



Features

- Constant Voltage output
- UL, cULus listed, Class2 unit, Type HL rated, FCC
- Universal AC input: 100-277VAC
- Built-in active power factor correction (PFC)
- $\leq 0.48W$ standby power consumption
- Up to 92% efficiency
- 10-100% load capacity
- Protected from Short Circuits, Overload and Overheat
- Logarithmic dimming curve
- DALI-2 dimming
- D4i features
- No PWM influence on colour index
- IP66 protection for dry, damp and wet locations
- NFC function
- Flicker-free, 4KHz stroboscopic exemption
- 0 to 100% dimming range, 0.1% LED start available
- Suitable for LED lighting
- Cooling by free air convection



Specifications

| OUTPUT | | INPUT | | | |
|--------------------|-------------|---|--|--|--|
| DC Voltage | 24V | Voltage Range 100-277VAC | | | |
| Rated Current | 4A | Frequency Range 47-63Hz | | | |
| Rated Power | 96W | Power Factor (Typ.) @Full Load ≥ 0.98 @120VAC | | ≥ 0.96 @277VAC | |
| Voltage Tolerance | $\pm 0.5V$ | THD (Typ.) @Full Load $\leq 10\%$ @120VAC | | $\leq 10\%$ @230VAC $\leq 15\%$ @277VAC | |
| Voltage Regulation | $\pm 0.5\%$ | Efficiency (Typ.) @Full Load 90% @120VAC | | 91% @230VAC/277VAC | |
| Load Regulation | $\pm 1\%$ | Inrush Current (Typ.) 28A, 50%, 328 μ s @120VAC | | 88A, 50%, 181 μ s @230VAC 106A, 50%, 400 μ s @277VAC | |
| | | Leakage Current <math>< 0.5mA</math> | | | |
| | | Standby Power Consumption 0.26W @120VAC | | 0.38W @230VAC 0.48W @277VAC | |

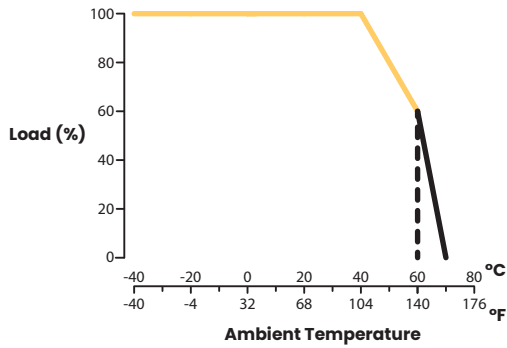
| PROTECTION | |
|---------------|---|
| Short Circuit | Hiccup mode. After faulty condition is corrected, Driver recovers automatically |
| Overload | @ $\leq 120\%$: Hiccup mode. After faulty condition is corrected, Driver recovers automatically |
| Overheat | @ $\geq 55^{\circ}C \pm 5^{\circ}C$ / @ $\geq 131^{\circ}F \pm 9^{\circ}F$: 50% Voltage Output @ $\geq 60^{\circ}C \pm 5^{\circ}C$ / @ $\geq 140^{\circ}F \pm 9^{\circ}F$: 0% Voltage Output Once cooled down, Driver recovers automatically |

| ENVIRONMENT | |
|--------------------------------|--|
| Working Temperature | $-40^{\circ}C \sim +70^{\circ}C$ / $-40^{\circ}F \sim 158^{\circ}F$ (See Derating Curve below) |
| Working Humidity | 20% ~ 95% Relative Humidity, Non-Condensing |
| Storage Temperature & Humidity | $-40^{\circ}C \sim +80^{\circ}C$ / $-40^{\circ}F \sim 176^{\circ}F$ 10% ~ 95% Relative Humidity |
| Temperature Coefficient | $\pm 0.03\%/^{\circ}C$ ($0^{\circ}C \sim 50^{\circ}C$) / $\pm 0.054\%/^{\circ}F$ ($32^{\circ}F \sim 122^{\circ}F$) |
| Vibrations | 10 ~ 500Hz, 5G 12min. / 1 cycle, 72 min. period each. / Along X, Y and Z axis |

