LUMENWERX
WWW.LUMENWERX.COM

CHROMAWERX QUADRO - RGBW

IMPORTANT: a qualified DMX integration consultant is required to ensure proper installation and function of any DMX network

Shown with HLO flush

Shown with HLO 0.5" drop

Shown with HLO 1.0" drop

DESCRIPTION

Via 3 is a compact linear LED luminaire system for pendant, surface, and recessed or in-wall installation, whether as discrete luminaires, continuous runs, or patterns. Via 3 features numerous high-efficiency optical configurations, including wall wash, asymmetric and offers a wide range of electrical options and trim details. Via 3 is an ideal vehicle for ChromaWerx color tuning in education, office, and healthcare applications where modular luminaires are used.

PROJECT: _____

TYPE: _____

NOTES: _____

_____

CHROMAWERX

ORDER GUIDE

VIA3S	HLO		LED		
LUMINAIRE ID	**OPTICS**	**LENS POSITION**	**LIGHT SOURCE**	**CHROMAWERX**	**OUTPUT WATTAGE**
VIA3S - via 3" surface	**HLO** - High-Efficiency Lambertian Optic	**FH** - Flush **0.5D** - 0.5" drop **1.0D** - 1.0" drop	**LED** - high performance LED	**QUADRO** - four-channel RGB with 3500K white **RS** - red solid **GS** - green solid **BS** - blue solid	**2.5WF** - 2.5 w/ft output (for solid colors only) **5WF** - 5 w/ft output (quadro only) **10WF** - 10 w/ft output (quadro only) **15WF** - 15 w/ft output (quadro only)

|			1		
LUMINAIRE LENGTH	**VOLTAGE**	**DRIVER**	**ELECTRICAL**	**MOUNTING**	**FINISH**
Available sections - 4', 6', 8', 10' & 12' **#FT** - nominal length in feet **(2' increments only)** Continuous Run - for luminaires over 12' Minimum Individual section 4'	**120** - 120V **277** - 277V	**DMX** - to specify see pages 4 to 9 **DA** - Dali (solid colors only) local on-site commissioning is required **0-10** - 0-10 (solid colors only)	**1** - 1 circuit	**GRD** - grid ceiling **DRC** - drywall ceiling	**W** - matte white **AL** - aluminum **B** - matte black **CF#** - custom finish specify RAL#

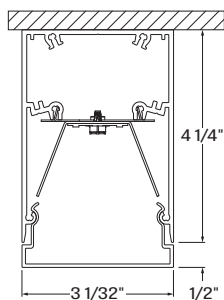See page 2 for ordering code detailed information

OPTIONS
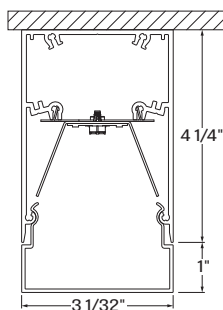
FU - fuse
CU - custom

DMX WALL CONTROLS

To specify see pages 4 to 9

CROSS SECTION
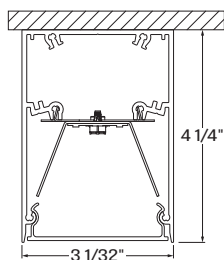
VIA3S - HLO-FH

VIA3S - HLO-0.5D

VIA3S - HLO-1.0D

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CHROMAWERX QUADRO - RGBW

OPTICS

High Efficiency Lambertian Optic (HLO) shielding of diffusing 0.075" thick acrylic provides up to 88% transmission and good source obscuration. Matte white reflectors distribute LED output across the shielding. Luminaire brightness is controlled by the ratio of luminous flux to shielding area. HLO is available as a flush diffuser or as a drop diffuser, extending 0.5" or 1.0" below the luminaire housing. Drop diffusers are extruded with glued end caps. HLO optics have a Spacing Criteria of 1.10.

