eurolite®

LED Strip 4in1 Zone RF Controller

Wireless remote control for single- and multi-colored LEDs 12-24 V

No. 50531140 Set (receiver and remote control)
No. 50531145 Receiver

www.eurolite.de

EN USER MANUAL

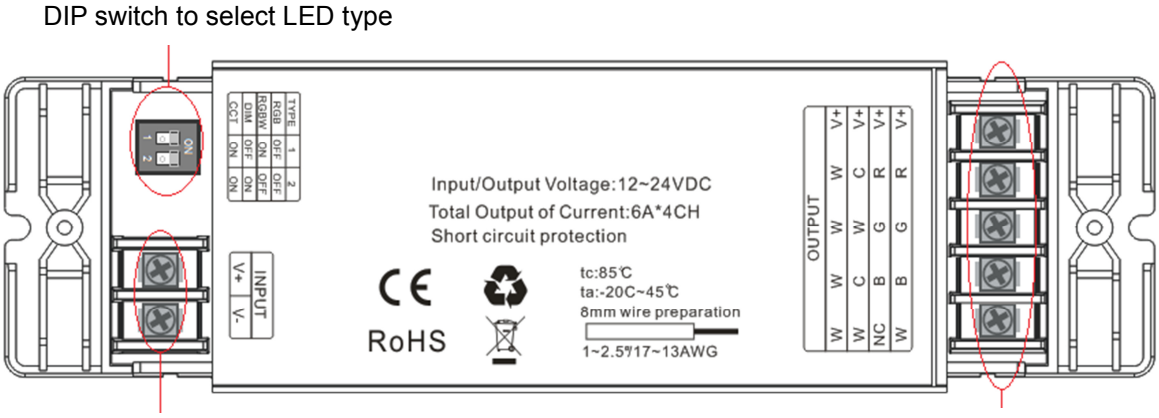
Thank you for purchasing this LED control system. The wireless receiver is especially designed for control of single- and multi-colored (CW+WW, RGB, RGBW) LED strips requiring an operating voltage of 12 V and 24 V direct current. The receiver is operated by wireless control (2.4 GHz) via the remote control. 4 control zones are available. Multiple receivers can be assigned to the zones as desired and controlled via the same remote control, either separately or in groups. As the receivers forward the radio signal, a large range can be covered and all color settings run in sync. The maximum power consumption of a channel must not exceed 6 A and of all LEDs connected 24 A. The connection must be made by skilled personnel only. Please read these operating instructions carefully before using the product. They contain important information for the correct use of your product. Please keep them for future reference.

SAFETY INSTRUCTIONS

- Only use the product according to the instructions given herein. Damages due to failure to follow these operating instructions will void the warranty! We do not assume any liability for any resulting damage.
- We do not assume any liability for material and personal damage caused by improper use or non-compliance with the safety instructions. In such cases, the warranty/guarantee will be null and void.
- Unauthorized rebuilds or modifications of the product are not permitted for reasons of safety and render the warranty invalid.
- This product is not a toy. Keep it out of the reach of children. Do not leave packaging material lying around carelessly.
- Keep this device away from rain and moisture. Indoor use only.
- Protect the product against excessive humidity and heat. The recommended temperature is -5 to +45°C.
- Before taking into operation, check upon possible damages. If defective, the product must not be taken into operation.
- This product is maintenance-free, except for occasional cleaning. You can use a slightly dampened cloth for cleaning. Never use alcohol or solvents.
- Maintenance and service operations are only to be carried out by authorized dealers.

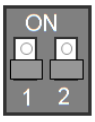
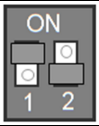
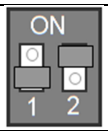
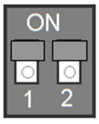
INSTALLATION

Overview



Setup

- Install the receiver in a suitable spot and remove the covers from the terminals.
- Connect the LEDs to the negative and positive OUTPUT terminals (V+ = common positive pole, V- = see figure on next page). The load by the LEDs must not exceed 6 A per channel. The overall load must not exceed 24 A to avoid damage to the receiver.
- For power supply, connect a regulated power supply unit (min. 12 V, max. 24 V) to the negative and positive INPUT terminals.
- Use the DIP switches to select the operating mode according to the connected LEDs:

