TD-K

Rotary Panel DALI Master

- Rotary knob panel 1-5 color DALI master, Compatible with dimming, color temperature, RGB, RGBW and RGB+CCT lighting controls.
- 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 DALI bus or 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.

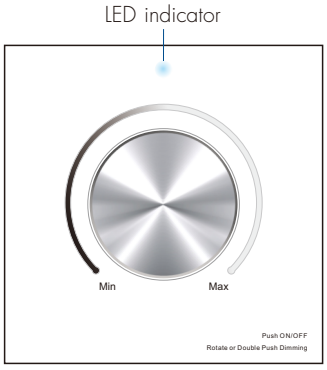
Technical Parameters

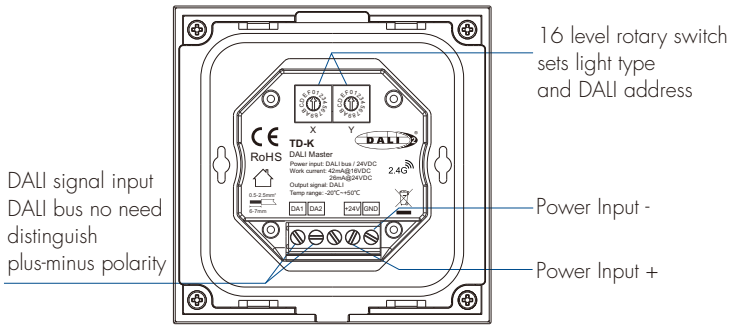
Input and Output	
Power supply	DALI Bus/24VDC
Work current	42mA@16VDC, 26mA@24VDC
Output signal	DALI
Environment	
Operation temperature	Ta: -20℃ ~ +55 ℃
Case temperature (Max.)	Tc: +65℃
IP rating	IP20

Dimming data	
Input signal	Rotary knob + RF 2.4GHz
Control distance	30m(Barrier-free space)
Dimming gray scale	256 levels
Dimming range	0-100%
Package	
Size	W112 x L112 x H60mm
Gross weight	0.21kg

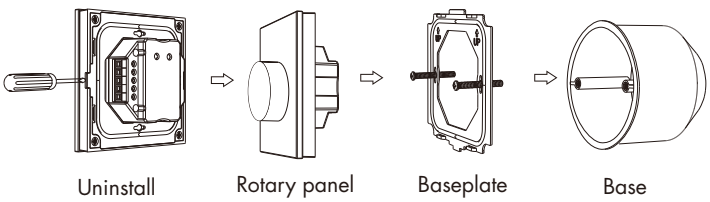
Safety and EMC	
EMC standard	EN IEC 55015/ EN IEC 61547 ETSI EN 301 489-1/-3
Safety standard	EN 60730-1
Radio equipment	ETSI EN 300 440
Certification	CE RoHs DALI 2
Warranty	
Warranty	5 years

Mechanical Structures and Installations

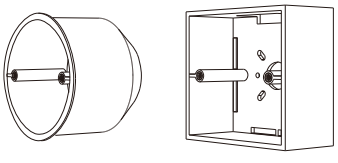


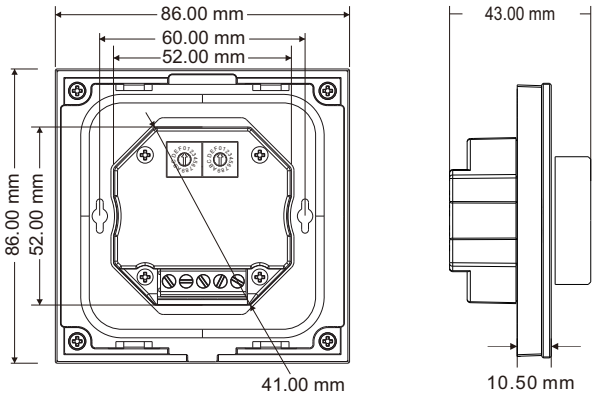


Installation diagram:



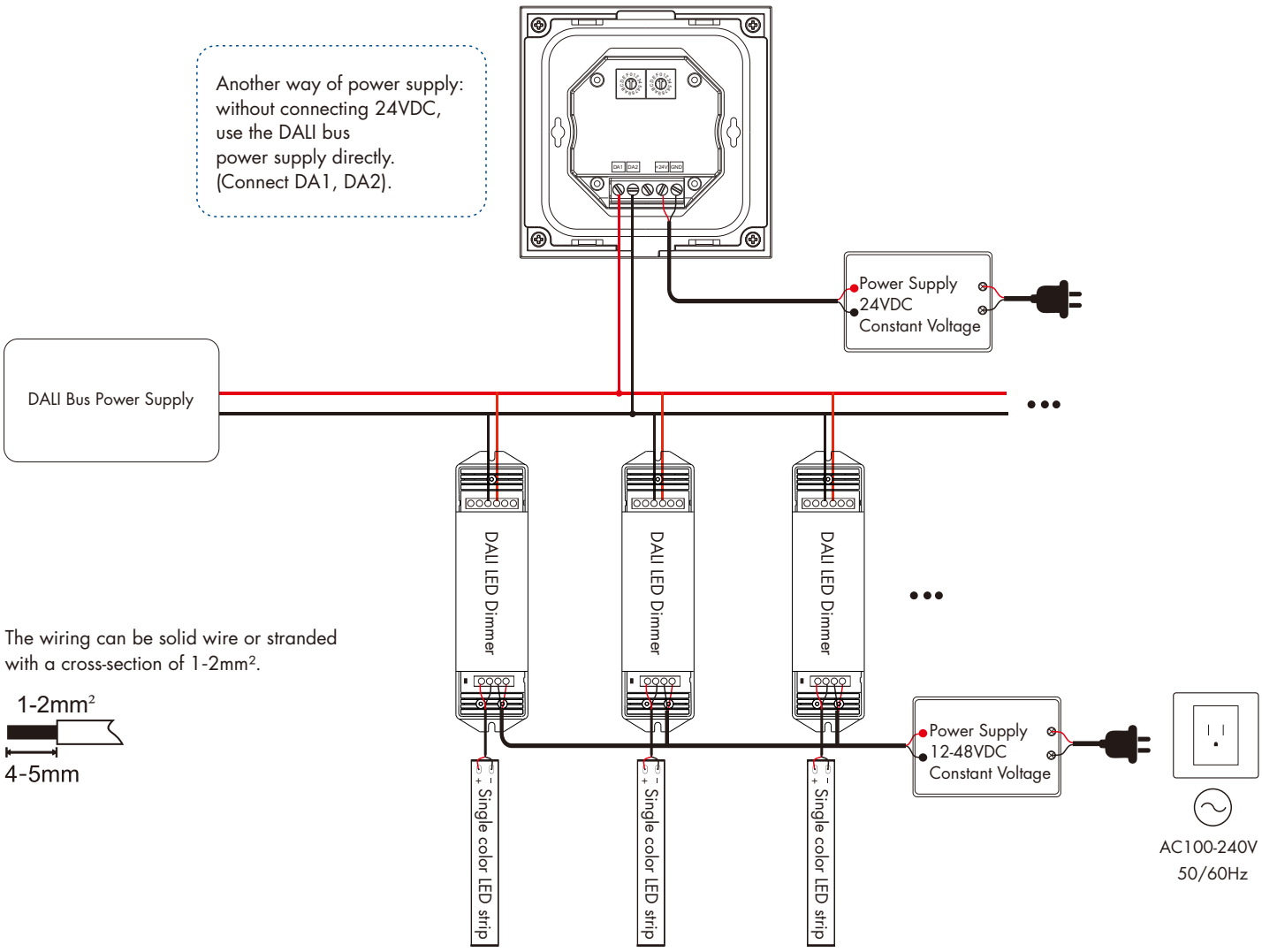
Typical base as below:





Wiring Diagram

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



The wiring can be solid wire or stranded with a cross-section of 1-2mm².

Note:

1. It is recommended to use a 24VDC power supply for the rotary knob panel DALI master to reduce the load on 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.

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

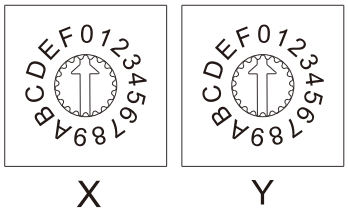
Match:
Switch off the power of the panel, then switch on power, repeat again.
Immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 3 times on the remote.
The LED indicator fast blinking 3 times means match is successful.

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.

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 x 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.

