# ampbox

PROFESSIONAL FOUR-CHANEL LED / LED RGBW AMPLIFIER

## SAFETY RULES

⚠ Do not connect loads with more than permissible power.

⚠ Connect only in accordance with the diagram presented in the manual. Improper connections may be dangerous, it can damage the controller, and loss of the warranty.

⚡ DANGER! Risk of electric shock! Even with the device turned off, the outputs may be live. All assembly work should be ALWAYS performed with the disconnected power circuit.

⚠ Connecting the device to a power supply that does not meet the quality requirements specified in EN 50081-1, EN 50082-1, UL508, EN 60950 will invalidate the warranty.

## 1  INSTALLATION

- Disconnect the installation supply voltage before installing the controller. Remember that any mounting works should be carried out when the mains voltage is disconnected.

- The controller should be installed in a place protected against adverse environmental conditions, protected from third party access. It is recommended that the device be mounted in a stable and fixed position.

- The device can work with various BleBox controllers, including the wLightBox, wLightBoxS or lightBox, in various configurations. Inputs of individual channels are opto-isolated.

- Familiarize yourself with the diagram and then proceed with the installation of the controller. Pay special attention to the designation of the controller connectors. Start by connecting the power wires: (+) (red or black with a white dotted line) and (-) (black).

- Connect the LED strip paying attention to the polarity. Depending on the use, it is possible to connect one RGBW strip, one RGB strip, one RGB strip with a single white strip, four monochromatic strips (single-colour), one 2-channel CT strip (CCT, CW/WW) or two 2-channel CT strips. The "+" anode wire (usually white color in multicolored strips or red in monochrome and CT strips) must be connected to the "+" connector of the controller, and the cathode wire "-" (color corresponding to each color of the LEDs in multi-color strips, black or white color in monochrome strips) to the corresponding output, i.e. R, G, B or W.  For LED CT strip, the WW wire (warm white) should be connected to the output of the controller marked with the letter R and the CW wire (cold white) to the output marked with the letter G. In situation of two LED CT strips, the WW wire of the second strip should be connected to the output of the controller marked with the letter B and the CW wire to the output marked with the letter W. The controller also allows to control halogen lamps, the polarity of the wiring is not important.

- After making sure that the device is connected in accordance with the diagram and that there are no metal components near the controller which may accidentally cause short-circuit, start the device by turning on the power (turning on the mains fuse or connecting the power cord to the power outlet).

- Test the operation of the controller by setting the appropriate setpoints on the cooperating master device.

## TECHNICAL SPECIFICATIONS

| | |
|---|---|
| supply voltage | 12–24V DC |
| energy consumption | <0,1W |
| number of channels | 4 |
| maximum current / channel | 5A |
| maximum current | 20A |

| | |
|---|---|
| maximum power | 480W |
| input signal | PMW common VCC or GND |
| output signal | PMW common VCC |
| galvanic separation | yes - optical |
| power IC | internal recti-ers n-type metal oxide semicontuctor field effect transistor |
| correction signal | yes - digital |
| mounting method | in the flush-mounted box, inside the housing of the lighting |
| connection method | screw terminal block connector |
| housing | made of polyurethane composition not containing halogens, self-extinguishing for thermal class B (130 °C) |
| dimensions | 48 x 40 x 19 mm |
| protection level | IP20 |
| controller operating temperature | from -20 to +50°C |

CONNECTION DIAGRAM ▶

For more information visit our website

# www.blebox.eu

Or send us an email to: info@blebox.eu

Support is available at support@blebox.eu

made in Europe

Power extension of the wLightBox v2 controller: 2 4-channel RGBW strips, single power supply:

LED STRIP
RGBW

R
G
B
W
+

5A / channel, 20A total, 12 - 24V
R — G + B + W

ampbox RGBW amplifier
input, 12 - 24V
R G B W ±

CE
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wlightbox
μWiFi LED RGBW
controller v2
12 - 24V max 12A, 3A channel