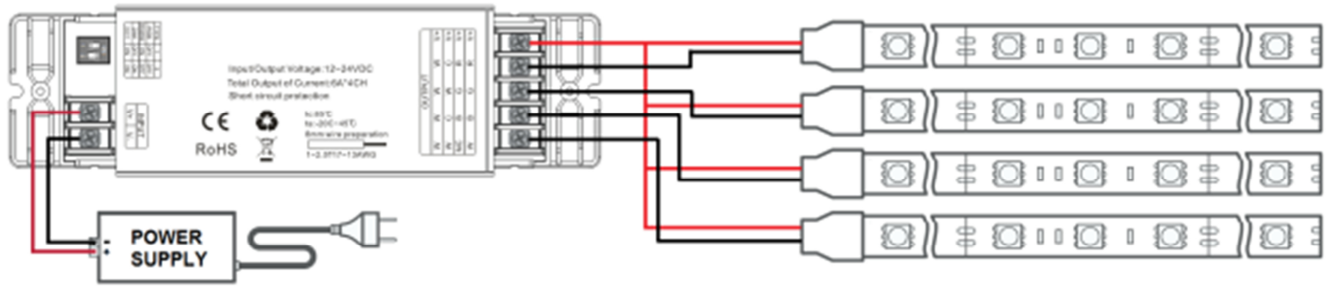
RGB	RGBW	DIM	CCT
			

- Screw on the covers with the screws provided.
- For power supply of the remote control, insert two 1.5 V AAA batteries into the battery compartment as indicated.
- For operation the receiver needs to be assigned to the remote control (see chapter “Wireless Connection” on page 4).

INSTALLATION

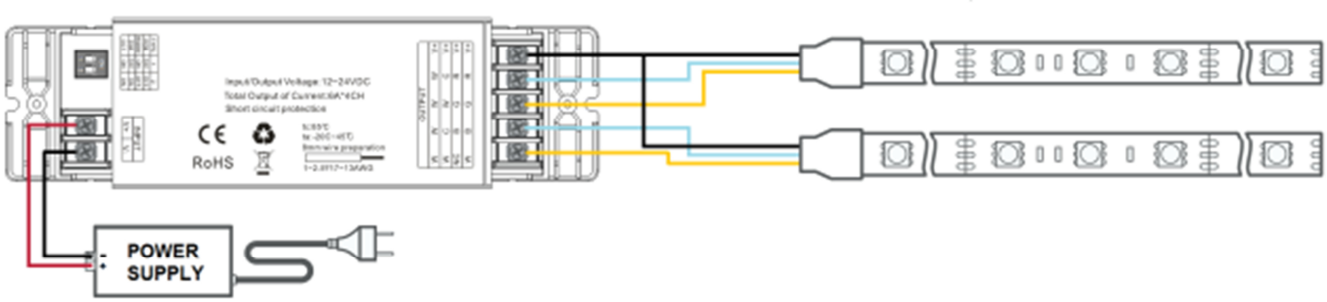
Application example 1: Single-color LEDs

V+→V+, CH1→V–, CH2→V–, CH3→V–, CH4→V–



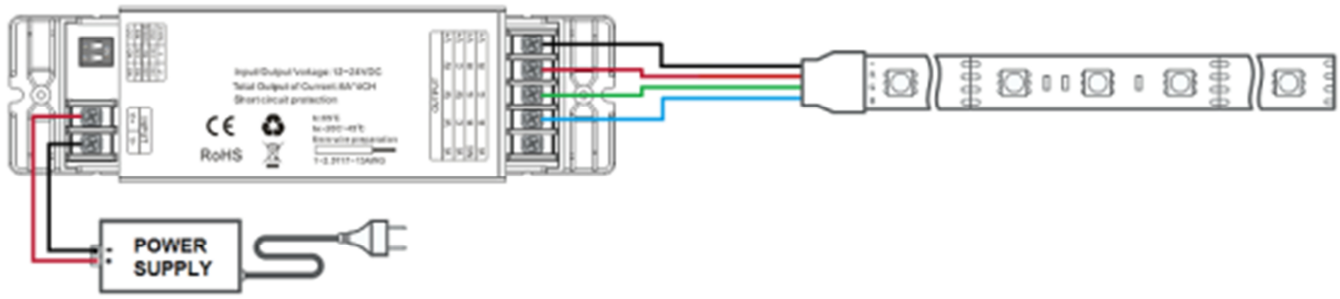
Application example 2: White LEDs (CW+WW) with variable color temperature

