

# TD-K(WT)

## WiFi & RF Rotary Panel DALI Master

### Features

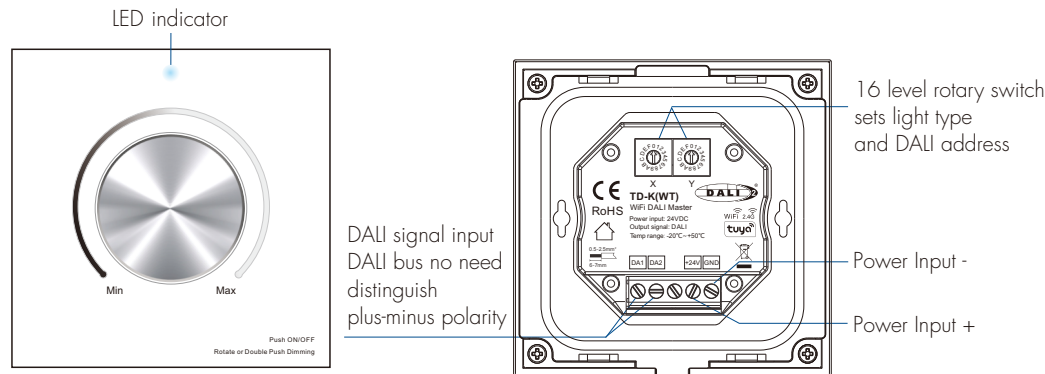
- WiFi & RF Rotary knob panel 1-5 color DALI master, compatible with dimming, color temperature, RGB, RGBW and RGB+CCT lighting controls.
- Tuya smart APP cloud control, support on/off, brightness, color temperature and RGB color adjust, delay turn on/off light, timer run, scene edit and music play function.
- 1 DALI address, support DT6 dimming, DT8-TC color temperature, DT8-RGB, DT8-RGBW and DT8-RGB+CCT.
- DALI-2 certified, in accordance with DALI standard protocol IEC 62386-102, 207,209 and in compliance with DALI products from other international incorporation.
- Powered by 24VDC.
- Match with RF 2.4G remote control optional.
- Rotate the knob to change the brightness, color temperature and RGB color.
- Via encoding switch to set light type and DALI address (supports unicast, group and broadcast).
- Operate with LED indicator light.