| SAFETY & ELECTROMAGNETIC COMPATIBILITY (EMC) | | | OTHERS | | |
|--|--|--------------------------------|---------------------------------|------------------------|---|
| Safety Standards | EN61347-1, UL8750 CAN/CSA C22.2 No.250.13 (US) & EN61347-2-13 (EU) | | | Net Weight | 1.02Kg |
| Withstand Voltage | Input to Output: 1.80KVAC | Input to Frame Ground: 1.8KVAC | Output to Frame Ground: 0.5KVAC | | |
| Isolation Resistance | Input to Output: 100M Ω / 500VDC / 25 $^{\circ}C$ (77 $^{\circ}F$) / 70% Relative Humidity | | | Dimensions (L x W x H) | 205.4 x 113 x 42.7mm 8.08 x 4.45 x 1.68in |
| EMC Emission | EN55015, EN6100-3-2, EN61000-3-3 $\geq 50\%$ load & FCC Part 15, Subpart B | | | | |
| EMC Immunity | EN61000-4-2,3,4,5,6,11 & EN61547 | | | | |

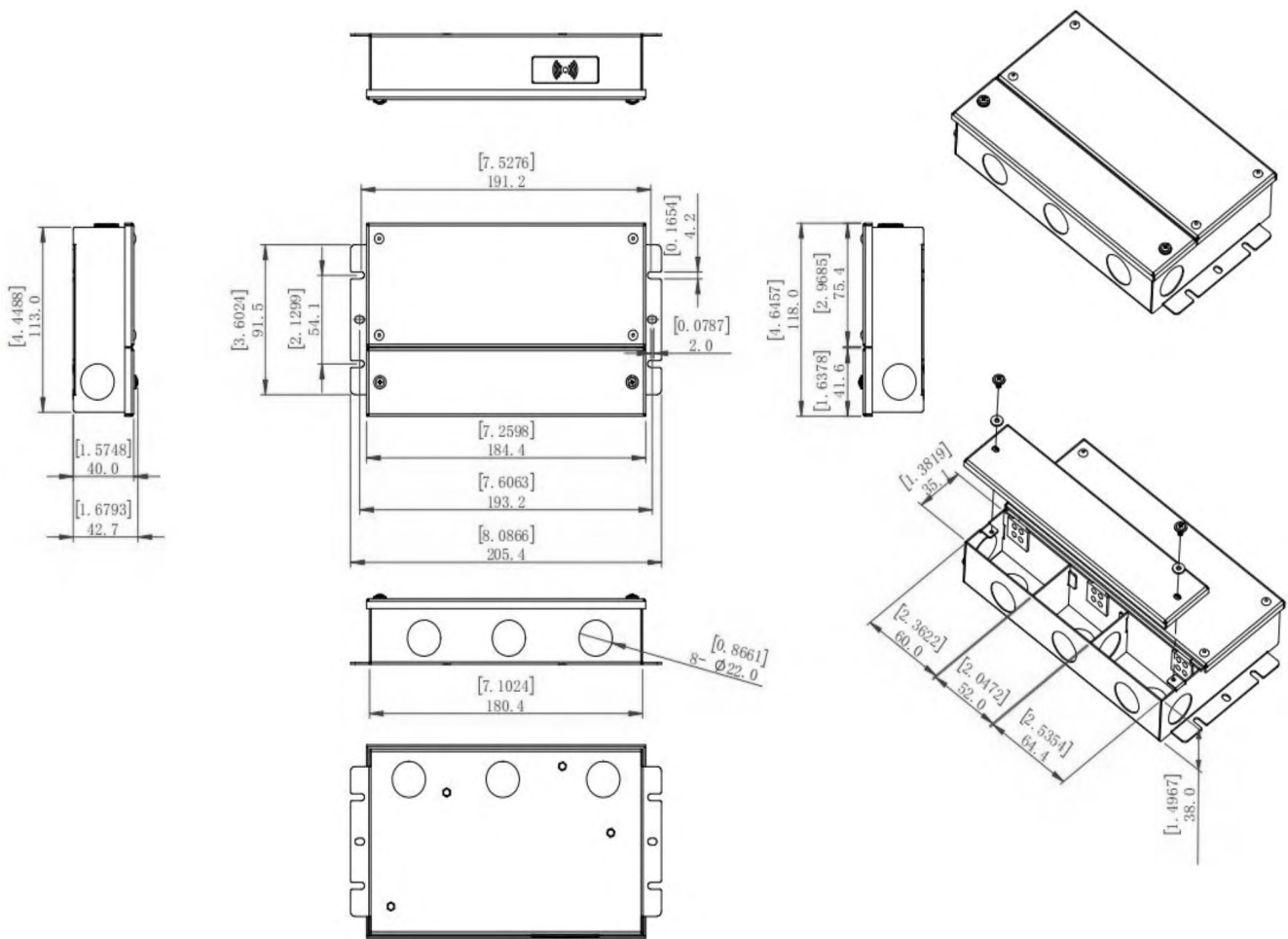
i Unless mentioned otherwise, all specifications are measured at 120VAC input, rated load and 25 $^{\circ}C$ (77 $^{\circ}F$) ambient temperature. Reduce input voltage load to extend the driver's life.