V+→V+, CH1→CW, CH2→WW, CH3→CW, CH4→WW



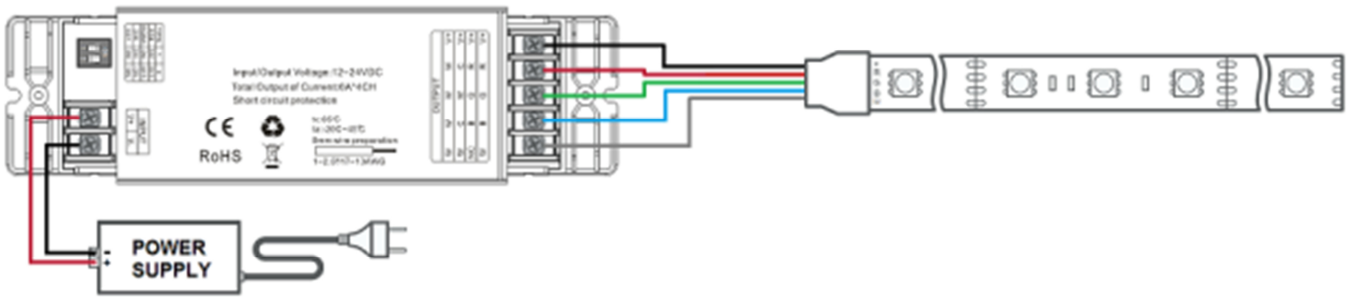
Application example 3: RGB LEDs

V+→V+, CH1→R, CH2→G, CH3→B, CH4→not connected



Application example 4: RGBW LEDs

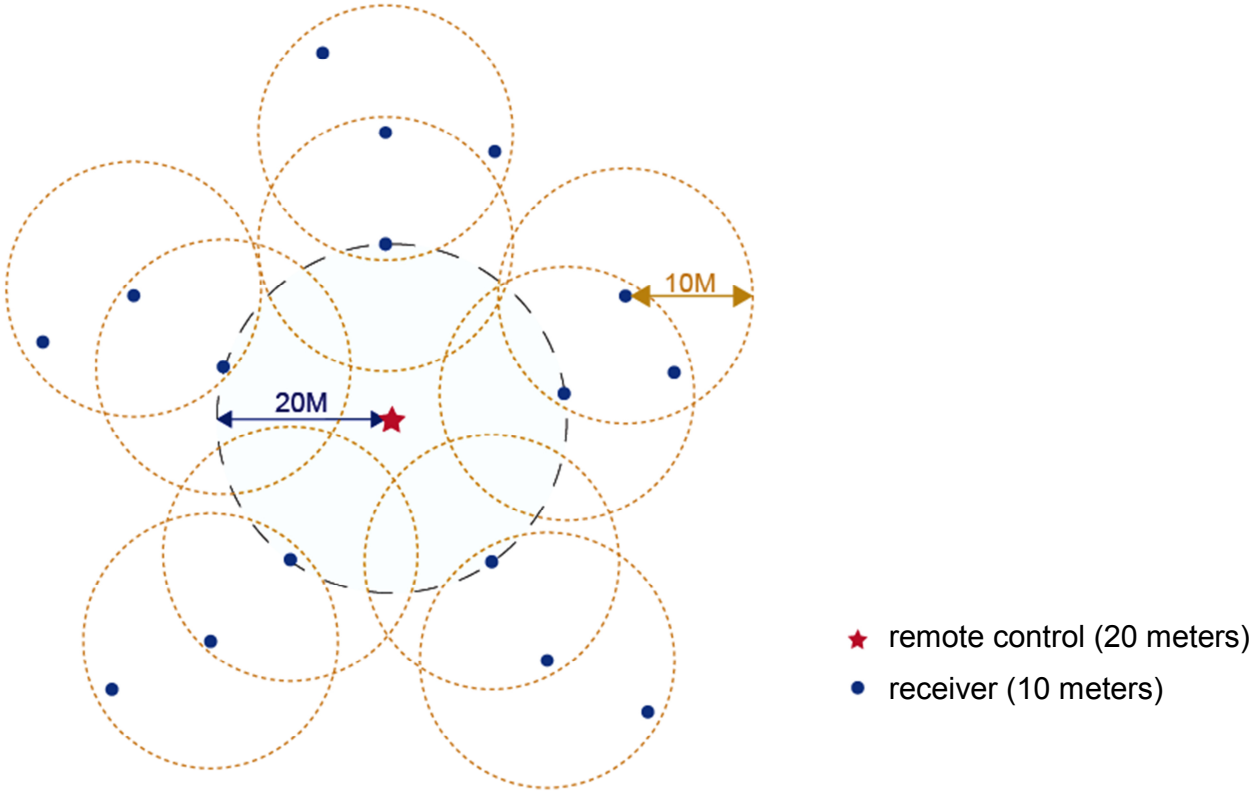
V+→V+, CH1→R, CH2→G, CH3→B, CH4→W



WIRELESS CONNECTION

For the remote control to work together with the receiver, the two devices first have to be paired. There are four separate control zones. Multiple receivers can be assigned to the four zones as desired and controlled with a mutual remote control. The receivers can be operated in different modes so it is possible to operate each zone with different LED types. The functions of the remote control change according to the set operating mode of the respective receiver.

