Manuals+ — User Manuals Simplified.

OSRAM DALI MCU TW G2 Control Unit Instruction Manual

Contents

OSRAM DALI MCU TW G2 Control Unit

VAC	230V, 50/60Hz
PMAX	2W
ta	0 … 50°C
Control interface 2)	DA + / DA – 16VDC max. 300m total wire length 3)
Color temperature setting range 4)	2000…10 000 K
Type of protection 5)	IP20
Max load 6)	25 DALI ECG / 52mA
Allowed leads diameter 7)	1.0. 2.5 mm2

[mm]

17
1
23

81
81

81

22

71
71

OSRAM
DALI MCU TW G2
CE UK CA EAC DALI 2
OSRAM GmbH
Berliner Allee 65
86153 Augsburg
Germany
www.osram.com
wire preparation
DA+ DA- L N
5-8mm
52mA
220-240V~
50/60Hz
23mA
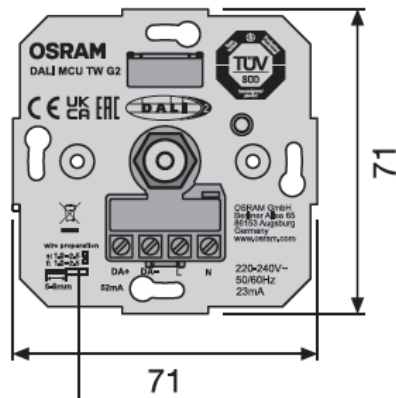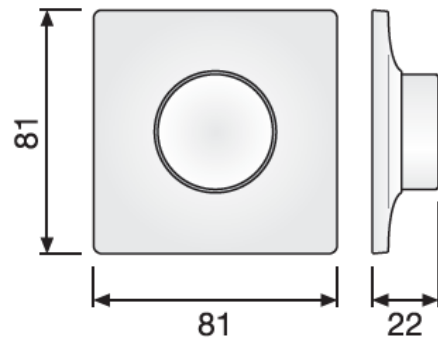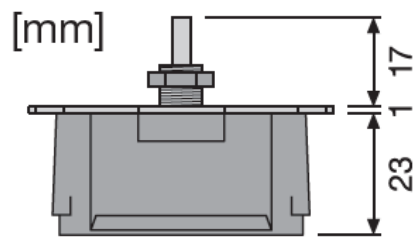
Recommended wire preparation / Empfohlene Anschluss-vorbereitung [8]

Remove nose / Verdreh-Schutznase entfernen [16]

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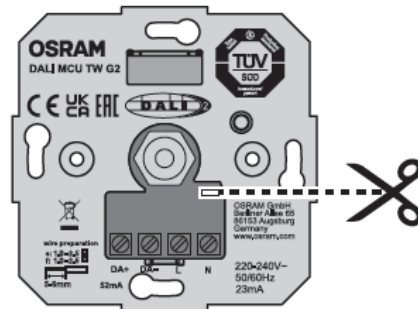
Wiring scheme / Anschluss-Schema[9)]

DA+ DA- L N

DALI ECG

~
~
DA
DA

12)

DALI ECG

~
~
DA
DA

Active

OSRAM
DALI MCU TW G2

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CA

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220-240V~
50/60Hz
23mA

wire preparation

D+ D- L N

10)

