LuxR®
LED BY DESIGN

Which RGBW format is right for my project?

Finding a cost-effective and easy to install solution can be tricky. LuxR® offers multiple wiring solutions for your unique project.

LuxR M4 RGBW
Te Ahil Tupua "The Eternal Fire", Rotorua, New Zealand

	DMX Integral	DMX Remote	8 Cable Remote
Luminaires (per POWER circuit)	1-60* Pending 24V Driver	1	14
Luminaires (per DATA circuit, without repeaters)	32	32	Unlimited
Power (per luminaire)	4.5W	4.5W	4.3W
DMX Compatible	✓	✓	✓
DALI Compatible	-	-	✓
Wiring	Parallel Wired	Series wired 1 x driver per fixture	Series Wired
Circuit Length*	Medium	Short	Long
Cost Effective*	Medium to large projects	Small to medium projects	Medium to large projects
DMX addressing	"In Factory" per fixture	"On-site" push buttons on driver	"On-site" push buttons on driver
Scene Setting	Dynamic Scenes require DMX Controller	Dynamic Scenes require DMX Controller	Dynamic Scenes via DMX or DALI Controller
Required Components	1x 12-24 VDC Power Supply per circuit 1x 120 OHM Resistor 1x DMX512 Controller (to provide DMX signal for luminaire instruction)	1x ECOdrive 15D per fixture (supplied) 1x 12-24 VDC Power Supply 1x DMX512 Controller (to provide DMX signal for instruction to the ECOdrive 15D)	1x EldoLED POWERdrive 106/S Constant Current LED Driver per circuit. 1x DMX512 or DALI Controller (to provide DMX or DALI signal for instruction to the POWERdrive 106/S)
Additional Considerations*	Hybrid Networks with 3rd party products Hybrid cable DMX+24V No RDM available, Planning needed.	Requires waterproof driver enclosure	Cost Effective Best suited for long circuits Requires waterproof driver enclosure
Defaults Settings if NO DMX connected	Rainbow colour scroll scene	Choose from multiple colour scroll scenes from the ECOdrive presets. Adjust colour output (intensity, hue, white)	Choose from multiple colour scroll scenes from the POWERdrive presets. Adjust colour output (intensity, hue, white)

*Indicative only, please consult a LuxR® Outdoor Lighting Specialist for additional support.

Luminaires (per POWER circuit)	Up to 60* per 300W 12-24VDC driver
Luminaires (per DATA circuit without repeaters)	Up to 32 per DMX controller
Power (per luminaire)	4.5W
DMX Compatible	✓
DALI Compatible	-
Wiring	Parallel Wired
Circuit Length*	Medium
Cost Effective*	Medium to large projects
DMX addressing	"In Factory" per fixture

Scene Setting	Dynamic Scenes require DMX Controller
Required Components	1x 12-24 VDC Power Supply per circuit (not supplied)
	1x 120 OHM Resistor (not supplied)
	1x DMX512 Controller (not supplied) (to provide DMX signal for luminaire instruction)
Additional Considerations*	Hybrid Networks with 3rd party products Hybrid cable DMX+24V No RDM available Planning needed
Defaults settings if NO DMX connected	Rainbow colour scroll scene

*Indicative only, please consult a LuxR Outdoor Lighting Specialist for additional support.

Luminaires (per POWER circuit)	1 per Ecodrive 15D driver, up to 60* per 300W 12-24VDC driver
Luminaires (per DATA circuit without repeaters)	Up to 32 per DMX controller
Power (per luminaire)	4.5W
DMX Compatible	✓
DALI Compatible	-
Wiring	Series wired 1 x driver per 5 wire fixture
Circuit Length*	Short
Cost Effective*	Small to medium projects
DMX addressing	"On-site" push buttons on the driver

Scene Setting	Dynamic Scenes require DMX Controller
Required Components	1x ECOdrive 15D per fixture (supplied)
	1x 12-24 VDC Power Supply (not supplied)
	1x DMX512 Controller (not supplied) (to provide DMX signal for instruction to the ECOdrive 15D)
Additional Considerations*	Requires waterproof driver enclosure
Defaults settings if NO DMX connected	Choose from multiple colour scroll scenes from the ECOdrive presets. Adjust colour output (intensity, hue, white)

*Indicative only, please consult a LuxR Outdoor Lighting Specialist for additional support.

