

# Datasheet & User Manual

## Model: D5-PF

DC Constant Voltage LED Dimmer for LED strip

Push / 2.4G RF Control

Suitable for surface mounting & flush-mount boxes ( $\varnothing \geq 55\text{mm}$ )



PUSH

2.4G





## Table of Contents

<b>1. Technical Specifications</b> .....	<b>03</b>
1.1 Operating Condition & Protection .....	03
1.2 Safety & EMC Standards.....	03
1.3 Connection Data .....	03
<b>2. Installation &amp; Wiring</b> .....	<b>04</b>
2.1 Dimensions.....	04
2.2 Installation .....	04
2.3 Wiring Diagram.....	05
<b>3. Operation &amp; Setup</b> .....	<b>10</b>
3.1 System Diagram .....	10
3.2 Hardware Overview.....	10
3.3 On/Off Fade Time & Factory Reset .....	11
3.4 Light Type Setting.....	12
3.5 RF Remote Control.....	13
3.6 Push Dimming Control.....	15
<b>4. Legal &amp; Support</b> .....	<b>17</b>
4.1 Important Notice .....	17
4.2 Disclaimer of Liability.....	17
4.3 Manufacturer Information.....	17

# 1. Technical Specifications

Input voltage	12...24 Vdc	
Output voltage	5 x 12...24 Vdc	
Output current	5 x 2 A max.	
Output power	5 x 24 W max.	12 Vdc
	5 x 48 W max.	24 Vdc
Input signal	RF 2.4 GHz, PUSH	
Output signal	PWM	
PWM frequency	8 kHz	
Control distance	30 m (barrier-free)	
Dimming range	0...100 %	
Dimming level	4096	
Dimming curve	Logarithmic	

## 1.1 Operating condition & Protection

Operating temperature range (ta)	-20...+55 °C
Max. surface temperature (tc)	77 °C
Type of protection	IP20
Overheating protection	Yes
Reverse polarity protection	Yes

## 1.2 Safety & EMC Standards

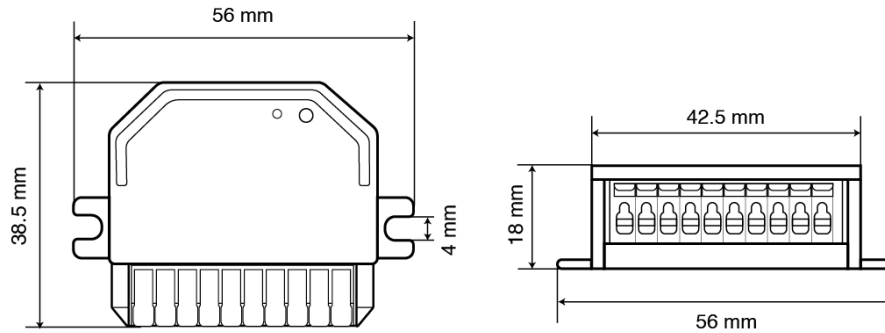
Standards	EN 55015, EN 61547
	EN 301489-1, EN 301489-17
	EN 61347-1, EN 61347-2
Radio Equipment	EN 300328, EN 300440
Marking	CE, RoHS

## 1.3 Connection Data

Type of connection	Spring lever terminal
Cable cross-section	0.5...2.0 mm <sup>2</sup>
Cable preparation length	6...7 mm

