75W DALI DT8 LED Driver(Constant Voltage)

[UL] [symbols] CE [RoHS COMPLIANT] [FC] [DALI] SELV [symbols]

Important: Read All Instructions Prior to Installation

Function introduction

AC 100-277V power input

Digital display

75W DALI Dimmable Driver

Common Anode Output(+)
CH 1:R/WW output(-)
CH 2:G/CW output(-)
CH 3:B/WW output(-)
CH 4:W/CW output(-)

DALI/Push signal input

Output	LED Channel	4	
	DC Voltage	12V DC	24V DC
	Max. Current	Max. 6.25A/ch, ch1+ch2+ch3+ch4=6.25A	Max. 3.12A/ch, ch1+ch2+ch3+ch4=3.12A
	Voltage Tolerance	±1%	
	Rated Power	max. 75W	
Input	Voltage Range	100-277V AC	
	Frequency Range	50/60Hz	
	Power Factor (Typ.)	> 0.95	
	Total Harmonic Distortion	THD ≤ 15% (@ full load / 230VAC)	
	Efficiency (Typ.)	86% @ 230VAC full load	
	AC Current (Typ.)	0.9A @ 100VAC, 0.39A @ 230VAC	
	Inrush Current (Typ.)	COLD START Max. 2A at 230VAC	
	Leakage Current	< 0.5mA /230VAC	
	Standby Power Consumption	< 1W	
Control	Dimming Interface	DALI DT8 (DALI consumption<2mA)/Push	
	Dimming Range	0.1%-100%	
	Dimming Method	Pulse Width Modulation	

Protection	Over Current	Yes, recovers automatically after fault condition is removed
	Over Temperature	Yes, recovers automatically after fault condition is removed
Environment	Working Temp.	-20℃ ~ +45℃
	Max. Case Temp.	85℃ (Ta = "45℃")
	Working Humidity	10% ~ 95% RH non-condensing
	Storage Temp. & Humidity	-40℃ ~ +80℃, 10% ~ 95% RH
Safety & EMC	Safety Standards	EN61347-1, EN61347-2-13
	Withstand Voltage	I/P-O/P: 3.75KVAC
	Isolation Resistance	I/P-O/P: 100M Ohms / 500VDC / 25℃ / 70% RH
	EMC Emission	EN55015, EN61000-3-2, EN61000-3-3
	EMC Immunity	EN61547, EN61000-4-2,3,4,5,6,8,11, surge immunity Line-Line 1KV
Others	MTBF	189700H, MIL-HDBK-217F @ 230VAC full load and 25℃ ambient temperature
	Dimension	244x64x32mm (L*W*H)

• 6 in 1 dimmable LED driver, max. output power 75W total
• 6 universal device types in 1: Tc, T.c, X.6, XY, r9, t6 can be set by the buttons
• In compliance with IEC 62386-101:2014, IEC 62386-102:2014, IEC 62386-207 Ed2, IEC 62386-209:2011
• Built-in DALI-2 interface, DALI DT8 device
• 4 channels DC 12/24V constant voltage output
• Class Ⅱ power supply, full isolated plastic case
• Power factor > 0.95, efficiency > 86%
• Color control as defined in the DALI specification device type 8
• Any of the three color types RGBW, XY Coordinate, Tc can be preset by factory setting
• Supports DT8 device commands, compatible with DALI masters that support DT8 commands
• Configuration via DALI master USB interface
• Control of four PWM outputs via a single DALI address
• Compliant with Safety Extra Low Voltage standard
• Over load, over temperature protection
• IP20 rating, suitable for indoor LED lighting applications
• 5 years warranty

Safety & Warnings

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

Installation

Fixing Screw Holes

Fixing Screw Holes

Note: when mounting the driver, please choose any one of the three fixing screw holes to fix with a screw at each end.

