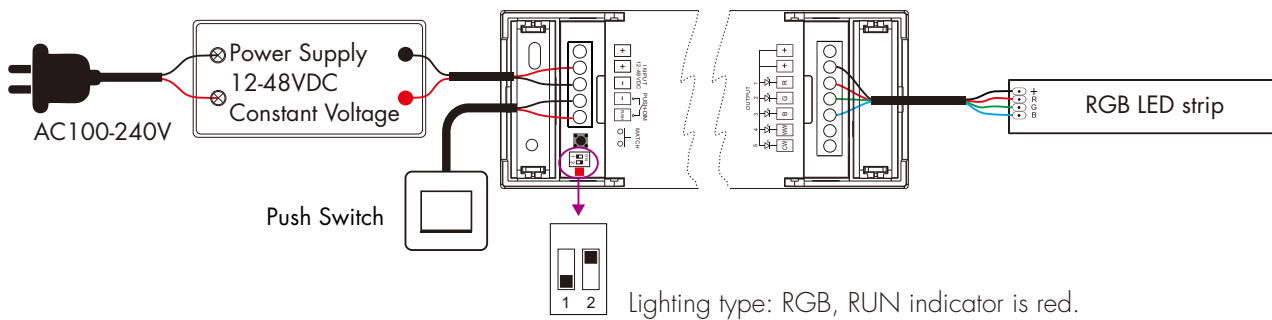


Connect analogue RGB and RGBW strips

Original Skydance V5-L(WT) circuits - power supply, controller and strip

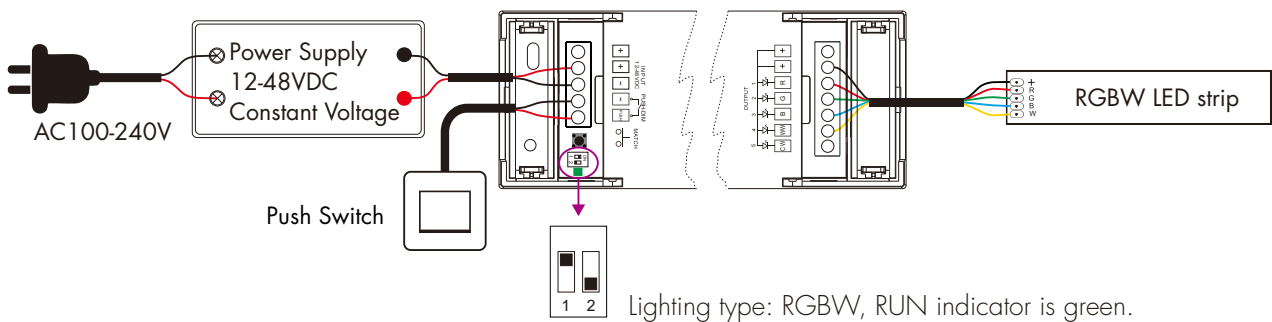
Use a 24V DC constant-voltage supply for the 24V strips in this guide. Isolate power before work. The figures below show the complete connection path; select the controller mode and terminals for the actual strip.

RGB - RED, GREEN AND BLUE



Original manufacturer RGB wiring figure. Match the R, G and B outputs and shared positive to the strip pad labels.

RGBW - RGB PLUS ONE WHITE CHANNEL



Original manufacturer RGBW wiring figure. The added W output is a separate white channel, not a digital data contact.

Supply and controller rating

V5-L(WT) is an analogue five-channel PWM controller. Its published limit at 12-24V is 6A per channel. Check the total connected strip load, supply and cable ratings for the actual run. These analogue diagrams are not SPI pinouts.