If multiple receivers are used in the same control zone, the receivers exchange signals among each other. As a result, all dynamic and static color settings run in sync and there is no visible difference to a wired system.



Please note:

1) The devices are not paired by default. Each remote control has its own code. To avoid interferences during operation, the devices need to be paired manually during installation.
2) The receiver can be assigned to only one code at a time and needs to be reset to factory settings before a new code can be assigned.
3) As the receiver has to be switched on for assigning a code, multiple devices can be configured simultaneously. In this case, we recommend separately switchable sockets for different areas of the installation so that certain areas can remain switched off during the configuration process.

WIRELESS CONNECTION

Pairing the remote control with the receiver

When paired, the receiver can be controlled via the remote control.

Step	Procedure	Remarks
1	Connect the LEDs and switch on the receiver.	1) If the receiver has been paired before, it has to be reset to factory settings before it can be paired again. 2) Provided that they are within the range of the remote control, multiple receivers can be configured simultaneously.
2	Select a control zone.	Select the desired control zone using the ZONE button on the remote control. The respective indicator lights.
3	Keep the ON button pressed for 5 seconds to switch to pairing mode. The RF indicator now flashes rapidly.	The pairing process is automatically terminated after 60 seconds or by pressing any button.
4	The connected LEDs flash three times and then return to their previous state.	The devices have been paired successfully.

Resetting the receiver

After being reset to factory settings, the receiver can be paired with a new remote control.

Step	Procedure	Remarks
1	Connect the LEDs and switch on the receiver.	1) The receiver should be reset within 60 seconds after power on. 2) Provided that they are within the range of the remote control, multiple receivers can be configured simultaneously.
2	Keep the OFF button pressed for 5 seconds to initiate the resetting process. The RF indicator now flashes rapidly.	1) It is not necessary to select a certain control zone. 2) The resetting process is automatically terminated after 60 seconds or by pressing any button. 3) Any remote control can be used to reset the receiver.
3	The connected LEDs flash three times and then return to their previous state.	The receiver has been reset to factory settings successfully.

WIRELESS CONNECTION

Pairing multiple remote controls

Each remote control is delivered with its own code preconfigured. If you use multiple remote controls, the code of one remote control needs to be copied to the other remote controls for them to operate in sync successfully.

Step	Procedure	Remarks
1	Keep the ON button on the master remote control pressed for 5 seconds to switch to copying mode. The RF indicator now flashes rapidly.	The copying process is automatically terminated after 60 seconds or by pressing any button.
2	Take the remote control you wish to copy the code to and keep the M(ODE) button pressed for 5 seconds. The RF indicator switches from 100% brightness to 0% and flashes. The copying mode has been activated.	The copying process is automatically terminated after 30 seconds or after the code has been copied successfully.
3	The RF indicator on the remote control the code has been copied to flashes three times.	The code has been successfully copied to the new remote control. The device now automatically quits the copying mode.

Copying the code from receiver to remote control

Codes can also be copied from a receiver to a remote control, e.g. if the previously used remote control was lost and needs to be replaced.

Step	Procedure	Remarks
1	Switch off the receiver.	
2	Keep the M(ODE) button on the remote control pressed for 5 seconds. The RF indicator switches from 100% brightness to 0% and flashes. The copying mode has been activated.	The copying process is automatically terminated after 30 seconds or after the code has been copied successfully.
3	Switch on the receiver. The RF indicator on the remote control flashes three times.	The code has been successfully copied to the new remote control. The device now automatically quits the copying mode.

Notes:

1) The distance between receiver and remote control should not exceed 2 meters during this procedure.
2) During the copying process, all information of the entire system is being transmitted. It is not necessary to repeat the procedure for different control zones.