Derating Curve



To extend Driver's life, derate according to the ambient temperature.

Dimensions



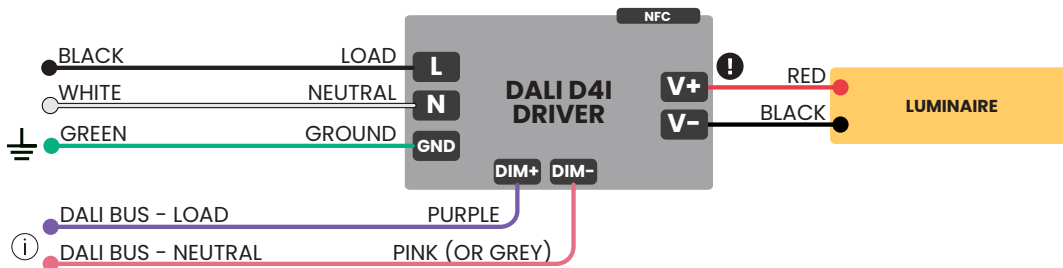
205.4 x 113 x 42.7mm
 8.08 x 4.45 x 1.68"

[Inch]
 Millimetre

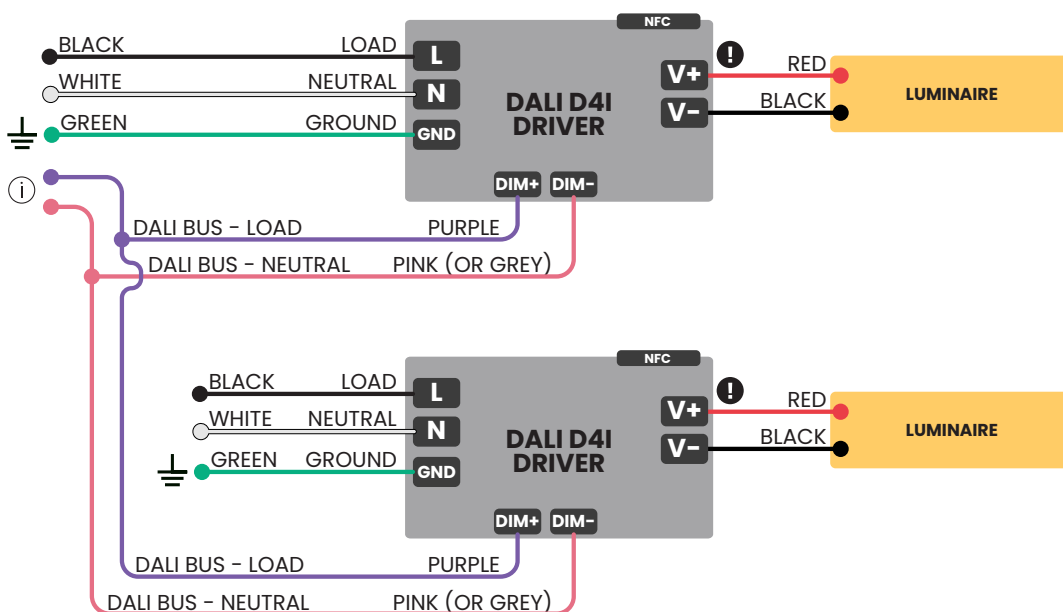
Connection Diagrams

1. This Driver should be installed by a qualified professional.
2. Make sure the Driver is installed with adequate ventilation to allow heat dissipation.
3. Make sure the wiring is correct before testing to avoid damage to Luminaire and Power Supply.
4. **DO NOT ATTEMPT TO REPAIR THE DRIVER.**

