CUPOWER

PUSH DIM MANUAL

Specification and handling advice (V13)

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01 | Operating Conditions & Operation (DT6)

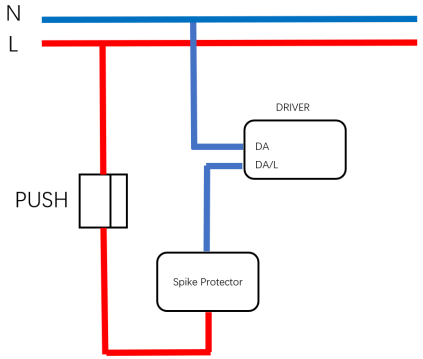
FOR ALL DRIVERS PRODUCED UNTIL 09/2022:

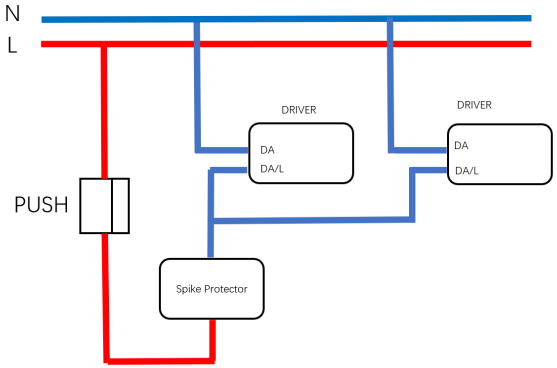
- Switch driver output ON/OFF: short-press (0,1-0,5s).
- Dim driver up/down: long-press (>0,5s). The dimming direction is changed with each long-press.
- Reset: Long-press when driver output is OFF. Driver switch on at 1% and fade up until the switch is released.
- Synchronization: Long-press (> 5s), short-press (0,1-0,5s) and long-press (> 5s).
- Definition: short-press: 0.1-0,5s, long-press: > 0,5s..
- Installation: maximum 20 drivers and cable length of 25 meters for one push-dim switch.

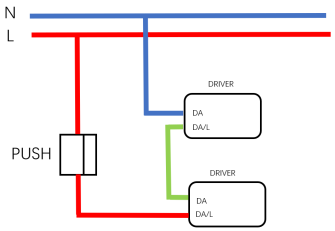
FOR ALL DRIVERS PRODUCED FROM 10/2022:

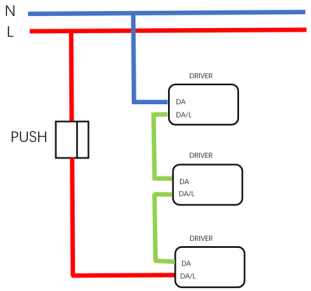
- Switch driver output ON/OFF: short-press (0,1-0,5s).
- Dim driver up/down: long-press (>0,5s). The dimming direction is changed with each long-press.
- Default level setting: double click when the output is on.
- Delete the default level: double click when the output is off.
- Mains power on level: the power on level is last power off level.
- Short press turn on level: default level or last output level (if no default level defined).
- Fading up from minimum level: long press when output is off.
- Reset: Long-press when driver output is OFF. Driver switch on at 1% and fade up until the switch is released.
- Synchronization: Long-press (> 5s), short-press (0,1-0,5s) and long-press (> 5s).
- Definition: short-press: 0,1-0,5s, long-press: > 0,5s.
- Installation: maximum 20 drivers and cable length of 25 meters for one push-dim switch.

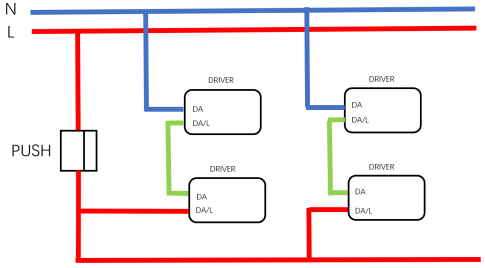
02 | Wiring Diagrams (DT6)











In case of operating only one driver connect to PUSH-DIM switch or drivers wiring in parallel, please use a Spike Protector (e.g. XZ-DALI-A).

03 | Operating Conditions & Operation (DT8)

ADDITIONAL INFORMATION

- The product works in DALI mode by default and is enabled in PUSH mode by pressing and hold the Push-DIM button for more than 1s.
- The PUSH mode can be switched to DALI mode by means of any valid DALI command.