[Skydance V5-L\(WT\) original manual](#)

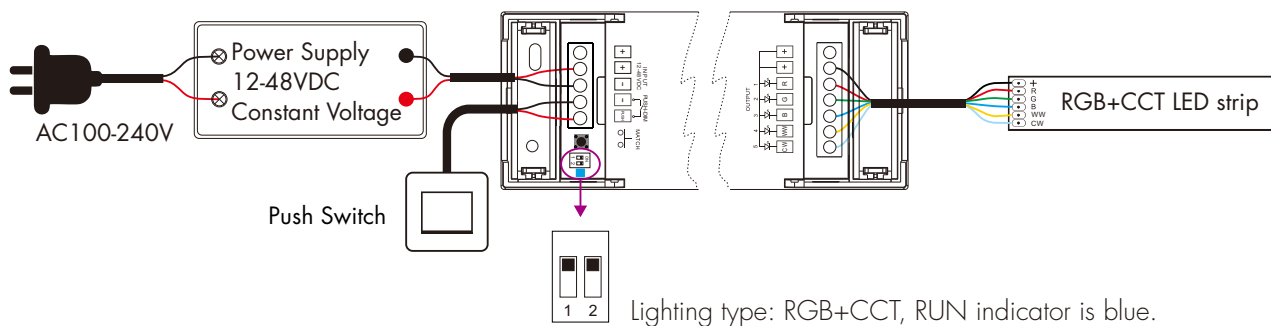
Manufacturer artwork reproduced without redrawing. Only the optional remote outside the circuit is cropped for a larger view.

Connect analogue RGB+CCT strips

Original Skydance figure and controller terminal detail

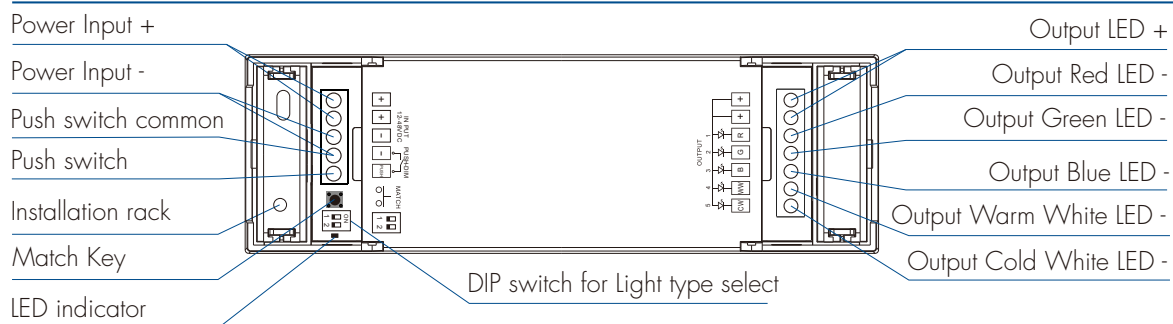
RGB+CCT has independent red, green, blue, warm-white and cool-white channels. Use 24V DC power and verify every printed strip terminal before connection.

COMPLETE RGB+CCT CONNECTION



Original manufacturer RGB+CCT wiring figure: AC supply to 24V DC power supply, analogue controller, then strip. The pictured push switch is optional; the source manual also shows an optional RF remote.

MANUFACTURER CONTROLLER TERMINAL LAYOUT



Original controller layout from page 1 of the same manual. It shows the DC input, positive LED output and separate R/G/B/WW/CW negative outputs. Match the actual controller markings; do not infer them from wire colours.

Use this for analogue strips only

The Skydance figure is an analogue PWM example. Do not attach WS2811, WS2814 or WS2805 digital strip data contacts to these outputs. Size the controller and 24V supply from the actual strip W/m and connected length.

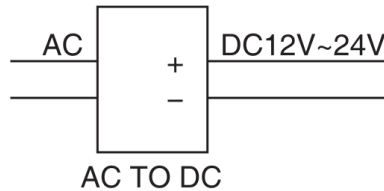
[Skydance V5-L\(WT\) original manual](#)

Connect digital RGB and RGBW

WS2811 and WS2814 — original MiBoxer SPIR3 connection reference

Use an SPI controller that expressly supports the strip's chipset. SPIR3 instructions list WS2811 and WS2814 (RGBW). Select RGB or RGBW output mode and the required pixel count. SPIR3 output is limited to 10A.