Operation

1. Select a DALI Device Type

1.1. Press and hold down both buttons until digital display flashes, then release the button.

1.2. Keep clicking the 2nd button, you will get the 8 device types one by one as follows, 6 of them are valid modes, please ignore the other 2 modes which are invalid here:

$7c$, means 2 Tc color type devices integrated in one control gear, which can control 2 groups of tunable white LED separately using 2 DALI addresses under this mode.

Hc **(invalid mode since this mode requires 5 PWM channels)** , means XY & Tc color type devices integrated in one control gear, which can control RGB & CCT LED separately using 2 DALI addresses under this mode.

$r.c$ **(invalid mode since this mode requires 5 PWM channels)** , means RGBWAF & Tc color type devices integrated in one control gear, which can control RGB & CCT LED separately using 2 DALI addresses under this mode.

$H6$, means XY & DT6 type devices integrated in one control gear, which can control RGB & W LED separately using 2 DALI addresses under this mode.

$H4$, means XY coordinate color type, which can control RGB LED using 1 DALI address under this mode.

$7c$, means Tc color type, which can control tunable white LED using 1 DALI address under this mode.

$r9$, means RGBWAF color type, the device can control RGBW LED using 1 DALI address under this mode.

76 , means DT6 device type, which can control single color LED using 1 DALI address under this mode.

1.3. Select a device type you would like and then press and hold down both buttons until digital display stops flashing to confirm the selection.

2. Setting DALI address

2.1. Press and hold down the first button on the left until digital display flashes, then release the button.

2.2. Click any of the two buttons once to select a digit, click again to change the digit until the desired DALI address appears. Click first button to set "tens" position and second button to set "units" position. The address can be set from 00~63.

2.3. Then press and hold down any of the 2 buttons until the numeric digital display stops flashing to confirm the setting.

Note: DALI address can be manually assigned from 00-63-FF, by factory defaults, no DALI address is assigned for the dimmer, and the display shows FF. Setting DALI address as FF will reset the dimmer to factory defaults.

3. Once an address is selected, depending on the device type selected, the control gear may occupies 2 consecutive addresses or 1 address. For example, if the control gear is addressed to 22 on the display, when the device type is multi-addresses type, the control gear occupies address 22 & 23, when the device type is single-address type, the control gear occupies address 22.

4. DALI Address Assigned by DALI Masters

DALI address can also be assigned by DALI Master controller automatically, please refer to user manuals of compatible DALI Masters for specific operations.

Note: The digital display will show AU When the DALI master is assigning addresses. When the device type is multi-addresses type, the control gear will be discovered as 2 separate devices.

5. Push Dimmer Mode

While connected with an AC push switch, the digital display will show "PD" which means Push Dimmer Mode, operations under Push Dimmer Mode are as follows:

While $7c$ device type is selected, only the 1st group tunable white LED will be controlled by the push switch,
- Click the button to switch ON/OFF
- Press and hold down the button to increase or decrease light intensity to desired level and release it, then repeat the operation to adjust light intensity to opposite direction. The dimming range is from 1% to 100%.
- Double click the button to switch between brightness mode and color temperature mode.
- Press and hold down the button to change color temperature under color temperature mode.

While $H6$ device type is selected, only the RGB LED will be controlled by the push switch,
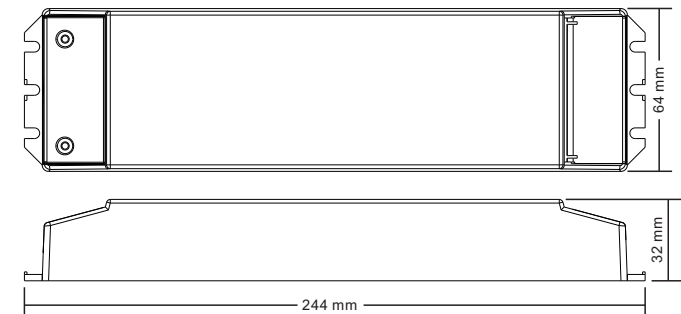- Click the button to switch ON/OFF
- Press and hold down the button to increase or decrease light intensity to desired level and release it, then repeat the operation to adjust light intensity to opposite direction. The dimming range is from 1% to 100%.
- Double click the button to switch between brightness mode and RGB color mode.
- Press and hold down the button to change RGB colors under RGB color mode.