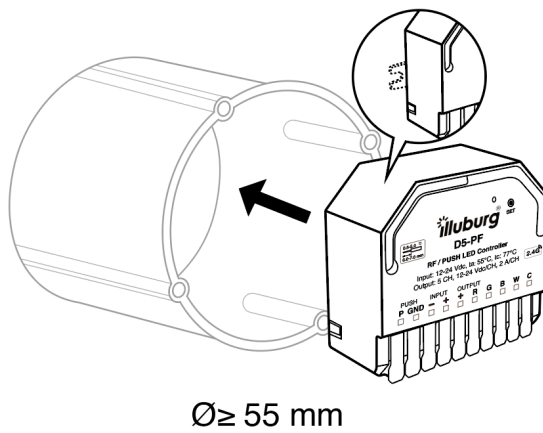
## 2. Installation & Wiring

### 2.1 Dimensions

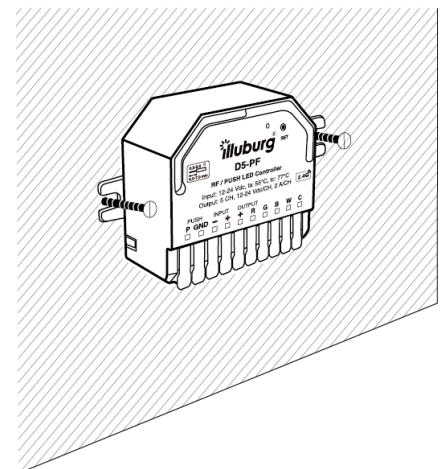


### 2.2 Installation

Flush-mounted installation



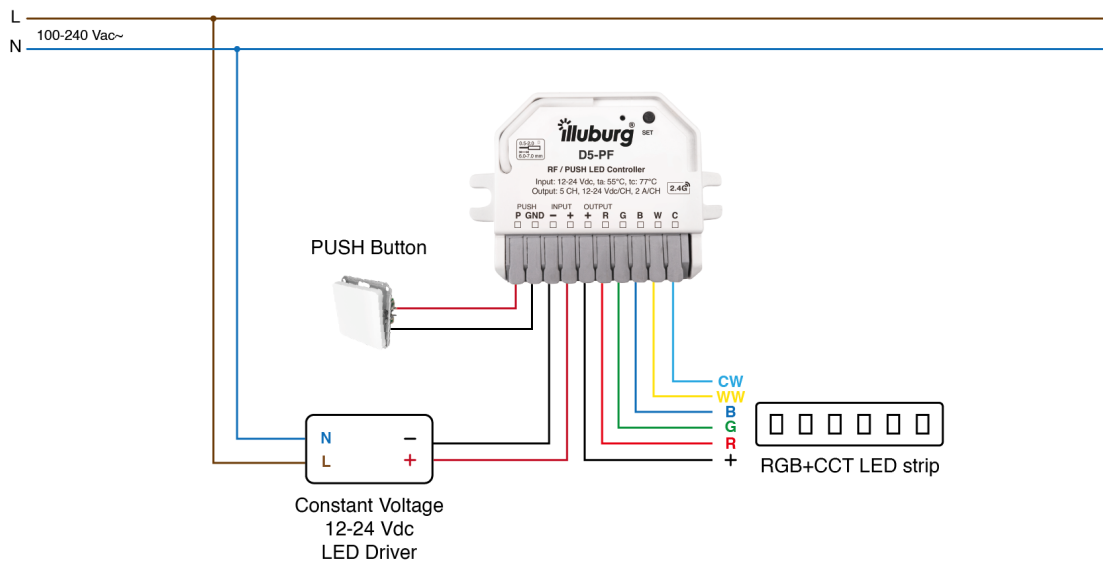
Surface-mounted installation



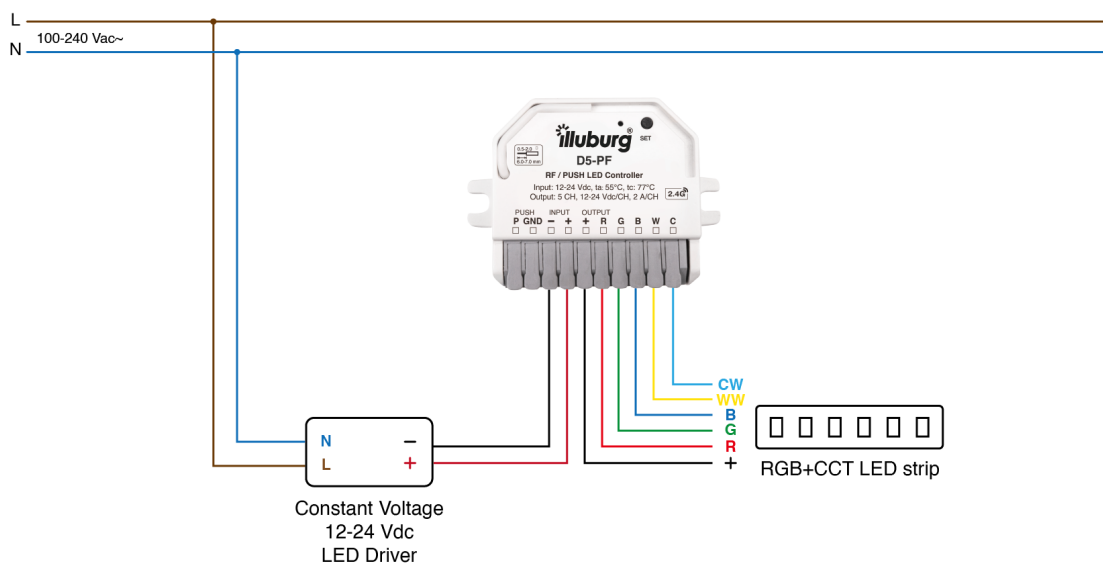
## 2.3 Wiring Diagram

For RGBCW (RGB+CCT) light

