

## Power DALI potentiometer insert "tunable white"

Art. No. : 240PDPETW

### Operating instructions

## 1 Safety instructions



Electrical devices may only be mounted and connected by electrically skilled persons.

Serious injuries, fire or property damage possible. Please read and follow manual fully.

These instructions are an integral part of the product, and must remain with the end customer.

## 2 Device components

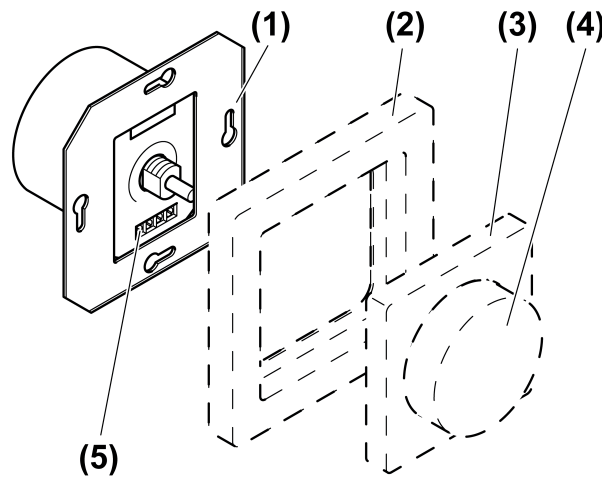


Figure 1

- (1) DALI potentiometer
- (2) Frame
- (3) Central plate
- (4) Control knob
- (5) Screw terminals

## 3 Function

### Intended use

- Brightness setting for luminaires with DALI interface
- Setting the colour temperature for luminaires with DALI Device Type 8 for Tunable White in accordance with IEC 62386-209
- Installation in appliance box according to DIN 49073

### Product characteristics

- If mains voltage is connected to the device " = active operation", it supplies the control current for 26 DALI subscribers.
- If no mains voltage is connected " = passive operation", then the device is powered using the DALI voltage (counts as DALI subscriber) and serves as an additional control section.
- Parallel switching of up to four "active" DALI potentiometers with the option of supplying up to 104 DALI subscribers.
- Saving of colour temperature limiting values and a basic and switch-on brightness.

- i** The combination with DALI Power potentiometer is possible. Since faults can occur in combination with all other DALI controls, it is thus not recommend.

#### Behaviour after a mains voltage failure

When the mains voltage returns, the lighting is switched to the brightness and colour temperature present before the mains voltage failed.

## 4 Operation

- i** Operation can take place from multiple control sections and always applies to all connected subscribers (broadcast).

#### Switch light

- Press the control knob.

#### Adjust the brightness

- Turn the control knob.

Turn slowly = Brightness change small  
Turn quickly = Brightness change great

#### Setting colour temperature

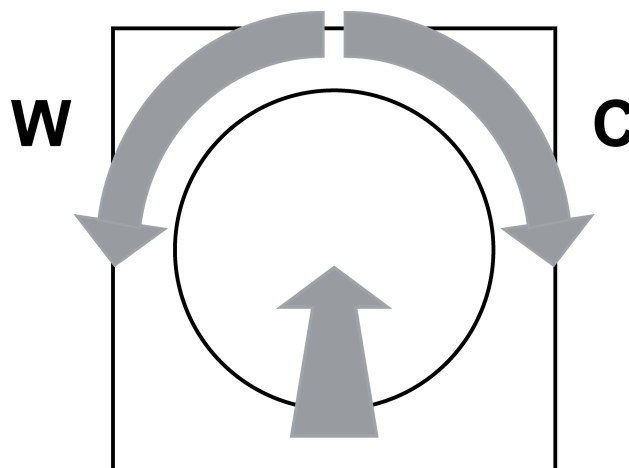


Figure 2

- Turn pressed control knob.  
Turn left (W) = warmer light (reduce colour temperature)  
Turn right (C) = colder light (increase colour temperature)

#### Save switch-on brightness

If the lighting is not always to be switched on with the same brightness, then this can be saved as a switch-on brightness.

- Switch on light.
- Set required switch-on brightness.
- Press the control knob briefly twice in succession (double-click).

The lighting briefly switches to maximum brightness twice. The switch-on brightness is saved.

- i** If the lighting switches off after the double-click, then the time between the first and second presses was too long.

### Delete switch-on brightness

- Switch the light off.
- Press the control knob briefly twice in succession (double-click).  
After about 2 seconds the lighting switches to maximum brightness.  
The switch-on brightness has been deleted.

## 5 Information for electrically skilled persons

### 5.1 Mounting and electrical connection



#### DANGER!

Electrical shock when live parts are touched.

Electrical shocks can be fatal.