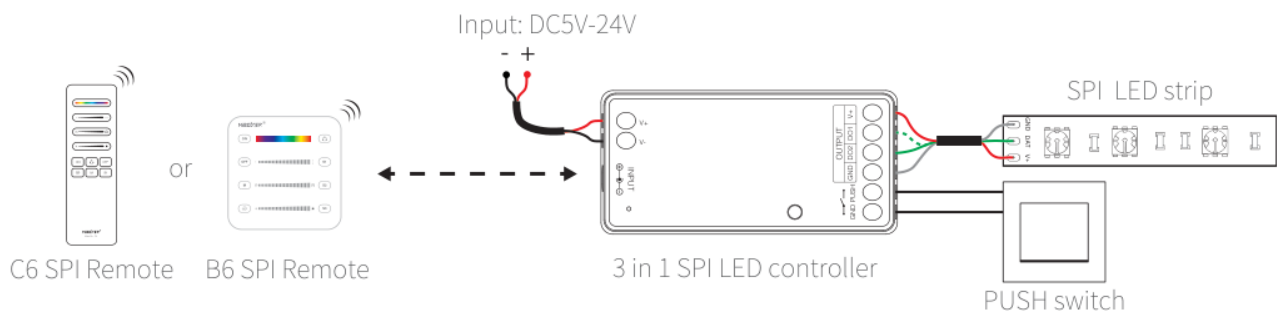
1 MAINS TO THE CORRECT DC POWER SUPPLY



Original AC-to-DC stage from MiBoxer WL5 instructions. Select 24V DC output for this guide. This is a supply-stage reference; detailed mains L/N/PE terminals are not shown.

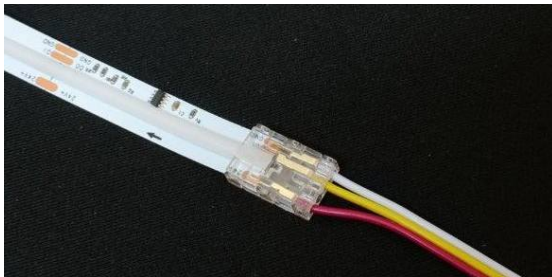
2 DC SUPPLY TO SPIR3 AND THE STRIP INPUT

Connection Diagram



Original SPIR3 figure: MiBoxer. The drawing shows a generic SPI strip and optional push switch. Match the actual strip input pads; do not infer functions from wire colours or add unused clock/backup connections.

READ THE ACTUAL STRIP PADS AND ARROW



This ATOM digital RGB IP20 photo shows a three-contact input lead. The arrow gives data direction. A RGBW or protected digital strip can have different connections.

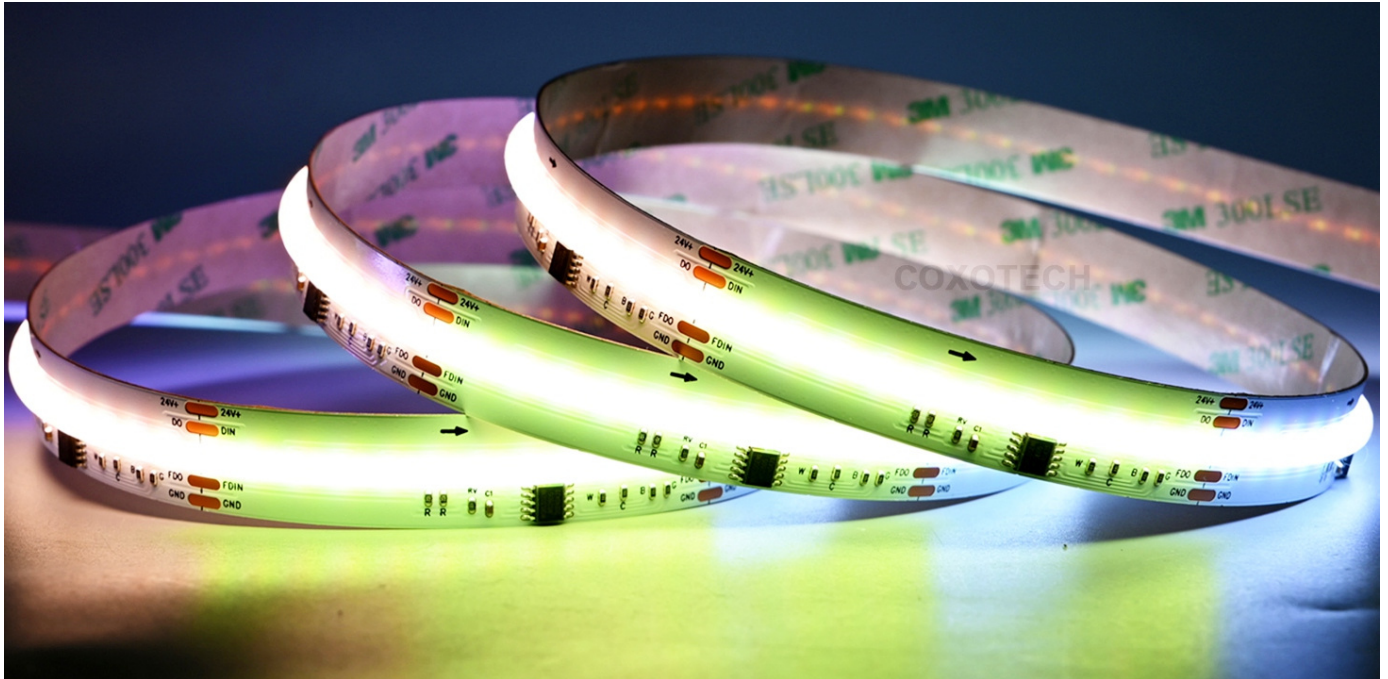
Calculate load from length × W/m. Check power supply, controller, cable and connector ratings separately; the circuit picture does not approve a whole roll on one connection.