IN + R G — B W

R
G
B
W
+

LED STRIP
RGBW

R
G
B
W
+

+ —
12-24V

power
supply

110 / 230V
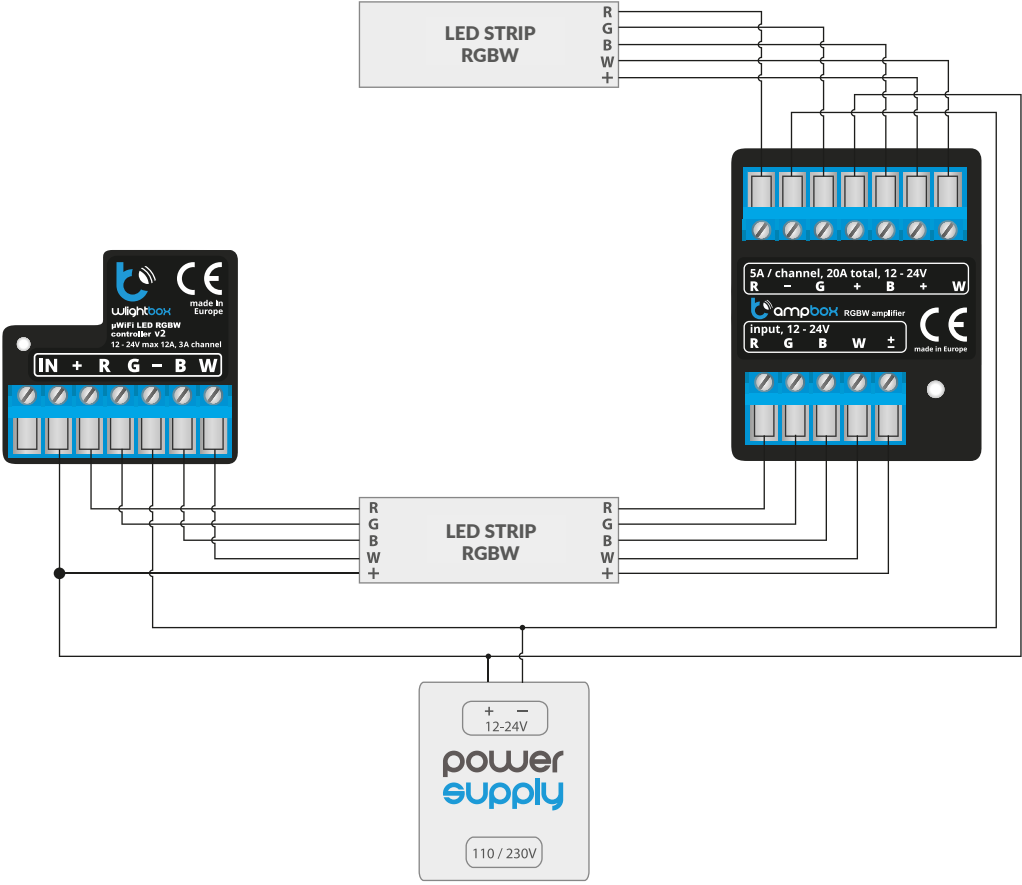
Power extension of the wLightBox v2 controller: 2 4-channel RGBW strips, two separate power supplies:
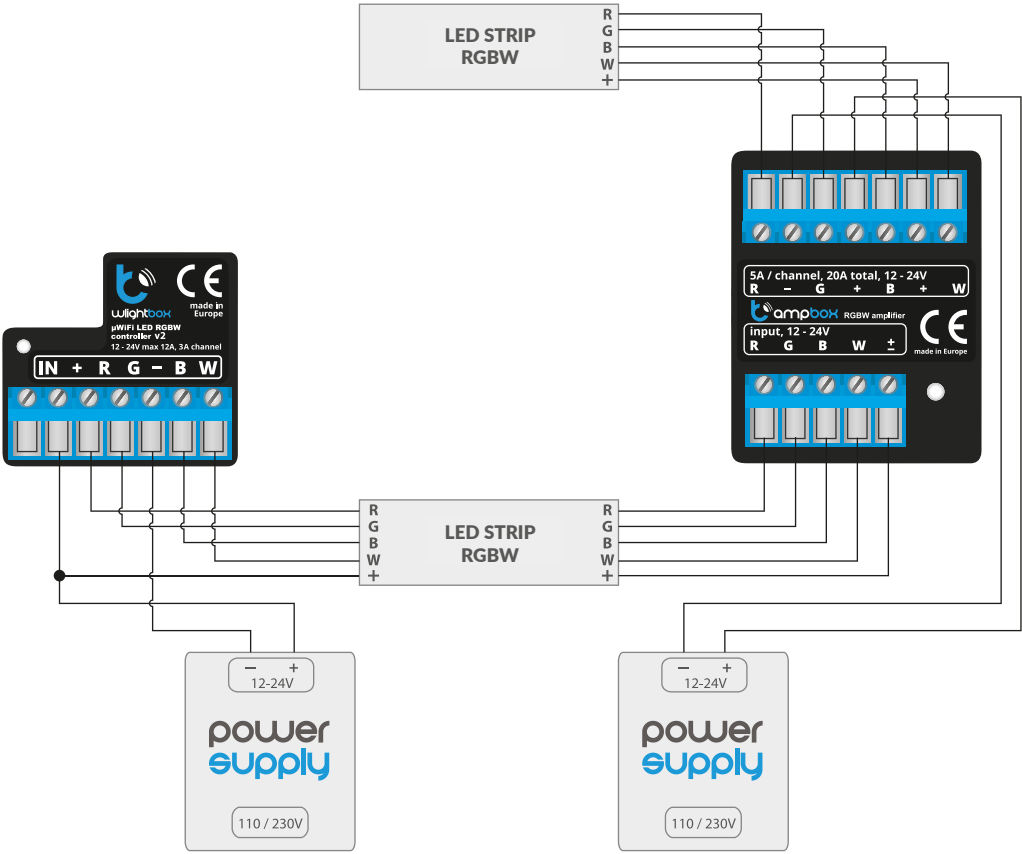
LED STRIP
RGBW