Before carrying out work on the device or load, disengage all the corresponding circuit breakers. Cover up live parts in the working environment.

#### Connecting and fitting the device

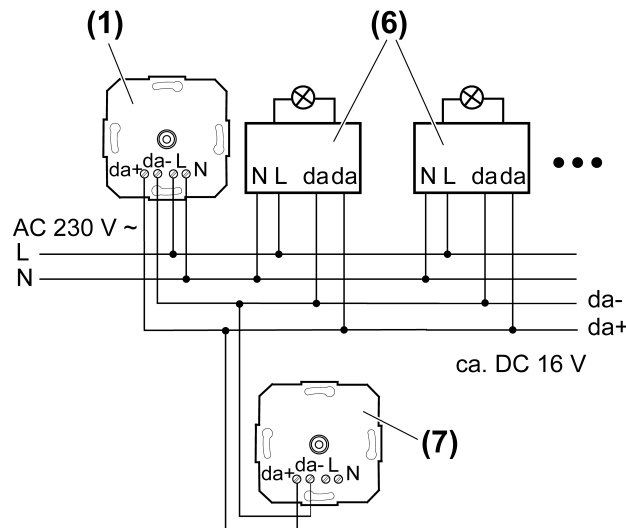


Figure 3

- (1) DALI potentiometer "Active mode"
  - (6) DALI subscriber, e.g. DALI-EVG, DALI Device Type 8 for Tunable White
  - (7) DALI potentiometer without connection of mains voltage "Passive mode"
    - Connect the DALI potentiometer and DALI electrical ballast according to the wiring example (figure 3). In so doing, observe the data of the electrical ballast manufacturer.
    - When switching multiple DALI potentiometers, ensure correct polarity.
    - If multiple circuit breakers supply dangerous voltages to the device or load, couple the miniature circuit breakers or label them with a warning, to ensure disconnection is guaranteed.
- i** Ensure that the control cable is of the appropriate type, cross-section and routing for the VDE specifications for 250 V cable, control voltage has basic insulation.
  - i** The control cable and load cable can be run in a shared cable, e.g. NYM J 5×1.5.
  - i** The connected DALI subscribers may be operated on different phases.

## 5.2 Commissioning

### Saving a basic brightness

The basic brightness should be set to a state that does not directly lead to an increase in brightness when turning the DALI potentiometer at minimum brightness.

- Set lighting to minimum brightness.
- Turn the DALI potentiometer to the point that where the brightness begins to increase.
- Press the control knob for longer than 10 seconds.

The lighting switches briefly off and on again. The basic brightness is saved.

### Saving colour temperature limiting values

The setting range of the DALI potentiometer can be adjusted to the colour temperature of the luminaire with this setting.

- i When saving the colour temperature, you must ensure that the last turn of the pressed control knob (figure 2) is made to the left for the warmest light colour (W) and to the right for the coldest light colour (C).
  - Turn pressed control knob to the left (W) until reaching the warmest light colour required, and hold it in this position for more than 10 seconds.  
The light switches off three times and then switches on again. The warmest light colour is saved.
  - Turn pressed control knob to the right (C) until reaching the coldest light colour required, and hold it in this position for more than 10 seconds.  
The light switches off three times and then switches on again. The coldest light colour is saved.

### Deleting the basic brightness and colour temperature limiting values

- Switch the lighting off.
- Press the control knob for longer than 10 seconds.  
Briefly switch the lighting to maximum brightness and then off again.

- i DALI subscribers of different manufacturers may deviate from the acknowledgements given here.

## 6 Appendix

### 6.1 Technical data

Rated voltage	AC 230 V ~
Mains frequency	50 / 60 Hz
Power consumption	max. 2 W
Ambient temperature	-5 ... +45 °C
DALI rated voltage	DC 16 V (typ.)
Output current	max. 52 mA
Colour temperature setting	2000 ... 10000 K
Connection	
single stranded	max. 4 mm <sup>2</sup>
Number of DALI subscribers	max. 26
Number of active DALI potentiometers	max. 4

### 6.2 Troubleshooting

#### The colour temperature cannot be changed

Cause 1: Before saving the temperature limiting values, the control knob was turned in the wrong direction.

Delete basic brightness and colour temperature limiting values. Then repeat the save procedure.

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Cause 2: The activated luminaire does not include a DALI Device Type 8 for Tunable White in accordance with IEC 62386-209.

Exchange DALI subscriber.

### **6.3 Warranty**

The warranty follows about the specialty store in between the legal framework as provided for by law.

#### **ALBRECHT JUNG GMBH & CO. KG**

Volmestraße 1  
58579 Schalksmühle  
GERMANY

Telefon: +49 2355 806-0  
Telefax: +49 2355 806-204  
kundencenter@jung.de  
www.jung.de