

DT8 RGBW DALI MCU

70030130



Important: Read All Instructions Prior to Installation

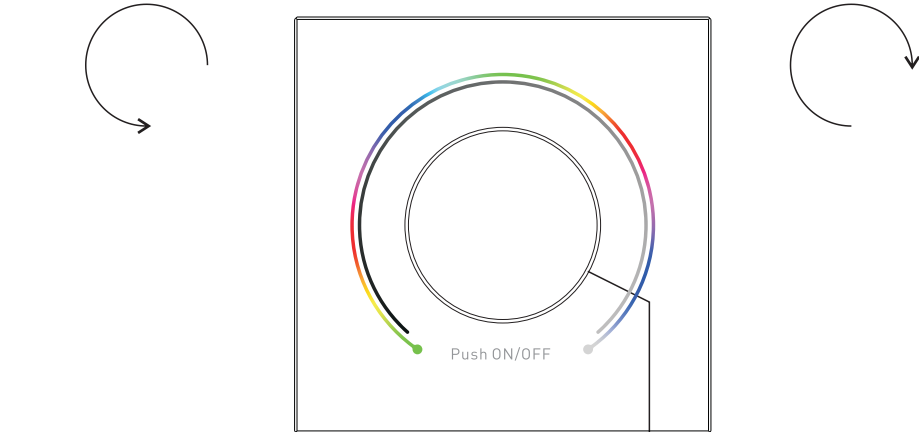
Function introduction

Rotate the knob counterclockwise:

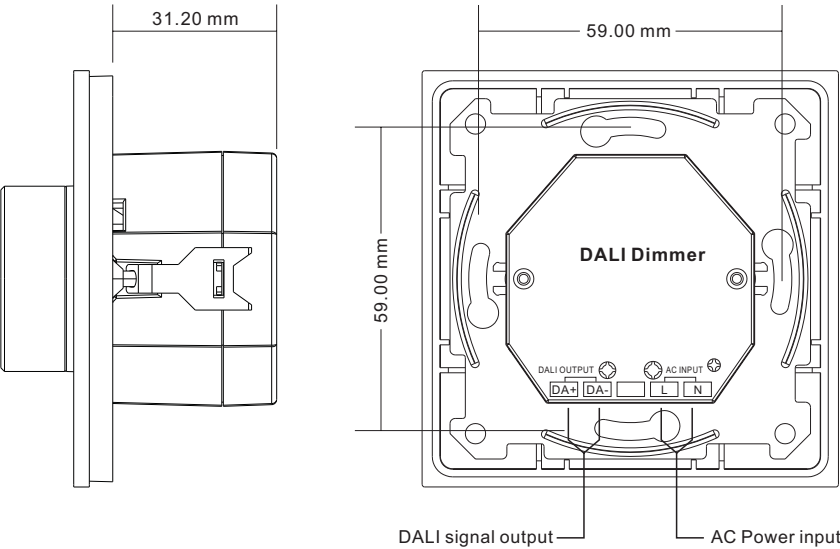
1. Decrease overall brightness from 100% to 1%(brightness mode).
2. Change RGBW color(color control mode)

Rotate the knob clockwise:

1. Increase overall brightness from 1% to 100%(brightness mode).
2. Change RGBW color(color control mode)



Click the knob to switch ON/OFF. Double click the knob to switch between RGB color mode and brightness mode.



Back side

RGBW Control

1. RGBW Color Control

- 1.1 Power on the MCU and connected control gears, the default color status is 100% Red + 100% White.
- 1.2 The default control mode is brightness mode, double click the knob to switch to color control mode.
- 1.3 Rotate the knob clockwise slowly for around 5/6 circle (approx. 300 degrees) to adjust RGB colors and finally turn off them, during the whole process, the colors will change as follows:
R will fade down to 0% and G will fade up to 100% simultaneously, then G will fade down to 0% and B will fade up to 100% simultaneously, then B will fade down to 0% and R will fade up to 100% simultaneously, then R will fade down to 0%. Finally RGB channels are all turned off and W channel remains 100%.
- 1.4 If you would like to turn on RGB channels again, just continue to rotate the knob, colors will change as above described again.