PUSH OPERATION IN DT8 TUNABLE WHITE MODE

- Mode 1: When the ECG is switched on (AC on), the state (brightness / colour temperature / standby) at the time of the last switch-off is executed.
- Mode 2: The ECG is switched on by first executing the state at the last switch-off and then executing the stored brightness / colour temperature values at the subsequent Push–DIM short press to switch-on.

PUSH-DIM OPERATION

- Short press: A button press <0,5s is a short press. To return the light ON/OFF once.
- Long press: Button press >0,5s for long press. When long pressed the brightness will adjust upwards from the current value to 100% and hold. After holding for 4s it will adjust downwards from 100% to 1% and hold. After holding for 4s it will adjust upwards from 1% to 100% and holt until the button is released. The ECG fades upwards each time it is switched-on and changes direction each time it is long pressed.
- Double-click: Two consecutive short press to switch with an interval of <0,4s. Double-click when the light is on to save the current brightness value. The ECG enters brightness mode 2 and the light flashes twice as a reminder. When in standby (Push-DIM short press to switch OFF the light). Double-click to delete the current brightness value. The ECG enters working brightness mode 1 and the light flashes twice as a reminder.

- Synchronize: Long press (to turn on all control gear, brightness may be different. Please ensure that the current brightness value has been deleted) → Short press (to turn off all control gear at the same time) → Long press (to turn up the brightness of all control gear synchronously from 1%).

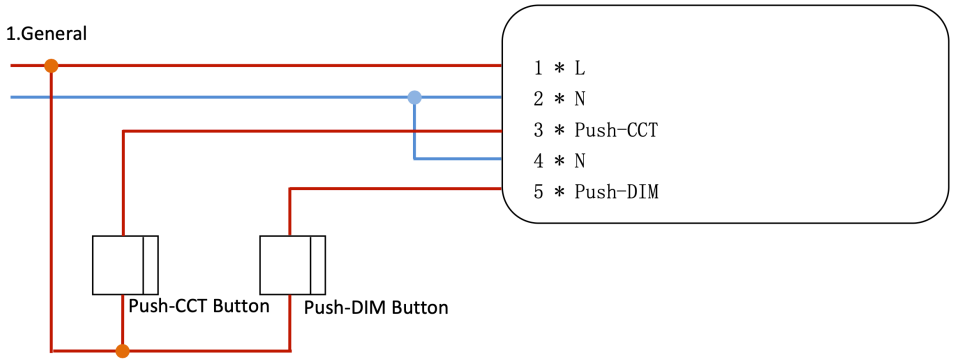
PUSH-CCT OPERATION

- Short press: A short press is when the button is pressed <0,5s. The colour temperature is divided into 9 steps. Each short press raises the colour temperature value by one step. When the colour temperature is at the highest setting, a short press will return into the lowest setting.
- Long press: Button press >0,5s for long press. When long pressed the colour temperature will be adjusted from the current value up to the max. value. After holding 4s it will be adjusted from the max. value down to the min. value and held. After holding 4s it will be adjusted from the min. value up to the max. value and held until the button is released. The ECG fades upwards each time it is switched on and changes direction each time it is pressed and held.
- Double-click: Two consecutive short presses with an interval of <0,4s. Double-click when the light is on to save the current colour temperature value. The ECG enters CCT mode 2 and the light flashes twice as a reminder. In standby (Push-DIM short press to switch-off the light). Double-click to delete the current colour temperature value. The ECG enters CCT mode 1 and the light flashes twice as a reminder.
- Synchronize: Turn off all control gear → double-click Push-CCT (to delete the colour temperature value) → short press (to turn on all control gear at the same time. All control gear operate at the default colour temperature i.e. the middle colour temperature.