LIGHT SOURCE - LED

Custom linear array of mid-flux LEDs, comprised of an alternation of an RGB and a dedicated white LED. The white LED is used for when a static white CCT is required in the space. RGB LEDs are tightly binned for excellent color control between fixtures. The white LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

LUMINAIRE LENGTH

Via 3 is made up of standard 4, 6, 8, 10 and 12 foot sections that may be joined together to create longer continuous run lengths. Exact run length must be noted in the product code. The minimum individual section available is 4 foot, and continuous run lengths can be ordered in 2 foot increments.

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

Joining system

Via 3 direct

Via 3 direct
with drop lens
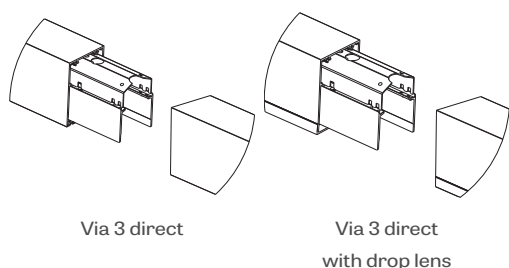
CHROMAWERX - RGBW

ChromaWerx Quadro is a four-channel control that operates an RGBW LED array and addresses the need for more expressive color in architectural applications. The DMX driver supports familiar programming tools for both dynamic multi-hued color and precise white color point control. While a typical user interface will be a DMX controller by others, LumenWerx also offers a simple control station for stand-alone color changing applications.
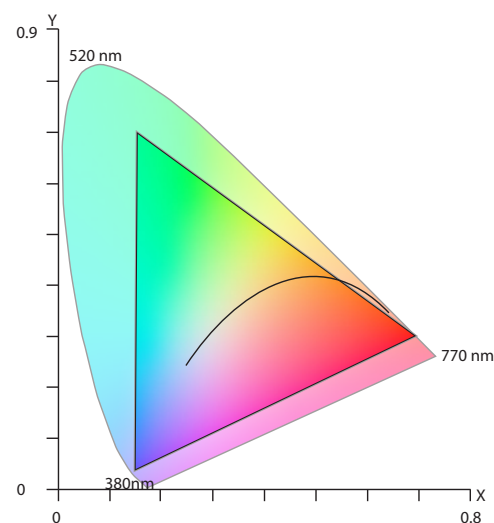
CIE 1931 Chromaticity space

The above diagram overlays the full gamut of colors attainable with the RGBW on top of the CIE 1931 color space. Any color point inside of the triangle can be obtained by setting the correct output levels for each of the individual red, green, blue, and white channels.

ELECTRICAL
DMX

Factory-set, adjustable output current, multi-channel LED driver with universal (120-277VAC) input. Using DMX wall controls (optionally supplied by LumenWerx) or an existing DMX control system, four channels of LEDs (Red/Green/Blue/White) are independently adjustable. Each DMX driver has multiple output channels that can be independently addressed at the factory or on-site using built-in RDM (Remote Device Management) functionality. Dimming range from 100%-0%. At maximum driver load, efficiency<89%, PF>0.9, THD<20%.

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CHROMAWERX QUADRO - RGBW

MOUNTING OPTIONS

Fixtures can be mounted directly to T-Bar, drywall and hard surface ceilings, hardware supplied by others. Long runs require a minimum of 6" distance from the vertical wall.

FINISH

Interior - 95%, reflective matte powder coated white paint
Exterior - matte white, matte black or aluminum powder coating.
Custom finishes are also available.

CONSTRUCTION

Housing - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content
Interior brackets - Die formed cold rolled sheet steel 18 gauge thick
Joining system - Die cast Zinc (0.95" nominal)
Reflectors - Cold rolled steel 0.024" thick precisely die formed, 95% reflective matte white painted
End caps - Die cast Aluminum (0.95" nominal)

WEIGHT

Via 3 4ft - 11.12lbs - 5.05kg
Via 3 8ft - 22.25lbs - 10.1kg
Via 3 12ft - 33.48lbs - 15.2kg

CERTIFICATIONS

ETL - Rated for Indoor Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

WARRANTY

For all ChromaWerx products, LumenWerx provides a three-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.
Wall controllers are covered by the manufacturer warranty.

