# **USER GUIDE** LEDL-D/P

# 2022 VERSION HIGH PERFORMANCE



# Dimming interface for voltage LED 12-24-48Vdc.

Brightness regulator for LED modules 12-24-48Vdc. Brightness adjustment through:

- push-button (PUSH 12-24-48Vdc),
- push-button (PUSH 230Vac)
- DALI signal,
- 1-10V signal (active or passive),
- 0-10V signal (active or passive),
- potentiometer 100KOhm (logarithmic)

#### (settings by dip-switch).

With «LEVEL MEMORY » and «STATUS MEMORY» function. Ability to select PWM frequency 244Hz or 2000Hz (2KHz) SLAVE version only for signal repetition (LEDL-S). PWM OUT: 2000Hz (HIGH PERFORMANCE).

NOTE: In the case of incorrect setting of the DIP-SWITCH, at power up, the interface switches ON and causes the LED to flash with a frequency of 1 sec ON and 1 sec OFF.

#### Operation DALI, PUSH, 0-10V / 1-10V, SLAVE.

The operating mode is selected through the DIP-SWITCH which is located beneath the terminal cover (see the side table).

- 0-100% Logarithmic brightness adjustment, with DALI signal, with push-button, 0-10V or 1-10V interface (the lowest level in PUSH modality is different from 0 to distinguish it from OFF).

### **General Characteristics**

Plastic case. Device for independent mounting. Electric class protection II. Protection degree IP20.

DIMMING DIP-SWITCH										
<b>Comando</b> Command	1	2	3	4	5					
ON/OFF	•	•	•	•	•					
Push Slow	ON	•	•	•	•					
Push Fast	•	ON	•	•	•					
Push Up/Down	ON	ON	-	•	•					
DAL	•	•	ON	•	•					
1-10V for passive resistor	•	ON	ON	•	ON					
1-10V for active systems	•	ON	ON	•	•					
0-10V for active active	ON	•	ON	•	•					
0-10V for passive systems	ON	•	ON	•	ON					
Slave	ON	ON	ON	•	•					
Output PWM freq. 244Hz	Х	Х	Х	•	Х					
Output PWM freq. 2KHz	Х	Х	Х	ON	Х					

CODICE CODE	Tensione di ingresso Input voltage (Vdc)	Tensione di uscita Output voltage (Vdc)	Corrente di uscita Output current (A)	t Potenza di uscita Output power (W)		er	<b>Comando</b> Command	<b>Versione</b> Version	CC CV	Peso Weight
	(100)	(100)	()	@12Vdc	@24Vdc	@48Vdc				(3)
LEDL-D/P	10.04.40	10.04.40	10	144	288 576	PUSH   DALI   0-10V   1-10V	MASTER - SLAVE	CV	100	
LEDL-S	12-24-40	12-24-48	12	144		5/0	-	SLAVE	0	100

### **OPERATING MODE**

There are distinct modes of operation read on startup (the settings have to be made by dip-switch before powering on)

- 1) ON/OFF (no dimming) (factory settings)
- 2) PUSH (push-button) dimming (control OFF, 2-100%) three profiles: SLOW, FAST, UP/DOWN;
- 3) DALI (control OFF, 2-100%) Power on: 100% System fail level: 100% 4) 1-10V Dimming, brightness reduction until reaching a preset minimum without switching off:
- 5) 0-10V Dimming, brightness reduction until completely shut off; 6) SLAVE.

#### The operating modes PUSH, DALI, 0-10V and 1-10V are alternatively between them.

- Time dimming (0-100%; 100-0%): SLOW profile=8 seconds,
- FAST profile=5 seconds; UP/DOWN profile=8 seconds;
- Low level in PUSH modality is different from 0 to distinguish it from OFF.

#### Restart after a power failure:

- In ON/OFF modality, it starts from ON;
- In 0-10V or 1-10V dimmer mode, the input value is read and ON according to the schedulina:
- In PUSH dimmer mode, it starts from the last data set;
- In DALI dimmer mode, it starts from the last data set.

