmental friendly recycling, treatment and dismantling, in order to avoid any possible negative environmental impact or health risk and to allow the materials of which it is made to be re-used. More detailed information about available systems for collection may be obtained from the local waste disposal services, or from the shop from which the device was purchased.