DALI DIMMING SINGLE DRIVER



DALI DIMMING MULTIPLE DRIVERS



! Lumen Warm recommends **NOT TO EXCEED 80%** of the Driver's load capacity for longer durability.

i Lumen Warm recommends matching wire colours to corresponding LED terminals to prevent programming issues.

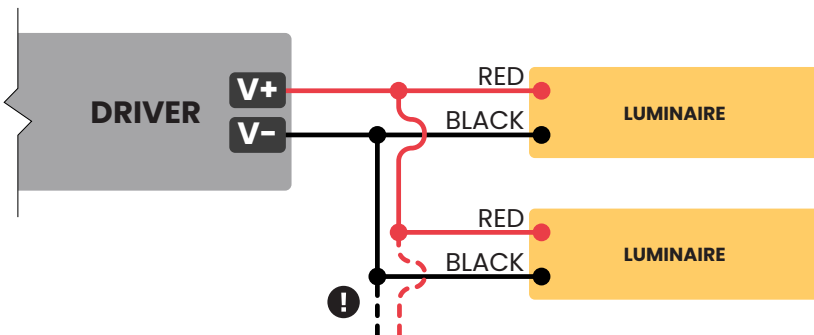
i Only one DALI power is needed into the DALI bus. No extra DALI power is needed if Master or Dimmer already provides power to DALI bus.

Multiple Luminaires Wiring Methods

IN PARALLEL, DAISY CHAIN METHOD



IN PARALLEL, PARALLEL STANDARD METHOD



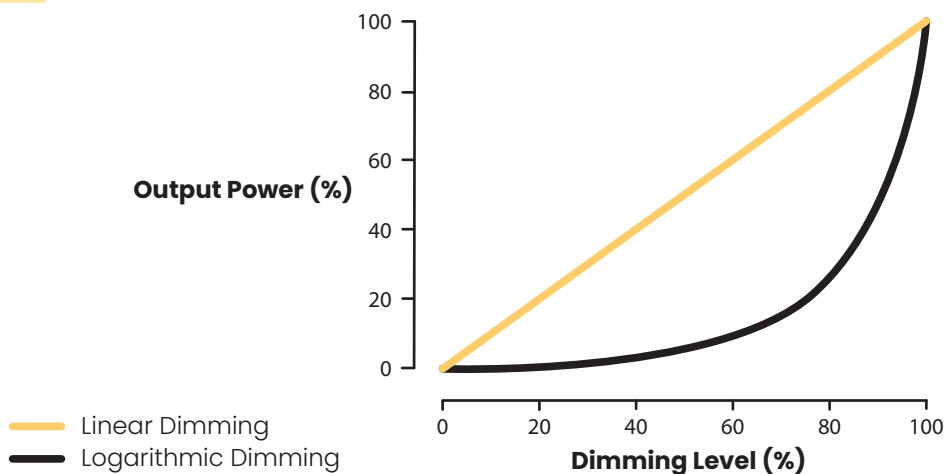
ⓘ Both connection methods can be combined if applicable.

ⓘ This is a simplified diagram. Use for reference only.

⚠ Lumen Warm recommends **NOT TO EXCEED 80%** of the Driver's load capacity for longer durability.

ⓘ Lumen Warm recommends matching wire colours to corresponding LED terminals to prevent programming issues.

Dimming Curves



Output Voltage Setup

- When installing a Driver remotely, a voltage drop may occur due to the wire length between the Luminaire and the Driver.
- **VOLTAGE LEVEL AT LUMINAIRE’S ENTRY MUST NOT EXCEED 24V, OR LUMINAIRE MAY GET PREMATURELY DAMAGED.**
- Check Voltage Level at the end of output wiring just before the Luminaire. Ensure it reads 24V.