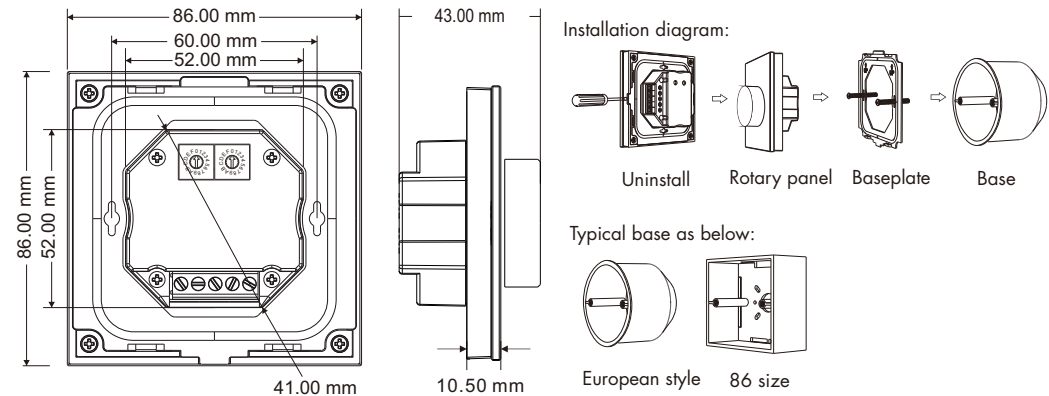
### Technical Parameters

Input and Output		Dimming data		Safety and EMC	
Power supply	24VDC	Input signal	WiFi + Rotary knob + RF 2.4GHz	EMC standard	EN IEC 55015/ EN IEC 61547 ETSI EN 301 489-1/-3/-17
DALI output static current	2mA@24VDC	Control distance	30m(Barrierfree space)	Safety standard	EN 61347-1/-2
Output signal	DALI	Dimming gray scale	255 levels	Radio equipmen	ETSI EN 300 400 ETSI EN 300 328
Environment		Package		Certification	CE RoHS DALI-2
Operation temperature	Ta: -20℃ ~ +55℃	Size	L112x W112x H60mm	Protection	
Case temperature (Max.)	Tc: +65℃	Gross weight	0.220kg	Warranty	5 years
IP rating	IP20				

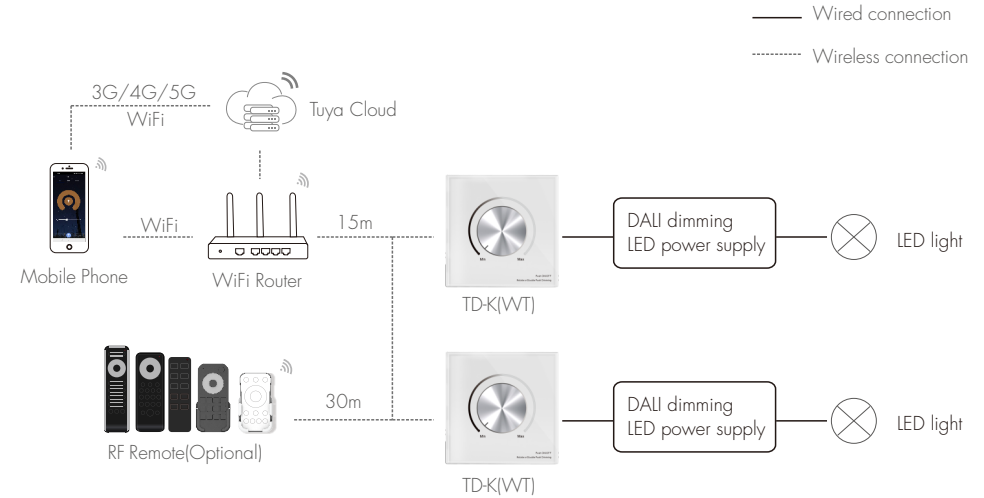
### Mechanical Structures and Installations