2. Brightness Control

- 2.1 After turn off RGB channels and only W channel is on, double click the knob to switch to brightness mode.
- 2.2 Rotate the knob clockwise or counterclockwise to adjust brightness of W channel.

Product Data

Designation	DALI MCU
DALI connection	DA+/DA-, max. 300m cable length, DALI power supply output current max 100mA.
Perm. Cable cross-section	0.5- 1.5 mm ²
Rated supply voltage	100 - 240 VAC
Mains frequency	50/60 Hz
Typ. current	27mA (@ 230 V/50 Hz/full load)
Max. input power	3.70W
Typ. power input on stand-by	1.23W
Typ. input current in no-load operation	7mA
Mains surge capability	1KV (Between L-N)
THD	10% (@ 230 V/50 Hz/full load)
Time to light	242mS (@ 230 V/50 Hz/full load)
Turn off time	205mS (@ 230 V/50 Hz/full load)
Output voltage tolerance	9-21VDC
No. of dimming channels	1
Max. DALI devices per dimmer	50
Dimming range	1%-100 %
DALI-mode	DT8
DALI current draw	5 mA
Ambient temperature (Ta)	0 °C to +50 °C
Max. casing temperature (Tc)	75 °C
Humidity	10% – 95 % RH non-condensing
Storage temperature	-40 °C to +85 °C
Type of protection	IP 20
Protection class	II
Weight	110g
Dimensions	80x80x53mm

- DT8 RGBW DALI MCU
- Built-in 100mA DALI power supply to power up to max. 50 DALI ECGs.
- Powered by DALI bus while not connected to AC mains.
- Max. 100 DALI ECGs on a DALI line can be controlled by 4 MCUs via broadcast (2 by AC mains, 2 by DALI bus).
- Supports DALI DT8 RGBW devices with color type RGBWAF
- RGB channels can be turned off and W channel can be controlled separately from RGB channels
- Enables to set and delete a minimum dimming level

Safety & Warnings

- DO NOT install with power applied to device.
- DO NOT expose the device to moisture.

Operation

This device is a DALI MCU with built-in DALI bus power supply which can power DALI bus while connected with 100-240VAC mains. It also can be powered by DALI bus while not connected with AC mains.

There can be up to only 2 MCUs connected to AC mains, the other MCUs powered by DALI bus

Each control circuit simultaneously affords the integration of as many as 100 DALI ECG and of up to 4 DALI MCU control devices (control points).

Switch color control mode and brightness mode

Double click the knob to switch between color control mode and brightness mode.

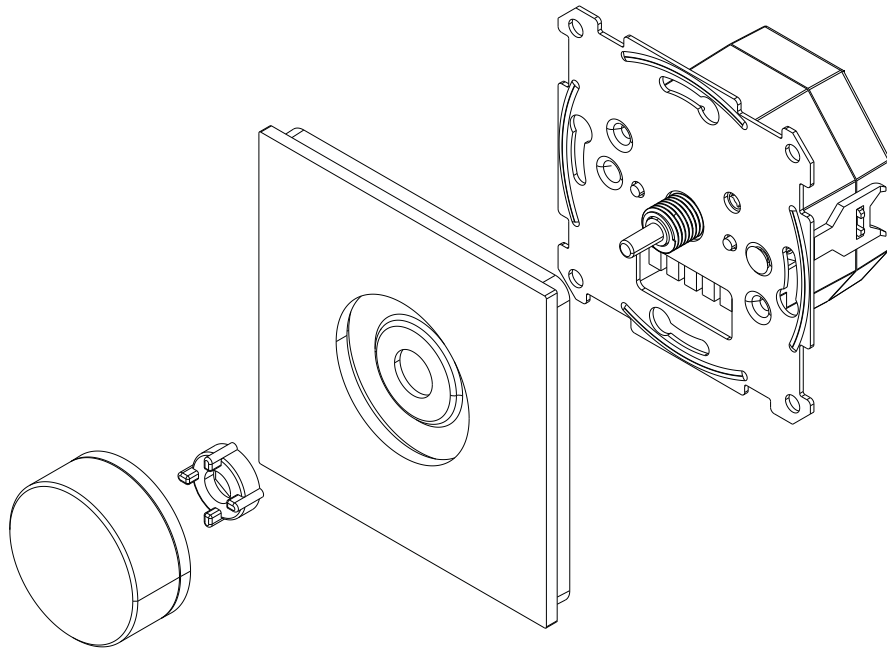
Set the minimum brightness value

Press and hold down the knob over 5 seconds until the light flashes, to set the current brightness value as the minimum brightness value for dimming, it is dimmable from this minimum brightness value to 100%.

