LDT-PNL-DALI-1Z-RGB-SH

Single-Zone DALI RGB Touch Panel with Bus Supply

A 1-zone RGB DALI master wall panel with a built-in 16 V bus supply and scene memory. Its output controls compatible DALI gear; it does not power the LEDs.

Supply voltage	100-240 VAC
Output type	DALI control signal with integrated bus supply
DALI bus output	16 VDC, up to 100 mA
Lighting type	RGB
Zones	1
DALI profile	DT8-RGB
Addressing	Unicast, group or broadcast; rotary-switch settings
Scene memory	4 scenes
Control inputs	Local touch keys/slider + compatible proprietary 2.4 GHz RF
Dimming	0-100%; 256 levels
Published RF distance	10 m, unobstructed
DALI cable limit	Up to 300 m, or no more than 2 V bus-voltage drop
Operating temperature	-20 to +55 °C
Maximum case temperature	+80 °C
IP rating	IP20
Body dimensions	86 x 86 x 34.5 mm

DIM, DUO, RGB, RGBW and RGB+DUO panels are separate models, not selectable front-face modes of one panel. The common guide shows all five. Verify order-specific DALI gear/profile compatibility.

The following reference pages include the complete wiring, dimensions, settings and operating instructions. Use the lighting and hardware variant identified above; shared references may illustrate other separate models.

DIM, DUO, RGB, RGBW, RGB+DUO

DALI

DT6/DT8 DALI Touch Panel

The 1-5 color DALI master touch panel series is used to control DALI DT6/DT8 devices and can be widely applied in schools, retail, hospitals and offices.



DIM	DUO	RGB	RGBW	RGB+DUO
Single color	Dual color	RGB	RGBW	RGB+DUO

CE RoHS

Features

- 1 zone control, 1 DALI address, support DT6 dimming, DT8-TC color temperature, DT8-RGB or DT8-RGBW.
- Can be used as a power supply for DALI bus.
- Conforms to DALI standard protocol IEC 62386, compatible with other brands of DALI products.
- Enable to set DALI address by encoding switch, support unicast, group and broadcast mode, also support slave DALI address assignment.
- Match with RF 2.4G single zone or multiple zone remote control optional.
- Ultra sensitive high strength glass touch panel with touch color slide.
- Smooth and accurate color adjustment by touching the color slide.
- 4 scenes memory.
- When touch the key, the LED indicator will flash.
- White & Black glass panel available.

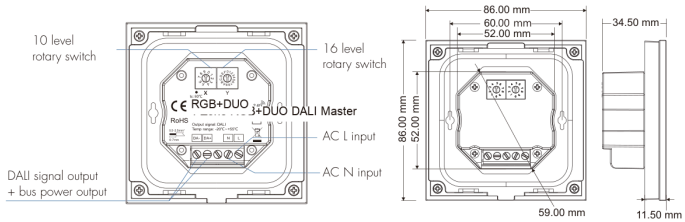
Technical Parameters

Input and Output	
Input voltage	100-240VAC
Output voltage	16VDC
Output current	100mA
Output signal	DALI
Environment	
Operation temperature	Ta: -20°C ~ +55°C
Case temperature (Max.)	Tc: +80°C
IP rating	IP20

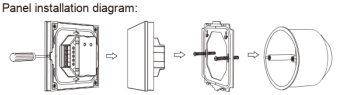
Dimming data	
Input signal	Touch key + RF 2.4GHz
RF Control distance	10m(Barrier-free space)
Dimming level	256 levels
Dimming range	0 -100%
Package	
Size	L112 x W112 x H50mm
Gross weight	0.230kg

Safety and EMC	
EMC standard	EN IEC 55015/ EN IEC 61547 ETSI EN 301 489-1/-3
Safety standard	EN 61347-1/-2
Certification	CE RoHs
Warranty	
Warranty	5 years

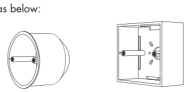
Mechanical Structures



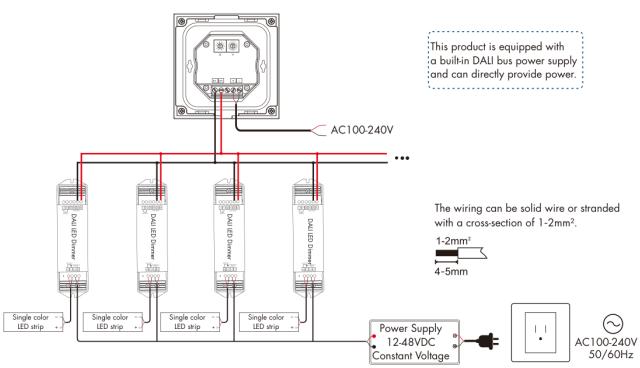
Panel installation diagram:



Typical base as below:



Wiring Diagram



Note:

1. The max. cable length of the DALI control cable must not exceed 300m, or a voltage drop of 2V must not be exceeded.
2. Before powering on, please ensure that all wires are connected correctly and securely; otherwise, the panel may be damaged.
3. DO NOT install with power applied device.

Key Function

- TD1-SH Single color panel



Turn on/off light.
Increase brightness, 10 level.
Decrease brightness, 10 level.
Brightness slide.
Short press recall the scene,
long press 5s save current brightness into scene 1/2/3/4.

- TD2-SH Dual color panel



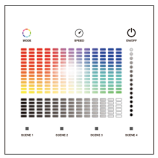
Turn on/off light.
Increase color temperature,10 levels.
Decrease color temperature,10 levels.
Color temperature slide.
Brightness slide.
Short press recall the scene,
long press 5s save current color into scene 1/2/3/4.