Resetting the remote control

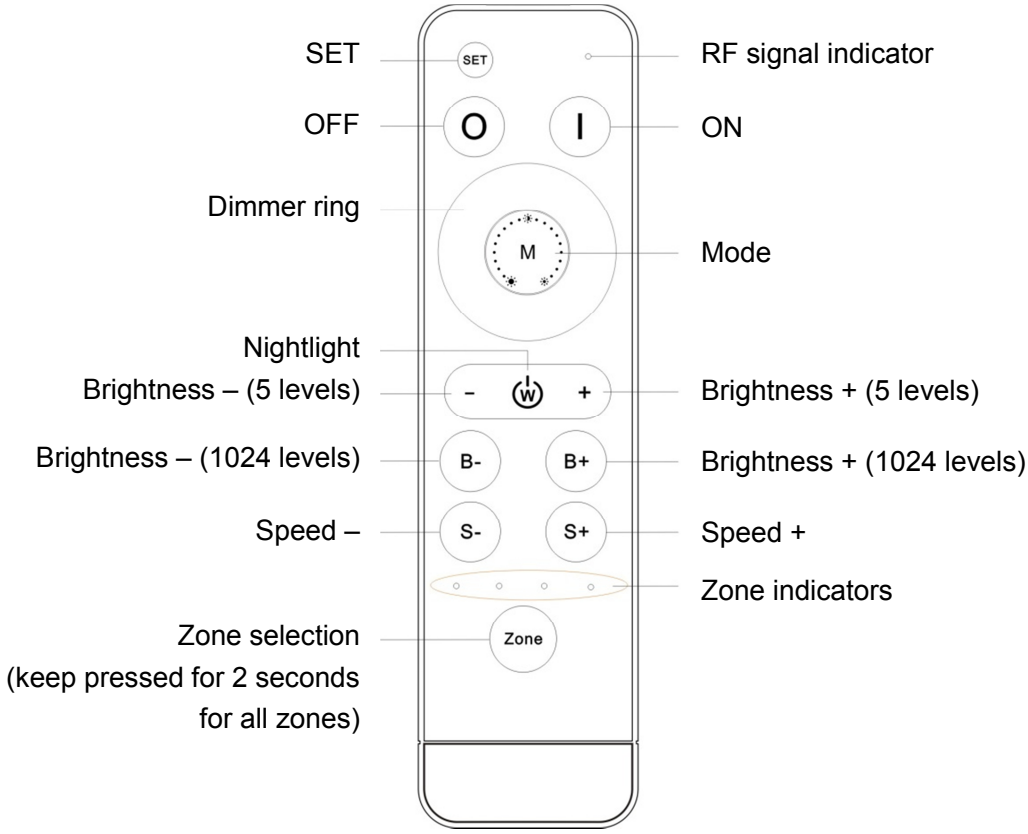
The remote control can be reset to factory settings.

Step	Procedure	Remarks
1	Keep the M(ODE) button pressed for 20 seconds.	The RF indicator is dimmed down and flashes while the M(ODE) button is pressed. After releasing the button, the indicator lights with 100% brightness again, indicating that the resetting process has been activated.
2	Confirm with OFF button. The RF indicator flashes three times.	The remote control has been reset to factory settings successfully.

OPERATION

Single-color LEDs

If the DIP switch has been set to the operating mode DIM, the following functions can be controlled with the remote control. The remote control switches to stand-by mode after 8 seconds of inactivity and can be reactivated by pressing any button.