Passive

OSRAM
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CA

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220-240V~
50/60Hz
23mA

wire preparation

D+ D- L N

11)
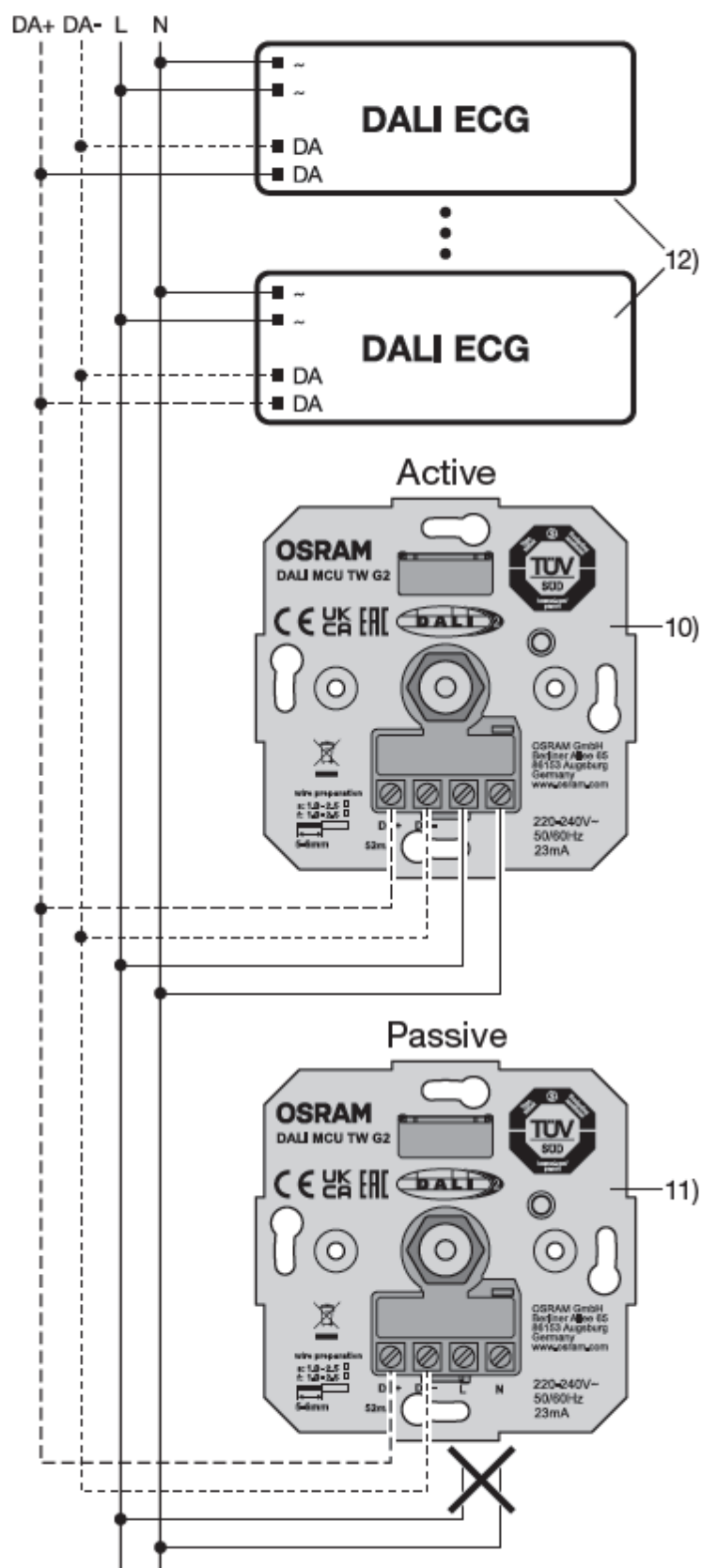
Compatible covers[13)]

Hersteller / Manufacturer[14]	Design Linien / Design lines[15]
JUNG[16] / [17]	AS 500 / A plus / A creation / A 500 / SL 500 / CD 500 CD Universal / CD PLUS / LS 990 / LS design / WG 800 / WG 600 / LS plus (Nicht Aluminium-und Edelstahl-Ausführung) [18]
BERKER	Q1 / K1 / S.1 / B.1 / Arsys
GIRA	System 55 / S-Color / Fläche / E22 / Wassergeschützt Aufputz
SIEMENS[16]	Delta profil / Delta style / Delta i-system / Delta vita
SCHNEIDER Electric[16]	Exxact Primo / Design / Basic / Solid / Combi Seri

Operation / Bedienung*

c) ← ON/OFF (click)[a]
b)

WW[e] (☀) ← CW[d] (❄)