While $H4$ or $r9$ device type is selected, RGB LED will be controlled by the push switch,
- Click the button to switch ON/OFF
- Press and hold down the button to increase or decrease light intensity to desired level and release it, then repeat the operation to adjust light intensity to opposite direction. The dimming range is from 1% to 100%.
- Double click the button to switch between brightness mode and RGB color mode.
- Press and hold down the button to change RGB colors under RGB color mode.

While $7c$ device type is selected, tunable white LED will be controlled by the push switch,
- Click the button to switch ON/OFF
- Press and hold down the button to increase or decrease light intensity to desired level and release it, then repeat the operation to adjust light intensity to opposite direction. The dimming range is from 1% to 100%.
- Double click the button to switch between brightness mode and color temperature mode.
- Press and hold down the button to change color temperature under color temperature mode.

While 76 device type is selected, single color LED will be controlled by the push switch,
- Click the button to switch ON/OFF
- Press and hold down the button to increase or decrease light intensity to desired level and release it, then repeat the operation to adjust light intensity to opposite direction. The dimming range is from 1% to 100%.

Memory function after power off or power failure enables the device to memorize the status before power off while power on again.
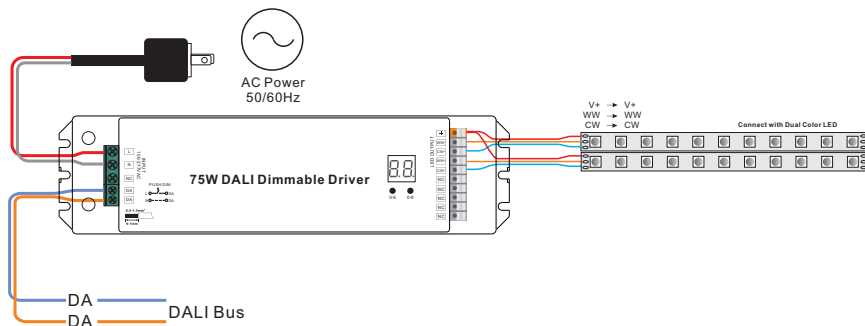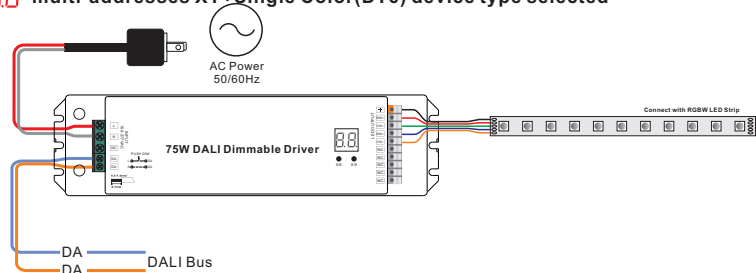
Product Dimension