### Wiring Diagram 1: with Push Switch

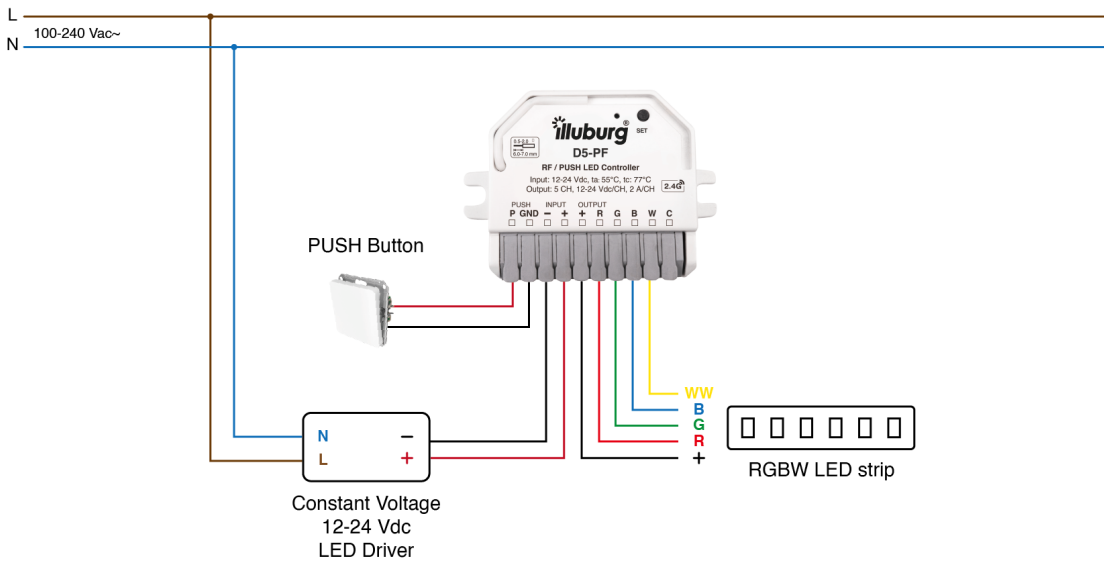


### Wiring Diagram 2: without Push Switch

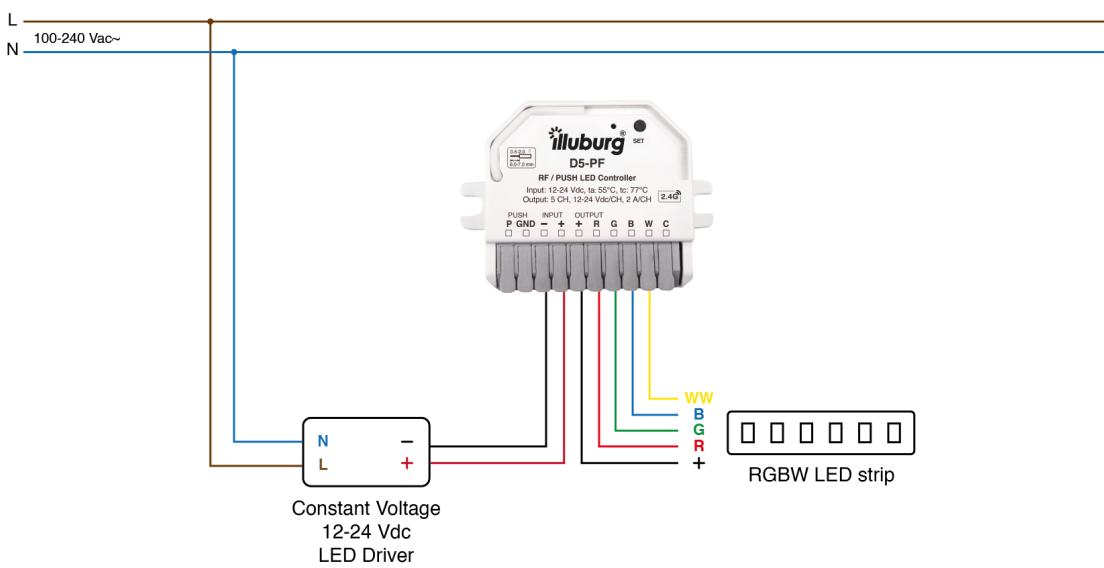


For RGBW light

### Wiring Diagram 1: with Push Switch

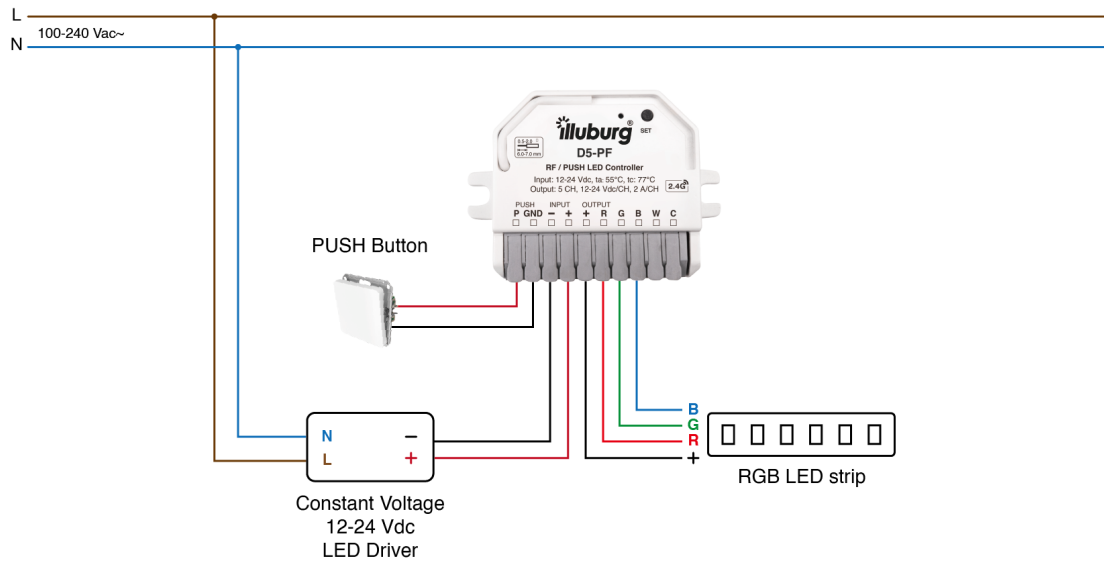


### Wiring Diagram 2: without Push Switch

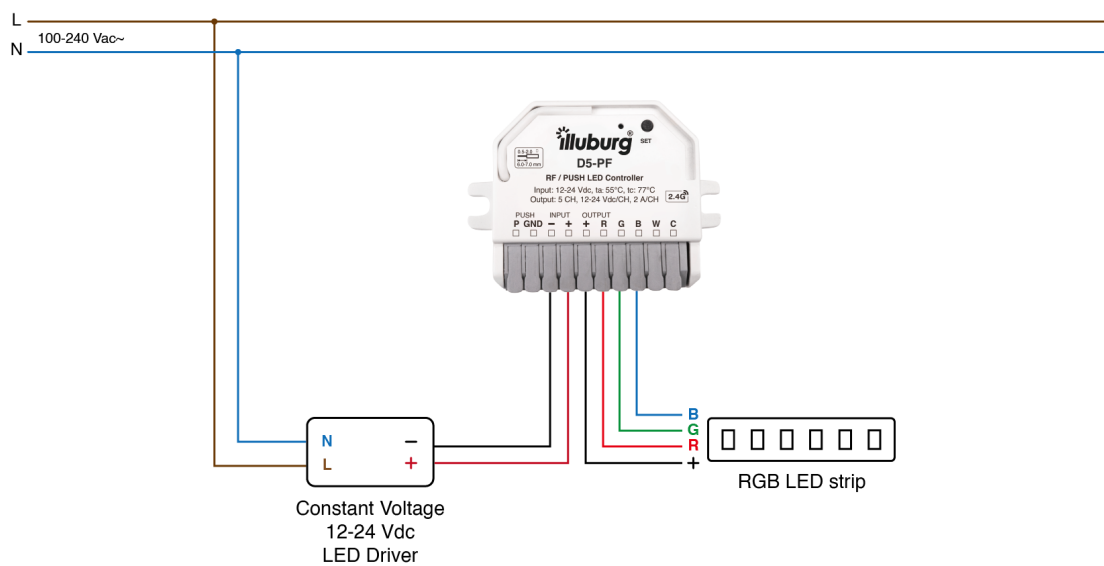


For RGB light