SETUP INSTRUCTIONS WITH NFC DEVICE

- Driver’s voltage output can be read and adjusted by using the ProNFC app or a NFC handheld device by holding it close to the Driver’s NFC tag.
- Voltage range is divided in 10 levels. Each level is 0.2V. Default voltage output is Level 1.

OUTPUT VOLTAGE LEVELS

| Rated Voltage | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | Level 6 | Level 7 | Level 8 | Level 9 | Level 10 |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| 24V | 24V | 24.22V | 24.44V | 24.66V | 24.88V | 25.10V | 25.32V | 25.54V | 25.66V | 26V |

Driver Address Setup

- Driver’s default DALI Address is set to 255.
- Address can be changed with any of these devices:



- **NFC device:**
Use a NFC handheld device or hold handheld device close to driver’s NFC device.



- **ProNFC app on smartphone:**
Hold smartphone close to driver’s NFC tag.

Driver Address Setup (Cont.)

SETUP INSTRUCTIONS WITH ProNFC APP

1 Install the ProNFC app using the QR codes below.

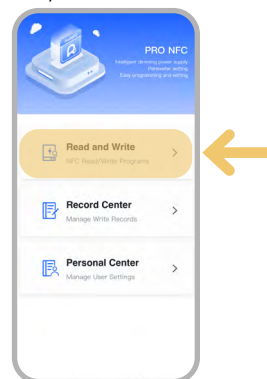


iOS

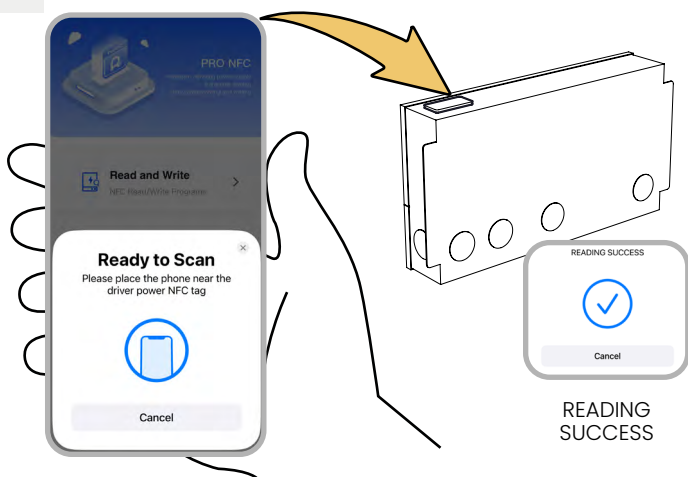


Android

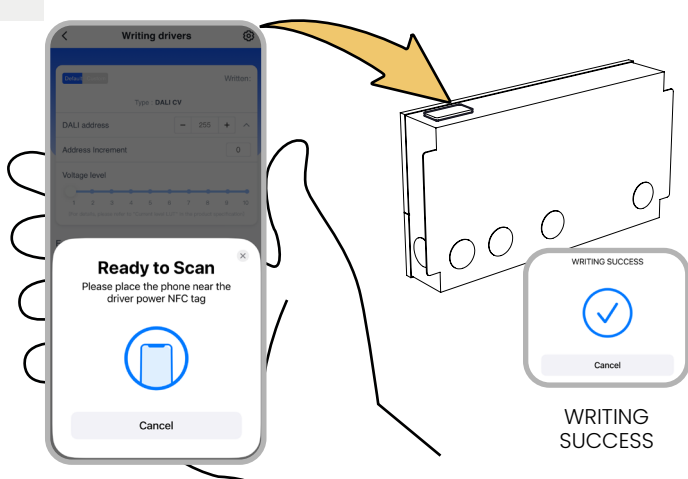
2 Keep the phone away from Driver. Select *Read and Write*.