[Manufacturer SPIR3 instructions](#)

Identify the digital RGB+CCT strip

Manufacturer catalogue imagery - illustrative digital RGB+CCT construction

Digital RGB+CCT strips use an SPI controller. The image below is representative catalogue artwork for the digital RGB+CCT COB construction; verify the pad labels and signal direction on the actual ATOM strip.



Original COXO catalogue product image. Its printed 24V+, DIN, FDIN, GND and arrows illustrate the family. It is not a terminal map or dimensions drawing for ATOM's 15mm IP20 or 18mm IP68 products.

24V DC

DIGITAL SPI

MATCH ACTUAL PAD LABELS

Confirm FDIN before connection

The exact WS2805 controller-to-FDIN termination for ATOM's strips is still unverified. Use a WS2805-compatible controller and obtain the product-specific connection instruction before wiring. An analogue RGB+CCT output is not suitable.

Source: 2025.10 COB strip catalogue, page 109. The catalogue example has a different PCB width; product-specific measurements and electrical ratings remain those in each ATOM datasheet.

Measure, isolate and cut

Steps 1-3 | use the actual marks on your strip

1 Identify the strip and measure the route

Check the product, voltage, colour family and control type. Measure the finished route and choose a length at the permitted cut intervals. The product sheet controls the maximum continuous run.