Press and turn[f]
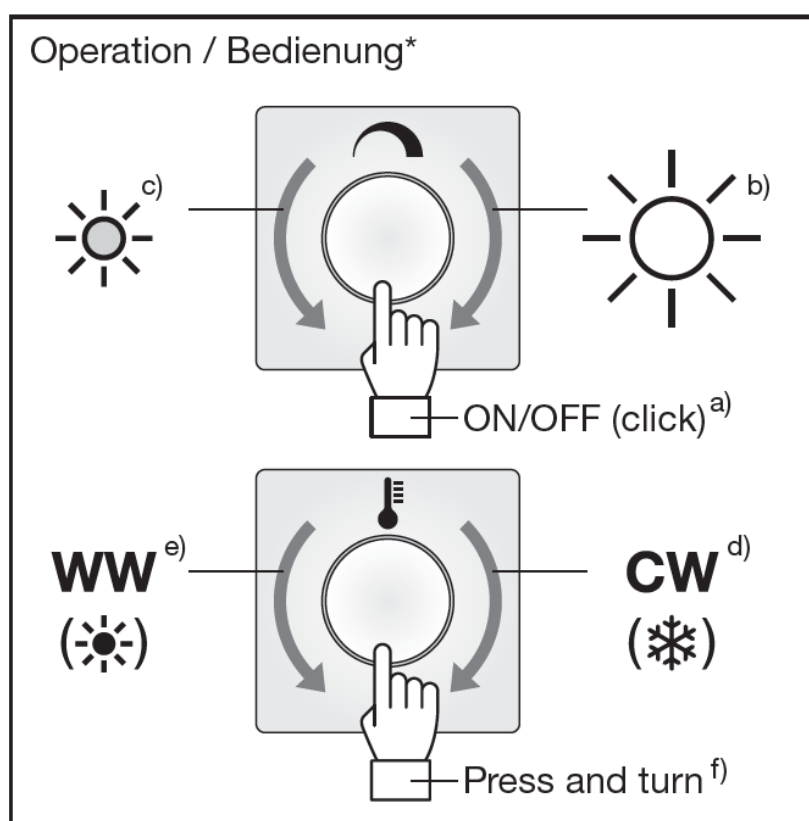
Operating instructions

Observe mounting and safety instructions
(see back)

Application and function

The DALI MCU TW G2 makes it possible to manually adjust the bright-ness of luminaires with standard DALI drivers as well as to set the colour temperature of luminaires with drivers for tunable white that are compatible with DALI Device Type 8 (IEC 62386-209). The DALI MCU TW G2 is certified as a DALI-2 application controller with integrated bus power supply. The bus power supply is active when the controller is connected to mains voltage (active operations). The number of control sections can be expanded by synchronously connecting additional DALI MCU TW G2s without mains voltage (passive operation). The number of controllable luminaires can be easily increased (max. 4) by synchro-nously connecting devices hooked to mains voltage (active operation). If several DALI MCU TW G2 are connected synchronously, the com-mands issued by the most recently used controller will apply. All other DALI MCU TW G2s will receive these commands as well. The control section can be switched at any time without causing any disruptive secondary effects, including jumps in

brightness and colour temperature.

Buildup of several points of operation

Up to four 4 DALI MCU TW G2 can be interconnected. But special attention must be paid to the polarity of the DALI control wiring. Every mains-powered DALI MCU TW G2 (= active DALI MCU TW G2) can supply 25 DALI EVGs and another non-mains-powered DALI MCU TW G2 (= passive DALI MCU TW). At least one active DALI MCU TW G2 is required. The following system sizes are possible:

Number of DALI MCU TW G2 (active operation)	1	2	3	4
Max. number of DALI MCU TW G2 (passive operation)	1	2	1	–
Max. number of DALI EVG	25	50	75	100

Commissioning

Adjusting the minimal brightness level (optional):

When the lighting is at minimal brightness and a clockwise rotation does not directly lead to an increase of the brightness, a higher minimal brightness should be set as follows:

1. Set the lighting to the minimal brightness level.
2. Rotate the knob slowly clockwise, until the brightness increases first time.
3. Press rotary knob > 10 seconds.
4. Lights will switch off and on again to indicate that a new minimal brightness was stored.