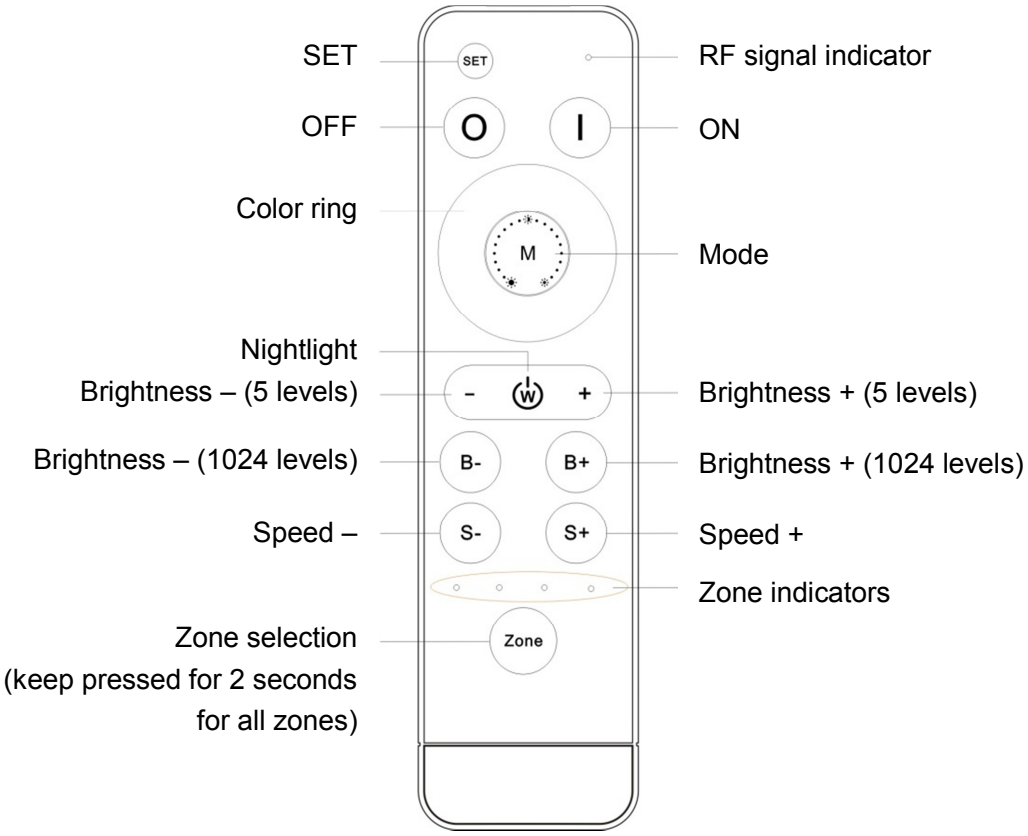


Button	Function
SET	No function
I	Power on
O	Power off
Dimmer ring	Adjusting brightness clockwise
M	Mode selection: flashing, fade
⏻	Reduce brightness by 10% (Nightlight function)
–	Reduce brightness in 5 levels (10 %, 30 %, 50 %, 70 %, 100 %)
+	Increase brightness in 5 levels (10 %, 30 %, 50 %, 70 %, 100 %)
B-	Reduce brightness in 1024 levels (Keep button pressed to proceed quicker)
B+	Increase brightness in 1024 levels (Keep button pressed to proceed quicker)
S-	Reduce speed for dynamic programs in 100 levels (Keep button pressed to proceed quicker)
S+	Increase speed for dynamic programs in 100 levels (Keep button pressed to proceed quicker)
Zone	Select zones 1-4 (status indicator lights), keep pressed for 2 seconds to select all zones (all status indicators light)

OPERATION

White LEDs with variable color temperature

If the DIP switch has been set to the operating mode CCT, the following functions can be controlled with the remote control.