Driver

DMX Integral has a DMX brain inside each fixture. Each luminaire can be individually addressed at the factory, so you can create scenes of scrolling colour moving along your luminare sets. Planning is required, as this type of circuit requires IP rated cable joints over the Hybrid 24V Power Supply connections and Data Cabling connections.

These are not RDM (Remote Device Management) so it is essential to provide complete details of the addresses you require when ordering for extra functionality.
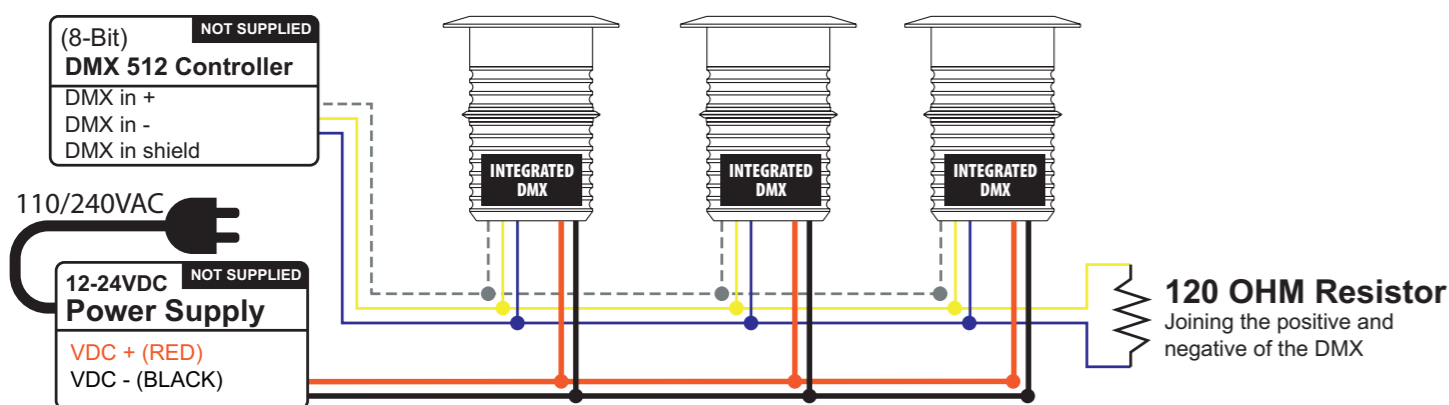
Installation

Recommended Installation: Wired in parallel, apply a DMX controller to the circuit to create a dynamic range of scenes.

NO DMX Installation: This fixture will scroll a rainbow sequence allowing you to test basic function. There are no other scenes pre-programmed.

Driver

eldoLED Ecodrive 15D (SUPPLIED): This format comes with the "ECOdrive dimming slave", external from the luminaire. Whilst we do not recommend joining cables in outdoor locations this fixture has a standard ELV (5 power wire) to the luminaire, so sourcing cable and joining is straight forward. **Cabling must be installed with IP rated connection methods that seal all layers of insulation.**

The DMX addresses can be set at the driver. Preset scenes accessible from a push button menu structure or via DMX. It has a 12-24V DC input + DMX input. One ECOdrive 15D is required per fixture as the fixture cannot be driven on a 24V strip light controller as the LED is common negative. **NEEDS TO BE STORED IN A DRY LOCATION.**

