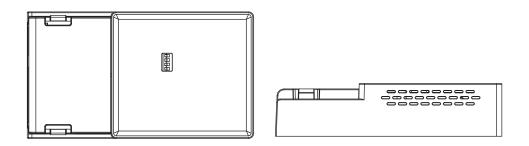
## **//Z** electric

# User Guide

LED Driver Item NO.: DR801/DR802/DR803-DL



DR800-DL series LED driver, a family of DALI-2 & Push-DIM independent ECG covering from 3.5W to 57W, design with through wiring and super large wiring space, saving a lot of time and effort on the actual wiring work on site. Big push-fit looping connectors are quick to connect cables with, supporting also various wire thicknesses. Wires are secured to the driver with click-on cable clamps, and strain relief cover clicks on effortlessly securing the connections without any need for screws.

The output current can be programmed by DALI or selected by DIP switches which allows you to adjust the constant output current to work with different power LED modules. It helps to reduce the inventory and faster to projects. These LED drivers provide Amplitude Modulation(AM, or CCR) current output, it is ideal for independent use with Class I, II and III luminaire, you can be sure to offer your customers high quality of light without visual flicker and stroboscopic effects to work in TV studios and security camera environments.

<ol> <li>Compatible with DALI</li> </ol>			
Dimming and Push Dimming			
② multiple loads			

③ Over current protection④ Over temperature⑤ Over voltage

## 1. Technical Data

Model No.	
Description	:

LED Driver

DR801/DR802/DR803

MODEL		MODEL DR801-DL		DR803-DL	
	Output voltage	14-42V	14-42V(lout≤1000mA); 14-38V(lout>1000mA);	14-40V(lout≤1400mA); 14-38V(lout>1400mA);	
Output	Rated current	250 -600mA (preselected 250mA)	650 -1100mA (preselected 650mA)	1150 -1450mA (preselected 1150mA)	
	Maximum power	25.2W	42W	57W	

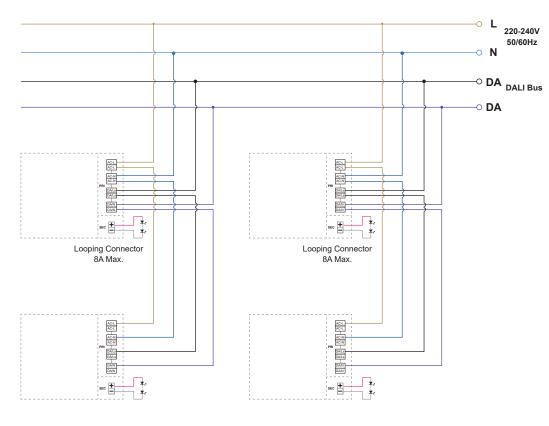
MODEL		DR801-DL	DR802-DL	DR803-DL				
	Voltage	Rated:220-240V; Range:200-264V;						
	Frequency	Rateo	Rated:50-60Hz, 0Hz; Range:47-63Hz, 0Hz;					
	AC current	180mA max	300mA max.	350mA max.				
Input	Inrush current 7	25A	35A	35A				
	ON/OFF switches cycle	>100,000	>100,000	>100,000				
	Standby power	<0.5W	<0.5W	<0.5W				
	Dimming control mode		Amplitude (AM) dimming					
	Dimming control type	DALI DT6(1 channels dimming) & Push dimming						
DALI & PUSH Control	DALI Input Voltage	Rated:16V; Range:9.5-22.5V; Rated:1.6mA; Range:1.5-1.7mA;						
Control	DALI Input (Bus) Current							
	Dimming Range	DALI-2: 2%-100%; PUSH: 3%-100%; (AM dimming mode)						
	DALI Standard	IEC 62386-101: 2014, IEC 62386-102: 2014, IEC 62386-207: 2009, IEC 62386-209: 2009						
	Over current	Constant current limitin	g, recovers automatically after fault co	ndition is removed				
	Over voltage	Shut down output voltage, with auto-recovery or re-power on to recovery						
Protection	Over voltage Over temperature	Shut down output voltage, recovers automatically after temperature goes down						
	Short circuit	Constant current limiting, recovers automatically after fault condition is removed						
<b>.</b>	Dimension L x W x H	130.6*73*30.5MM						
Dimension	Enclosure	:PC						

	DR801-DL					DR802-DL							
	Output DIP Switch					Output DIP Sw			witch	vitch			
Voltage	Current	Power	1	2	3	4	Voltage	Current	Power	1	2	3	4
	245mA	10.2W	-	-	-	-		650mA	28.3W	-	-	-	-
	300mA	12.6W	ON	-	-	-		700mA	29.8W	ON	-	-	-
	350mA	14.7W	-	ON	-	-		750mA	32.1W	-	ON	-	-
	400mA	16.8W	ON	ON	-	-	-	800mA	33.9W	-	-	ON	-
A14-42V	450mA	18.8W	-	-	ON	-	A14-42V	850mA	35.4W	ON	-	ON	-
	500mA	21.0W	ON	-	ON	-		900mA	37.8W	-	ON	ON	-
	550mA	23.1W	-	ON	ON	-		1000mA	42.1W	-	-	ON	ON
	600mA	25.2W	ON	ON	ON	-		1040mA	43.6W	ON	-	ON	ON
						-	14-38V	1090mA	41.5W	-	ON	ON	ON
						-		1130mA	42.8W	ON	ON	ON	ON