Wiring Diagram

1. With DALI Master

1.1 When ⎑⎓ **multi-addresses Tc device type selected**

AC Power
50/60Hz

V+ → V+
WW → WW
CW → CW

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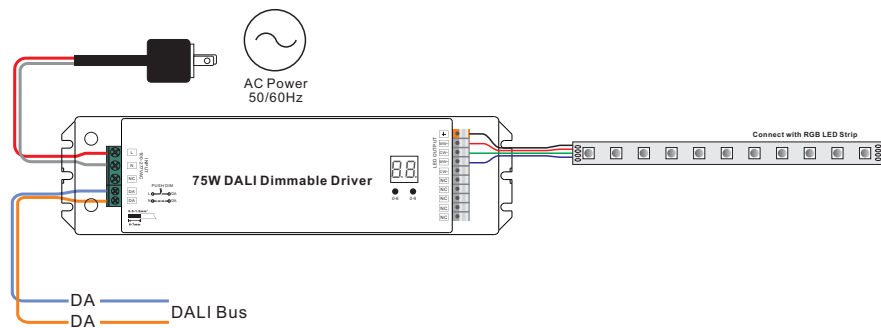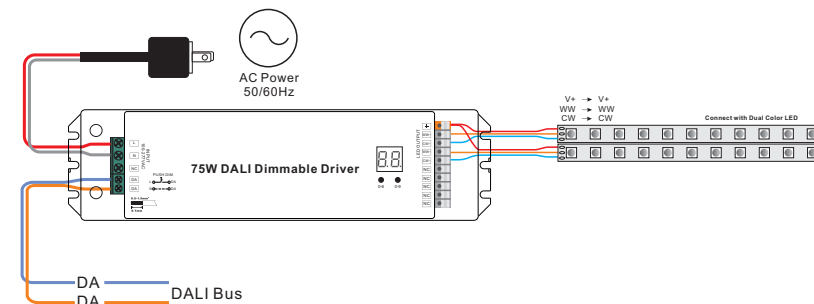Connect with Dual Color LED

DA
DA   DALI Bus

Note: 1) Please make sure that the DALI master controller supports Tc color type commands.
2) The control gear will be discovered by master controller as 2 separate Tc devices.

1.2 When H6 **multi-addresses XY+Single Color(DT6) device type selected**

AC Power
50/60Hz

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Connect with RGBW LED Strip

DA
DA   DALI Bus

Note: 1) Please make sure that the DALI master controller supports XY & DT6 color type commands.
2) The control gear will be discovered by master controller as 2 separate devices: XY, DT6
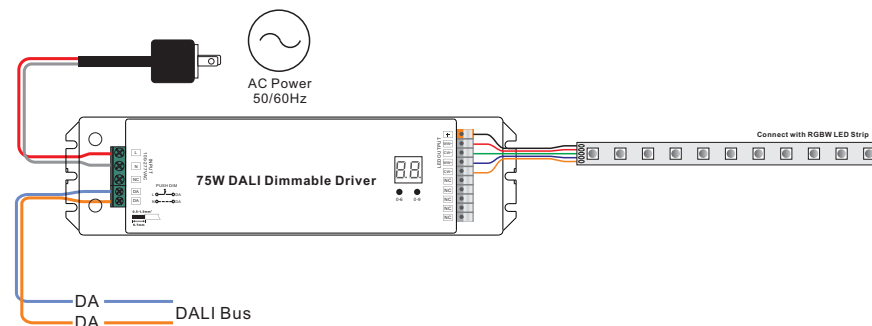
1.3 When H4 **single-address XY device type selected**

AC Power
50/60Hz

75W DALI Dimmable Driver

Connect with RGB LED Strip

DA
DA   DALI Bus

Note: Please make sure that the DALI master controller supports XY color type commands.

1.4 When ⎑⎓ **single-address Tc device type selected**

AC Power
50/60Hz

V+ → V+
WW → WW
CW → CW   Connect with Dual Color LED

75W DALI Dimmable Driver
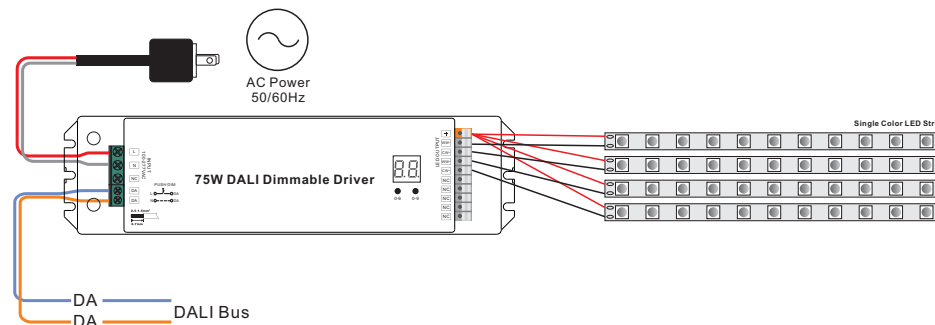
DA
DA   DALI Bus