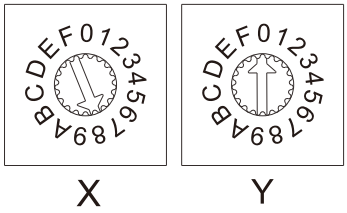
1. Single color type (X is 0-7):



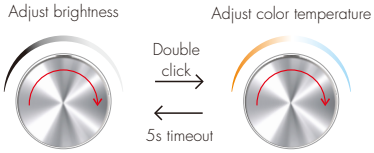
Address setting:
X is 0-6, Y is 0-9.
Address value 0-63 correspond to DALI unicast address 00-63.
X is 7, Y is 0-F.
Address value 70-7F correspond to DALI group address 0-15.
X is 6, Y is 4-F.
Address value 64 - 6F correspond to broadcast address.

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):

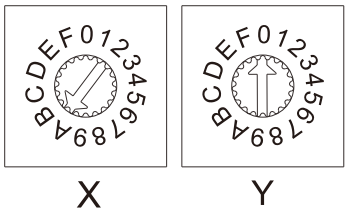


Address setting:
X is 8, Y is 0-F.
Address value 80-8F correspond to DALI unicast address 00-15.
X is 9, Y is 0-E.
Address value 90-9E correspond to DALI group address 0-14.
X is 9, Y is F.
Address value 9F correspond to broadcast address.

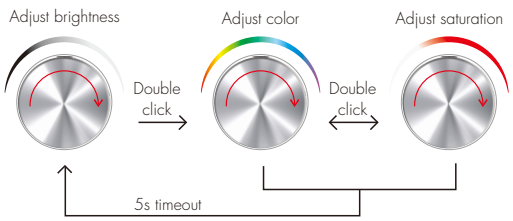


Rotary knob operation:
Short press: Turn on/off the light.
Double click: Switch three levels color temperature (warm white, neutral white, cool white) in sequence.
At the same time, it enters the state of knob adjusting color temperature.
After 5s of no operation, it will automatically return to the 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):

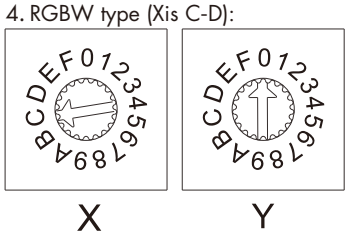


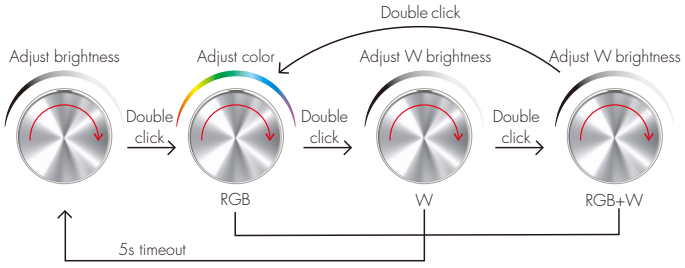
Address setting:
X is A, Y is 0-F.
Address value A0-AF correspond to DALI unicast address 00-15.
X is B, Y is 0-E.
Address value B0-BE correspond to DALI group address 0-14.
X is B, Y is F.
Address value BF correspond to broadcast address.



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 (Xis C-D):

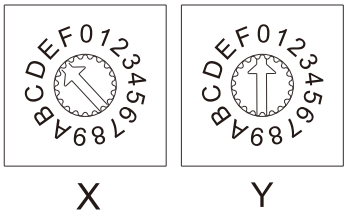


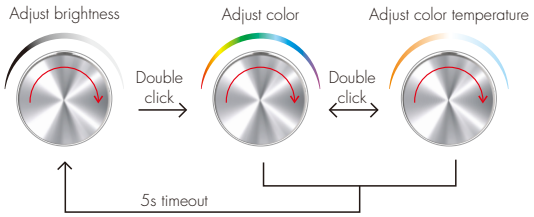


Address setting:
X is C, Y is 0-F.
Address value C0-CF correspond to DALI unicast address 00-15.
X is C, Y is 0-E.
Address value C0-CE correspond to DALI group address 0-14.
X is D, Y is F.
Address value DF correspond to broadcast address.

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 0-F.
Address value E0-EF correspond to DALI unicast address 00-15.
X is E, Y is 0-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.

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