HydraDrive: provides the smoothest colour fades and dimming to dark.
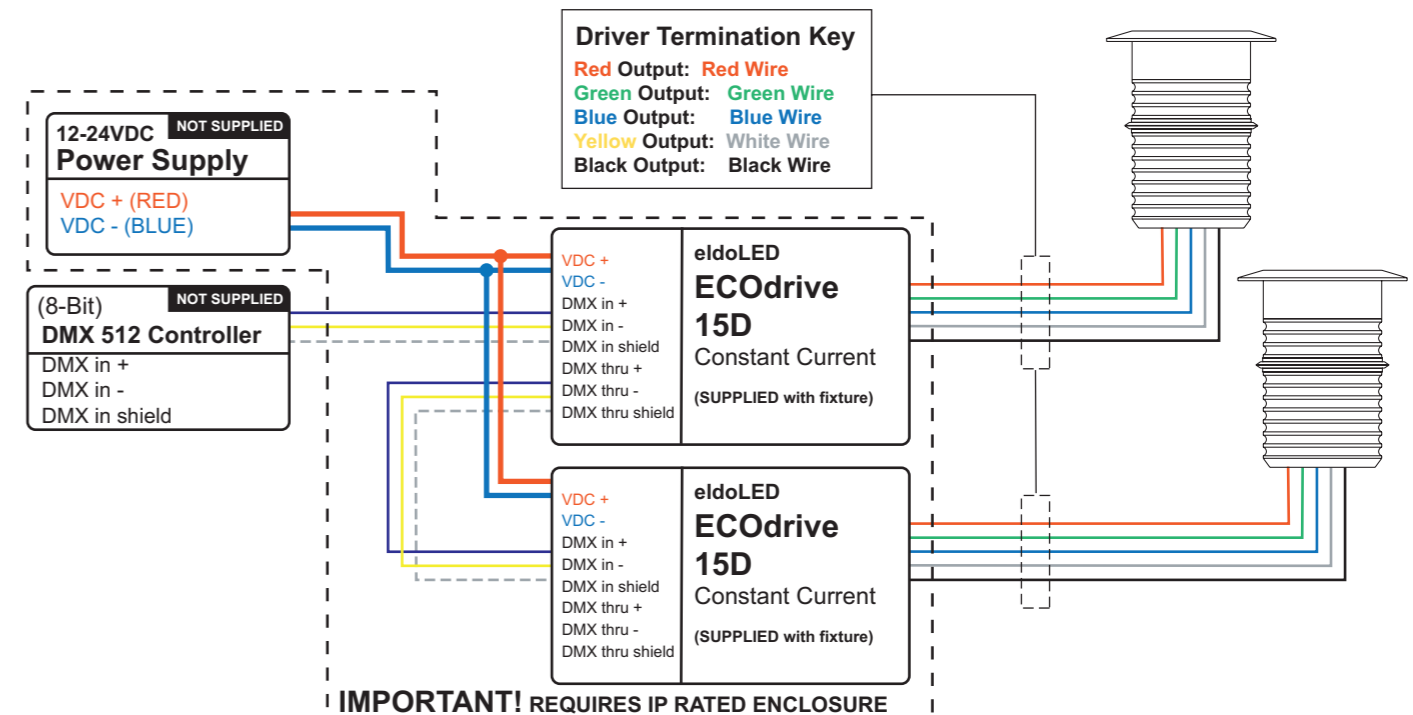
Installation

Recommended Installation: Apply a DMX controller to the circuit to create a dynamic range of scenes.

NO DMX Installation: The Ecodrive 15D has a range of preset scenes you can access and colour tuning (intensity, hue, white) without the need for DMX to be applied. These are accessed by a push button menu on the driver. The preset scenes cannot be changed remotely.

> **Best Suited:** All types of installation, planning is required.
> *Not suited to small installations due to DMX integration cost considerations.*
>
> *Example: Large circuit with separate scenes.*

> **Best Suited:** Dynamic scenes in a small circuit.
>
> *Example: A sculpture with 2-3 fixtures, individual colours and scenes per fixture.*

Wiring Guide

(8-Bit) DMX 512 Controller — NOT SUPPLIED
DMX in +
DMX in -
DMX in shield

110/240VAC

12-24VDC Power Supply — NOT SUPPLIED
VDC + (RED)
VDC - (BLACK)

INTEGRATED DMX   INTEGRATED DMX   INTEGRATED DMX

120 OHM Resistor
Joining the positive and negative of the DMX

Note: Bussed network functional model of up to 32 luminaires at 4.5W per luminaire without using a repeater.