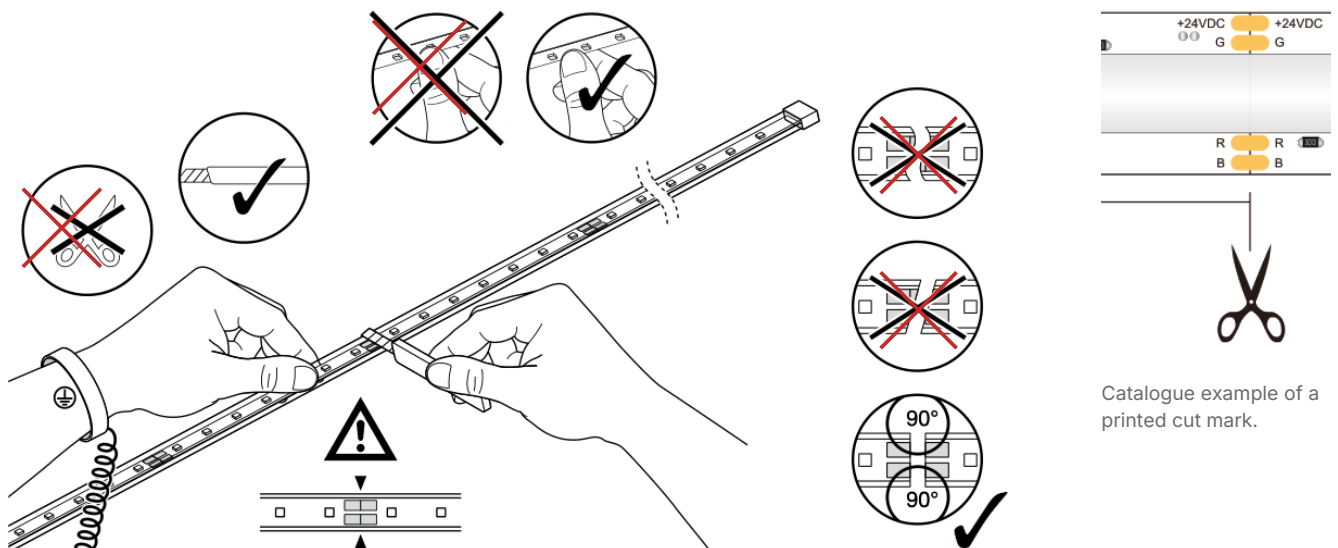
2 Disconnect the power

Isolate the supply before handling conductors, cutting or connecting. Confirm that the strip is de-energised; a controller set to "off" is not a substitute for isolation.

POWER OFF
before cutting

3 Cut flat and only at a marked position

Support the strip so it cannot twist or tear. Cut squarely through the designated mark without damaging adjacent pads or the circuit. Do not choose a cut position from this example; use the actual strip marks.



Handling illustration: LEDVANCE. Cut-mark example: ESTAR. These show the cutting method, not an ATOM terminal layout, pitch or connector specification.

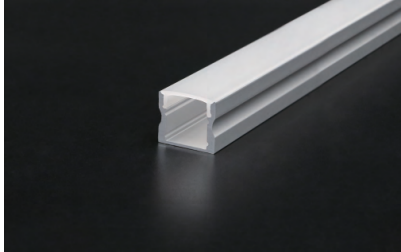
Inspect the cut

The cut must be clean and at the marked pads. Do not use a damaged section or leave loose strands, conductive debris or a bridged connection.

Mount and connect RGBW or RGB+CCT

Actual five- and six-contact ATOM connector options for analogue IP20 strips

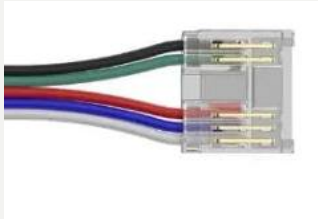
4. Prepare a clean, dry mounting surface and a suitable aluminium profile. Check internal channel clearance, remove sharp edges and support the strip without trapping cables.



Check the channel before fitting

A suitable profile supports the strip and helps disperse heat. Allow space for the actual connector body; PCB width is not the connector's outside width. Original profile illustration: ESTAR.

12mm / 5 contacts



Strip-to-wire lead — connector detail

12mm analogue RGBW / IP20

12mm 5-Pin Connectors Kit for RGBW COB LED Strip Light IP20

For the matching IP20 COB PCB and colour/control family. Align every contact with the actual copper pads.

[View connector options](#)

[View matching strip](#)

12mm / 6 contacts



Strip-to-wire lead — connector detail

12mm analogue RGB+CCT / IP20

12mm 6-Pin Connectors Kit for RGB CCT COB LED Strip Light IP20

For the matching IP20 COB PCB and colour/control family. Align every contact with the actual copper pads.

[View connector options](#)

[View matching strip](#)

Read terminals, not cable colours

Match each marked strip pad to the controller channel. Five or six contacts do not by themselves prove a different strip will fit. These IP20 connectors do not restore IP67/IP68 protection; use the correct product-specific termination for protected strips.

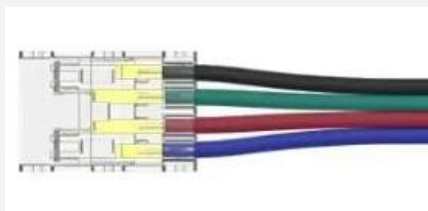
No exact replacement connector has been verified here for the slim 5mm RGB, digital RGBW, protected strips or WS2805 types. Contact ATOM LED for the correct termination rather than selecting on width alone.