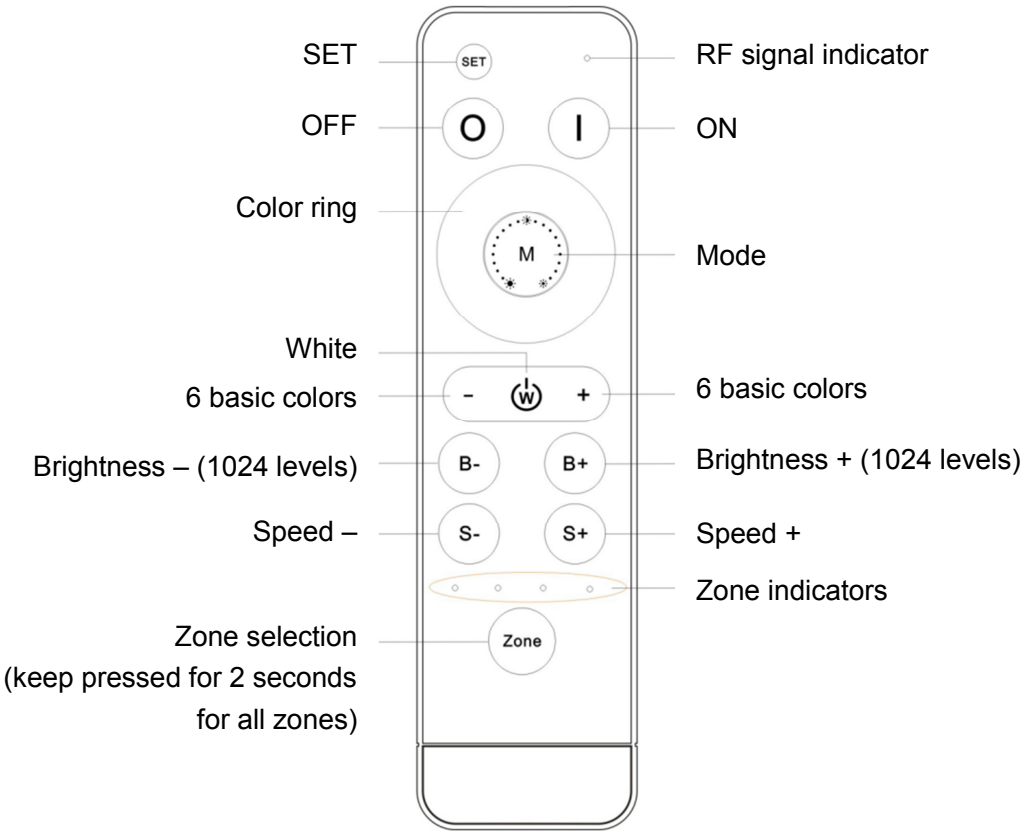


Button	Function
SET	No function
I	Power on
O	Power off
Color ring	Set color temperature between 100% cold white and 100% warm white
M	Mode selection: flashing, 2-color flashing, fade, 2-color fade
⏻	Reduce brightness by 10% (Nightlight function)
–	Reduce brightness in 5 levels (10 %, 30 %, 50 %, 70 %, 100 %)
+	Increase brightness in 5 levels (10 %, 30 %, 50 %, 70 %, 100 %)
B-	Reduce brightness in 1024 levels (Keep button pressed to proceed quicker)
B+	Increase brightness in 1024 levels (Keep button pressed to proceed quicker)
S-	Reduce speed for dynamic programs in 100 levels (Keep button pressed to proceed quicker)
S+	Increase speed for dynamic programs in 100 levels (Keep button pressed to proceed quicker)
Zone	Select zones 1-4 (status indicator lights), keep pressed for 2 seconds to select all zones (all status indicators light)

OPERATION

RGB LEDs

If the DIP switch has been set to the operating mode RGB, the following functions can be controlled with the remote control.



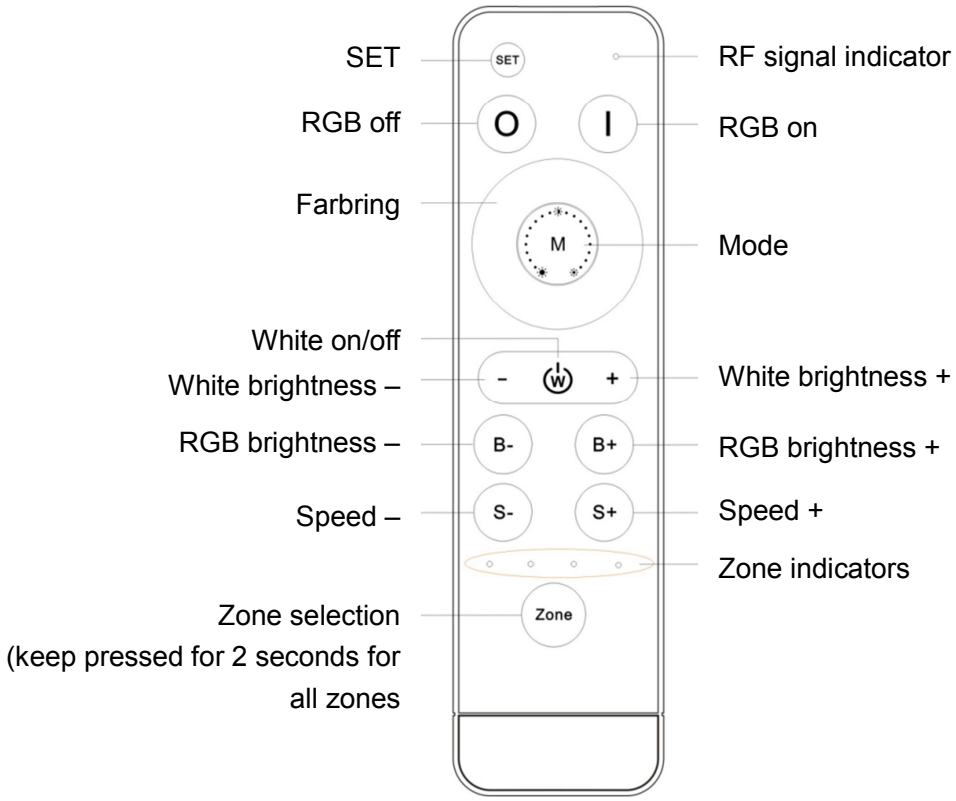
Button	Function
SET	No function
I	Power on
O	Power off
Color ring	Color selection (64 colors available)
M	Mode selection (8 modes available, see table below)
⏻	White light on/off
–	Select 6 static colors (cyan, purple, yellow, blue, green, red)
+	Select 6 static colors (red, green, blue, yellow, purple, cyan)
B-	Reduce brightness in 1024 levels (keep button pressed to proceed quicker)
B+	Increase brightness in 1024 levels (keep button pressed to proceed quicker)
S-	Reduce speed for dynamic programs in 100 levels (Keep button pressed to proceed quicker)
S+	Increase speed for dynamic programs in 100 levels (Keep button pressed to proceed quicker)
Zone	Select zones 1-4 (status indicator lights), keep pressed for 2 seconds to select all zones (all status indicators light)