Wiring Guide

Driver Termination Key
Red Output: Red Wire
Green Output: Green Wire
Blue Output: Blue Wire
Yellow Output: White Wire
Black Output: Black Wire

12-24VDC Power Supply — NOT SUPPLIED
VDC + (RED)
VDC - (BLUE)

(8-Bit) DMX 512 Controller — NOT SUPPLIED
DMX in +
DMX in -
DMX in shield

VDC +
VDC -
DMX in +
DMX in -
DMX in shield
DMX thru +
DMX thru -
DMX thru shield

eldoLED ECOdrive 15D
Constant Current
(SUPPLIED with fixture)

VDC +
VDC -
DMX in +
DMX in -
DMX in shield
DMX thru +
DMX thru -
DMX thru shield

eldoLED ECOdrive 15D
Constant Current
(SUPPLIED with fixture)

IMPORTANT! REQUIRES IP RATED ENCLOSURE

Luminaires (per **POWER** circuit)	Up to 14 per EldoLED POWERdrive 106/S
Luminaires (per **DATA** circuit without repeaters)	Unlimited
Power (per luminaire)	4.3W
DMX Compatible	✓
DALI Compatible	✓
Wiring	Series Wired
Circuit Length*	Long
Cost Effective*	Medium to large projects
DMX addressing	"On-site" push buttons on the driver

Scene Setting	Dynamic Scenes via DMX or DALI Controller
Required Components	1x EldoLED POWERdrive 106/S Constant Current LED Driver per circuit (not supplied)
	1x DMX512 or DALI Controller (not supplied)
	(to provide DMX or DALI signal for instruction to the POWERdrive 106/S)
Additional Considerations*	Cost Effective Best suited for long circuits Requires waterproof driver enclosure
Defaults settings if NO DMX connected	Choose from multiple colour scroll scenes from the POWERdrive presets.
	Adjust colour output (intensity, hue, white)

*Indicative only, please consult a LuxR Outdoor Lighting Specialist for additional support.

Driver

EldoLED POWERdrive 106/S: This format is the most simple and cost effective solution for large simple scene installations. The luminaires will respond in unison per individual series wired driver

Cabling must be installed with IP rated connection methods that seal all layers of insulation.

The DMX addresses can be set at the driver. Preset scenes accessible from a push button menu structure or via DMX or DALI. It has a 110-240V driver. **NEEDS TO BE STORED IN A DRY LOCATION.**

Tunable dynamic response: Dynamic response can be tuned to fit any content - from exceptionally smooth fades in architecture to fast-paced video in entertainment.

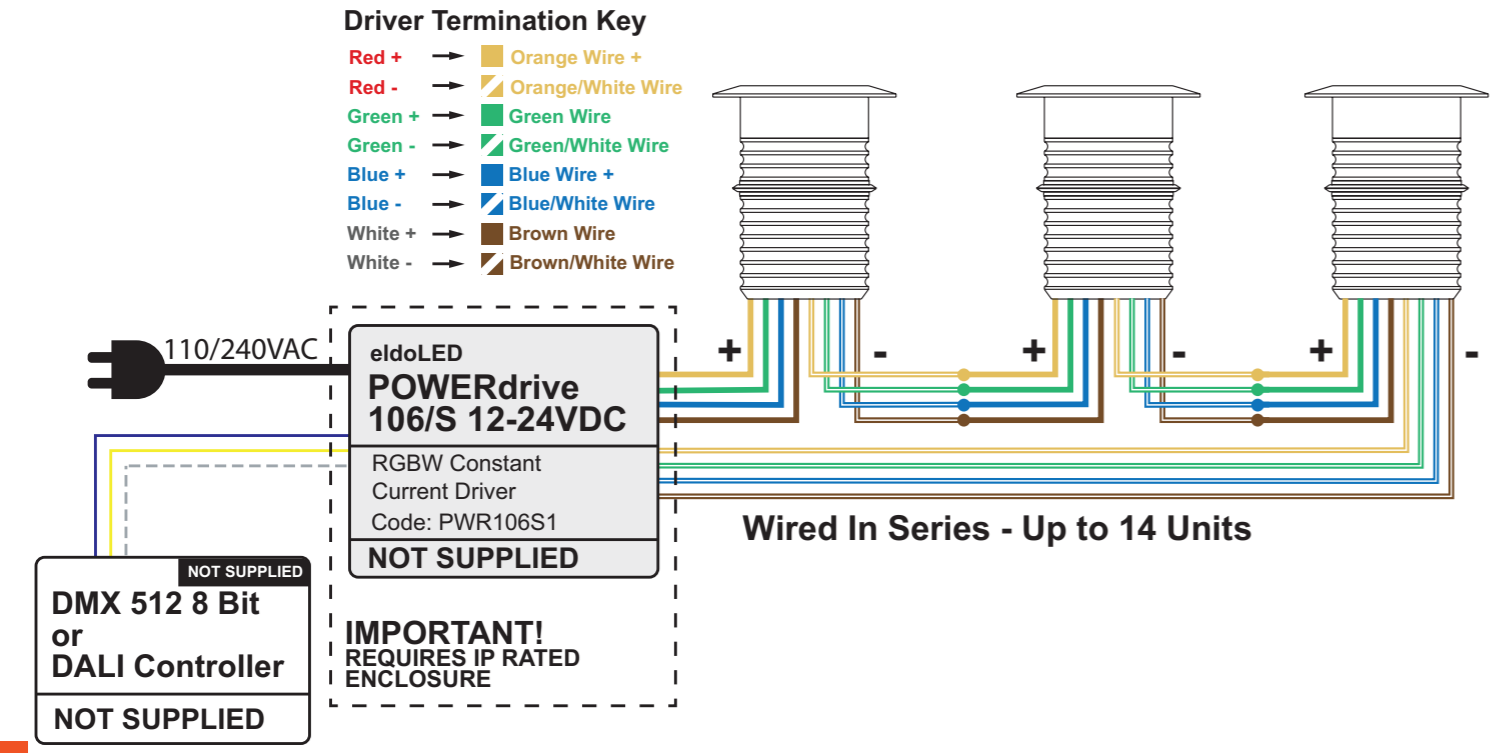**HydraDrive:** provides the smoothest colour fades and dimming to dark.