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CHROMAWERX QUADRO - RGBW

QUADRO DMX SPECIFICATION

A qualified DMX integrator is required to assure proper installation and commissioning of the DMX network. **When placing the PO, please provide the contact information of your DMX integrator.**

Please answer the following questions to help us identify your DMX network requirements.

YES ·········· Do you require a wall controller provided by Lumenwerx? ·········· **NO**

DMX controller supplied by Lumenwerx

DMX control system supplied by others. Lumenwerx will supply DMX-enabled fixtures with default DMX addressing.
See following pages for technical DMX informations. ✓

How many zones do you have?
A zone consists of one or more luminaires behaving identically.

1 Zone   **2 Zones**

How to calculate the required number of drivers:

per 4' fixture	per 4' fixture
Driver	Driver Driver
1x driver	2x driver
Less than 12.5W/ft, direct only	Above 12.5W/ft or for all direct/indirect fixture

To Calculate # of drivers

1 Zone   **2 to 3 Zones**   **4 or more Zones**

Do you have more than 32 drivers in total?

NO **YES**

Order a standard Lumenwerx wall controller <u>type 1</u>.

WALL CONTROLLER

WC1W - wall controller 1 white
WC1B - wall controller 1 black

Add the control code at the end of your order code.
Please provide a fixture layout or RCP (Reflected Ceiling Plan) showing the locations of the DMX fixtures, zones and the DMX wall controller.
Refer to your DMX integrator for the installation. ✓

Subject to factory evaluation. Please contact our controls specialist at controls@lumenwerx.com
Additional cost and equipment will be required. ✓

NO **YES**

Order a standard Lumenwerx wall controller <u>type 2</u>.

WALL CONTROLLER

WC2W - wall controller 2 white
WC2B - wall controller 2 black

Add the control code at the end of your order code.
Please provide a fixture layout or RCP (Reflected Ceiling Plan) showing the locations of the DMX fixtures, zones and the DMX wall controller.
Refer to your DMX integrator for the installation. ✓

Subject to factory evaluation. Please contact our controls specialist at controls@lumenwerx.com
Additional cost and equipment will be required. ✓

Subject to factory evaluation ans approval. Please contact our controls specialist at controls@lumenwerx.com
Additional cost and equipment will be required. ✓

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CHROMAWERX QUADRO - RGBW

GENERIC DMX NETWORK ARCHITECTURE

Lumenwerx supplied
DMX controller

Network & control
by others

DMX PROTOCOL CONSIDERATIONS:
DMX drivers/fixtures must be daisy chained.
Maximum **32 drivers** per DMX run.
The end of the line must be terminated by a 120 Ω resistor