Delete the minimum brightness value setting

Click the knob to switch off the light first, then press and hold down the knob over 5 seconds until the light flashes, the minimum brightness value will be deleted. It is dimmable from 1% to 100% then.

Installation



Wiring diagram

Figure 1: Wiring scheme to control up to 50 DALI ECGs

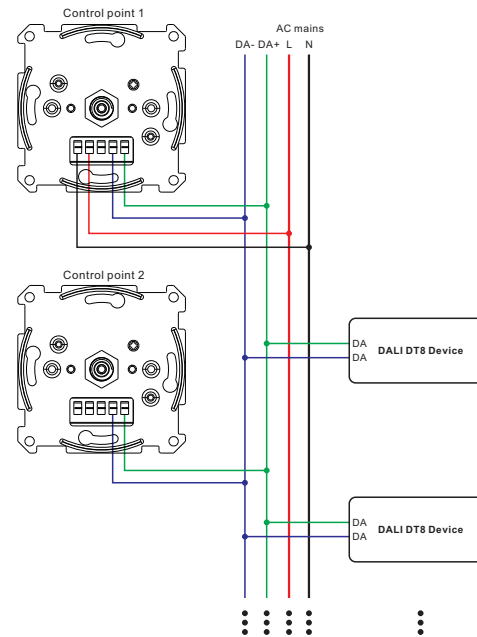
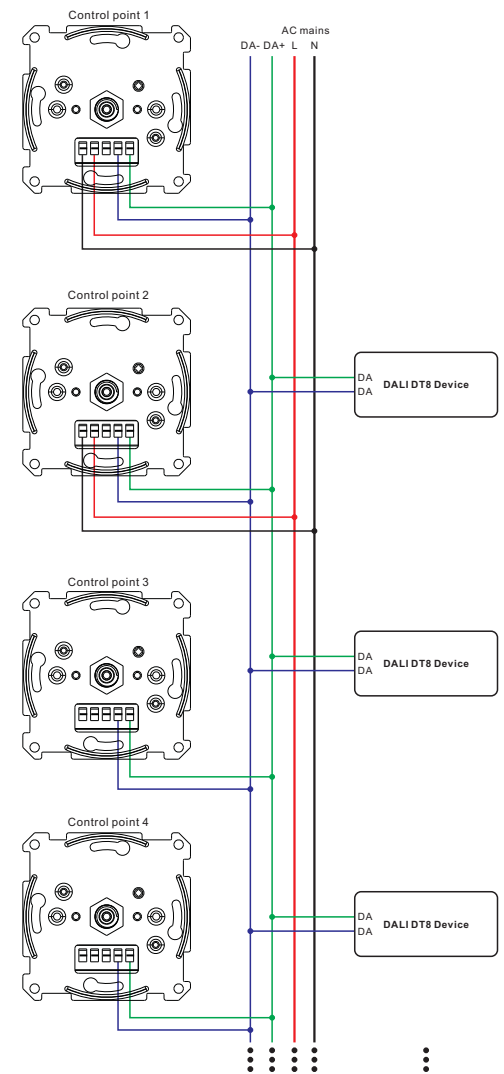


Figure 2: Wiring scheme with 2 MCUs powered by AC mains to control up to 100 DALI ECGs



1. To control up to 100 ECGs with the setup(Figure 2), there are 2 MCUs connected to AC mains.
2. To connect up to 50 ECGs with the setup(Figure 1), there is only 1 MCU connected to AC mains, the other MCUs powered by DALI bus.
3. There can be max 2 MCUs connected to the AC mains in the same control circuit.
4. It's suggested to have max 4 MCUs totally in the same control circuit.