### Wiring Diagram 1: with Push Switch

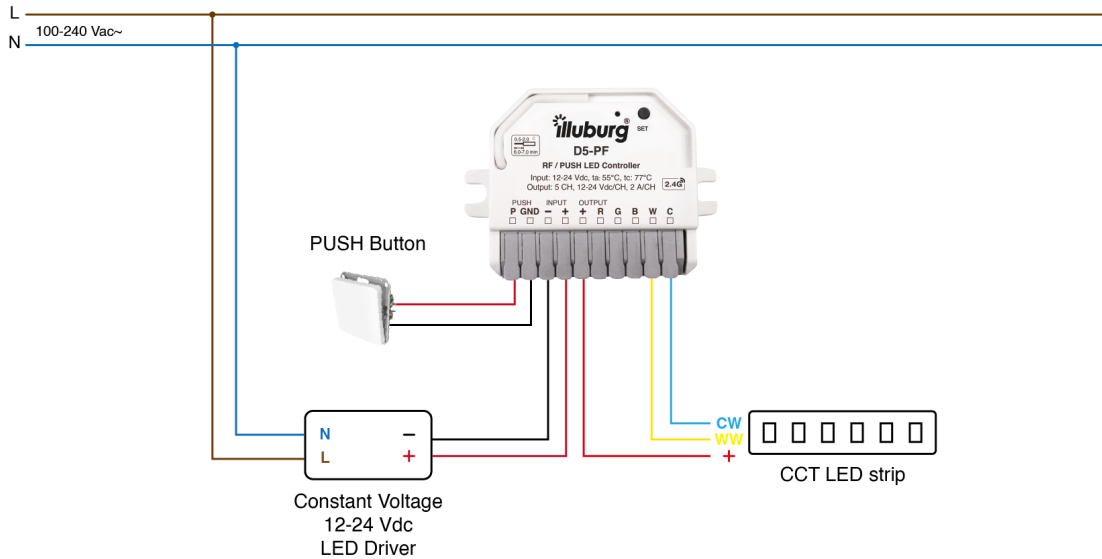


### Wiring Diagram 2: without Push Switch

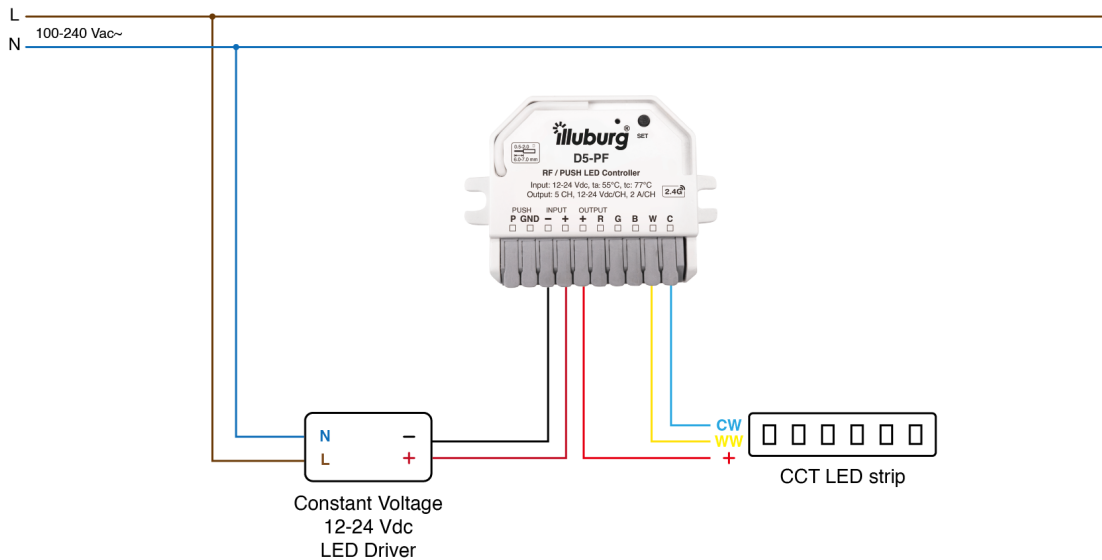


For CCT light

## Wiring Diagram 1: with Push Switch

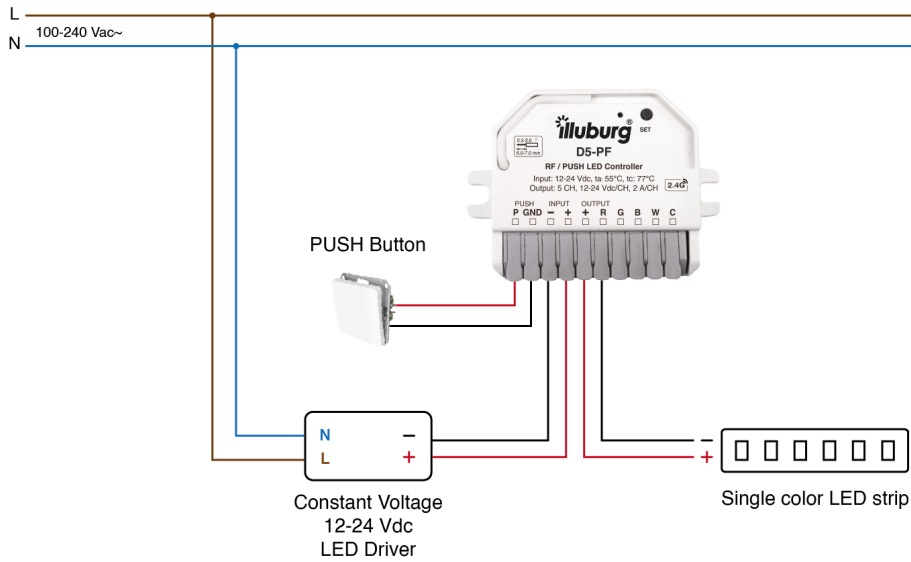


## Wiring Diagram 2: without Push Switch

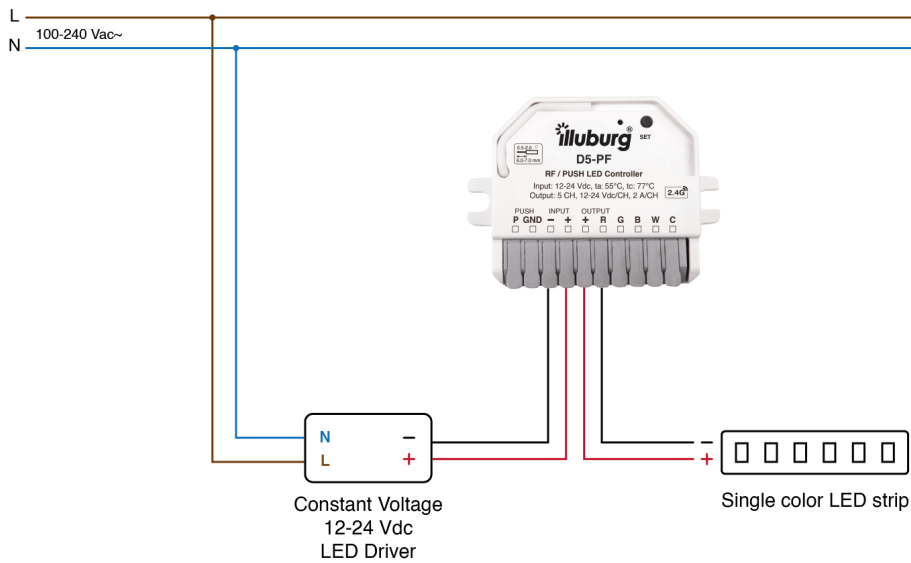