DALI



### System Wiring

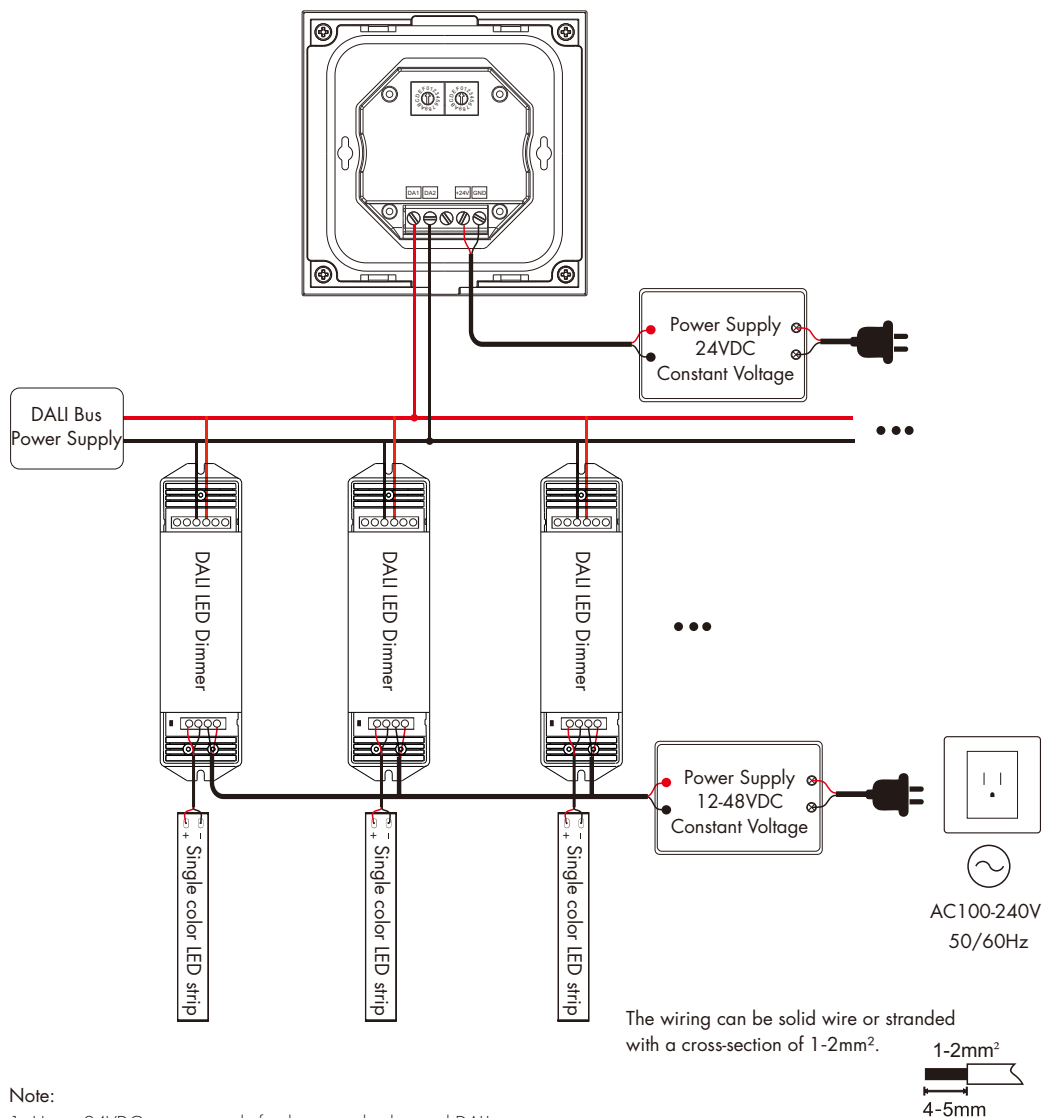


Note:

1. The above distance is measured in spacious(no obstacle) environment, Please refer to the actual test distance before installation.
2. Please check if the WiFi router net in 2.4G band, the 5G band is not available, and do not hide your router network.
3. Please keep the distance between TD-K(WT) devices and router close, and check the WiFi signals.
4. WiFi signal strength detection: open the main interface of the device, click to enter the device interface, and click "Check the device network" to detect.

## Wiring Diagram

Panel connect with multiple DALI LED dimmers (panel powered by 24VDC):



Note:

1. Use a 24VDC power supply for the rotary knob panel DALI master.  
Because the power consumption of the WiFi module is too large, it can not be powered by the DALI bus power supply.
2. The max. cable length of the DALI signal cable must not exceed 300m, or a voltage drop of 2V must not be exceeded.
3. DO NOT install with power applied device.

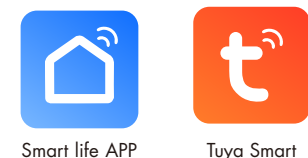
## Tuya Smart APP Network Connection

Please download the corresponding tuya/smart life app according to your region.

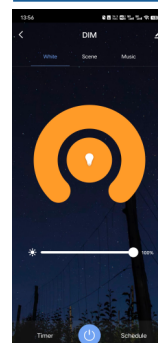
Rotate the rotary switch once to do a change of DALI address action, Clear previous network connection, enter WiFi config mode, the LED indicator light slow blinking during matching and fast blinking 3 times means match is successful.

If Tuya smart APP network connection succeed, in Tuya smart APP, you can find DIM device (or other CCT, RGB, RGBW or RGB+CCT device).