#### Default DALI (factory configuration):

- Power on: 100%
- System fail level: 100%

#### **TECHNICAL FEATURES**

#### INPUT:

Supply voltage: 12-24-48Vdc Terminal 1 x 2,5 mmq. Cable clamp for cable diameter  $\emptyset = 4...6$  mm

# V7.10 26/11/202<sup>-</sup> OUTPUT:

Output voltage: 12-24-48Vdc

SELV insulation Terminal 1 x 0,5...1,5 mmq Cable clamp for cable diameter  $\emptyset = 3...8$  mm. NB: Output power must be supplied by

# a single driver!

IRev. Maximum temperature on Tc point 75°C A

Maximum ambient temperature:Ta -10°C ÷ 50 °C

#### 12-48V DC IN LED OUT LEDL-D/P LED DIMMER PWM 12-24-48Vdc DALI/PUSH/1-10V/0-10V/ SLAVE Freq.24th Freq.2Kth HIC Table HWM HI 02,5 <u>V</u>OX PWM-IN \F/ 5, DALI DA DA Made in Italy DALI 2 **W** 1-10 MASTER OUT

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#### PUSH MODE (Settings by DIP-SWITCH)

- Short pressure on push-button for ON/OFF modality (on and off ramps). - Long pressure on push-button for DIMMER modality. Three profiles.
- SLOW PROFILE (Settings by DIP-SWITCH)
- Press the push-button, the dimming starts up to the maximum (or minimum) and then, after 1s, reverses. Time from minimum to maximum: 8 seconds.

#### FAST PROFILE (Settings by DIP-SWITCH)

- Press the push-button, the dimming starts up to the maximum (or minimum) and then, after 1s, reverses, Time from minimum to maximum: 5 seconds.

## UP/DOWN PROFILE (Settings by DIP-SWITCH)

- Press the push-button, the dimming reverses its direction. Arrived to
- the minimum (or maximum), the status is maintained. Time from minimum to maximum: 8 seconds.
- Memory of the last data dimming. At each ON, the driver starts from the last data set.
- Method of resynchronisation (sometimes the system could be out of sync, i.e. some lamps will be on, others off, etc): in OFF/ON position, press the push-button for a long time (30sec), the drivers will be 100% and the system will now be resynchronised.
- Maximum total cable length to retractive switch (PUSH): 15 m.
- Maximum number of SLAVE devices: 10.

DALI MODE (Settings by DIP-SWITCH) -DALI Interface: limit for the control input current is 2mA in receiv mode, at least 250mA in transmission mode.

#### 1-10V MODE (Settings by DIP-SWITCH)

- You can use commercial dimmer 1-10V. The LED brightness varies
- proportionally to the signal sent to the terminal from 2 to 100%. You can use 100K potentiometers. The variation in the brightness of the LEDs is in proportional or logarithmic depending on the model used potentiometer (recommended logarithmic).
- Set the dip-switch 5 to position ON for resistive potentiometers: lout max 1,4mA.
- Set the dip-switch 5 to position OFF for active systems (Konnex interface, EIB,
- potentziometer touch screen, PC, Domotic Systems, ecc.): impedance 100K. 0-10V MODE (Settings by DIP-SWITCH)
  - You can use systems 0-10V. The LED brightness varies from 0 to 100% proportionally to the signal sent to the terminal.
- Set the dip-switch 5 to position OFF. Impedance 100K.
- setting dip-switch 5 to ON it still have the possibility to turn off completely even using resistive potentiometers: lout max 1,4mA

#### SLAVE MODE (Settings by DIP-SWITCH) :

- You can use LEDL-D/P as SLAVE.
- SLAVE B MODE (only for LE42DP) :
- You can use LEDL-D/P as SLAVE with LE42DP as MASTER.

#### MADE IN ITALY

LEF LIGHTING S.R.L. www.leflighting.it Via Rodolfo Morandi, 9/11 - 50019 Sesto Fiorentino (FI) - İTALY | Tel +39 055 421 77 27 - Fax +39 055 421 77 19

#### 2022 VERSION **USER GUIDE HIGH PERFORMANCE** LEDL-D/P Dimming interface for voltage LED 12-24-48Vdc. PUSH 12-24-48Vdc 0-10V/1-10V DALI PUSH 230Vac MODE MODE MODE ▶₩ ED OUT ● ⊕ LED OU 4-48 V D( $\oplus \Theta$ ⊕⊕ ⊕⊝ $\oplus \Theta$

12-24-48V DC IN LED 12A MAX OUT

PUSH

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LEDL-D/P

MASTEI 1-10 OUT

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LED DRIVER

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24-48 V DC IN 12A MAX

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PUSH 12-24-48 Vdc

# Use of LE42DP or LE20DP driver as MASTER





# Use the LEDL-D/P as SLAVE

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-24-48V DC IN LED 12A MAX OUT

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MASTER 1-10 OUT

LEDL-S

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- You can use the LEDL-D/P as SI AVE
- Set to ON the 1, 2, 3 positions of the dip-switch. Set to OFF positions 4,5.
- The terminal for input 1-10V signal is used as input for MASTER OUT signal.
- You can connect up to 10 Slaves.

### Use the LEDL-S

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LED DRIVER

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MODE

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12-24

0-10V 1-10V

LED DRIVER

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MASTE

LEDL-S