For DIM light

### Wiring Diagram 1: with Push Switch

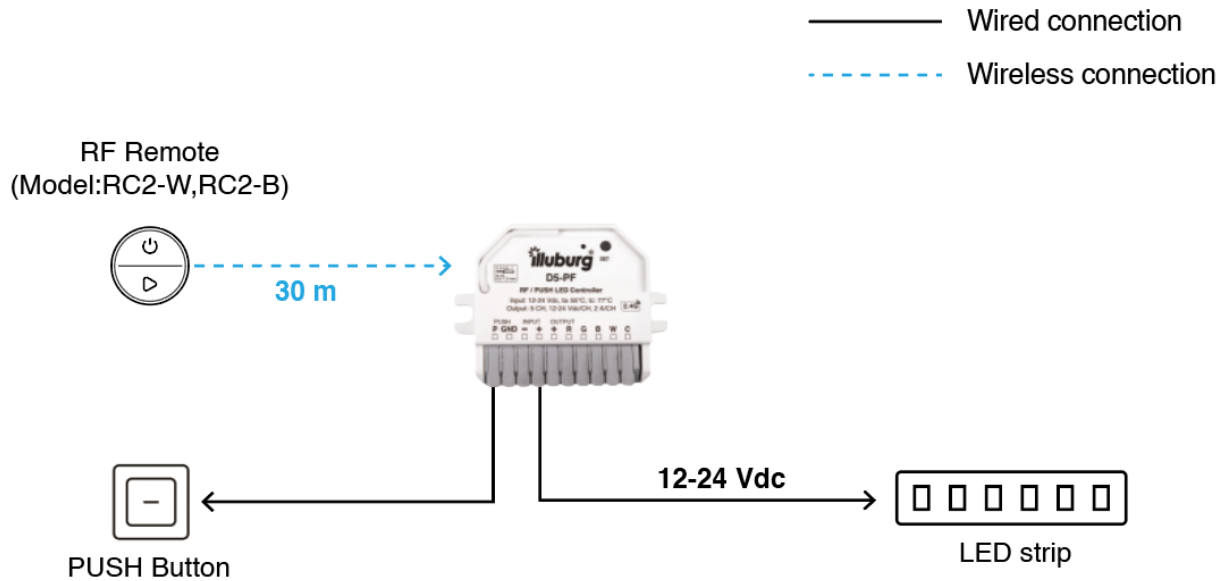


### Wiring Diagram 2: without Push Switch

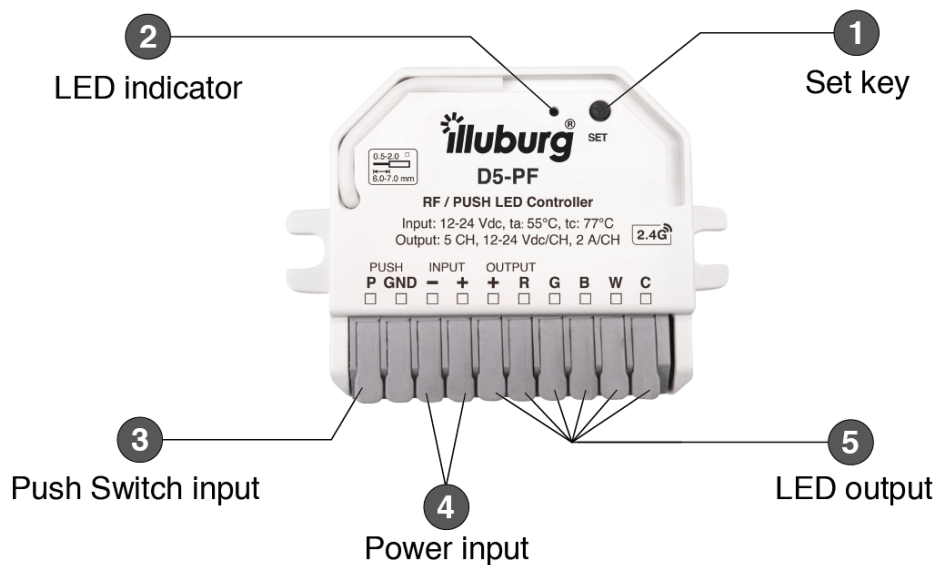


### 3. Operation & Setup

#### 3.1 System Diagram



#### 3.2 Hardware Overview





### 3.3 On/Off Fade Time & Factory Reset



Since adjusting the fade time restores factory