R
G
B
W
+

5A / channel, 20A total, 12 - 24V
R — G + B + W

ampbox RGBW amplifier
input, 12 - 24V
R G B W ±

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wlightbox
μWiFi LED RGBW
controller v2
12 - 24V max 12A, 3A channel

IN + R G — B W

R
G
B
W
+

LED STRIP
RGBW

R
G
B
W
+

— +
12-24V

power
supply

110 / 230V

— +
12-24V

power
supply

110 / 230V

LED STRIP
RGBW

R
G
B
W
+

5A / channel, 20A total, 12 - 24V
R — G + B + W

input, 12 - 24V
R G B W ±

ampbox RGBW amplifier

wlightbox
µWiFi LED RGBW
controller v2
12 - 24V max 12A, 3A channel

IN + R G — B W

— +
12-24V

power
supply

110 / 230V

— +
12-24V

power
supply

110 / 230V
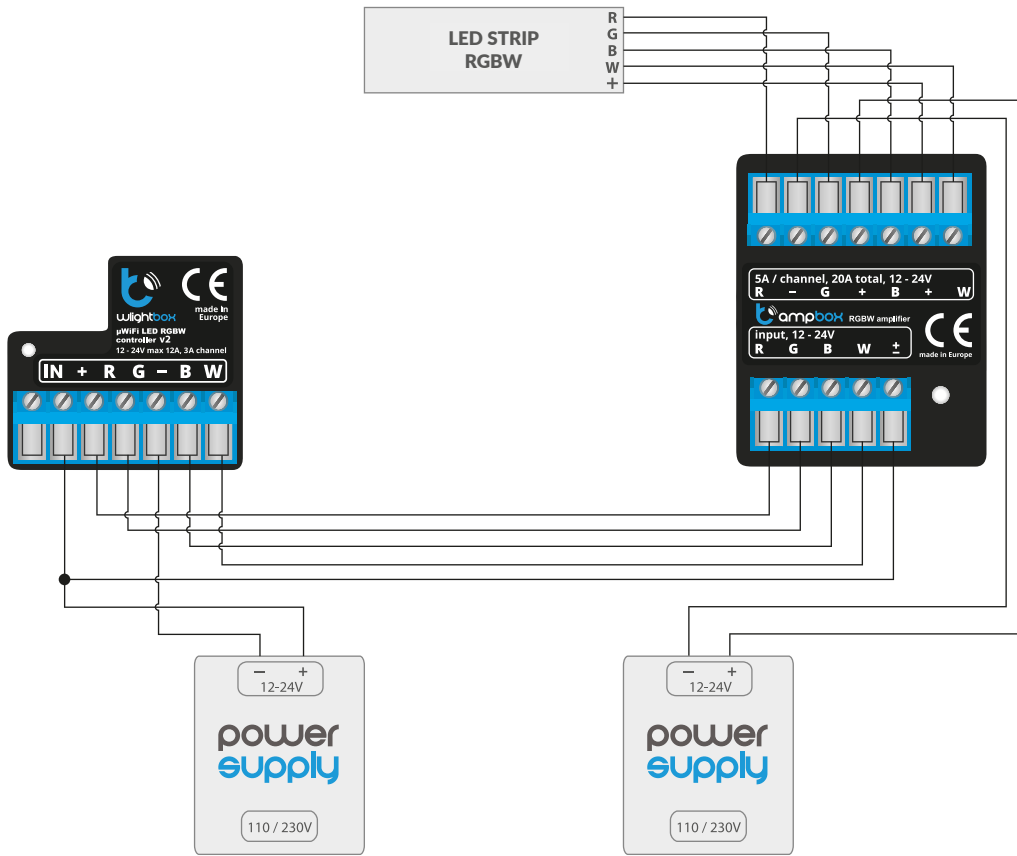
**Power extension of the wLightBox v2 controller: 4 2-channel CCT tapes, two separate power supplies:**