Note: 1) Please make sure that the DALI master controller supports Tc color type commands.
2) 2 groups CCT LED are controlled together.

1.5 When r9 **single-address RGBWAF device type selected**

AC Power
50/60Hz

Connect with RGBW LED Strip

75W DALI Dimmable Driver

DA
DA   DALI Bus

Note: Please make sure that the DALI master controller supports RGBWAF color type commands.

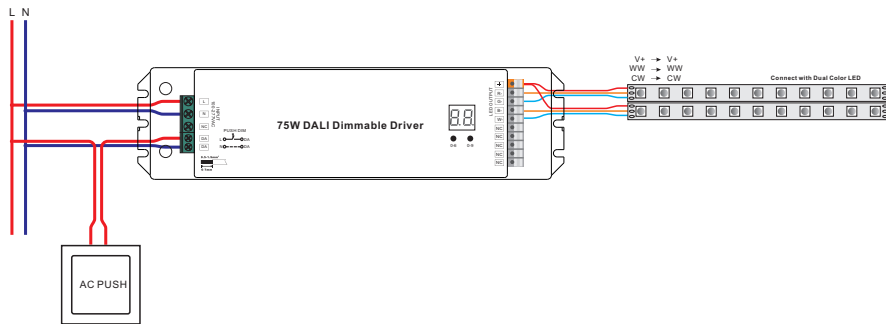**1.6 When** ⎖6 **single-address DT6 device type selected**

AC Power
50/60Hz

Single Color LED Strip

75W DALI Dimmable Driver

DA
DA   DALI Bus

Note: The control gear will be discovered by DALI master as a DT6 device, 4 channels controlled together.
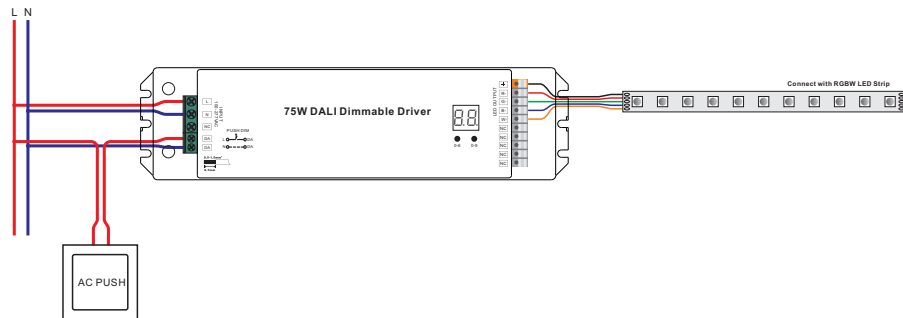
Wiring Diagram

2.With PUSH dimmer

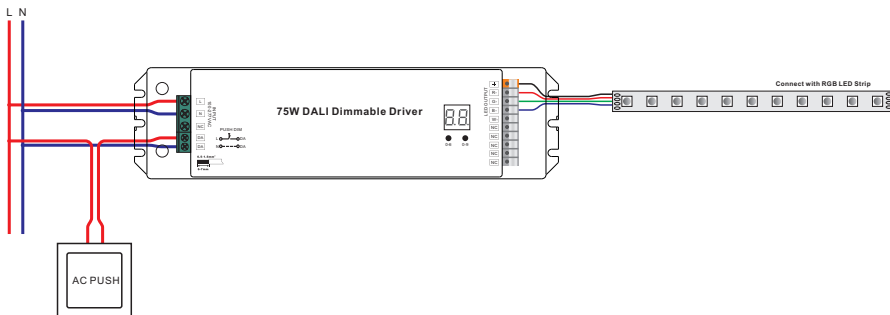**2.1 When** ⌐⊏ **multi-addresses Tc device type selected**

Note: only the 1st group CCT LED can be controlled under this mode.