Installation

Recommended Installation: Output wired in series, apply DMX or DALI controller to the POWERdrive to create a dynamic range of scenes.

NO DMX Installation: Choose from multiple colour scroll scene from POWERdrive presets. Adjust colour output (intensity, hue, white) all within the push button menu.
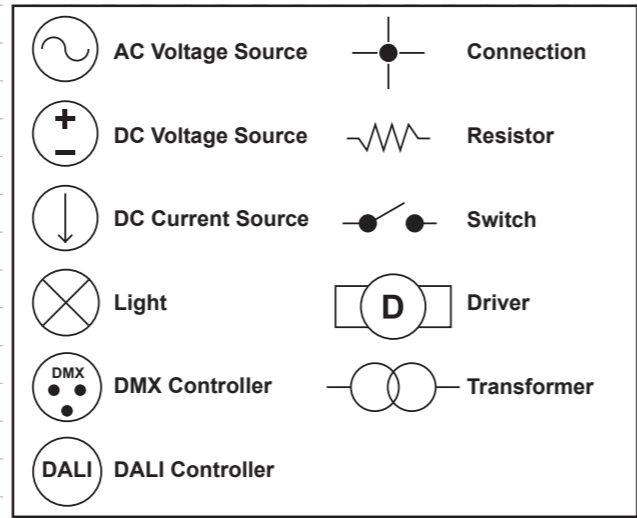
Wiring Guide

Best Suited: Projects where all luminaries act the same and adjustment is needed on-site.

Example: Multiple luminaries programmed with one scene, colour changing from green to red.

Driver Termination Key

Red +	→	Orange Wire +
Red -	→	Orange/White Wire
Green +	→	Green Wire
Green -	→	Green/White Wire
Blue +	→	Blue Wire +
Blue -	→	Blue/White Wire
White +	→	Brown Wire
White -	→	Brown/White Wire

110/240VAC

eldoLED POWERdrive 106/S 12-24VDC

RGBW Constant Current Driver
Code: PWR106S1

NOT SUPPLIED

NOT SUPPLIED
DMX 512 8 Bit or DALI Controller
NOT SUPPLIED

IMPORTANT!
REQUIRES IP RATED ENCLOSURE

Wired In Series - Up to 14 Units

New to RGBW wiring or still unsure?

Talk to a Outdoor Lighting Specialist to see which solution is best suited for your project.

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E: hunza@hunza.co.nz

Available from specialist outdoor lighting distributors.
To learn more, or to find a distributor in your area visit:
www.luxrled.com

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AC Voltage Source		Connection	
DC Voltage Source		Resistor	
DC Current Source		Switch	
Light		Driver	
DMX Controller		Transformer	
DALI Controller			

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