Choose the correct RGB connector

Actual ATOM product photos — PCB width and contact count matter

5. Match the connector to the exact strip before closing it. The PCB width, colour/control family, pad alignment, protection and current rating must all agree.

10mm / 4 contacts



Strip-to-strip lead — connector detail

10mm analogue RGB / IP20

10mm 4-Pin Connectors Kit for RGB COB LED Strip Light IP20

For the matching IP20 COB PCB and colour/control family. Align every contact with the actual copper pads.

[View connector options](#)

[View matching strip](#)

8mm / 4 contacts



Strip-to-wire lead — connector detail

8mm analogue RGB / IP20

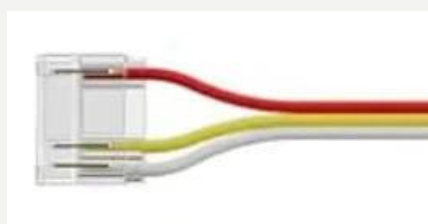
8mm 4-Pin Connectors Kit for RGB COB LED Strip Light IP20

For the matching IP20 COB PCB and colour/control family. Align every contact with the actual copper pads.

[View connector options](#)

[View matching strip](#)

12mm / 3 contacts



Strip-to-wire lead — connector detail

12mm digital RGB / IP20 / WS2811

12mm 3-Pin Connectors Kit for RGB IC SPI COB LED Strip Light IP20

For the matching IP20 COB PCB and colour/control family. Align every contact with the actual copper pads.

[View connector options](#)

[View matching strip](#)

A fit does not establish the current rating

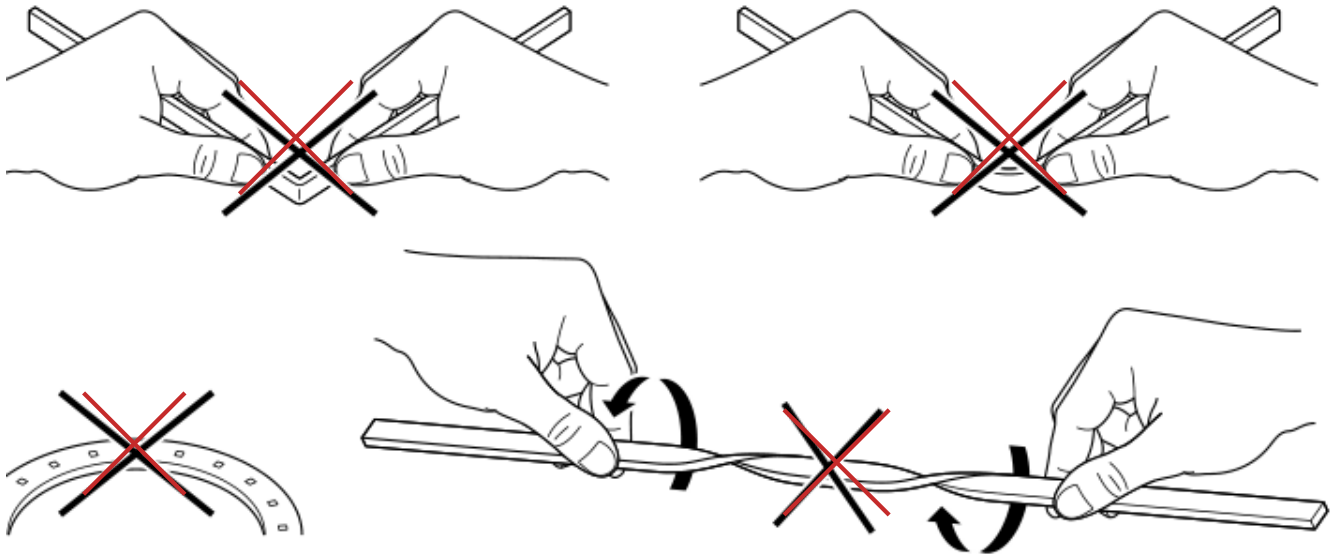
These listings identify the matching connector family; their usable current rating is not published in the reviewed information. Confirm the rating for your planned load. Do not assume a connector can carry a full roll.