1

2 Controls J-Box

First DMX enabled fixture
supplied by Lumenwerx

3

DMX IN
DMX OUT

DMX

Driver   Driver

120/277V

Electrical J-Box

2 Wire + Shield
LOW CAP CABLE

2 Controls J-Box

Next DMX enabled fixture
supplied by Lumenwerx

3

DMX IN
DMX OUT

DMX

Driver   Driver

120/277V

Electrical J-Box

2 Wire + Shield
LOW CAP CABLE

2 Controls J-Box

Last DMX enabled fixture
supplied by Lumenwerx
max 32 drivers per run

3

DMX IN
DMX OUT

DMX

Driver   Driver

120/277V

Electrical J-Box

4 120 OHM
END OF LINE
RESISTOR

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VIA 3 LED

SURFACE

CHROMAWERX QUADRO - RGBW

1 LUMENWERX SUPPLIED DMX CONTROLLER

To the first fixture

WALL BOX SUPPLIED BY OTHERS

2 Wire +
Shield Low Cap Cable

Back Panel

Front Panel

	V+ 12-24 Vdc		DMX+	
GND		DMX-		SHIELD
BLACK		WHT-BLUE		BARE
	RED		BLUE	

Controller image may differ

S — G — B — W

I.E.: Cerco Cable 7539-10
Belden 9841
Belden 8241

DC out

Power Supply
120-277V AC / 24VDC

N — BLUE — Neutral

DC in

L — BROWN — Line

Ground

Electrical
J-Box

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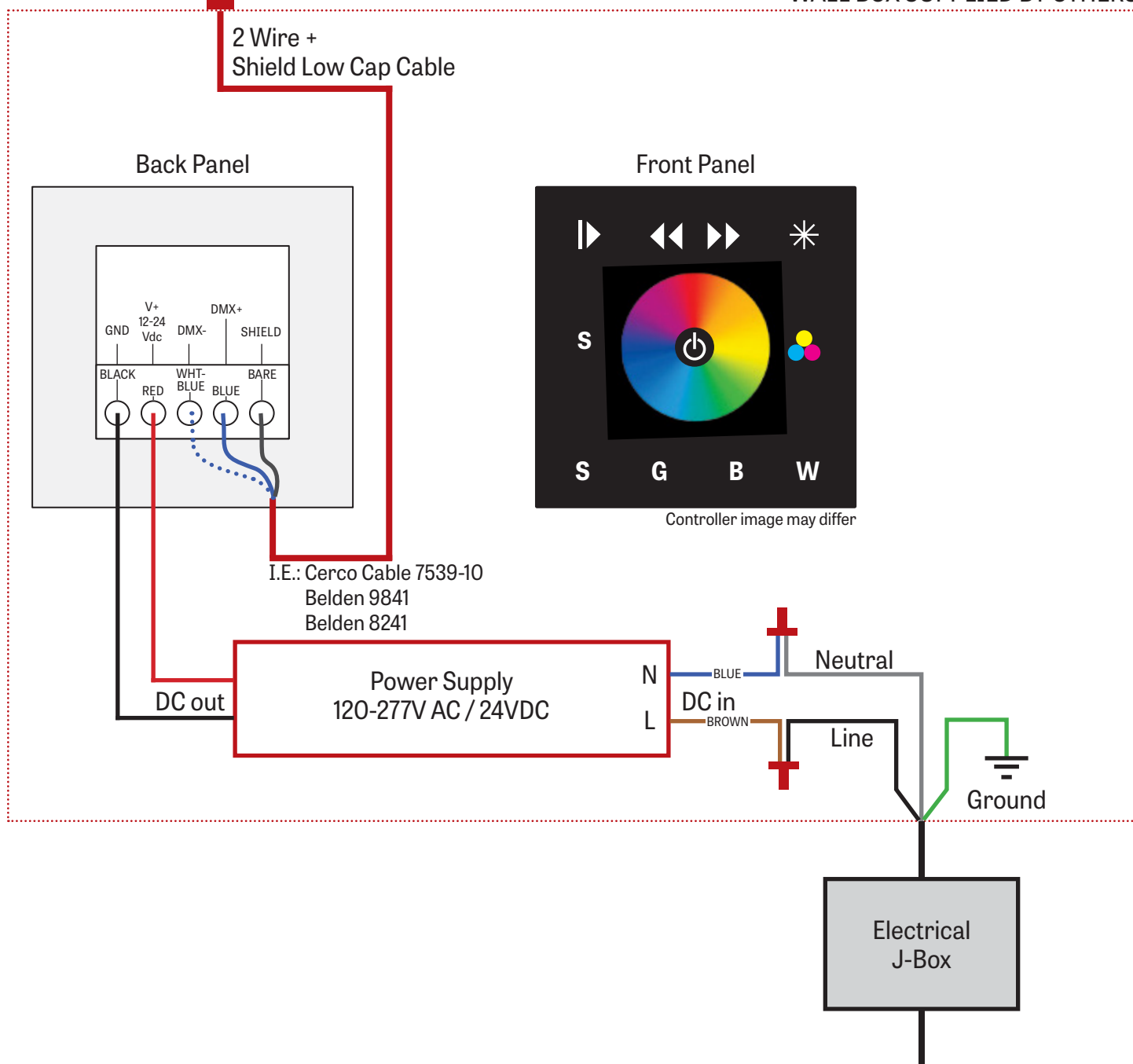
CHROMAWERX QUADRO - RGBW