When controlling the light with Tuya Smart/Smart Life APP, if the network connection is poor, you can control the light with Bluetooth connection within the Bluetooth control range.  
Note: The light can not be directly controlled by Bluetooth without WiFi configuration.



## Tuya Smart APP Interface

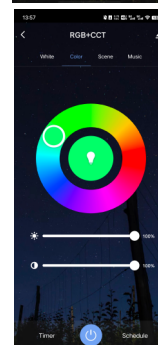


### White interface

For DIM type:  
Touch brightness slide to adjust brightness.

For RGB type:  
Touch brightness slide, get RGB mixed white firstly, then to adjust white brightness.

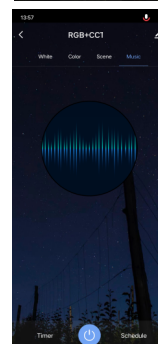
For RGBW type:  
Touch brightness slide, adjust white channel brightness.



### Colour interface

For RGB or RGBW type:  
Touch color wheel to adjust static RGB color.  
Touch brightness slide to adjust color brightness.  
Touch saturation slide to adjust color saturation, namely gradient from the current color to white (RGB mixed).

For RGB+CCT type:  
Touch color wheel to adjust static RGB color, WW/CW will turn off automatically.  
Touch brightness slide to adjust color brightness.  
Touch saturation slide to adjust color saturation, namely gradient from the current color to white (RGB mixed).

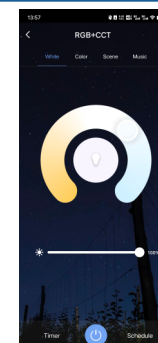


### Music, Timer, Schedule

The music play can use smart phone music player or micro-phone as music signal input.

The Timer key can turn on or turn off light in the next 24 hours.

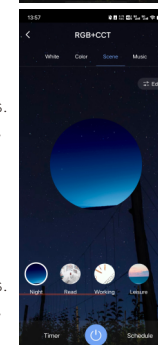
The Schedule key can add multiple timers to turn on or turn off light according to different time periods.



### Color temperature interface

For CCT type:  
Touch color wheel to adjust color temperature.  
Touch brightness slide to adjust brightness.

For RGB+CCT type:  
Touch color wheel to adjust color temperature, RGB will turn off automatically.  
Touch brightness slide to adjust white brightness.



### Scene interface

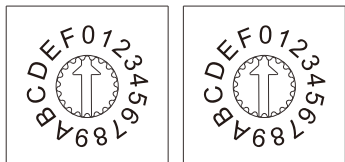
The 1-4 scene is static color for all light type. the inner color of these scene can be editable.

The 5-8 scene is dynamic mode for RGB, RGBW, RGB+CCT type, such as green fade in and fade out, RGB jump, 6 color jump, 6 color smooth.

## DALI Address Setting and Rotary Knob Function

Via encoding switch on the back of the panel to set light type and DALI address (supports unicast, group and broadcast).  
For monochrome dimming types, unicast addresses 00-63, group addresses 0-15 and broadcast addresses are supported.  
Unicast address value =  $X * 10 + Y$ . For example:  $X = 5, Y = 4$ , Address value =  $5 * 10 + 4 = 54$ .  
For color temperature, RGB, RGBW and RGB+CCT lighting types, only unicast addresses 00-15, group addresses 0-14 and broadcast addresses are supported.

### 1. Single color type (X is 0-7):



X

Y

Adjust brightness



#### Address setting:

X is 0-6, Y is 0-9.

Address value 0-63 correspond to DALI unicast address 00-63.

X is 7, Y is 0-F.

Address value 70-7F correspond to DALI group address 0-15.

X is 6, Y is 4-F.

Address value 64 - 6F correspond to broadcast address.