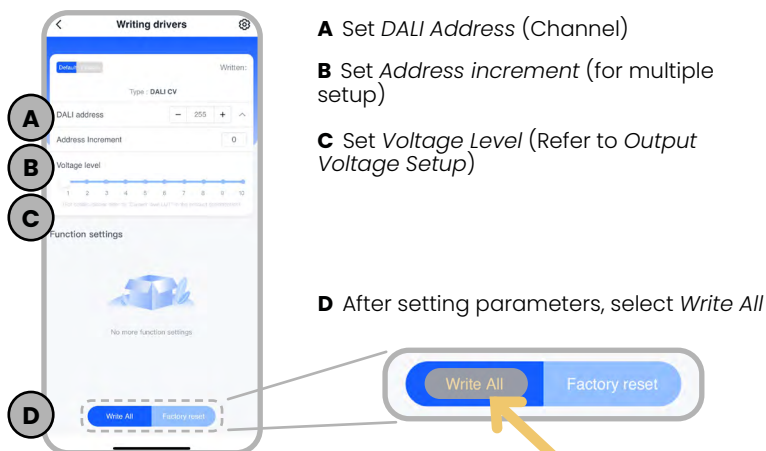
3 Hold the phone close to Driver's NFC tag.



5 Hold the phone close to Driver's NFC tag.



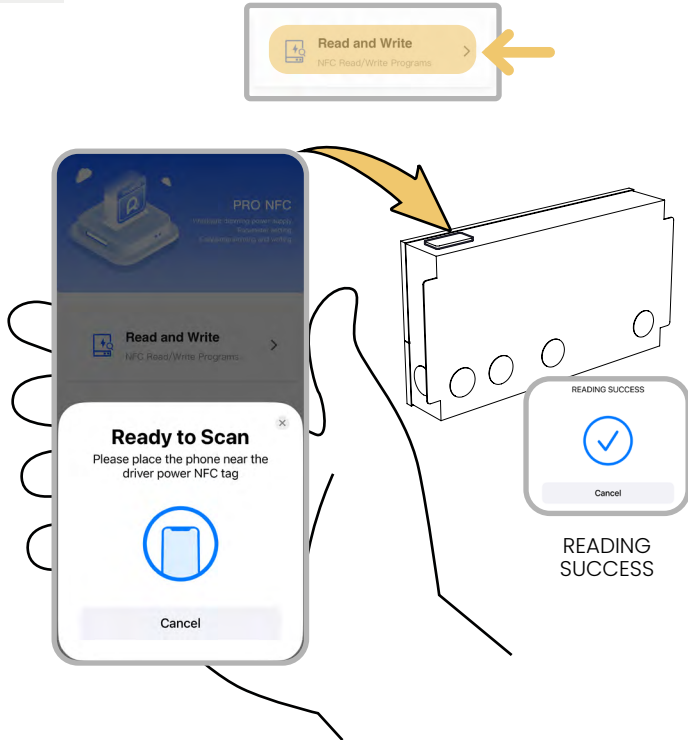
4 Set parameters as desired.



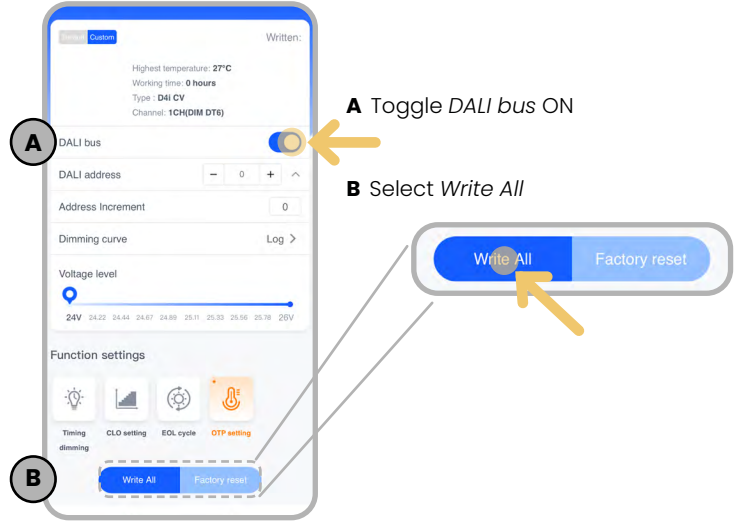
D4i Features Activation

SETUP INSTRUCTIONS WITH ProNFC APP

1 With Driver powered, scan the Driver as per previous setup's steps 1 to 3.



2 Proceed with DALI Bus activation.



3 Hold the phone close to Driver's NFC tag again.