2 J-BOX DMX DAISY CHAIN DETAIL

Low capacitance DMX Cable from Previous Fixture

Shielding foil touches the bare metal drain wire inside

IN

Bare metal drain wire (shield) MUST **NOT** TOUCH J-BOX

Controls J-Box

DMX IN

DMX ENABLED FIXTURE

DMX OUT

Ground

OUT

Bare metal drain wire (shield) MUST **NOT** TOUCH J-BOX
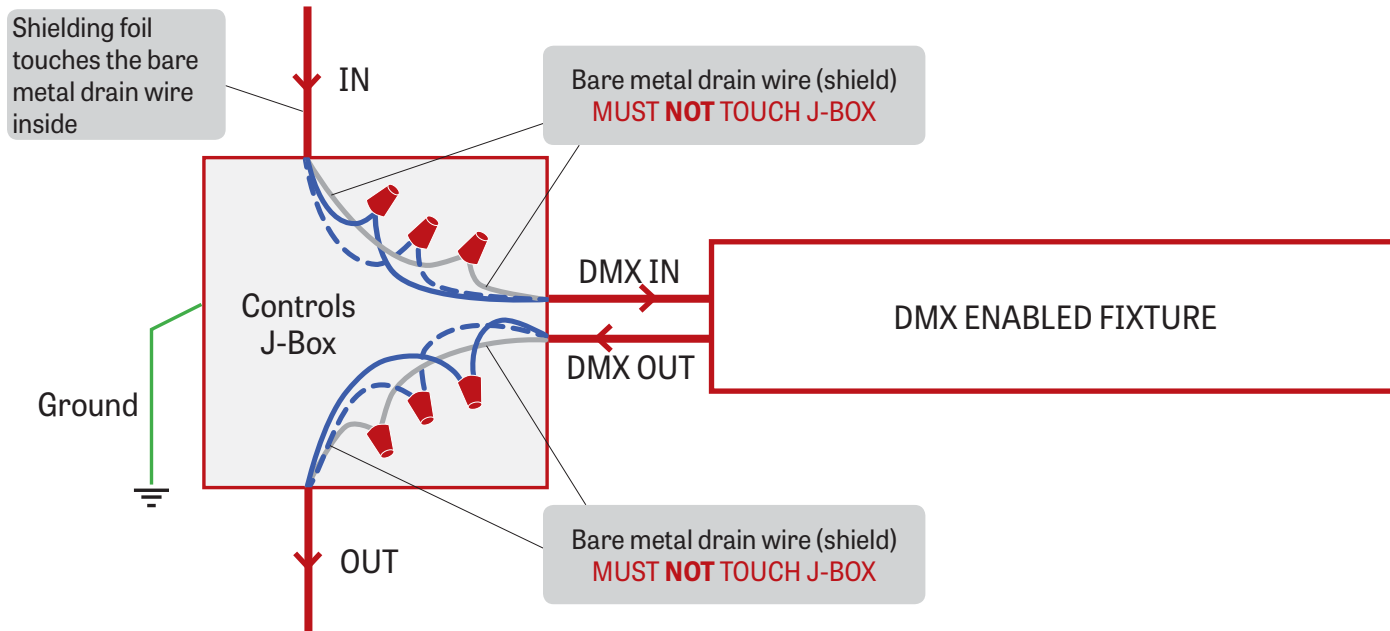
Low capacitance DMX cable to next fixture