- RGB panel



Turn on/off light.
Short press play 10 built-in dynamic mode, long press 2s run mode-cycle.
Adjust dynamic mode speed, 10 levels.
Color slide.
Brightness slide.
Short press recall the scene,
long press 5s save current color into scene 1/2/3/4.

- TD4-SH RGBW panel



Turn on/off light.
Short press play 10 built-in dynamic mode, long press 2s run mode-cycle.
Adjust dynamic mode speed, 10 levels.
Color slide.
W channel brightness slide.
Brightness slide.
Short press recall the scene,
long press 5s save current color into scene 1/2/3/4.

- TD5-SH RGB+DUO panel



Turn on/off light.
Short press play 10 built-in dynamic mode, long press 2s run mode-cycle.
Adjust dynamic mode speed, 10 levels.
Color slide.
Color temperature slide.
Brightness slide.
Short press recall the scene,
long press 5s save current color into scene 1/2/3/4.

Scene locking:

- Scene keys can be set to locked state, cancel long press for 5 seconds to save the scene function (default scene is not locked).
- Short press the panel on/off key, turn on the light first, then turn off the light, immediately long press the panel on/off key for 5 seconds, then immediately long press any one scene key for 5 seconds to set all scene keys to locked state.
- Short press the panel on/off key, turn on the light first, then turn off the light, immediately long press the panel on/off key for 5 seconds, then immediately long press any one scene key for 10 seconds to restore all scene keys to unlocked state.

Dynamic Mode List (Mode key to call up)

RGB/RGBW dynamic mode list (only 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

RGB+DUO dynamic mode list (only for RGB+DUO):

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

Touch Panel DALI Master Match RF Remote

Touch 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 On/Off key

Match:
Turn on light, turn off,
immediately press the On/Off key of the panel for 5s,
then press any On/Off key of the RF remote within 5s.
The LED indicator fast flash 3 times means match is successful.

Delete:
Turn on light, turn off,
immediately press the On/Off key
of the panel for 10s to delete all match,
The LED indicator fast flash 6 times means all matched remotes were deleted.

Use Power Restart

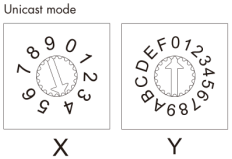
Match:
Switch off the power of the panel, then switch on power, repeat again.
Immediately short press On/Off key 3 times on the remote.
The LED indicator fast flash 3 times means match is successful.

Delete:
Switch off the power of the panel, then switch on power, repeat again.
Immediately short press On/Off key 5 times on the remote.
The LED indicator fast flash 6 times means all matched remotes were deleted.

DALI Address Setting

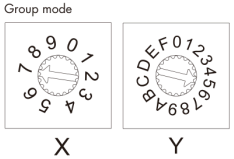
The host DALI address is set via two coding switches on the back of the panel, supporting unicast, group and broadcast modes.
Address value = X * 10 + Y. For example: X = 5, Y = 4, Address value = 5 x 10 + 4 = 54.

Unicast mode



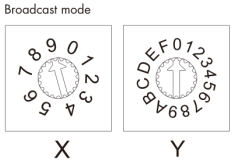
X is 0-6, Y is 0-9.
Address value 0-63 correspond to DALI unicast address 00-63.
For example:
Address value = 40, the unicast address value is 40.

Group mode



X is 7, Y is 0-F.
Address value 70-7F correspond to DALI group address 0-15.
For example:
Address value = 75, the group address value is 5.

Broadcast mode



X is 9, Y is 0-F.
Address value 90 - 9F correspond to broadcast address.

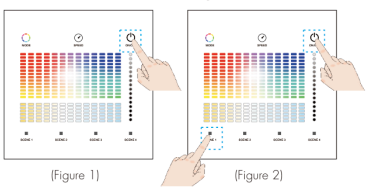
Slave DALI Address Assignment

- Enable or disable slave DALI address settings

The factory-default slave DALI address setting function has been enabled.
Click the key to turn off the light, then long press and key for 5s to turn off the slave DALI address setting function,
the LED indicator will flash 3 times.
Click the key to turn off the light, then long press and key for 10s to turn on the slave DALI address setting function,
the LED indicator will flash 6 times.

- The slave's DALI address or group address assignment

When the host DALI address is set to unicast or multicast mode,
you can set the slave's DALI address by setting all DALI subdevices on the bus
to the same DALI address by doing the following.
Note that DALI addresses cannot be assigned in broadcast mode.

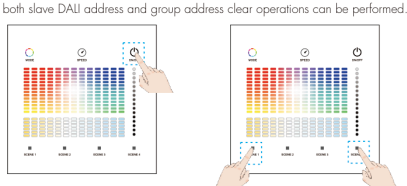


(Figure 1) (Figure 2)

Step 1: Verify that the encoding switches are set correctly, for example:
Under unicast mode, set the DALI address 01(X=0,Y=1),
Under multicast mode, set the DALI group address 5(X=7,Y=5).
Step 2: Click the key to turn off the light (shown in Figure 1).
Step 3: Connect only the DALI subdevices ready to be set to this DALI address or group address
on the DALI bus and disconnect the other subdevices.
Simultaneously press and hold the and key for 5s (shown in Figure 2), the indicator lights flash rapidly.
When the indicator lights flash slowly 3 times indicates that the DALI address or group address has been successfully assigned.

- Clear the slave's DALI address and group address

When the host DALI address is set to unicast, group, or broadcast mode,
both slave DALI address and group address clear operations can be performed.



(Figure 3) (Figure 4)

Step 1: Click the key to turn off the light (shown in Figure 3).
Step 2: Simultaneously press and hold the and key for 5s (shown in Figure 4), the indicator lights flash rapidly.
When the indicator lights flash slowly 3 times indicates that the DALI address and group address of all DALI sub-devices on the bus have been cleared.