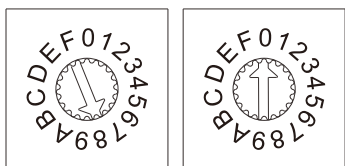
#### Rotary knob operation:

**Short press:** Turn on/off the light.

**Double click:** Switch between minimum or maximum brightness.

**Rotate:** Adjust brightness, clockwise rotation increases brightness, counterclockwise rotation decreases brightness.

### 2. Color temperature type (X is 8-9):

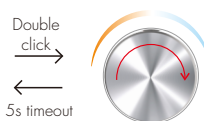


X

Y

Adjust brightness

Adjust color temperature



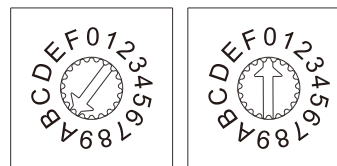
#### Rotary knob operation:

**Short press:** Turn on/off the light.

**Double click:** Switch three levels color temperature (warm white, neutral white, cool white) in sequence.  
At the same time, it enters the state of knob adjusting color temperature.  
After 5s of no operation, it will automatically return to the knob to adjust the brightness.

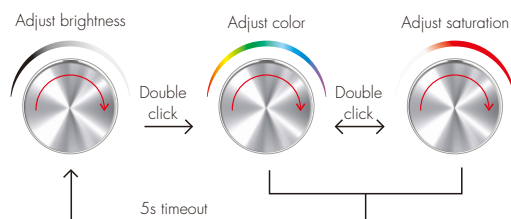
**Rotate:** Default brightness adjustment, clockwise rotation increases brightness, counterclockwise rotation decreases brightness.  
In the state of knob adjusting color temperature, clockwise rotation increases color temperature, counterclockwise rotation decreases color temperature.

### 3. RGB type (X is A-B):



X

Y



#### Address setting:

X is A, Y is 0-F.

Address value A0-AF correspond to DALI unicast address 00-15.

X is B, Y is 0-E.

Address value B0-BE correspond to DALI group address 0-14.

X is B, Y is F.

Address value BF correspond to broadcast address.

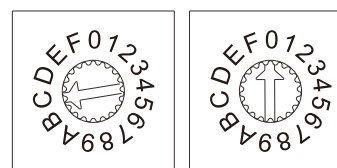
#### Rotary knob operation:

**Short press:** Turn on/off the light.

**Double click:** Switch between color light and mixed white light (current color light + 50% saturation).  
At the same time, enter the knob to adjust the color (red - yellow - green - cyan - blue - purple) or the color saturation status.  
After 5s of no operation, it will automatically return to the knob to adjust the brightness.

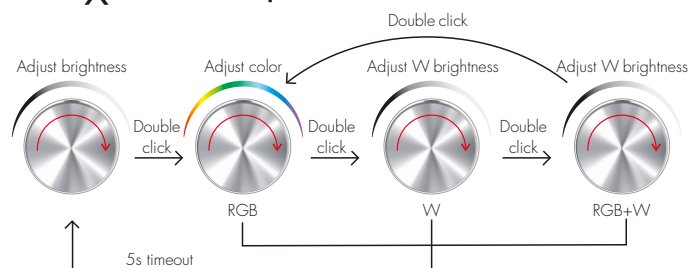
**Rotate:** Default brightness adjustment, clockwise rotation increases brightness, counterclockwise rotation decreases brightness.  
In the knob to adjust the color state, clockwise rotation from red to purple change, counterclockwise rotation from purple to red change.  
In the knob to adjust color saturation state, clockwise rotation increases saturation, counterclockwise rotation decreases saturation (white increases).

### 4. RGBW type (X is C-D):



X

Y



#### Address setting:

X is C, Y is 0-F.

Address value C0-CF correspond to DALI unicast address 00-15.

X is C, Y is 0-E.

Address value C0-CE correspond to DALI group address 0-14.

X is D, Y is F.

Address value DF correspond to broadcast address.