2.2 When H6 **multi-addresses XY+Single Color(DT6) device type selected**
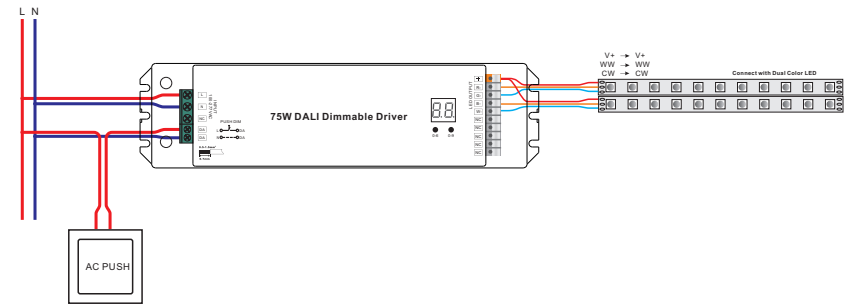

Note: 1) Please make sure that the DALI master controller supports XY & DT6 color type commands.
2) The control gear will be discovered by master controller as 2 separate devices: XY, DT6
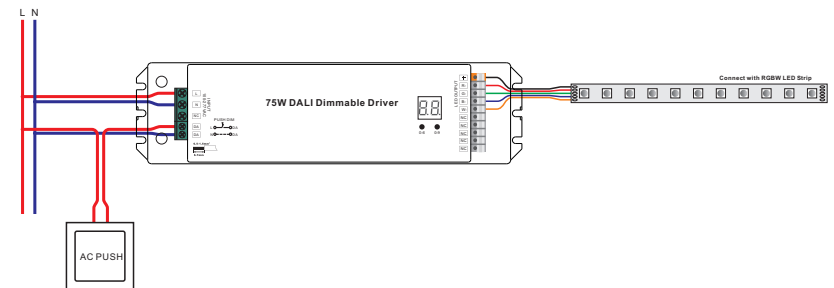
2.3 When H4 **single-address XY device type selected**

Note: Please make sure that the DALI master controller supports XY color type commands.

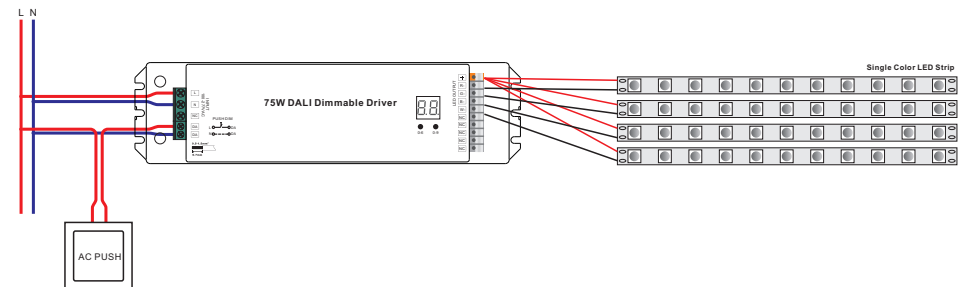**2.4 When** ⌐⊏ **single-address Tc device type selected**

Note: 1) Please make sure that the DALI master controller supports Tc color type commands.
2) 2 groups CCT LED are controlled together.

2.5 When ⌐9 **single-address RGBWAF device type selected**

Note: Please make sure that the DALI master controller supports RGBWAF color type commands.

2.6 When ⌐6 **single-address DT6 device type selected**

Note: all 4 channels are controlled together under this mode.