Mode	Function	Remarks	Mode	Function	Remarks
1	Pulsating white	Speed adjustable, brightness not adjustable	5	7 colors fade	Speed adjustable, brightness not adjustable
2	3 colors change		6	Fade R/G	
3	7 colors change		7	Fade R/B	
4	3 colors fade		8	Fade G/B	

OPERATION

RGBW LEDs

If the DIP switch has been set to the operating mode RGBW, the following functions can be controlled with the remote control.



Button	Function
SET	No function
I	Power on
O	Power off
Color ring	Color selection (64 colors available)
M	Mode selection (8 modes available, see table below)
⏻	White light on/off
–	Reduce brightness of white light in 1024 levels (keep button pressed to proceed quicker)
+	Increase brightness of white light in 1024 levels (keep button pressed to proceed quicker)
B-	Reduce brightness of RGB light in 1024 levels (keep button pressed to proceed quicker)
B+	Increase brightness of RGB light in 1024 levels (keep button pressed to proceed quicker)
S-	Reduce speed for dynamic programs in 100 levels (keep button pressed to proceed quicker)
S+	Increase speed for dynamic programs in 100 levels (keep button pressed to proceed quicker)
Zone	Select zones 1-4 (status indicator lights), keep pressed for 2 seconds to select all zones (all status indicators light)

Mode	Function	Remarks	Mode	Function	Remarks
1	Pulsating white	Speed adjustable, brightness not adjustable	5	7 colors fade	Speed adjustable, brightness not adjustable
2	3 colors change		6	Fade R/G	
3	7 colors change		7	Fade R/B	
4	3 colors fade		8	Fade G/B	

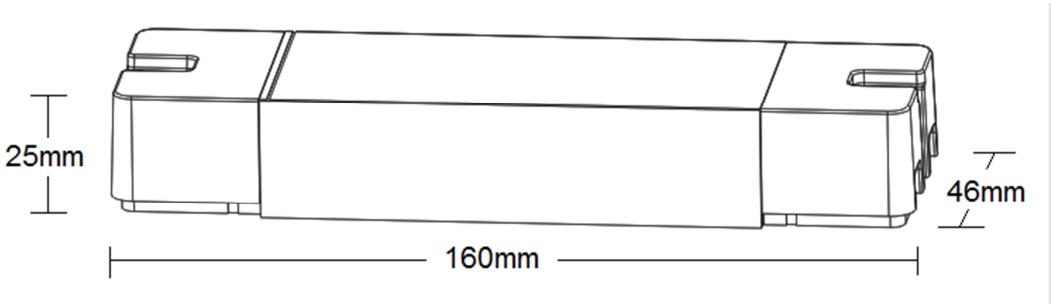
TECHNICAL SPECIFICATIONS

Remote control

Carrier frequency:	2.4 GHz
Range:	ca. 20 m
Battery:	2 x 1,5V AAA LR03 (not included)
Standby current:	<18 µA
Operating current:	20 mA
Dimensions (LxWxH):	164 x 45 x 26 mm
Weight:	0.95 g

Receiver

Power supply:	12-24 V DC
Standby current:	<1 W
Output power:	max. 288 W (12 V), 576 W (24 V)
Load:	max. 6 A per channel (24 A overall load)
Protective circuit:	Short circuit
PWM frequency:	1000 Hz
Dimensions (LxWxH):	160 x 46 x 25 cm
Weight:	130 g



PROTECTING THE ENVIRONMENT

Disposal of old equipment

When to be definitively put out of operation, take the product to a local recycling plant for a disposal which is not harmful to the environment. Devices marked with this symbol must not be disposed of as household waste. Contact your retailer or local authorities for more information. Remove any inserted batteries and dispose of them separately from the product.

You as the end user are required by law (Battery Ordinance) to return all used batteries/ rechargeable batteries. Disposing of them in the household waste is prohibited. You may return your used batteries free of charge to collection points in your municipality and anywhere where batteries/rechargeable batteries are sold. By disposing of used devices and batteries correctly, you contribute to the protection of the environment.

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