settings, it is highly recommended to set it prior to remote pairing.

#### On/Off fade time set to 0.5s (Default)

Long press **1** Set Key for 10s to set fade time to 0.5s, and reset all settings.



1. Fade time: 0.5s
2. Light type: RGB+CCT
3. All RF remotes deleted


#### On/Off fade time set to 3s

Long press **1** Set Key for 15s to set fade time to 3s, and reset all settings.



1. Fade time: 3s
2. Light type: RGB+CCT
3. All RF remotes deleted

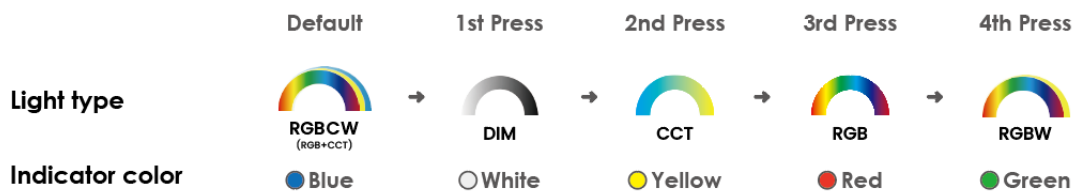
### 3.4 Light Type Setting

 Before RF remote matching, make sure the correct light type is selected. If the wrong light type is selected, RF remote functions, and LED output channels may not match the connected light strip.