Support, inspect and protect

Steps 6-7 | prevent strain and check the finished assembly

6 Avoid sharp folds, twisting and cable pull

Fit the strip without twisting, kinking or force. Do not bend it sharply around corners. Support cables so they cannot pull on solder pads, joints or seals; do not trap leads beneath the profile or cover.



General handling illustration: LEDVANCE. No minimum bend radius or special bend plane is inferred for these ATOM products.

7 Inspect the connections and end protection

Check that connections are secure and correctly aligned. Look for lifted pads, loose strands, bridged contacts, crushed tape or damaged insulation. Do not energise damaged parts.

Wet-location connections need their own protection

IP67 and IP68 describe the strip body, not an exposed connector or the finished installation. Cutting or altering factory seals can compromise protection. Complete the exact connector or termination manufacturer's process before testing or exposure.

A sealing compound, cure time or underwater-use limit cannot be chosen from a different strip. Contact ATOM LED before altering a protected product or preparing a wet-location connection.

Product reference

Use the matching sheet for the complete specification

CURRENT PRODUCT FAMILIES

Product	Control	W/m	Cut	Width
RGB 840/m IP20 analogue	Analogue	18	50mm	10mm
RGB 720/m IP20 digital	WS2811	19	50mm	12mm
RGB 720/m IP68 digital	WS2811	21	50mm	14.5mm
RGBW 784/m IP20 analogue	Analogue	19	50mm	12mm
RGB CCT 840/m IP20 analogue	Analogue	21	35mm	12mm
RGBW 784/m IP20 digital	WS2814	21	71.42mm	10mm
RGB 840/m IP67 analogue	Analogue	18	50mm	12mm
RGB 840/m IP68 analogue	Analogue	18	50mm	12mm
RGB 576/m IP20 analogue	Analogue	16	62mm	8mm
RGBW 784/m IP68 analogue	Analogue	21	50mm	14.5mm
RGB CCT 840/m IP20 digital	WS2805	26	71.42mm	15mm
RGB 576/m IP20 analogue	Analogue	11	31.25mm	5mm
RGBW 784/m IP68 digital	WS2814	21	71.42mm	15.5mm
RGB CCT 840/m IP68 digital	WS2805	26	71.42mm	18mm

RGBW includes a warm-white channel. RGB+CCT includes adjustable white channels. Digital protocol is model-specific: WS2811, WS2814 or WS2805. Confirm the exact product and controller together.

Check markings before connecting

These illustrations do not specify wire colours or a universal terminal order. Use the actual product markings and the selected controller/connector instructions. The product sheet controls pixel density and permitted cutting positions.

Commissioning and care

Complete the installation before normal use

PROTECTION CHECK

IP20 products are for dry interiors. Protect all power equipment and connections for the actual location. Keep every component within its own rated operating environment and temperature.

COMMISSIONING

- Fully unroll the strip before energising. Check polarity, voltage, control settings and the complete route first.
- Test all required colour channels. For digital strips, check the configured chipset, pixel count and signal direction.
- Check connections and voltage under the intended load. Investigate heat, flicker or a dim far end before securing the installation permanently.
- Stop and isolate the supply before inspecting a fault. Never work on exposed powered conductors.

TROUBLESHOOTING

No light	Isolate power. Check driver output, polarity, terminal connections and the selected controller mode.
Wrong colours	Check marked colour-channel terminals; on digital strips check chipset and controller colour settings.
Digital effects fail	Check input end, data direction, protocol, configured pixel count and the controller's capacity.
Dim far end or flicker	Check voltage under load, run length, cable/load ratings and joint resistance. A larger driver alone may not solve voltage drop.
Heat or water ingress	Isolate the system. Check loading, mounting and seals. Replace damaged parts before use.

Care and warranty

Isolate power before cleaning or maintenance. Keep the strip and connections free of damage and moisture outside their verified protection. These products have a 5 Years warranty. Follow the product and component instructions. Contact ATOM LED when unsure about a cut, connection or wet-location installation.