Storing a defined activation value

1. Turn on the light and set the desired brightness. For tunable white, set the desired colour temperature as well
2. Quickly press the knob twice (= double click). The light will blink twice to confirm that the activation value has been saved.

Deleting a defined activation value

1. Turn off the light by briefly pressing the knob.
2. Quickly press the knob twice (= double click). The light will burn at its brightest intensity to confirm that the activation value has been deleted.

Store color temperature thresholds (recommended)

The color temperature range of the DALI MCU TW G2 may be adapted and limited to the possibilities of the connected luminaires as subsequently described.

Important hint:

When storing a new color temperature threshold please take care that the last rotation with knob pressed has to be clockwise when a new color temperature threshold for the coldest color should be stored and counter clockwise when a new color temperature thresh-old for the warmest color should be stored.

Setting the threshold for the warmest color
(=lowest color temperature):

1. Rotate pressed knob counter clockwise until the desired warm-est color is reached, keep the knob pressed in this position for more than 10s.
2. Lights will switch off three times and on again to indicate that the new threshold is stored.

Setting the threshold for the coldest color (=highest color temperature):

1. Rotate pressed knob clockwise until the desired coldest color is reached, keep the knob pressed in this position for more than 10s.
2. Lights will switch off three times and on again to indicate that the new threshold is stored.

Reset minimal brightness level and color temperature thresholds

1. Switch off the light by a short push to the rotary knob.
2. Press the knob for more than 10s.
3. Lights will switch on and off again to indicate that the thresholds and the minimum brightness level is reset to the ex-factory set-tings.

Operation

- a) Switching the light on and off: Briefly press the knob. The switching direction will change each time the knob is pressed
- b)Increasing brightness: Turn the knob to the right to increase brightness.
- c)Reducing brightness: Turn the knob to the left to decrease brightness.
- d) Increasing the colour temperature (= cooler light): Turn the pressed knob clockwise
- e) Decreasing the colour temperature (= warmer light): Turn the pressed knob counterclockwise
- f) Simultaneous pressing and turning

SAFETY AND MOUNTING INFORMATION:

The DALI MCU TW G2 is designed for mounting in flush device boxes, in-dependent mounting requires appropriate cable clamp and isolation. If the DALI control interface is connected to an external voltage, particularly with mains voltage, the unit may be destroyed!
Operation as DALI-2 input device is only permitted without power supply (passive). The integrated application controller must be deactivated by the external control unit via DALI command.

1. DALI rotating dimmers for flush-mounting boxes to control normal and colour-temperature-adjustable lights ("tunable white") with controllers com-patible with DALI Device Type 8 / IEC 62386-209;
2. Control interface;
3. Max. total control wire length, required wire diameter ≥ 1,5 mm²;
4. Max. Color temperature setting range;
5. Type of protection;
6. Max. DALI control load;
7. Allowed leads diameter (flexible or solid);
8. Recommended wire preparation;
9. Wiring scheme;
10. Active DALI MCU TW G2 with line volt-age supply, at least one active MCU required, max. 4 MCU may be intercon-nected, per active MCU up to 25 ECG and 1 passive MCU may be con-nected;
11. Passive DALI MCU TW G2 without line voltage supply;
12. Standard DALI or DALI Device Type 8 / IEC 62386-209 compatible ECG;

13. Compatible covers (Subject to change without notice);
14. Cover man-ufacturer;
15. Cover design line;
16. Remove nose;
17. Use pliers to remove the claws of the JUNG frame / Use a flat M12 washer with Ø 20mm below the fixing nut;
18. Aluminium and stainless steel version not compatible.

Documents / Resources

OSRAM DALI MCU TW G2 Control Unit [pdf] Instruction Manual
DALI MCU TW G2, Control Unit, DALI MCU TW G2 Control Unit

References

- **OSRAM Americas | OSRAM SYLVANIA Homepage**