3 DMX CONNECTION RECESSED & SURFACE

DMX

IN
Shield
DMX -
DMX +

OUT
Shield
DMX -
DMX +

POWER

LINE VOLTAGE
white
black
green

N   L   G

DMX ENABLED FIXTURE

DMX

PWR

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VIA 3 LED

SURFACE

CHROMAWERX QUADRO - RGBW

4 DMX LAST FIXTURE DETAIL

120 OHM
END OF LINE
RESISTOR

CAP
OFF SHIELD

Last DMX OUT

+

–

S

DMX IN
From other fixtures

+

–

S

DMX + = Blue
DMX - = White-Blue
Shield = Bare metal

DMX
Driver

DMX +
DMX -
SHIELD

LAST FIXTURE OF THE DMX NETWORK
MAX 32 DRIVERS PER DMX RUN

LED output

DMX ENABLED FIXTURE

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VIA 3 LED

SURFACE

CHROMAWERX QUADRO - RGBW

DMX WALL CONTROLLER

WC1
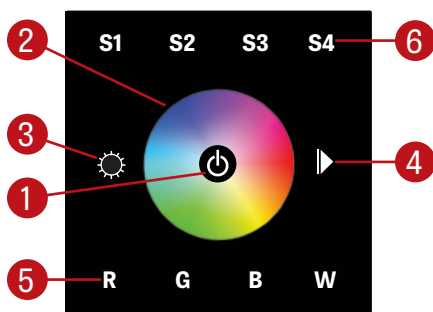
(1) Power:	Use this button to turn ON or OFF the RGBW fixture
(2) Color Wheel:	The wheel is used to rapidly select a color
(3) Brightness (RGB):	Hold down this button to either increase or decrease the brightness of the current RGB selection. White will not be affected by the RGB brightness button.
(4) Color Cycle:	This button will start an animation, rotating between Reds Greens and Blues, the arrows allows the user to speed up or slow down the animation
(5) Individual Colors:	By pressing and holding a color it will be possible to brighten or dim it. Quickly pressing a color will turn it OFF or turn it ON to it's previous dim level. White: In Order to activate or deactivate and dim the White channel, the White button needs to be used.
(6) Scenes:	By holding down one of the scenes button, the current color selection is saved. It can be later accessed by quickly pressing on one of the Scene buttons.

WC2
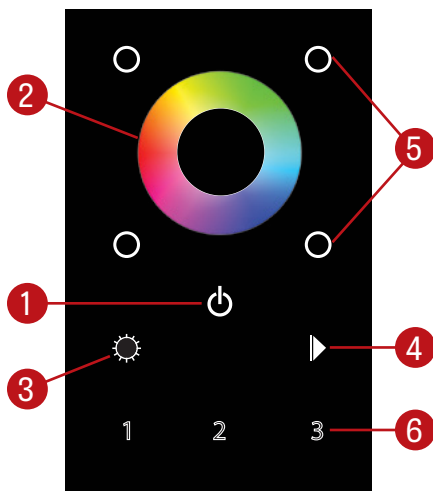
(1) Power:	Use this button to turn ON or OFF the RGBW fixture
(2) Color Wheel:	The wheel is used to rapidly select a color
(3) Brightness:	Hold down this button to either increase or decrease the brightness of the current RGB selection. White will not be affected by the RGB brightness button.
(4) Color Cycle:	This button will start an animation, rotating between Reds Greens and Blues, the arrows allows the user to speed up or slow down the animation
(5) Individual Colors:	By pressing a color it will be possible to brighten or dim that specific color White: In Order to activate or deactivate and dim the White channel, the White button needs to be used.
(6) Zone:	By holding down one of the zone button, a zone can be selected and control

Default DMX Addresses:
1 Red
2 Green
3 Blue
4 White

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