+
WW    LED STRIP
CW    CT max 6A

+
WW
CW

+
WW    LED STRIP
CW    CT max 6A

+
WW
CW

wlightbox
µWiFi LED RGBW
controller v2
12 - 24V max 12A, 3A channel

IN + R G — B W

5A / channel, 20A total, 12 - 24V
R — G + B + W

input, 12 - 24V
R G B W ±

ampbox RGBW amplifier

+ —
12-24V

power
supply

110 / 230V

+
WW    LED STRIP
CW    CT max 6A

+
WW
CW

+
WW    LED STRIP
CW    CT max 6A

+
WW
CW

+ —
12-24V

power
supply

110 / 230V
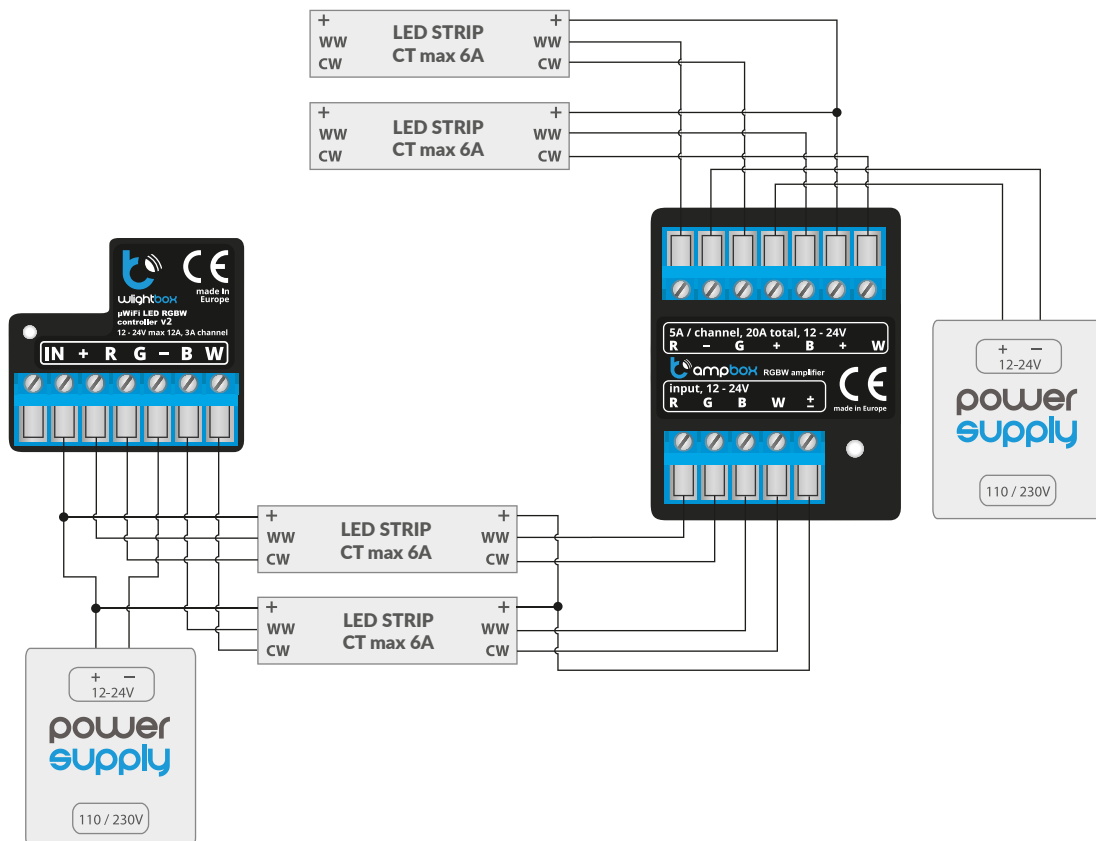
**wLightBoxS v2 - control signal only: Many high power 1-channel tapes, many power supplies:**

SINGLE COLOR LED STRIP

SINGLE COLOR LED STRIP

+
−
12-24V

power
supply

230V AC

5A / channel, 20A total, 12 - 24V
R    −    G    +    B    +    W

input, 12 - 24V
R    G    B    W    ±

ampbox RGBW amplifier

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CE

wlightboxs v2
µWiFi LED dimmer
12 - 24V DC 5A max
+  IN  −  O

made in Europe

CE

+
−
12-24V

power
supply

230V AC

5A / channel, 20A total, 12 - 24V
R    −    G    +    B    +    W

input, 12 - 24V
R    G    B    W    ±

ampbox RGBW amplifier

made in Europe

CE

+    −
12-24V

power
supply

230V AC