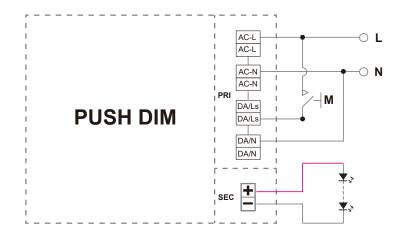
DR803-DL								
Voltage	Current	Power	1	2	3	4		
	1140mA	47.8W	-	-	-	-		
A14-42V	1170mA	49.2W	ON	-	-	-		
	1240mA	51.9W	-	ON	-	-		
14-40V	1270mA	50.8W	ON	ON	-	-		
	1325mA	52.9W	-	-	ON	-		
	1360mA	54.2W	ON	-	ON	-		
	1420mA	54.0W	-	ON	ON	-		
14-38V	1450mA	55.2W	ON	ON	ON	-		

## 2. Dimmer wiring diagram





#### 2.2 Push Dim



- a) Do not use more than 20pcs driver in a single PUSH-DIM application (up to 20 Driver can be controlled by one push-button). The greater the number of this series driver controlled simultaneously, the greater the risk of asynchrony.
- b) The cable length between the push-button and the farthest this series driver may not be longer than 105 meters. Compensation measures must be applied for line lengths required to be more than 105 meters long (bell transformer, resistance).
- c) The push button can only be connected to the AC/L and PUSH terminals of the driver. It results in the short circuit if the Push Button is connected to the AC/N terminal.

### 3. Opreating and function

- 3.1 DALI 2 Dimming
- a) Compatible with both DALI-2 application controller or DALI-I master, please make sure they also qualified and listed in the DiiA website.
- b) Connect the DALI signal to the DA1 and DA2 terminals (polarity-free)
- c) Addressing possible:
- •Individually (max. 64 IP addresses)
- •In groups (max. 16)
- •All together
- d) The least dimming depth of DALI is of 2%  $^{\ast}$  lout.
- e) Built-in with permanent memory: light returns to the previous dimming level when switched off and on again, even at power failure.

f) Supports star, tree, serial, parallel wiring ,but not supports ring wiring

g) If this series are not reacting to the command of the control unit. Please

inspect the wiring; approx.

16 V DC must be applied to the DALI terminal of the this series.

DALI INPUT	MIN	ТҮР	MAX
High level	9.5V	16V	22.5V
Low level	-6.5V	0	6.5V

h) DALI bus communication length and input wire diameter

Wire Diameter	Wire Diameter
0.5 2 mm	0.5 2 mm
0.75 2 mm	0.75 2 mm
1.0 2 mm	1.0 2 mm
≥1.5 2 mm	300m Max.

#### 3.2 PUSH Dimming

Operation	Action duration	Action
Ultra Short Press	<0.04 sec	Won't cause any action
Briefly Press	0.04-0.5 sec	Light ON/OFF
Press and hold at ON status	0.50-5.0sec	Brightness Dimming down to 3%, or up to 100%
Press and hold at OFF status	0.50-5.0sec	Brightness Dimming From 2% up to 100%
Long Press	>15.0 sec	Reset to factory settings(up to 50%)

a) Factory defaults 100% brightness, dimming level down to 3%.

- b) Built--in with permanent memory:Light returns to the previous dimming level when switched off and on again, even at power failure.
- c) Synchronization of switching state and dimming direction:

For physical reasons, a PUSH-DIM system can work asynchronously; in other words, the switching state and dimming direction of the individual luminaires are different. The following steps are used to synchronize a PUSH-DIM system:

- 1. Step: Press and hold (> 0,5 s)  $\rightarrow$  All luminaires switch on
- 2. Step: Press briefly (< 0,5 s)  $\rightarrow$  All luminaires switch off
- 3. Step: Press and hold (> 0,5 s)  $\rightarrow$  All luminaires switch on and dim
- d) The PUSH-DIM wiring and the operator button must be rated for mains voltage (240 V).
- e) Warning: Make sure the conduct core connected to PUSH terminal is not exposed, as it connected to the live wire.

### WARNING

- a. Installation must be carried by a qualified electrician.
- b. Before installation, please check whether it conforms to local electric standards
- c. Power supply must be turn off when install and clean the dimmer.

Wipe the surface dust or dirt with soft cloth or tissue, do not use the detergent or other corrosive chemical solution.

- d. Please place and protect the cover properly when it's in installation to avoid the damage.
- e. There is no strong impact, vibration, electromagnetic field interference, corrosion, or dusty gas around the usage environment
- f. The product should avoid frost, condensation, water seepage, rain, etc.