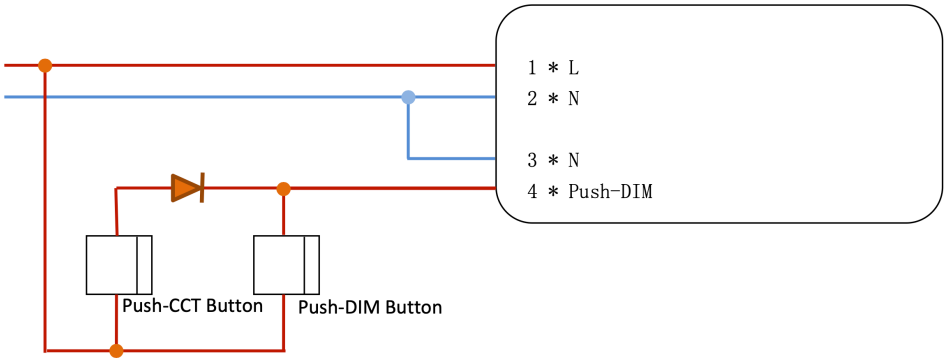
04 | Wiring Diagrams (DT8)

PUSH switch connection in the DT8 driver

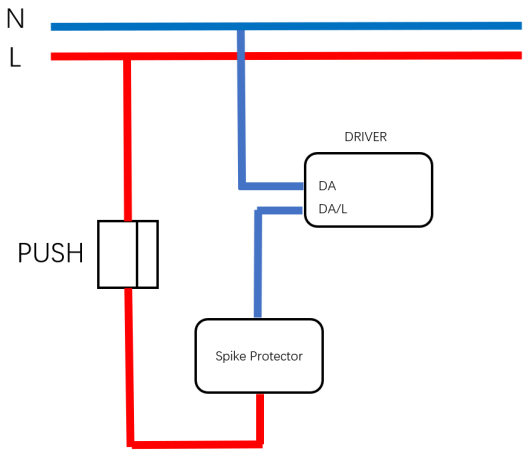
1.General



2. Special(RD CCCI Series)



05 | Spike Protector



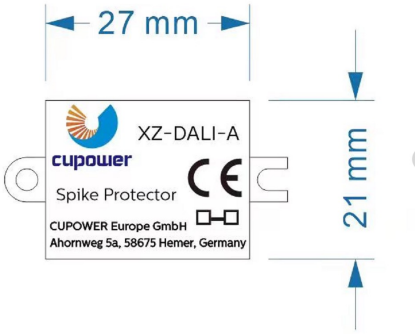
BACKGROUND

The high voltage spike on PUSH-DIM wiring has negative impact to the DALI circuit. A resistor in series with the PUSH-DIM button can damping the oscillation and limit the current.

ELECTRICAL DATA

- Input voltage: 230V, 50/60Hz
- Input voltage range: 0-300Vac
- Resistance: 200-300 OHM at room temperature
- Operating temperature range: -20...65 C

DIMENSIONS



06 | Technical Restrictions

Electronic devices can be damaged by high voltage. This has to be considered during the routine testing of the luminaires in production.

To avoid spikes from switches please consider devices with debounced switches. For keeping several luminaires synchronized we recommend DALI repeater in larger applications.

According to IEC 60598-1 Annex Q (informative only!) or ENEC 303-Annex A, each luminaire should be submitted to an insulation test with 500VDC for 1 second. This test voltage should be connected between the interconnected phase and neutral terminals and the earth terminal. The insulation resistance must be at least 2 M Ohm.

As an alternative, IEC 60598-1 Annex Q describes a test of the electrical strength with 1500 VAC (or 1,414x 1500 VDC). To avoid damage to the electronic devices this test must not be conducted.

CAUTION!!!

For five-pole wiring the neutral conductor must be connected to DA/N. This prevents 400V being applied between adjacent terminals if a different phase is used for the control input.
Glow switches are not approved for controlling PUSH DIM. Glow switches may cause the LED driver to spontaneously switch on or off or make sudden change in the dimming value.
The luminaire manufacturer is responsible for its own luminaire design and has to comply with all relevant safety standards.

CUPOWER

CUPOWER Europe GmbH

Ahornweg 5a, 58675
Hemer, Germany
+49 2372 568 7570
dirk@cupower.com

www.cupower.com

Hunan Xiezhen Electronics Co., Ltd

Building 11, Innovation Park, Linyi Road, Bailutang Town,
Suxian District, Chenzhou, Hunan, China
+86 735 265 3770
sales@xz-power.com

Shenzhen Xiezhen Electronics Co., Ltd.

Floor 2, Building E, Taohuayuan Smart & Innovation Park,
Bao'an District, Shenzhen, China
+86 755 2781 9400
sales@xz-power.com