Long press **1** Set Key for 2s to switch the light type. Each long press switches to the next type. (Default light type is RGB+CCT)



1. RGB+CCT (Default)
2. DIM
3. CCT
4. RGB
5. RGBW








**Note:**

For RGB+W light type, RGB channel and W channel cannot be turned on at the same time;

For RGB+CCT light type, RGB channel and CCT channel cannot be turned on at the same time.

### 3.5 RF Remote Control

Function	 DIM	 CCT	 RGB	 RGBW	 RGBCW (RGB+CCT)
ON / OFF Control	✓	✓	✓	✓	✓
Brightness Adjustment	✓	✓	✓	✓	✓
Color Temperature Adjustment	–	✓	–	–	✓
RGB Color Adjustment	–	–	✓	✓	✓
Dynamic Mode Control	–	–	10 Modes	10 Modes	10 Modes



Compatible remote models: RC2-B / RC2-W. Remote control is optional and not included.  
For detailed remote operation, please refer to the RC2-B / RC2-W user manual.



RC2-B: [www.illuburg.de/download/datasheet/dimmer/RC2-B\\_DataSheet\\_EN.pdf](http://www.illuburg.de/download/datasheet/dimmer/RC2-B_DataSheet_EN.pdf)

RC2-W: [www.illuburg.de/download/datasheet/dimmer/RC2-W\\_DataSheet\\_EN.pdf](http://www.illuburg.de/download/datasheet/dimmer/RC2-W_DataSheet_EN.pdf)

## Match

Short press **1 Set Key**, and short press the ON/OFF button on your remote control.

**2 LED indicator** will blink fast when matched.



+



(e.g., Model: RC2-W, not included).

## Delete

Long press **1 Set Key** for 5s.  (Do not hold for more than 10s)






**2 LED indicator** will blink fast when deleted.



### 3.6 Push Dimming Control

The controller supports control via an external push switch.

Connect the push switch according to the **wiring diagram (Page 5-9)**.

Function	 DIM	 CCT	 RGB	 RGBW	 RGBCW <small>(RGB+CCT)</small>
ON / OFF Control	✓	✓	✓	✓	✓
Brightness Adjustment	✓	✓	✓	✓	✓
Color Temperature Adjustment	–	✓	–	–	✓
RGB Color Adjustment	–	–	✓	✓	✓



Short press the PUSH switch

**ON / OFF:**

Turns the light on or off.

The light returns to the last brightness level used before it was turned off.

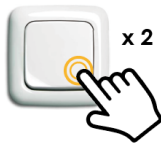


Long press the PUSH switch for 1-6s

**Dim Up / Down:**

Continuously adjusts the brightness.

The dimming direction changes with each long press.



Double click the PUSH switch



**Brightness Switch:**  
Switches between 10% and 100% brightness.



**Color Temperature Switch:**  
Switches between warm, neutral, and cool white.



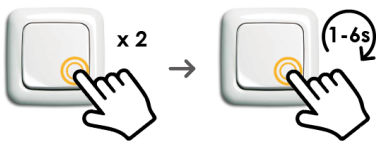
**RGB / 50% saturation Switch:**  
Switches between RGB color and 50% Saturation.



**RGB / White Switch:**  
Switches between RGB color light and white light.



**RGB / CCT Switch:**  
Switches between RGB color light and CCT white light.



Double click the PUSH switch,  
then within 5s long press for 1-6s



**Color Temperature Switch:**  
Continuously adjusts color temperature.



**RGB / Saturation Switch:**  
Continuously adjusts RGB color or Saturation.



**RGB / White Switch:**  
Continuously adjusts RGB color or white brightness.



**RGB / CCT Switch:**  
Continuously adjusts RGB color or color temperature.

## 4. Legal & Support

### 4.1 Important notice

Download the safety instructions at [www.illuburg.de/infocenter](http://www.illuburg.de/infocenter), read them carefully and observe the listed instructions and information for proper use.

### 4.2 Disclaimer of liability

Subject to changes and errors excepted. Make sure you are using the latest version.

### 4.3 Manufacturer Information

If you have any further questions, please contact our technical support.

HuaTec GmbH

Droopweg 31

20537 Hamburg, Germany

Phone: +49 40 236448800

Email: [info@illuburg.de](mailto:info@illuburg.de)

Website: [www.illuburg.de](http://www.illuburg.de)