#### Rotary knob operation:

**Short press:** Turn on/off the light.

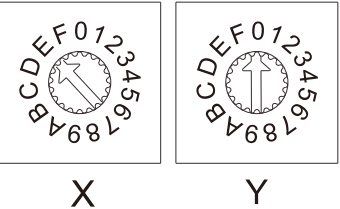
**Double click:** Switch between color light (RGB), white light (W) and RGB+W (RGB and white light all on) in sequence.

At the same time, enter the knob to adjust the color (red - yellow - green - cyan - blue - purple) or the white light brightness status.

After 5s of no operation, it will automatically return to the knob to adjust the brightness.

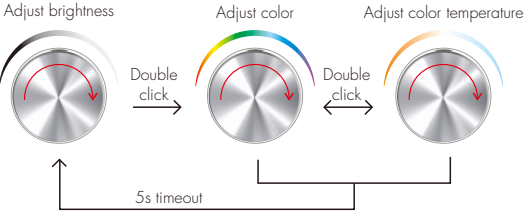
**Rotate:** Default brightness adjustment, clockwise rotation increases brightness, counterclockwise rotation decreases brightness.  
In the knob to adjust the color state (RGB), clockwise rotation from red to purple change, counterclockwise rotation from purple to red change.  
In the knob to adjust white light brightness state (W or RGB+W), clockwise rotation increases white light brightness, counterclockwise rotation decreases white light brightness.

5. RGB+CCT type (Xis E-F):



**Address setting:**  
X is E, Y is O-F.  
Address value E0-EF correspond to DALI unicast address 00-15.  
X is E, Y is O-E.  
Address value E0-EE correspond to DALI group address 0-14.  
X is F, Y is F.  
Address value FF correspond to broadcast address.

**Rotary knob operation:**  
**Short press:** Turn on/off the light.  
**Double click:** Switch between color light and white light.  
At the same time, enter the knob to adjust the color (red - yellow - green - cyan - blue - purple) or the color temperature status.  
After 5s of no operation, it will automatically return to the knob to adjust the brightness.  
**Rotate:** Default brightness adjustment, clockwise rotation increases brightness, counterclockwise rotation decreases brightness.  
In the knob to adjust the color state, clockwise rotation from red to purple change, counterclockwise rotation from purple to red change.  
In the state of knob adjusting color temperature, clockwise rotation increases color temperature, counterclockwise rotation decreases color temperature.



Rotary Knob Panel DALI Master Match RF Remote

Rotary panel DALI master can also match with RF 2.4G remote (Optional).  
End user can choose the suitable match/delete ways. Two options are offered for selection:

**Use Rotary Knob**  
Within 10s of powering up the panel, press the knob 5 times quickly.  
Then press on/off key (single zone remote) or zone key (multiple zone remote) on the remote.  
The LED indicator light slow blinking during matching and fast blinking 3 times means match is successful.  
Automatically exits match state after 10s.

**Use Power Restart**  
**Match:**  
Switch off the power of the panel, then switch on power, repeat again.  
Immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 3 times on the remote.  
The LED indicator fast blinking 3 times means match is successful.

**Delete:**  
Switch off the power of the panel, then switch on power, repeat again.  
Immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 5 times on the remote.  
The LED indicator fast blinking 6 times means all matched remotes were deleted.

Default Dynamic Change Mode (RF remote control call-out)

For RGB/RGBW:

No.	Name	No.	Name
1	RGB jump	6	RGB fade in and out
2	RGB smooth	7	Red fade in and out
3	6 color jump	8	Green fade in and out
4	6 color smooth	9	Blue fade in and out
5	Yellow cyan purple smooth	10	White fade in and out

For RGB+CCT:

No.	Name	No.	Name
1	RGB jump	6	RGB fade in and out
2	RGB smooth	7	Red fade in and out
3	6 color jump	8	Green fade in and out
4	6 color smooth	9	Blue fade in and out
5	Color temperature smooth	10	White fade in and out